

1 IN THE COUNTY COURT OF THE TWENTIETH JUDICIAL CIRCUIT
2 IN AND FOR CHARLOTTE COUNTY, FLORIDA

3 STATE OF FLORIDA, Case No. 08-1726TT

4 Plaintiff,

5 v. Charlotte County Justice Center
6 Punta Gorda, Florida

7 MICHAEL J. BONAKOSKE,
8 ET AL, February 21, 2012

9 Defendants.
10 _____/

11 **TRANSCRIPT OF EXCERPT OF PROCEEDINGS**

12 (TESTIMONY OF MATTHEW MALHIOT)

13 BEFORE THE HONORABLE PAUL ALESSANDRONI

14 APPEARANCES:

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23 Transcribed by: Joyce B. Howell

24 Proceedings recorded by digital sound recording.
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1 * * * * *

2 THE COURT: Call your first witness, please.

3 MR. HARRISON: Matt Malhiot.

4 THE BAILIFF: Right this way, sir. Please
5 stand here, face the clerk, and raise your right
6 hand to be sworn.

7 THE CLERK: Do you solemnly swear or affirm
8 that the testimony you're about to give in this
9 case will be the truth, the whole truth and nothing
10 but the truth so help you God?

11 THE WITNESS: Yes, I do.

12 THE BAILIFF: Right this way, sir.

13 THE COURT: Good morning.

14 THE WITNESS: Good morning, Your Honor.

15 THE COURT: You may proceed.

16 Whereupon,

17 **MATTHEW MALHIOT,**

18 the witness, called and duly sworn, was examined and
19 testified as follows:

20 DIRECT EXAMINATION

21 BY MR. HARRISON:

22 Q Please state your name.

23 A Matthew E. Malhiot, M-A-L-H-I-O-T.

24 Q Mr. Malhiot, how are you currently employed?

25 What type of work do you do?

1 A I am the owner of Forensic Alcohol Consulting
2 and Training, which is a limited liability corporation
3 based in Canton, Georgia. I have been doing that since
4 August 2010, when I left the Florida Department of Law
5 Enforcement, alcohol testing.

6 Q When you left FDLE in August 2010, what was
7 your position with FDLE?

8 A I was department inspector responsible for
9 instrument inspections, training, research, development,
10 responsible for -- at the time, we had transitioned to a
11 centralized operation in Tallahassee.

12 For seven years, I was in the northeast
13 Jacksonville, 18 counties. I was responsible for the
14 Panhandle, with transition of persons. I also had
15 Miami-Dade and Monroe Counties.

16 That's at the time Mr. Sereth (phonetic) was
17 responsible for this region.

18 When we moved to Tallahassee, we centralized
19 all operations for instrument calibration, repair,
20 inspection, research, development, rule development,
21 forms.

22 So those were my responsibilities with the
23 Florida Department of Law Enforcement.

24 Q And so the -- over the years, we had
25 Mr. Sereth or Mr. Venturi (phonetic) that were

1 responsible for this area.

2 Is that the same position or different
3 position than what you held?

4 A It was the same position.

5 Q How long were you with FDLE?

6 A January 2002 through August 2010.

7 Q What's your educational background?

8 A I have a bachelor of science in criminal
9 justice, including course work in anatomy, physiology,
10 chemistry, forensics, criminalistics. That's my formal
11 education.

12 I was a police officer in the United States
13 Air Force from 1979 through 1999, specializing in DUI
14 and breath testing.

15 I worked at the Montana Division of Forensic
16 Science in breath testing. I was a breath test
17 operator, breath test senior operator, which is the
18 Florida equivalent of agency inspector, and a breath
19 test technician, which is a repair technician for the
20 Intoxilyzer at the time in Montana.

21 Q Which version of the Intoxilyzer did Montana
22 use?

23 A At the time, the 5000, Intoxilyzer 5000.

24 When I left the Air Force, I was with the
25 Cascade County Sheriff's Office also in Montana,

1 responsible for the breath testing instruments and
2 handheld breath test instruments.

3 And in 2002, I took the position with the
4 Florida Department of Law Enforcement.

5 Q In 2002, when you started to work for FDLE,
6 what type of breath test did Florida use?

7 A Florida used the Intoxilyzer 5000 at the time,
8 and switched in 2006 to the 8000.

9 Q So did you perform inspections on the 5000
10 before the 8000 came out?

11 A Inspections, research, training, education,
12 yes. I also inspected it in Montana. That was part of
13 my duties in Montana, in the Air force and with the
14 Sheriff's Office.

15 Q When the State of Florida went through the
16 approval of the Intoxilyzer 8000, were you at all part
17 of that?

18 A Yes. When I first started in 2002, Mr. Roger
19 Skipper (phonetic) was my training -- assigned trainer.
20 He was also the project manager on the transition to the
21 8000, so a lot of research and development was done with
22 the 8000, and then the approval process, the approval
23 evaluations, the field research was all started in 2002,
24 and I was personally part of all of those -- most of
25 those studies. There was a couple smaller research

1 studies that I wasn't, but probably 90 percent of them I
2 was physically present and took part in the evaluations
3 and processes for the 8000.

4 Q As part of that implementation of the
5 Intoxilyzer 8000 in Florida, did you ever meet with
6 anybody from CMI?

7 A Numerous times. Physically, Mr. Schofield,
8 who was the chief of engineering at the time. Mr. Toby
9 Hall was also the senior engineer for the 8000 at the
10 time.

11 Q Toby Hall is now the president, correct?

12 A Toby Hall is now the president. Bill
13 Schofield is now retired.

14 And the specific software engineer that worked
15 on Florida's 8000 was Brian Faulkner (phonetic), and we
16 met with him numerous times.

17 They came down to Florida for training and
18 meetings and interaction, and Roger Skipper and I went
19 up to Kentucky and spent two weeks at the engineering
20 division in software development for the 8000 for
21 Florida.

22 Q So when you spent your two weeks in Kentucky,
23 who were you spending most of your time with?

24 A Brian Faulkner in the engineering division.

25 Q And what were you meeting with Mr. Faulkner

1 about?

2 A Well, when CMI has an instrument, they have a
3 basic software package. 8100.10 was a basic software
4 package that we evaluated.

5 In order for the -- it to meet the customer
6 needs, I mean, each state has statutory requirements,
7 administrative rule requirements and scientific
8 requirements that they want in their software package.

9 So, in Florida, we went up there to make sure
10 the forms were right, the breath test affidavit printed
11 the two samples, the air blanks, the entire breath
12 testing sequence met the Florida requirements.

13 So we would go through specifically line by
14 line of what the instrument was doing, did it meet our
15 needs as customers in Florida, and have the software
16 engineers change what we didn't like or change what
17 didn't work, recompile it, reload it and test it again.

18 It's known as a debugging process.

19 Q And when you met with Brian Faulkner, is he
20 the type of guy that has photographic memory and he can
21 remember all the changes, or how did -- what was he
22 like? How did he handle --

23 A No. Brian and I have known each other well
24 before that. He and I went to the Borckenstein School
25 together. So I met him there when he first -- and that

1 was back in 2002.

2 THE COURT: Where is the Borckenstein School?

3 THE WITNESS: Indiana University.

4 Dr. Borckenstein was actually the inventor of the
5 breathalyzer. Indiana University has a specific
6 course of forensic alcohol litigation research
7 that's entitled the Borckenstein course.

8 THE COURT: Okay.

9 BY MR. HARRISON:

10 Q In dealing with -- or government agencies
11 across the state, the -- I mean, across the country, the
12 top training facility, and Dr. Dabowsky (phonetic) is
13 all part of that as Borckenstein; is that correct?

14 A Yes.

15 Q Okay.

16 A So when I had my dealings with CMI, I had
17 known Brian. We're friends.

18 He struck me as a very meticulous documenter.
19 He would have a yellow legal pad, like most of you, and
20 write down every line change we wanted in the software.
21 He'd physically type it into the source code or the
22 software, compile it, reload it on an instrument. We'd
23 test that specific functionality and it would either
24 meet our requirements or not, and we'd go back and forth
25 for two weeks on specific line-by-line in the software

1 that Florida was going to implement in its evidential
2 instrument.

3 Q So when they would go through version to
4 version, Mr. Faulkner was keeping notes that could tell
5 what would be the difference between version eight or
6 nine or 12 or 13; is that correct?

7 A Correct. They would update version X had this
8 differences from version Y. He would print out, okay,
9 here's the changes for this version. And we'd
10 physically have a piece of paper as to what changes were
11 made.

12 Q And that would be -- have you ever heard
13 what's called a revision history?

14 A Yes.

15 Q Is that what you were referring to, revision
16 history?

17 A Absolutely.

18 Q And if we were to -- when we were to look at
19 revision history, is that something that a layperson or
20 non-software engineer would be able to look at to get a
21 feel for what the differences would be from one version
22 to the next?

23 A It's written in plain English. We could read
24 it and understand it. There may be some technical
25 things in breath testing and forensic breath analysis

1 that may not be understandable to the layperson, but it
2 is in English, it is legible, it is no secret codes.
3 It's pretty easy.

4 Q So if you understand how a breath test works,
5 like yourself, even if you're not a software engineer,
6 looking at the revision history, that's something that
7 you could look at to tell what the difference would be
8 from one revision to another, correct?

9 A Yes, absolutely.

10 Q Are you familiar with the affidavit from CMI
11 that many of those early revision histories don't exist
12 anymore?

13 A Yes, I've seen that, and when I first saw it,
14 I was kind of surprised, knowing how meticulous
15 Mr. Faulkner was at documentation, but yes, I've seen
16 that affidavit.

17 Q But if we were trying to determine what's the
18 difference between one version to another, that would
19 have answered the question for us, generally?

20 A Yes, it would specifically tell you exactly
21 what changes were made between version A and B or X and
22 Y.

23 Q As part of the software in most general terms,
24 I know we had a lot of talk during -- at least in our
25 opening about something that's called slope.

1 Are you familiar with the slope detector?

2 A I'm familiar with slope detection, yes.

3 Q First of all, is slope detection, is that
4 something that's hardware or software?

5 A No. It's pure software. If you were to take
6 the instrument apart and lay all the parts out, you
7 couldn't touch a slope detector. It's pure software,
8 and it's known as algorithm.

9 An algorithm is a portion or block of
10 software.

11 Q Now, dealing with the slope detector, is that
12 something new for Intoxilyzer 8000 or is that something
13 that was around for the, Intoxilyzer 5000?

14 A The Intoxilyzer 5000 had slope detection. The
15 algorithms may not be the same, the parameters may not
16 be the same, but the principle has been in both the 5000
17 and 8000.

18 Q As far as dealing with your work, and whether
19 it be with FDLE or as a consultant here, dealing with
20 the 5000, do you know if the slope algorithm was ever
21 changed for the State of Florida?

22 A I have been told that it was back when the
23 Department of Health and Human Services had breath
24 testing. Before I was employed, there was a change in
25 the 5000 slope algorithm.

1 Q So where Florida was using something a little
2 bit different than was originally employed, correct?

3 A Yes, there was a change in the slope
4 algorithm.

5 Q Dealing with the Intoxilyzer 8000, is that
6 used just in Florida or is that used in other states
7 around the country?

8 A No, more and more states are moving to the
9 next generation of breath test instruments. The last
10 check, I think there's 15 to 18 states that have moved
11 to the Intoxilyzer 8000.

12 Q In dealing with your consulting work dealing
13 with the Intoxilyzer 8000, or Intoxilyzers in general,
14 are you limited to the State of Florida?

15 A No. I've worked in Montana, Oregon,
16 California, Florida, specifically on the 8000.

17 Q Does Arizona also use the 8000?

18 A They do. I think they're a multi-instrument
19 state and a lot of blood, but, yes, that's their -- the
20 8000 is used in Arizona also.

21 Q In dealing with your work in your field, do
22 you rely upon documents that other states have on their
23 Intoxilyzers or their breath testing instruments?

24 A Yes. The primary place I determine quality
25 control and procedurals is the documents produced by the

1 different agencies that use the instrument.

2 Q In dealing with the State of Arizona, dealing
3 with the Intoxilyzer 8000, did you find any information
4 there dealing with revision history dealing with
5 software?

6 A I did see a document from CMI talking about
7 revisions in the Arizona version of the software, yes.

8 Q Okay. In dealing with that particular
9 revision history, did that address anything dealing with
10 slope detector or mouth alcohol detector?

11 MR. SIGGS: Your Honor, I'm going to object to
12 this line of questioning. The Arizona Intoxilyzers
13 and their software is not the subject of these
14 motions.

15 THE COURT: Your response?

16 MR. HARRISON: Judge, we're just trying --
17 trying to show that these are the type changes that
18 CMI is making in dealing with the software. You
19 know, it's -- we don't know if Florida has the same
20 version has Arizona or the DOT or a third version.

21 But we're just trying -- trying to show that
22 -- that there are different versions out there
23 across the country. It's a -- you know, so there
24 is some relevance. It's not the biggest -- biggest
25 piece --

1 THE COURT: In other words, it goes to the
2 weight?

3 MR. SIGGS: But, again, Your Honor, it's --
4 what they do in Arizona is not the subject of this
5 motion. And if this witness can testify that CMI
6 did something different to the Florida Intoxilyzers
7 that are the subject of this motion or they're the
8 Intoxilyzers approved by FDLE, then I think he can
9 talk about that, but what's taking place in Arizona
10 and what CMI might have done to those instruments,
11 I don't think is relevant to these proceedings.

12 If he knows about -- but something that
13 happened in Florida, certainly.

14 MR. HARRISON: Judge, we are here about CMI
15 practices. And what we do have in evidence right
16 now, we do have the deposition of William Schofield
17 that was introduced at our previous hearing.

18 Mr. Schofield has testified that the Florida
19 version of the software is different than the
20 original DOT version. He has testified that, when
21 asked what the difference was, he said nobody would
22 know what the difference would be between the two
23 unless they actually looked at the source code
24 between the original Florida version and the DOT.

25 Based on that, you had issued the subpoena

1 duces tecum, where we could have those two
2 versions. CMI has now said that those two versions
3 do not exist.

4 What I want this Court -- but this is
5 important, is these are the type of changes that we
6 do know are -- I plan on presenting evidence of
7 relevancy to show that we do know, in Arizona, that
8 the slope detector was changed. We do not know if
9 the Florida was or was not changed. I believe that
10 burden is going to go on the State.

11 But you can understand that there are material
12 changes that deal with CMI's practices that have
13 been made. And that's where it comes in.

14 THE COURT: Anything else, Mr. Siggs?

15 MR. SIGGS: Just that what he's just basically
16 said is all hearsay, and they can't bootstrap that
17 in through the testimony of an expert, not that
18 type of hearsay, but no further --

19 THE COURT: It goes to the weight of the
20 evidence. It is relevant, and I'll permit it.
21 Objection is overruled.

22 MR. HARRISON: And I want to show you, if I
23 can just have this marked as Defense Exhibit DD for
24 identification.

25 BY MR. HARRISON:

1 Q Is that dealing with revision history dealing
2 with Arizona that you talked about?

3 A Yes.

4 Q Okay.

5 MR. HARRISON: Unless you want it into
6 evidence, he's an expert, he relied on it, I just
7 want it marked for identification, unless you want
8 it in the record.

9 UNIDENTIFIED MALE VOICE: No, he can rely on
10 that. It's --

11 MR. HARRISON: Okay. Then we'll just -- we'll
12 just leave that in the court file marked for
13 identification unless somebody wants it in evidence
14 so the record is clear as to what we were -- what
15 he's relied on.

16 THE COURT: Okay. That's fine.

17 BY MR. HARRISON:

18 Q In dealing with the revision history dealing
19 with Arizona, they talked about a change in the mouth
20 alcohol detector routine; is that correct?

21 A Correct. They changed -- new mouth alcohol
22 detection routine based on raw/raw comparison.

23 Q Okay. Now, mouth alcohol detector routine and
24 the slope detector, are those the same, different,
25 similar --

1 A Same -- same thing, just a different way of
2 saying it.

3 Q Based upon what was provided to you --
4 actually, let me back up.

5 This change in Arizona was done in what year?

6 A Changes from specific versions is dated August
7 2004.

8 Q Or that March -- March two thousand --

9 A I'm sorry. March. I'm sorry. March 23rd,
10 2004.

11 Q Okay.

12 A When they changed from version 44 to 45.

13 Q Okay. Now, if we want to get the sequencing
14 of dealing with a timeline, DOT did their evaluation of
15 the Intoxilyzer 8000 in 2001; is that correct?

16 A The exact day they completed the evaluation, I
17 know, is before FDLE looked at it in early 2002. It
18 didn't appear on the conforming products list until much
19 later than that, but their evaluation was -- I have no
20 reason to doubt that date.

21 Q But some -- but if I'm dealing with FDLE
22 looked at it in '02, the DOT looked at it before FDLE --

23 A They did.

24 Q This change to the raw/raw mouth alcohol or
25 slope change, it occurred in 2004, after Florida did its

1 initial approval, correct?

2 A Correct.

3 Q But before the implementation of versions 26
4 and 27, when Florida started using it in 2006, 2007,
5 correct?

6 A Correct, 2006, March is when it was put into
7 evidential use in the State of Florida.

8 Q Okay. Based upon what was provided to FDLE
9 from CMI, do you know if the slope detecting algorithm
10 that was in the original version approved in Florida had
11 the updated raw/raw comparison or not?

12 A I have no idea. I've not seen a document from
13 CMI to the State of Florida addressing slope.

14 Q To your knowledge, was anything provided from
15 CMI to FDLE to tell us if the original version
16 contained -- the original software approved by Florida,
17 or the version 10, was either the same algorithm as the
18 DOT version, the raw/raw or a third version?

19 A No. I've seen no documents explaining slope
20 detection in the versions of DOT, FDLE nor any other
21 version.

22 Q And without the source code or the revision
23 history from version 10 to 26 or 27, we don't even know
24 if -- or do you know if what's currently in use in
25 Florida had the original -- the raw/raw or a third

1 version?

2 A I don't know about the specific slope or mouth
3 alcohol algorithm. There are many other portions of the
4 software that I do know about that are changed from the
5 DOT or version 10 to what was implemented evidentiary in
6 2006, but the scope, I don't know.

7 Q Some of the changes in the software, you would
8 agree, are not significant, such as how it's going to
9 print out on the Florida affidavit, correct?

10 A Correct. Those are -- when you say
11 significant, we're talking about the analytical portion
12 of the samplization. Forms are irrelevant to the
13 analytical portion of the instrument.

14 Q But dealing with the slope routine, that's
15 part of the analytical, correct?

16 A Correct. And there's many other things that
17 were changed during the analytical portion that I do
18 know about that were physically changed between version
19 10 and version 26, 27.

20 Q What other part of the analytical was changed?

21 A Well, during the debugging process, air blank
22 times. We were getting a lot of purge fails, and it was
23 our belief, and when I say our, I mean Roger Skipper and
24 I, that the air blanks were not long enough. So we had
25 the engineers increase air blank time.

1 The dry gas that is used for the calibration
2 check with every breath test, we had those times
3 changed, how long it evaluates dry gas. So we had those
4 changed.

5 There was valves that were physically changed
6 in the instrument between the '02 evaluation we did and
7 the version 26 that was implemented in '06.

8 Q When you say valves, what type of valves and
9 what did they do?

10 A Well, they're path of least resistance valves.
11 On the 5000, you had physical solenoid valves, electric.
12 These valves in this instrument are path of least
13 resistance. They're spring valves.

14 As a person blows, positive pressure closes it
15 one way. When they don't blow, and the simulators use
16 negative pressure, opens it another way.

17 During our testing and evaluation, we were
18 finding that we were getting about two-thousandths of a
19 gram -- two-hundredths of a gram lower results. And CMI
20 physically came out and modified the valves to allow for
21 that difference.

22 Q So those are all changes that were made from
23 the original DOT approved version, what Florida was
24 using, correct?

25 A Well, even changes after the approval, after

1 the 2002 approval, they were changed. Between the 2002
2 approval and the 2006 implementation, all of those
3 changes took place.

4 Q And those are changes that affect the way the
5 Intoxilyzer does the analyses?

6 A The specific changes on air blank times,
7 altering the valves, it all goes to the analytical. The
8 drilling the hole in the valve to change it specifically
9 was to address the two-hundredths of a gram low
10 consistent readings.

11 And Bill Schofield said, well, that's because
12 of the flow in these valves, and he had his engineers
13 physically drill holes in the valves to relieve some of
14 the pressure, I would imagine, and it worked.

15 Q It raised --

16 A It raised the results two-hundredths of a gram
17 consistently.

18 Q When we say two-hundredths of a gram --

19 A So, .08 was reading an .06. They drilled the
20 hole and it was reading back to a .08 simulator, so it's
21 two-hundredths of a gram, the second decimal to the
22 right.

23 Q So a .02 difference?

24 A A .02 difference, yes.

25 Q Let's talk about volume.

1 A Yes, sir.

2 MR. HARRISON: One second, Your Honor.

3 BY MR. HARRISON:

4 Q What role does volume come into play with the
5 Intoxilyzer 8000?

6 A Well, as was discussed in both sides'
7 openings, there are three minimum sampling requirements
8 on the 8000, as CMI described to Florida at the time of
9 purchase.

10 Those three minimum sampling requirements are
11 time, which has a one-second threshold. That one-second
12 threshold is once flow is detected, it takes one second
13 for the electronics to turn on and be able to start the
14 measurement process. So the one second is just for the
15 electronics to turn on.

16 The second being volume. The 1.1 meter
17 threshold was told to us by CMI. They developed that
18 number. It's not something Florida asked for.

19 It was based on two specific things at the
20 time. One was Dr. Dabowsky's research study that the
21 first one-third of exhaled air should not be used for
22 measurement. It's upper respiratory and it should be
23 discarded. So they came up with the one liter based --
24 1.1 liter based on OSHA standards of human lung
25 capacity.

1 And the number 1.1 was picked to take the
2 first 1.1 liters of exhaled breath and not even measure,
3 not even consider it a valid.

4 It also worked very well with Florida statute
5 when we started looking at it, because at the time,
6 Florida statute said if a person has less than one liter
7 vital lung capacity, they would be eligible for handicap
8 license plates.

9 So it was very convenient for us in Florida to
10 say, listen, if they can't meet the breath testing
11 requirements of delivering a sample, then they're
12 eligible for handicap plates. So it helped with the
13 argument, well, I couldn't blow into that machine that
14 we saw with the 5000 and previous breath testing
15 argument.

16 So the 1.1 liter was the minimum sampling
17 requirement.

18 Then slope. The sample is looked at over
19 time, and you correctly said taking snapshots of that
20 sample. What it's looking for is two things. It's
21 looking for a plateauing, a leveling off, and it's
22 looking for lack of a negative slope, to make sure it
23 doesn't drop off.

24 So the 1.1 liters works in conjunction with
25 the scope, because you can't give a slope with one-tenth

1 of a liter. You need volume to look at slope.

2 Also, volume is not only measuring volume,
3 it's measuring flow. You must have a specific flow to
4 get the instrument started. It's .19 liters per second
5 and then continue to flow .15 liters per second.

6 So that's how volume is calculated, by flow
7 over time equals volume.

8 Q Now, dealing with the two concepts of slope,
9 let me see if I have this right. The two things, you
10 said it's first the plateau and the second was lack of a
11 negative slope, correct?

12 A Correct.

13 Q The lack of a plateau, if you don't have a
14 plateau, you would get the error message of slope not
15 level, correct?

16 A Correct, meaning it's continuing to rise --

17 Q And --

18 A -- and it has not seen a plateau.

19 Q Right. And so it's not level or we don't have
20 a plateau, that error would be indicative of not having
21 deep lung air or something along those lines?

22 A That's theoretically. It could still be mouth
23 alcohol and it just hasn't had the negative portion of
24 the slope, depending on the volume that was delivered,
25 depending on the human variables. It's not achieved

1 plateau.

2 Q Okay. Now, if you reach a plateau and then
3 you drop down, that would be indicative of negative
4 slope?

5 A Slope not level would be the message. Slope
6 not level -- I'm sorry, slope not level, then slope not
7 met. Those are the two. They're very confusing.

8 Slope not met is a negative. Slope not level
9 is no plateau.

10 Q Okay. And slope not met is generally your
11 mouth alcohol interferent?

12 A Not necessarily interferent. Most of the
13 time, a mouth alcohol condition, whether it's
14 regurgitated, residual, but for some reason the
15 instrument is seeing a negative slope, a drop-off.

16 Q All right. The way I have always thought of
17 interferent, tell me if this definition is correct or
18 correct me, interferent would be anything that would
19 cause the Intoxilyzer to report a result as alcohol that
20 came from anything other than alcohol in the blood.

21 A Correct. That could be one definition.

22 The scientific definition in breath testing
23 world of an interferent is anything that is in the human
24 body that's non-lethal that can be measured by the
25 alcohol measurant device as an alcohol.

1 Now, it does have safeguards for interferent
2 detect if they're outside the parameters, but it has to
3 be -- in the human body, it has to be non-lethal. An
4 example is formaldehyde is an interferent, but it's
5 lethal. So it doesn't affect breath tests.

6 And the most common we see is acetone, because
7 it's naturally produced by the body. Molecularly, it
8 looks very similar to ethanol, and the instrument does
9 have safeguards for that particular compound with the
10 two filter systems and partitions of absorptivity.

11 But if it -- the interferent detected -- the
12 instrument doesn't see it, and the instrument can see it
13 as an alcohol, then your definition is correct.

14 Q Okay. And in mouth alcohol, then just on the
15 narrow definition, would give you a false positive high,
16 but it's not an interferent, because it's -- because it
17 is an alcohol.

18 A Correct. It is ethanol trapped in the oral
19 cavity that, during exhalation, entered the instrument.
20 Counsel is correct. The instrument is measuring what it
21 sees, measuring it properly, but the sample may not be
22 correct. And that would be a mouth alcohol.

23 Q When the Intoxilyzer 8000 was getting ready
24 for implementation, do you recall correspondence dealing
25 with the Florida Prosecution Association and FDLE about

1 volume and reporting low sample volumes?

2 A Yes. I was part of the committee that --
3 FDLE, when they do rules and research, it's a team
4 effort, the inspectors, the manager, the legal advisor.
5 We had meetings on different issues.

6 And I'm very familiar with the volume issue in
7 the Florida Prosecuting Attorneys Association.

8 MR. HARRISON: If I can have this marked as
9 EE. And then I can take back DD. So we didn't
10 mark that, but --

11 BY MR. HARRISON:

12 Q Dealing with what to do when you had a low
13 sample volume, was FDLE originally going to save or
14 report the level when you had a volume not met?

15 A No. And it went further than that. It went
16 specifically to inadequate, invalid samples. It was in
17 the discussion from the forensic science side, including
18 Laura Barfield, Roger Skipper, myself, the other
19 inspectors, Don Sereth, was decided that any sample that
20 did not meet the minimum requirements of a valid sample
21 would not be reported.

22 And the analogy we gave was if a phlebotomist
23 drew blood and didn't get enough blood in the vial, the
24 lab's not going to give a result. Yeah, there's blood,
25 there's alcohol there, but it's not valid. So there was

1 going to be no result provided.

2 And that's the way we had the software
3 written. And that's the way we tested the software. If
4 it was below 1.1 liters, it would report invalid sample
5 or insufficient sample and not report a result number
6 whatsoever, because it's not a valid number.

7 We had numerous meetings with the Florida
8 Prosecuting Attorneys Association at the time, and
9 explained. We went out statewide on, for lack of a
10 better term, tours explaining to the prosecutors and the
11 state agencies what the new instrument was going to do.

12 And the prosecuting attorneys at the time
13 expressed a deep concern that because the instrument was
14 capable of producing a number, that by FDLE's failure to
15 report that number, it was potentially destroying
16 exculpatory evidence.

17 And we said it wasn't exculpatory because it's
18 not valid. And we had many heated discussions. And
19 from the alcohol testing program, for lack of a term,
20 Laura drew the line in the sand. No, I'm not going to
21 do that. And that was from the forensic science side
22 and the breath testing side.

23 Q So --

24 A The Florida Prosecuting -- I'm sorry.

25 Q So it was thought, at that point, that if you

1 didn't have a sample of at least 1.1 liters, FDLE's
2 position was it's garbage, it's not a valid sample; is
3 that correct?

4 A And no number would be produced, correct.

5 Q Okay.

6 A So the Florida Prosecuting Attorneys wrote a
7 letter to the commissioner, Guy Tunnell, at the time,
8 and said -- expressing their concerns that, listen, this
9 may be exculpatory, we respect the forensic opinion of
10 FDLE's testing, we're not questioning their forensic
11 opinion or scientific opinion.

12 We're expressing our legal concern. And their
13 legal concern was that, by having the instrument capable
14 of producing a number and destroying it or not saving it
15 or not printing it, it could potentially be exculpatory.

16 We were, in alcohol testing at the time, were
17 downward directed by the commissioner to meet the needs
18 of the prosecutors.

19 So, at the time, Laura said okay, I will print
20 the number on the bottom of the affidavit with a
21 statement. And we went back and forth many times what
22 that statement would say.

23 And, basically, now, in today's versions of
24 the software, if it's less than 1.1 liters, the number
25 is printed on the affidavit with a statement that it may

1 not be reliable, the sample, to determine alcohol
2 concentration.

3 So that was the medium mix. We met --

4 Q Did it say may not or does it say not
5 reliable?

6 A Not reliable. I'd have to review the wording,
7 but it's not reliable to determine alcohol or not valid
8 sample to determine alcohol concentration. The exact
9 wording, I'm not sure, but it's wording that's to say
10 here's the number, but it's not necessarily a reliable
11 number.

12 Q Okay. Did the commissioner send a response to
13 the Florida Prosecution Attorneys?

14 A A two-page letter, yes, he did.

15 Q And the letter that the -- that was signed by
16 the commissioner, did the commissioner write it?

17 A No. Laura Barfield and her staff wrote that
18 letter.

19 Q Were you part of that staff?

20 A I was.

21 Q Did this letter correctly, accurately state
22 the position of the forensic science part of the alcohol
23 testing program as far as dealing with volume and
24 results for the Intoxilyzer 8000?

25 A Yes and no. Yes, we believe it's not

1 reliable. Did it accurately reflect what we wanted to
2 do? No. We were downward directed. You must do this.

3 From the forensic science and alcohol testing,
4 we didn't want to produce the number at all, but it was
5 a compromise, and it -- it met the needs of the
6 prosecutors, the commissioner, and alcohol testing.

7 Q I want to show you --

8 MR. HARRISON: Do I need to ask permission to
9 approach the witness?

10 THE COURT: No, you don't.

11 MR. HARRISON: Okay.

12 BY MR. HARRISON:

13 Q I want to show you what's been marked as
14 Defense Exhibit EE.

15 Do you recognize that?

16 A I do.

17 Q Is that the letter that Laura Barfield and the
18 staff wrote that was signed by the commissioner?

19 A It is.

20 MR. HARRISON: At this time, I would move
21 Defense Exhibit EE into evidence.

22 THE COURT: Any objection?

23 UNIDENTIFIED MALE VOICE: No, Your Honor.

24 THE COURT: It will be admitted.

25 (Defense Exhibit EE admitted into evidence.)

1 BY MR. HARRISON:

2 Q On the second page of Exhibit EE, starting, I
3 guess, with the second full paragraph (indiscernible)
4 provision, I guess it's quasi-highlighted in gray that I
5 -- do you see that?

6 A Yes. It starts, in order to quantitate a
7 breath test result --

8 Q Okay. Correct.

9 First of all, that gray part, just so the
10 record is clear, that wasn't part of the original
11 letter. That's -- that's my highlighting. It's not
12 part of the letter, correct?

13 A Correct. It was not part of the original.

14 Q Okay. But other than that gray, everything is
15 -- it's --

16 A There's a label over something on the bottom
17 that may have been CC copies or sort of handwritten
18 under the commissioner's signature, but it's an accurate
19 representation of the original letter.

20 Q Okay. Can you read, starting where -- you
21 know, the highlighted part, where it says, in order for?

22 A In order for a qualitative breath test result
23 to have forensic meaning, the breath sample analyzed
24 must be reliable. Both the Intoxilyzer 5000 --

25 MR. HARRISON: (Indiscernible). Judge, can

1 you read along?

2 THE COURT: Go ahead.

3 THE WITNESS: Both the Intoxilyzer 5000 and
4 Intoxilyzer 8000 have minimum acceptable breath
5 sample requirements to establish such reliability
6 resulting in a quantitative result.

7 The Intoxilyzer 5000 required minimum time,
8 slope and pressure component. The Intoxilyzer 8000
9 requires a minimum of time, slope, flow and volume
10 component. Only when these minimum acceptable
11 requirements are met will the breath sample be
12 scientifically reliable and the quantitative result
13 accurately reflect the alcohol concentration
14 circulating in the person's body.

15 Volume is a key component in establishing
16 reliability. When a breath sample does not meet
17 minimum volume requirements, the issuant cannot
18 determine if there is interferent or mouth alcohol
19 present and cannot ensure that a deep lung breath
20 sample had been obtained.

21 All breath test subjects in Florida are
22 required to provide minimum acceptable breath
23 sample for uniformity and consistency, and where
24 the breath sample is not reliable, the quantitative
25 result is not reliable.

1 And it goes on, but that's the end of the
2 highlighted area.

3 BY MR. HARRISON:

4 Q Okay. Now, the part where you're saying
5 volume is a key component for reliability, was that the
6 collective viewpoint of the forensic scientists at FDLE?

7 A It was. Time was just to turn the computer
8 components on. Slope, volume, duplicate samples are all
9 safeguards to ensure the reliability.

10 Q Now, in this letter, it indicates -- it said,
11 where breath sample does not meet minimum volume, the
12 instrument cannot determine if there are interferents or
13 mouth alcohol present.

14 Interferents would be substances like acetone,
15 correct?

16 A Correct.

17 Q Mouth alcohol would be, we talked about that
18 earlier, alcohol that would be in the oral cavity,
19 potentially?

20 A Residual or regurgitated alcohol in the oral
21 cavity during time samplization, yes.

22 Q And we talked about -- I know I -- in opening,
23 we talk about being false lows and false highs.

24 May I ask you if you agree with this
25 definition and how this would go through there.

1 If the reported result of the breath -- the
2 breath result is the -- is greater than the
3 concentration of alcohol in the blood, that would be a
4 false high, correct?

5 A Correct. If your definition is the result
6 compared to blood alcohol at the same time, if the
7 result is higher than the true alcohol circulating in
8 the body, it would be a false high.

9 Now, the instrument may accurately measure the
10 sample it got or received, but if it's not a valid
11 sample, it could be inaccurate, falsely high compared to
12 alcohol circulating in the body.

13 Q So, for example, if I had mouth alcohol that
14 was in the chamber, the Intoxilyzer might accurately
15 determine the alcohol concentration that's in that
16 sample, correct?

17 A Correct. Slope detection is not a perfect
18 system. Many, many times -- I've tested slope thousands
19 of times. Many times, you'll get an inaccurate result.
20 You'll get a number printed.

21 An alcohol-free person blowing into an
22 instrument to test mouth alcohol, it -- not the norm,
23 but slope isn't perfect, and you get a number. And you
24 have to repeat that test.

25 Q So the Intoxilyzer may be correctly analyzing

1 what's in the sample, but the result would be a false
2 high because it's not accurately reflecting what's in
3 the person's blood?

4 A Correct. And I -- I describe it as a two
5 portion -- two portions of a breath test, just like
6 there's two portions of a blood test.

7 The breath test, you have the breath sample
8 and you have the breath analysis. You have to have a
9 good, valid sample to be analyzed properly. The
10 instrument can analyze perfectly all day, but if it's
11 not analyzing a good sample, the result may be correct,
12 but it's not accurately reflecting what's in the body.

13 Very similarly, you have the blood for a blood
14 analysis and you have the instrument. The blood has to
15 be properly collected, just as a breath does, to ensure
16 the reliability of the analytical portion of the
17 analysis.

18 Q So if I have a contaminated blood sample, I
19 might not have a valid --

20 A The GC (phonetic) may read it properly, but it
21 wasn't a good sample to begin with. So the total result
22 of the -- is not valid.

23 Q It's kind of like the phrase we hear, garbage
24 in, garbage out?

25 A Very similar, yes, sir.

1 Q So dealing with the insurance that there's no
2 either interferences or mouth alcohol, that's protecting
3 against false highs under the definition we just used,
4 correct?

5 A Yes. It's one of the -- the triad, the
6 three-legged stool or one of the safeguards.

7 In breath testing, you have multi-levels of
8 quality assurance, and that's one of the levels of
9 quality assurance, one of the very basic levels built
10 into the instrumentation.

11 Q Okay. And also in this letter, it says
12 without the minimum volume requirements, they can't
13 ensure that a deep lung breath sample has been obtained?

14 A Correct.

15 Q That would lead to -- potentially to false
16 lows, correct?

17 A If there's no residual mouth alcohol in the
18 oral cavity.

19 As described in opening, normally, an
20 exhalation with alcohol circulating in the body, is
21 classified as a rapid rise and leveling off. If,
22 sometime during that rapid rise or no alcohol, it may
23 not -- it may underreport what's circulating in the
24 body, because it does not get the deep lung air where
25 it's in equilibrium with the blood and the most result

1 of the forensic analysis.

2 Q So if I'm understanding correctly, if I don't
3 have a full volume, you know, less than -- I give less
4 than 1.1 liters, is it correct that three basic things
5 can happen? It might still get it right, it might
6 overreport, or it might underreport.

7 Can all of those happen?

8 A Yes, all of those are possible. There are
9 other safeguards, but without the volume, the safeguards
10 are inter -- interwound.

11 For example, the slope, leveling off, if you
12 don't have volume, you're not looking at slope over
13 time. So it could be very easy that the plateau can be
14 seen without the volume, because there's not looking
15 over time.

16 The example of that is if you take a person
17 who is alcohol free, and they blow into the instrument,
18 you're going to immediately have plateau, because it's
19 level, it's zero. With alcohol, it's not looking for
20 the rapid -- it's looking for the lack of a negative
21 slope and the plateau.

22 So without volume supporting slope, it can
23 falsely report.

24 Q I want to show you what's previously been
25 introduced, a copy of State's Exhibit 33, the

1 Intoxilyzer 8000 reference guide.

2 A Yes.

3 Q Are you familiar with that?

4 A I am.

5 Q Is that something that FDLE had put together?

6 A No. Roger Skipper was the original author.

7 Myself and the other inspectors gave input and edit, and
8 it was produced in 2006.

9 Q If you can go to page 14 of the guide.

10 A Last page, yes, sir.

11 Q Does that help refresh your recollection as to
12 what the Intoxilyzer reports if you have a volume not
13 met?

14 A Yes.

15 Q So what was -- what does the Intoxilyzer
16 report when you -- if it has a sample less than 1.1
17 liters?

18 A Well, it will report on the affidavit VNM,
19 Victor, November, Mike, with an asterisk. On the bottom
20 of the affidavit, it will define the asterisk as volume
21 not met, and print whatever number it saw and print the
22 phrase, breath sample not reliable for quantitative
23 breath alcohol level.

24 I think that's very similar. I think if we
25 look at an affidavit, the wording is slightly different

1 than what's in the user's guide, but it's generally the
2 same principle.

3 Q Okay. And dealing with this particular user
4 guide, on page 10, did FDLE report what are the minimum
5 -- what's the minimum acceptable breath sample?

6 A Yes. The minimum acceptable samples, time,
7 volume and slope. Volume is defined as the subject must
8 provide a continuous breath sample for -- of at least
9 1.1 liters.

10 Q And dealing with time, it says subject must
11 provide a continuous breath sample of sufficient flow
12 for one second, correct?

13 A Correct.

14 Q So if we're talking about the flow sensor,
15 that is explicitly tied in with both time and volume,
16 correct?

17 A Correct.

18 Q Now, we'll talk about slope in a second.

19 A Correct.

20 Q Also dealing with, with these criterias,
21 FDLE's position, is it correct, it says, the instrument
22 requires that a breath sample meet the following
23 analytical criteria to ensure that a breath sample is
24 reliable.

25 A And that's on page 10, Counsel?

1 Q Correct.

2 A Yes.

3 Q Is that what it says? Under minimum
4 acceptable breath sample, it says it requires the
5 following analytical criteria to ensure the breath
6 sample is reliable.

7 A Yes, and that explains time, volume and slope.

8 Q Okay. So FDLE's position, time, volume, and
9 slope, all three criteria must be met to ensure a
10 reliable sample, correct?

11 A Yes.

12 Q And when I look at those three criteria, we
13 talked about a three-legged stool.

14 For those three criteria, match up for a
15 three-legged stool?

16 A Yes, they do.

17 Q And if I have two out of those three, two out
18 of three legs of the stool, the stool's going to fall
19 over, correct?

20 A Correct.

21 Q Does that analogy apply if I'm trying to
22 ensure a reliable result? If I have two out of three,
23 does that ensure reliability?

24 A In my opinion, it does not.

25 Q And just for the record, that was on page 10

1 of State's Exhibit 33 that you were reading from.

2 Dealing with volume and the Intoxilyzer 8000,
3 how does the Intoxilyzer 8000 come up with it when you
4 see this volume, where it says, you know, the subject
5 blew 1.8 liters?

6 A Well, you accurately described flow sensor,
7 but it's a pressure transducer.

8 Q Okay. Just so I can -- stop me. Do you agree
9 that the term flow sensor, pressure transducer are kind
10 of interchangeable for the sake of today?

11 A In the context of what we're speaking today,
12 yes. I've seen it described many different ways. The
13 proper term is a pressure transducer.

14 And what's happening is there is an actual
15 plastic hose that runs from the Intoxilyzer sample
16 chamber to the pressure transducer which is mounted on
17 the motherboard of the computer of the 8000. As a
18 person blows into the instrument, positive pressure is
19 created in the sample chamber and positive pressure is
20 created in that hose going to the pressure transducer.

21 The pressure transducer, for lack of a better
22 term, feels that positive pressure and converts that
23 into an electrical signal. Then it is mathematically --
24 then the algorithm converts that number into how much
25 flow is going on.

1 When you take flow, multiplied by time equals
2 volume. So it's measuring how much pressure is going
3 against that transducer. Then it mathematically
4 calculates flow and mathematically calculates a total
5 volume.

6 Q Now, when it's calculating dealing with the
7 flow, I know (indiscernible) because we didn't discuss
8 this beforehand, do we know if it calculates one flow
9 rate and does it by time, or does that flow rate, you
10 know, change?

11 A The flow rate change?

12 Q Yeah?

13 A Yes, as the flow rate changes, the instrument
14 realtime calculates flow, because there is a minimum
15 flow requirement to continue the breath samplization.

16 When a person blows into the instrument and
17 they meet the threshold flow, the tone will sound, beep,
18 as they're blowing. If their flow rate drops below that
19 one -- .15 liters per second, the tone will stop. So
20 the operator knows they may be looking like they're
21 blowing, but they're really not providing any breath
22 sample into the instrument, and the instrument's not
23 measuring.

24 So it is a realtime measurement of flow.

25 Q And when it calculates the volume, in most

1 simple terms, if I'm blowing at the rate of one liter a
2 second, I blow for four seconds, it's going to say a
3 four liter sample; is that correct?

4 A .4 liters. I'm sorry. Repeat.

5 Q One liter a second for four seconds.

6 A Oh, all right. I'm sorry. I missed --

7 Q Now, if I'm blowing -- I mean, do we know,
8 without seeing the source code or anything, that if I
9 start blowing at a rate of one liter a second, and I
10 start blowing harder, then I start blowing softer, but I
11 at least have enough for the tone, how that affects how
12 it calculates volume, do we know that?

13 A Well, yes. We've seen that on the instrument.
14 A lot of the research that was done at FDLE, when we
15 would do the research, we'd have volume display turned
16 on. So as we were blowing you could see that.

17 You could also put the instrument into
18 diagnostic mode. And there is a flow sensor monitor,
19 then there's an electronic value for that flow sensor.

20 And as you deliver the sample, you can watch
21 the electronic value change. As you alter the pressure
22 or the flow, you can watch the numbers change. You can
23 also watch the volume calculate realtime as you're
24 blowing into the instrument.

25 Q And that brings up a point to get into.

1 On the Intoxilyzer 8000, there's a LED
2 printout, correct?

3 A There's LED display.

4 Q Display, right. Bad choice of words. An LED
5 display.

6 And there is a mode, you know, the switch that
7 when the subject is blowing, it can actually show the
8 volume and the breath alcohol level with both of those
9 increasing as you're blowing into the -- into the
10 Intoxilyzer, correct?

11 A Well, the volume will increase. If there's no
12 alcohol, the result won't increase. But hypothetically,
13 if a subject has consumed alcohol and you turn on the
14 volume and the preliminary results, you could physically
15 watch the alcohol concentration and volume as a person
16 is delivering a sample.

17 Q So you're seeing realtime of both?

18 A Yes, it's possible.

19 Q But the way that FDLE does it, it's turned
20 off, and you don't -- the operator doesn't get to see
21 anything while it's going (indiscernible), correct?

22 A Correct. That was done for specific reasons,
23 and they're both turned off as of last I was aware.

24 Q And then, at the end, it does display the
25 numerical breath result, but not a volume?

1 A It does not display the volume. You are
2 correct.

3 Q All right. And then the breath affidavit card
4 that comes out does not show volume at all. It just
5 shows the breath alcohol level?

6 A Correct.

7 Q And if we wanted to actually know what the
8 volume is, you have to go back and see the FDLE raw data
9 or the Cobra data that FDLE has, correct?

10 A There are a few ways, but the most common is
11 to go to the web site, pull up that person's breath
12 test, and it will have volume reported, yes.

13 Q But on the -- what the breath test operator or
14 the individual gets at the time of the arrest, nobody
15 knows what the volume is?

16 A No. It's just whether or not it's above or
17 below that 1.1 liter threshold.

18 Q So if you were getting real high volumes that
19 were, say, over ten liter, there's nothing to tell a
20 breath test operator that it's getting high volumes
21 unless they went back after the data was uploaded to
22 FDLE, correct?

23 A The breath test operator would have no idea.
24 It's not reported to them.

25 Q So unless somebody was to actually look at the

1 raw data of what was happening on the machine and
2 (indiscernible) to go undetected for years if you
3 weren't checking --

4 A Well, I -- when you say raw data, it's not
5 necessarily the raw data. FDLE takes the raw data and
6 creates a report of every breath test in the state.
7 Those reports are on-line.

8 The raw data is in -- it's not a mainframe,
9 but it's the computer that everything is loaded up to.
10 They maintain all the raw data.

11 Q Okay.

12 A What's available on-line is -- is reports that
13 are generated from that data.

14 Q Okay. Correct.

15 And so like some of the reports that -- you've
16 seen the ones that Mr. Workman prepared. He got a copy
17 of the raw data and did his own analysis, correct?

18 A I've seen some of Mr. Workman's analysis, yes,
19 but he gets public records, gets the raw data, whatever
20 he does. His specific processes, I don't know.

21 Q And then when we get on to -- look on the FDLE
22 web site, that is reports generated by FDLE with
23 predetermined information that has more information than
24 is on the breath affidavit.

25 A Not necessarily more.

1 Q Different -- different, information.

2 A Different, yes.

3 Q As far as volume, that's -- that's where you
4 get it?

5 A Correct.

6 Q Dealing with what FDLE does to check the
7 pressure transducer, is there anything in the rules that
8 require FDLE to check the pressure transducer?

9 A It's not a rule requirement, no.

10 Q With the Intoxilyzer 5000, did it have a
11 similar part?

12 A There was a pressure switch on the 5000, and
13 it was a manually adjustable pressure switch, and it was
14 part of the process to check that during our department
15 inspections, yes.

16 Q So that was -- so the 5000, it was checked,
17 but it's not part of the rule of the 8000, correct?

18 A It's not part of the rule, that is correct.

19 Q Dealing with the Cobra data that would show
20 the volume issue, was there any discussion with FDLE as
21 to what should be done with that Cobra data?

22 A Yes, I personally brought it up many times and
23 there was continuous discussions. I'm sure the
24 discussion hasn't stopped since I've left, but, yes,
25 there's -- there's a lot of discussion about the Cobra

1 data.

2 Q So back in 2005, before the Intoxilyzer 8000
3 came out, did you voice an opinion as to what should
4 happen with the Cobra data?

5 A I did.

6 Q And what was -- what opinion did you voice?

7 A Well, we were -- we were having a staff
8 meeting with the alcohol testing program and manage --
9 FDLE management, and we were discussing this vast amount
10 of data that the new 8000 would be collecting, all
11 breath tests, all inspections and all this data.

12 And we were discussing what data is relevant
13 and should be retained and what data really doesn't
14 matter and should not be retained, and what do we want
15 in the database.

16 And I expressed a concern that we should be
17 proactive and look at this data and because of the time,
18 we were looking and saying, statewide, 400 instruments
19 times X number of breath tests, times X -- we were fully
20 aware that there's going to be thousands if not hundreds
21 of thousands of records in this data.

22 And I made the recommendation that we need to
23 hire somebody as a computer guru who can manage this
24 data and use it. It makes -- to me, at the time, it
25 made no sense to collect data and not use the data. And

1 I was told, at the time, by upper management at FDLE,
2 well, we'll look at that when it happens, and it went no
3 farther. In 2005, this is before we ever started
4 collecting the data.

5 Q Now, 2006, when the Intoxilyzer 8000 came out,
6 initially, these Cobra reports weren't being posted on
7 the web site, correct?

8 A I don't remember the exact date that the web
9 site --

10 Q Right.

11 A But, no, it was not simultaneously --

12 Q Okay. And then once -- but they were
13 available through public records requests, correct?

14 A I think once we learned how to generate the
15 reports in Tallahassee, they were available through
16 public records, yes.

17 Q And when the public records allowed disclosure
18 and it made it to the defense bar, and the defense bar
19 looked at it, what happened?

20 A Well, I -- I believe it was August, very
21 shortly, within six months of the 8000 being on-line,
22 the defense bar found a loophole in version 26 software.
23 It was a very, very, very limited parameter loophole,
24 where a person would blow past the time limit of the
25 instrument, and there was no software instruction in the

1 instrument what to do.

2 So there was messages that were being
3 generated or not generated based on a potential problem
4 with the software.

5 Q And -- or stated another way, there was a
6 software bug; is that correct?

7 A Yes.

8 Q And basically what was happening is you had
9 samples that were unreliable, less than 1.1 liters, that
10 there were no error message being --

11 A There was no flag, correct. And they were
12 very limited. The breath testing sample window, they
13 must provide a sample within three minutes.

14 Well, what was happening, what we researched
15 and found was what if somebody starts blowing at two
16 minutes and 55 seconds and continues to deliver that
17 sample past the three-minute window. That's where the
18 loophole was. There was no software routine to tell the
19 instrument what to do at that time, and some messages
20 were not generated.

21 Q Okay. And in that sense, since the volume
22 wasn't reported, nobody knew, until the data was
23 available, that these were not reliable breath samples,
24 correct?

25 A There was a potential problem with those

1 breath tests that fit that over three-minute window,
2 yes.

3 Q All right. I mean, it wasn't a large thing,
4 but it was a few hundred people?

5 A I didn't even think it was a few hundred. I
6 think it was -- if my numbers, and I could be wrong, I
7 think it was -- out of the total amount of breath tests,
8 I think there was 168 that fell within the parameter.

9 Q And ultimately, those -- those folks had --
10 notices were sent out through all the prosecutors, from
11 FDLE, Brady notice of a problem with those samples
12 because they weren't reliable, correct?

13 A There was a notice sent out to all the
14 prosecutors, yes. I don't remember exactly the verbiage
15 of that notice, but yes, there was notices sent out.

16 Q Okay. And, again, those were -- the reason
17 that those weren't reliable was because the breath
18 sample failed to do what?

19 A Well, it failed to flag a potential message
20 associated with that sample. It wasn't -- it wasn't
21 considered reliable because the message associated with
22 the samplization was not generated.

23 Q In other words, that message was --

24 A Well, I believe the low volume sample was one
25 of them. I'd have to research again to see if -- I

1 think other messages also were associated with that
2 three-minute loophole.

3 Q Dealing with checking the data, did FDLE do
4 anything looking to the data to see if there may be any
5 type of reported volumes that might have been 10, 12, 15
6 liters?

7 A Not with volume. Monthly, a -- well, if I
8 remember correctly, weekly, a spreadsheet was generated.
9 And the spreadsheet was the messages associated.

10 And it was just numbers. There was no
11 criteria at the time. At the time, I talked to the guy
12 who was generating it. I said, listen, why don't we
13 start flagging some of this stuff so we can look at
14 quality control, use this for quality control.

15 And at the time, my recommendation and what he
16 did was if a statistic was 50 percent greater than the
17 state average, flag it so we can look at that and see if
18 there's a problem, see if it needs maintenance, see if
19 -- whatever the issue was.

20 But breath volume, the actual raw number, was
21 not part of that spreadsheet and was not looked at, at
22 the time.

23 Q So as an inspector, if you saw a result of 12
24 to 15 liters, would that have raised a red flag?

25 A Immediately, yes.

1 Q And what type of concern would that be for
2 you?

3 A Well, something is going on with that
4 instrument, because that is beyond normal human capacity
5 of lung capacity, so something is wrong. The flow
6 sensor, something is wrong with that instrument.

7 Q But the way that FDLE was analyzing the Cobra
8 data, there was nothing that was being done to look for
9 results like that, correct?

10 A Not that specific -- I don't believe there was
11 ever a volume algorithm to look at the data, no.

12 Q In the last six months or so, it has come to
13 light, by review of this data, a number of breath tests
14 with these extraordinary high samples.

15 You're familiar with that, correct?

16 A Yes. On that particular instrument, yes.

17 Q And was that problem revealed as a result of
18 something that FDLE was doing?

19 A I don't believe so, no.

20 Q Was that, again, the defense bar --

21 A I believe it was, yes.

22 Q Does the Intoxilyzer 8000 do anything, any
23 type of diagnostic test?

24 A It does numerous diagnostic tests.

25 Q Dealing with the diagnostic tests, does it

1 have any capability dealing with the flow?

2 A As present and when I left, no, it did not
3 check flow at all during the diagnostic.

4 Q Did it have any -- does it have any capability
5 to do that?

6 A It was suggested. It was discussed. It was
7 asked of CMI. I disagree with their answer. They said
8 we can't do that, I don't understand why, and what we
9 were specifically asking them to do.

10 As I discussed earlier, there is a R value,
11 whatever that flow sensor's value is. The computer --
12 it's in the system. You can put it in display and look,
13 125, hypothetically, the number.

14 And it was suggested, I personally suggested,
15 Roger Skipper suggested that an algorithm could be
16 written in the software during the diagnostic to look at
17 that number, and if that number drifts 10 percent, 20
18 percent, whatever reliability percentage we wanted to be
19 associated with that, fail the diagnostic.

20 And that specific question was asked of CMI,
21 and the answer I got secondhand back was they couldn't
22 do that in the software. So I didn't get an explanation
23 why, just that it could not be done.

24 Q What is R value?

25 A Well, I've heard it described as two. One is

1 resting value. It's just an electronic generated value
2 for that sensor, and the other is resistance value.

3 Q And that's dealing with which part of the
4 Intoxilyzer?

5 A The pressure transducer.

6 Q Dealing with volume, did FDLE ever purchase
7 anything or start doing anything to check R?

8 A Well, two separate occasions. Back in 2009,
9 there was discussion about the minimum sampling
10 requirements. And part of the discussion was to do away
11 with volume as a minimum sample because slope and two
12 samples, and O2 agreement were in place as reliability
13 and quality assurance of the samplization and result.

14 It was determined that volume should not be
15 done away with or could not be done away with.

16 Q Who made that determination?

17 A I don't know if it was Laura Barfield or
18 concises with CMI. I don't know exactly how that final
19 decision was made.

20 But it was determined, at that time, and
21 discussed at that time, if we're going to keep volume as
22 a samplization criteria, that the instrument's ability
23 to measure volume should be checked. And FDLE purchased
24 three-liter syringes. They're just -- look like huge
25 hypodermic needles. They're three-liter capacity. And

1 they were tested to test volume on the instrument.

2 And Roger Skipper and Dwight Hackney
3 (phonetic) at the time, who were in the Melbourne field
4 office, did testing of these syringes. If you deliver a
5 specific volume of air through the breath tube from the
6 syringe and look at the instrument's measurement of
7 that, you can compare the two and say the flow sensor is
8 accurately measuring the volume within 5, 10 percent,
9 because there is a variance with the human delivery
10 versus mechanical delivery.

11 So that research was done. And no specific
12 guidelines were published. It wasn't used. I
13 personally did, with every department inspection after
14 that, I personally did a volume check with the syringe,
15 and I annotated it on the department inspection field
16 notes.

17 My attitude at the time was it's a quality
18 assurance measure that's above and beyond the minimum.
19 So more can't hurt, but less would. So it was above and
20 beyond.

21 FDLE never instituted a policy or procedure or
22 rule for the use of the syringe.

23 In June, July 2010, when I was assigned in
24 Tallahassee, FDLE was going through a change in the
25 alcohol testing. They were going to centralized

1 services versus regional services.

2 There was an overall assessment of cost to
3 agencies, cost to FDLE and budget cuts, so how could we
4 do things smarter, less expensive and better. Part of
5 the problem was field inspectors were spending 20
6 percent of their time on the road. So if we could more
7 cost effectively do that service out of Tallahassee,
8 that's what would happen.

9 Part of that review process was to see if FDLE
10 could help local agencies save money by doing
11 calibrations, repairs in Tallahassee, and they wouldn't
12 have to spend as much money going to outside vendors to
13 have instruments repaired.

14 Part of that process required the purchase of
15 equipment. And some of the equipment that was purchased
16 was compressor flow sensor to check and measure flow,
17 calibrate flow on instruments. And that was probably
18 June, July 2010 when that equipment was purchased.

19 Q And was this equipment different than the
20 syringe?

21 A Yes.

22 Q What did this equipment do?

23 A Well, you would actually calibrate flow. Part
24 of the calibration process is you can calibrate the flow
25 sensor and calibrate flow and the instrument knows what

1 X flow is.

2 Q If the flow is not necessary, why would there
3 be a need to check the flow?

4 A Well, I don't -- it's part of quality
5 assurance. I don't necessarily agree that flow is not
6 necessary. If you're going to measure flow, you measure
7 it accurately. And that's why it's being calibrated or
8 calibration verified.

9 Q And so this new procedure to check the flow
10 sensor, had that -- is there -- is there a rule or is
11 that an unpromulgated procedure?

12 A There's internal operator -- standard
13 operating procedure for the alcohol testing program.
14 It's not a promulgated rule.

15 Q And what did this procedure call for?

16 A Well, initially, it called -- the initial
17 intent was any instrument coming in that had a
18 department inspection, they were going to calibrate the
19 instrument, calibrate flow. And it evolved to there's
20 no need to calibrate it if it's right. So it started to
21 validate calibration. And if it's right, it doesn't
22 need to be calibrated, if it's within the parameters.

23 Q And so when would an Intoxilyzer 8000 have its
24 flow checked or verified?

25 A Well, it would be checked and verified every

1 time you send it to Tallahassee for an inspection, for
2 the annual inspection, after repair, annually, before an
3 initial registration.

4 Q So anytime an Intoxilyzer would make it to
5 Tallahassee, that's when the flow would be checked?

6 A Correct. That's where the equipment was.
7 That's part of the centralization, is because the cost
8 of equipment and portability of the equipment to do it
9 was not conducive to field calibrations of the flow.
10 Could be done, but the better laboratory practice was to
11 do it in Tallahassee.

12 Q Okay. In the old days, two years ago, when
13 you do an annual inspection or department inspection or
14 agency inspection, all you would need is your own Guth
15 (phonetic) simulator, something like that, a wet bath
16 simulator?

17 A For the inspection process?

18 Q Yes.

19 A Correct. They were Guth simulators or RepCo
20 (phonetic) simulators. The model simulator is kind of
21 irrelevant, but it was a wet bath simulator that was
22 used. There was --

23 Q But you -- but the point I'm trying to make is
24 to do that inspection as a department inspector, that's
25 something that you could put in your car, and whether

1 you're in Jacksonville, Punta Gorda or Miami, you could
2 go there with your simulators and check the
3 Intoxilyzers --

4 A Correct. And I also had the three-liter
5 syringe in my vehicle that I checked in the field, too,
6 so.

7 Q But this new device and dealing with the
8 calibration is something that's not set up to be
9 portable, correct?

10 A It's not. It could be, but it's not. It's
11 more conducive, for quality calibration, to actually do
12 it in the laboratory setting versus the field setting,
13 because you're actually setting the calibration of that
14 flow. You could verify flow, but it's more conducive to
15 a laboratory setting than it is a field setting.

16 Q Okay. So if an inspection is being done
17 anywhere outside of the Tallahassee lab, this flow is
18 not going to be checked?

19 A Not to my knowledge, unless something has
20 changed. I don't know if they're doing any outside
21 anymore, but no.

22 Q So the checking of the flow sensor that's now
23 being done, is that properly described as a quality
24 control measure?

25 A I would consider it a quality control measure,

1 yes.

2 Q Is this quality control measure necessary to
3 ensure that you're accurately reporting volume?

4 A Well, I think all -- yes, for accurately
5 reporting volume, you have to have a quality control
6 system in place with a flow sensor verification and
7 calibration, if needed.

8 Q Now, if the pressure transducer is not checked
9 or calibrated, are those -- could those procedures
10 ensure reliable breath test results?

11 A Well, it's ignoring the minimum sampling
12 requirements from the manufacturer and that's been used
13 since the institution of the instrument. There are
14 other quality control measures in place, but that
15 interwoven quality control would have a big gap, because
16 volume is not being measured.

17 Q So if our goal is to ensure that results are
18 reliable, we need to do that, correct?

19 A I believe so, yes.

20 Q Dealing with volume and slope, are those --
21 those two functions Independent of each other or are
22 they related in any way?

23 A Well, slope, volume and flow are independent
24 measurements done independent of each other that are
25 interwoven with each other.

1 Flow has to be established before it will even
2 start measuring volume. If there is inadequate flow, it
3 won't measure volume. That threshold of 019 -- or .19
4 liters per second, if somebody doesn't break that
5 threshold, it won't even start measuring flow.

6 Slope is looked at over time with sufficient
7 flow. In order to look at slope, you need flow, volume
8 and time because slope cannot be determined in a single
9 snapshot. It has to be over time.

10 Q So dealing with the Intoxilyzer 8000, before
11 it gets the end result, does it come up with any type of
12 preliminary measurements?

13 A Well, it measures every time -- every two
14 seconds, it's measuring the alcohol concentration, two
15 or four hertz.

16 Q How many times does --

17 A Well, there's some discussion about whether
18 it's two or four. The light flashes on, off, on, off.
19 The total sequence is four times a second. So it's
20 taking really two -- four measurements a second over the
21 time of the sample.

22 So it's actually producing a number four times
23 a second, but then it's bunching it into threes, and
24 looking at three because it's looking at the difference
25 and looking for that negative slope. That's what

1 slope's looking for, or leveling off and plateauing, to
2 look at plateau.

3 So it's looking at it, snapshots, during the
4 entire delivery of the sample.

5 Q So for every second an individual blows, you
6 have three or four data points?

7 A Yes. Two or four. One or the other. It
8 depends on how you look at it.

9 Q So the exact number is not important, but if I
10 blew for two seconds, I'm going to have twice as many
11 data points as one second?

12 A Correct.

13 Q And so the longer I blow, the more data points
14 that you have?

15 A Correct, over time.

16 Q So, the larger the sample or the longer that
17 an individual blows, the likelihood of slope being
18 detected would be, other things equal, greater or
19 smaller, for the larger sample?

20 A The longer the sample, the more slope is
21 looked at. Slope is a function of time. The smaller
22 the sample, the less slope is looked at.

23 Q So if we're -- if we want to have an accurate
24 determination if we have a -- a failed slope, we have a
25 better chance with a larger sample or a smaller sample?

1 A Well, when you say large or small, it's not
2 necessarily true because of pressure, but longer or
3 shorter sample -- a longer sample has a better look at
4 slope than a shorter sample delivery does.

5 Q Okay. Now, if I have somebody who is on one
6 of these Intoxilyzers that's calibrated at -- say
7 they're blowing a half a liter and it's telling me that
8 they blew two liters, on one of those individuals, if it
9 were properly calibrated, they would have had to have
10 blown longer to reach the one liter, correct?

11 A Correct, correct.

12 Q Which would give more data points to look at
13 the slope.

14 A To look at slope and plateau or negative
15 slope, correct, and the potential messages associated
16 with those algorithms.

17 Q So the failure to give 1.1 liters, can that
18 affect the Intoxilyzer's ability to properly detect
19 slope?

20 A Cannot effect?

21 Q Can it?

22 A Can it affect?

23 Q Yes.

24 A If volume was not a function of the
25 samplization, slope would have to be looked at

1 differently. Because you're looking for a valid sample
2 to have no negative slope, and a plateau, that 1.1
3 liters is essential to ensure that that first one-third
4 of the expiratory air is disregarded.

5 So, yes, volume is very much interwoven with
6 slope.

7 THE COURT: Mr. Harrison, we're at a point now
8 where I have to take a break for a meeting I'm
9 having over the lunch hour --

10 MR. HARRISON: Okay.

11 THE COURT: -- with the other judges in the
12 building. I anticipate coming back at 1:15.

13 MR. HARRISON: Okay.

14 * * * * *

15 THE COURT: Okay. You may proceed.

16 BY MR. HARRISON:

17 Q Mr. Malhiot, are you familiar with any repair
18 histories dealing with flow sensors with Intoxilyzers
19 used in Florida?

20 A Yes. I've reviewed many work orders, CMI and
21 (indiscernible) electronic work orders where I've seen
22 flow sensor repaired, and many department inspections
23 and field notes where I've seen them calibrated, so yes.

24 Q And when an Intoxilyzer is sent to CMI for
25 repair, do they repair -- prepare any type of service

1 work order?

2 A Yes, they do. There's an internal CMI
3 document that they prepare, along with an invoice and
4 other documents that they ship back to the customer.

5 Q Okay. I have in front of you State's Exhibit
6 -- excuse me, Defense Exhibit FF for identification.

7 Do you recognize that document?

8 A I do.

9 Q What type of document is that?

10 A It's a CMI, Incorporated service work order,
11 for Intoxilyzer serial number 80-001348, first dated in
12 May 2010, and calibration technician signed it May 26,
13 2010.

14 Q And dealing with this particular Intoxilyzer,
15 is this a Florida Intoxilyzer?

16 A Yes, it's registered to the Sarasota County
17 Sheriff's Office.

18 MR. HARRISON: Okay. At this -- at this time,
19 I'd move State's Exhibit -- excuse me, Defense
20 Exhibit FF into evidence.

21 THE COURT: Any objection?

22 UNIDENTIFIED MALE VOICE: No, Your Honor.

23 THE COURT: It will be admitted.

24 (Defense Exhibit FF admitted into evidence.)

25 BY MR. HARRISON:

1 Q All right. When you indicated that there were
2 two dates on there, there's like a May 21st, 2010 on the
3 upper left corner. On the bottom, it looks like May
4 26th or 29th, maybe?

5 A I think it's both dates, 29th and 26th, it
6 appears to me.

7 Q Oh, you have two different technicians dated
8 on different dates?

9 A Yes.

10 Q So the first date, with your familiarity,
11 that's when it's sent off for repair?

12 A That's when CMI receives the instrument or
13 assigns it to a technician for repair.

14 Q And then -- and in the bottom, I guess, is the
15 technicians, when they finish with it; is that correct?

16 A Correct.

17 Q And in dealing with the repairs, with these
18 work orders, does it indicate when new parts are put in?
19 Does CMI tell us what the new part is?

20 A Yes. It has a parts list. It has a comment
21 section. It has a description of problem section. And
22 it has many different checkmarks on procedural things
23 they do on instrumentations that are sent in for repair.

24 Q And what parts were replaced in this
25 particular Intoxilyzer?

1 A The flow sensor was replaced and the solenoid
2 was replaced.

3 Q So when CMI described a flow sensor here,
4 that's the same thing that we had talked about more
5 technically as the pressure transducer, correct?

6 A Yes.

7 Q When the service work order goes to CMI, is
8 there a description of the problem as to why it's sent
9 to CMI?

10 A Yes. The customer -- many different
11 mechanisms. I've called or they have a specific form
12 the customer would fill out and send up there. And then
13 they -- or you'd e-mail them or somehow the customer
14 would communicate to CMI the problem with the
15 instrument.

16 And then when the technician receives the
17 documentation, they will annotate the problem as they
18 understand it.

19 Q And what was the problem with this particular
20 Intoxilyzer that led them to replacing the flow sensor?

21 A He has in quotes, numerous slope not met
22 during subject tests, meaning the slope not met message
23 was generated during subject tests.

24 Q And that particular problem with the slope was
25 rectified by replacing the flow sensor?

1 A I'm sure it was sent back to FDLE for
2 reinspection. And if they reinspected it and put it
3 back into service, I would believe that the problems
4 that they were experiencing was rectified with the
5 repair they did, yes.

6 MR. HARRISON: That's all I have.

7 THE COURT: All right. Thank you. Mr. Siggs?

8 MR. SIGGS: Your Honor, may I also inquire
9 from counsel table?

10 THE COURT: You may.

11 MR. SIGGS: Thank you.

12 CROSS-EXAMINATION

13 BY MR. SIGGS:

14 Q Good -- it's now afternoon. Good afternoon,
15 sir.

16 A Good afternoon, Counselor.

17 Q First --

18 MS. MACK: Can you just state your name for
19 the record, because for the recording, they won't
20 be able to recognize who you are.

21 MR. SIGGS: I apologize. That's a good idea,
22 Ms. Mack.

23 This is Cameron Siggs, asking the first part
24 of the State's questions of this witness.

25 BY MR. SIGGS:

1 Q Mr. Malhiot, how much are you being paid for
2 your testimony today?

3 A Including travel, compensation for my time and
4 review of documents, a total of \$2,600 retainer was
5 paid.

6 Q And how many times in your capacity both as an
7 expert in a private firm for Forensic Alcohol Consulting
8 and Training, LLC, and in your capacity with the Florida
9 Department of Law Enforcement, how many times have you
10 testified on behalf of the defense and how many times
11 have you testified on behalf of the State of Florida?

12 A I don't count them. I would characterize it,
13 when I worked for the State, it was probably 90 percent
14 testifying for the State. Now that I work for -- in
15 private practice, it's probably 90 percent for the
16 defense, but I also now do some civil work.

17 So I don't count them. I've probably been to
18 court, in the last 18 months, 30 or 40 times. 90
19 percent of those would be for the defense.

20 Q Mr. Malhiot, you testified earlier that you
21 were present at CMI when there were some changes made to
22 the software on the Intoxilyzer; is that correct?

23 A The Florida software versions, yes. Roger
24 Skipper and I spent two weeks in Kentucky, yes.

25 Q And Mr. Malhiot, you testified that there was

1 a gentleman there from CMI that was working with you,
2 and you characterized him as a meticulous note taker,
3 that type of thing.

4 A Yes, Mr. Brian Faulkner.

5 Q And then, subsequently, Mr. -- you thought it
6 sort of out of the ordinary that Mr. Faulkner's notes
7 were not available in that affidavit that we talked --
8 that you talked about?

9 A Well, I thought it was unusual that certain
10 documents could not be located, as I found Mr. Faulkner
11 to be a very, very meticulous software engineer and
12 documenting.

13 Q What do you recall from those -- those two
14 weeks, what do you remember?

15 A As far as what, sir?

16 Q As far as what was lost that he didn't have?
17 You were working with him. What do you recall from
18 that?

19 A I don't know if anything from that particular
20 debugging process was lost. I was just making a
21 generalized statement as to how meticulous a software
22 engineer he was.

23 Q You testified that there were some changes
24 made in the -- you talked about like the affidavit form
25 that was printed and other forms that were printed.

1 What other changes were made to the software?

2 A I don't know them all. I can explain the ones
3 that I recall.

4 There were specific changes in the duration of
5 the dry gas calibration check, was increased in time.
6 The air blank times were increased. The forms were
7 changed.

8 The sequence of testing with the -- with the
9 diagnostic before and after control test, before and
10 after, all of those specific Florida requirements have
11 to be written into software compared to the base version
12 that was evaluated in 2002. And the debugging process
13 went through all of those processes to ensure they met
14 the requirements of the customer at that time, Florida.

15 Q How does the duration of an air blank sample
16 impact, if at all, the operation of the instrument?

17 A Well, the air blank duration is how long does
18 it take to clear out the previous sample from the sample
19 chamber if there is alcohol or some other substance in
20 there.

21 So the duration time would affect how long
22 does it take to clear out the sample to establish a new
23 zero reference prior to the following sample, or avoid
24 an ambient or purge fail. It's just part of the
25 sequence of events in the breath testing sequence.

1 Q So how does that affect -- does that affect in
2 a material way, or is that just sort of a minor way, the
3 operation of the instrument itself?

4 A Well, that's very subjective. I think it's
5 very material because if we didn't increase the air
6 blank time, you'd have a lot more purge fail, ambient
7 problems, and zero reference problems.

8 So, in order to have the instrument operate as
9 the customer desired at the time, the air blank times
10 needed to be increased.

11 Q Would you characterize this as an improvement
12 in the functionality of the instrument?

13 A Yes, I would.

14 Q The -- how does the printing out of the forms
15 change the, if at all, in a material way, the operation
16 of the instrument?

17 A Oh, I don't think the creation of forms change
18 materiality. The functions to complete the forms goes
19 to quality control. For instance, the entire process of
20 the agency and department inspection is reported on the
21 forms, and the functions of analytical checks of the
22 instrument were built in, simulator test, repetitive
23 simulator test, the tolerances of those simulators were
24 all built into the software so it's as user friendly as
25 possible.

1 So those went to the improvement of the
2 analytical inspection of the instrument.

3 Q What -- what changes in that last part, the
4 analytical operation of the instrument, what changes
5 were made specifically for Florida?

6 A To the analytical measurement of alcohol?

7 Q Yes, sir.

8 A I don't know if there were any that I'm aware
9 of. During -- the routines of air blanks and
10 calibration checks and timing were changed during that
11 two weeks, but as far as specific analytical changes in
12 that algorithm, I don't think I was a part of any
13 changes in that area.

14 Q So, in other words, the -- basically, the only
15 change to the analytical nature is the -- it makes it
16 essentially blow the air blank for a longer duration or
17 wait between samples a slightly longer duration; is that
18 correct?

19 A That's one example. The creation of the
20 entire process of inspections done on the instrument, as
21 Florida had them defined and rules, was totally created
22 in software. Roger Skipper worked tirelessly and we had
23 a debugging process of those.

24 Q So, in other words, the -- the way the
25 instrument itself operates remained the same, but there

1 were some additional things that were custom made for
2 Florida?

3 A Well, it depends when you say the way the
4 instrument operates. Everything it does is the way it
5 operates. So there were massive changes in the way it
6 operates, the sequence of events, the procedural, the
7 inspection processes.

8 But when you say the specific algorithm of
9 analyzing alcohol, that limited spectrum, I was not a
10 part of any change in that specific spectrum.

11 Q You say you weren't a part of it.

12 Were you aware of any that maybe you weren't a
13 part of?

14 A I am not aware or have seen any documents that
15 CMI, to my knowledge, changed the analytical function of
16 the instrument.

17 Q Do you own a cellular telephone?

18 A I do.

19 Q Do you have a smart phone?

20 A I do not.

21 Q Does your -- do you use a computer in your
22 line of work?

23 A I do.

24 Q Do you use a -- to (indiscernible) commercial,
25 do you use a Mac or a PC?

1 A A PC.

2 Q And do you run Windows on that PC?

3 A I do.

4 Q What version of windows, are you aware?

5 A XP, I think. I'm not even aware, to be honest
6 with you.

7 Q Does the -- Windows ever run like a Windows
8 update where it has software updates to it?

9 A Yes. Every time -- once in awhile, it does.

10 Q Does that materially affect your ability to
11 use the computer?

12 A While it's running the updates, I can't use
13 it, but after it's done, most updates are not noticeable
14 to the user in that analogy you give.

15 Q So it would still be, basically, if you had
16 bought a Dell that had Windows XP on it, and then
17 Windows XP updated itself, you know, in the ways that it
18 often does, aside from not being able to use it while
19 the update program is running, it's still the same Dell
20 computer that you bought, right?

21 A Very much so, yes.

22 Q You talked about specifically Defense Exhibit,
23 I believe it's AA, the Arizona -- the letter from CMI to
24 Arizona, talking about some of the software changes on
25 their instruments.

1 MR. HARRISON: That's DD.

2 BY MR. SIGGS:

3 Q DD, I apologize.

4 A Yes, I remember that.

5 Q And one of those was the new mouth alcohol
6 detect routine based on raw/raw comparison?

7 A Correct.

8 Q What is that routine?

9 A I have no idea. I've never seen it before I
10 saw that document.

11 Q What is a raw/raw comparison?

12 A You'd have to ask CMI. It's the way they
13 identify their slope detection in that update. I don't
14 know exactly the algorithm or exactly what they did.

15 Q The software -- the software numbers listed on
16 this document are 8105.44 and it's updated to 8105.45.

17 Which version of that software, if either, was
18 ever used in the State of Florida?

19 A Neither.

20 Q How are those versions different materially,
21 if at all, from the base 8100.10 or the 8100.26 or the
22 8100.27?

23 A I couldn't answer that question.

24 Q Is it possible that Arizona perhaps has a
25 different statutory requirement regarding the mouth

1 alcohol detect routine than the State of Florida does?

2 A Well, anything is possible. And Florida does
3 not have a statutory requirement for the mouth alcohol
4 routine, but it's possible different customers have
5 different requirements. Anything is possible.

6 Q So because Florida, in the rule, does not have
7 a specific requirement regarding that mouth alcohol
8 detect routine, as long as the instrument is
9 functioning, it would still be operating under the rule,
10 correct?

11 A Could you repeat the question?

12 Q You said Florida, in 11D-8 and in all of our
13 regulations, we don't have a specific mouth alcohol
14 detect routine specified, correct?

15 A No, that's not what I said. I said we don't
16 have a statutory requirement. I do believe we do have a
17 mouth alcohol routine requirement and rule.

18 Part of the department inspection process is
19 to test the mouth alcohol detection of the instrument in
20 part of the agency inspection process, and those
21 procedures are promulgated by rule.

22 So I do believe there is a rule requirement to
23 test them, but I don't think it's -- there's a statute
24 that says slope.

25 Q Okay. But the actual specific mouth alcohol

1 detect routine is not found in either statute or rule,
2 correct?

3 A Well, when you say routine, do you mean the
4 algorithm in the software?

5 Q Yes, sir.

6 A Right. That's not in rule or statute.

7 Q How familiar are you with the State of
8 Arizona's alcohol testing procedures and what they use
9 to test alcohol in blood?

10 A In blood? I -- I'm not very familiar with
11 their blood alcohol testing procedures.

12 Q Do you know what percent of DUI -- since we're
13 all talking about DUIs, as far as testing alcohol in the
14 blood, do you know what percentage in Arizona are done
15 on an Intoxilyzer versus by some other method?

16 A I do not.

17 Q Do you know if they use the Intoxilyzer in the
18 real world in Arizona at all?

19 A I was contacted last week by a defense
20 attorney who has a client on a DUI on an Intoxilyzer
21 8000. I know they're doing a lot more blood testing,
22 but specific statistics, I do not know.

23 Q You had said earlier that many things changed
24 between version 10, version 26 and version 27 regarding
25 the analytical portion, but I -- what exactly changed

1 specifically between those versions in the analytical
2 portion?

3 A Well, specifically, the times of air blanks.
4 The times for the dry gas standard to be introduced into
5 the system, that was increased. The air blanks were
6 increased.

7 The entire inspection protocol was written for
8 the analytical inspection of zeroes, fives,
9 interferences, oh eights, two ohs. That entire portion
10 was created in the software to meet the Florida needs.

11 Q How does that differ materially from the
12 software that was approved by DOT?

13 A I don't know what was on DOT's software.

14 Q So it could be the same?

15 A Same software as what?

16 Q As what DOT approved.

17 A Which could be the same as DOT approved,
18 Counselor? I'm sorry.

19 Q You just said that you don't know what was on
20 the software that DOT approved, correct?

21 A Correct.

22 Q So the Florida software could be the same as
23 the DOT software?

24 A Which Florida software, Counselor, 26 or 27?

25 Q Yes, sir.

1 A No. It's physically impossible because those
2 softwares weren't even created until much later, like
3 '04, '05. Probably into early '06. And I know version
4 27 wasn't created until August, September of '06.

5 Q Was the Florida -- when Florida got the
6 instruments with the .26 software on them, were they
7 tested?

8 A Yes.

9 Q Were they tested in accordance with the rules
10 promulgated by FDLE?

11 A Yes, they were -- research studies were done,
12 and I believe form 34 was completed at the time on each
13 version of software prior to its introduction into
14 evidential use.

15 Q Do you know when that took place?

16 A Oh, there were so many evaluations. The exact
17 dates for version 26, I don't know. Version 27 would
18 have been August, September of '06.

19 Q The version 27 software, was that ever tested
20 by FDOT -- or excuse me, by DOT?

21 A Version 27?

22 Q Yes, sir.

23 A Yes. Some instruments were sent to DOT with
24 that version of software on it.

25 Q When was that?

1 A If I recall, '07. It may have been later than
2 that.

3 Q Did that change in any way DOT's approval,
4 listing and approving of the Intoxilyzer 8000 as an
5 approved instrument?

6 A Not to my knowledge, no.

7 Q You talked about changes that were made to
8 some of the valves.

9 A Yes.

10 Q Who modified those valves?

11 A Engineers from CMI.

12 Q And on which instruments did they make those
13 changes?

14 A The engineer staff came down and I remember
15 escorting them to numerous agencies in the northeast in
16 my area. The instruments were already purchased and in
17 the field. They weren't in use yet. Jackson -- every
18 instrument in my area, I escorted the engineers, and
19 they would make the modification and put the instrument
20 back together.

21 I don't know about the other inspectors in
22 other areas, but all the instruments in northeast
23 Florida, I was physically present when the modification
24 was made.

25 Q How many of the defendants in the instant case

1 had an instrument that was modified in that way?

2 A I can't answer that question. It would be an
3 assumption.

4 Q The modification of the valves, how does that
5 materially change the instrument?

6 A Well, it changes the air flow and the pressure
7 within the sample chamber and the exhaust valve, and
8 resulted in a -- in a different alcohol concentration
9 reading based on air flow.

10 Q That alcohol reading, is that -- are we
11 talking about the known standard?

12 A Yes, during inspections, research and control
13 testing, yes.

14 Q Now, that was -- essentially what was
15 happening is you had a known standard of gas that you
16 would get from like NHTSA or someone, and you know that
17 that is a .08, right?

18 A Correct. And in Florida, the gas had
19 different providers. The alcohol reference solution had
20 different providers, but yes.

21 Q But those are known -- those are known --
22 accepted scientific standard levels. It's -- you know
23 -- you trust buying it from the company that it says .08
24 on it or .02 or .10 --

25 A Well, the dry gas was a known standard. It

1 comes with a certificate of assurance.

2 The wet bath solution also, but one other step
3 is done with wet bath. An alcohol testing program
4 independently analyzes the wet bath solution.

5 But to answer your question, yes, it's a known
6 standard.

7 Q And on the instruments that -- the first
8 instruments that you had gotten from CMI, what were --
9 what was the problem?

10 A They were having consistent results that were
11 off by about two-hundredths of a gram to the target
12 value, consistently irrelevant of the concentration or
13 the running of the testing. That was evident in
14 instrument research we were doing at the time before
15 placing them into evidential use.

16 Q So, in other words, the sensors on the
17 instrument -- the instrument was -- except for the fact
18 of the amount that was getting through, the instrument
19 was reading correctly. It was reading accurately, but
20 not precisely, correct?

21 A No. It was probably reading precisely and
22 note accurately.

23 Q I'm sorry. I always get those confused.

24 A It was precisely, meaning repeatability. So
25 we were getting repeated results that were not near the

1 accuracy, the target value.

2 Q So, in other words, if you're throwing darts
3 and you're aiming at the bull's eye, it was getting a
4 lot of close darts up in, you know, the corner of the
5 dart board.

6 A That's a good analogy, yes. They were
7 clustered together. They were repeatability, but they
8 were not near the bull's eye.

9 Q And then the fix that was made to the valve,
10 did that correct the problem?

11 A It did.

12 Q Did the -- did the instruments, at that time,
13 then read both accurately and precisely?

14 A As an overall general statement, yes. We did
15 have individual instruments or individual analyses that
16 were not accurate or precise, but as a general overall
17 evaluation, yes, they did.

18 Q In other words, like you had said earlier, and
19 I may be paraphrasing it, it was measuring what it sees,
20 and it was measuring correctly, but it was not -- the
21 output was not correct, right?

22 A Well, not in that -- not in that context. It
23 could have been any number of things. It could have
24 been simulators, but as a general statement, after the
25 holes were drilled in the valves, the instruments

1 generally came back into precise and accurate results on
2 known standards.

3 Q What instruments, if any, were not -- did not
4 come back into --

5 A Well, there would always be -- you run a
6 thousand or 10,000 tests, you may have some that, for
7 whatever reason, don't specifically -- I couldn't tell
8 you a serial number, date and time, but there was
9 testing that would be outside the tolerances, and we'd
10 research and determine what the cause was, fix it and
11 retest.

12 Q Is there anything in 11D-8 or in the DOT
13 requirements that would prohibit the end user from
14 modifying the valves in that way?

15 A I can't answer as to the DOT requirements.

16 As far as the end user modifying valves
17 addressed in 11D-8, I don't believe it's addressed at
18 all.

19 Q Did CMI ever correct the problem in their
20 manufacturing?

21 A I would assume so. I don't have firsthand
22 knowledge. Newer instruments that were purchased, I
23 don't believe, unless they made the modification before
24 they shipped them, I don't know if the part was changed
25 or not.

1 Q You talked -- and Mr. Brown is going to ask
2 you some more in-depth questions about this.

3 You talked about the terminology of flow
4 sensor and pressure transducer. And you had said, for
5 the purposes of, you know, these proceedings, or maybe
6 it was Mr. Harrison, I can't remember, had said they're
7 functionally the same term; is that fair?

8 A People have used the term interchangeably.
9 The actual part is a pressure transducer. And it
10 measures flow. So people call it the flow sensor. It's
11 a layman's term for the pressure transducer inside the
12 instrument.

13 Q And you would use -- if you were talking, you
14 know, in layman's terms, attempting to be, you know,
15 simple, so that us, you know, non-science people can
16 understand it, you may refer to it as a flow sensor in
17 this context, but if you were dealing with a technical
18 person or you, yourself, were running a diagnostic on
19 the instrument or something, you would refer to it as a
20 pressure transducer?

21 A I may. I personally have interacted (sic) the
22 terms, and I don't try and change them specific on the
23 audience. I've interchanged those terms many times.

24 Q Would you agree with me that it is -- that
25 there are times that some, you know, more technical

1 terms and more precise terms are more appropriate, and
2 that there are times when a more general term is more
3 appropriate?

4 A Yes. I imagine if I'm inquiring to order a
5 part, I'd be -- have more specificity than if I'm just
6 generally describing its functionality.

7 Q So, in other words, if you were to describe to
8 a layman the sensors inside the Intoxilyzer 8000, and
9 you were, you know, just talking with someone, would it
10 be fair to call the two sensors in it the three micron
11 and the nine micron sensors if you were speaking to --

12 A Well, they're not sensors. They're filters.

13 Q Filters. I apologize.

14 A And they've been described that way many times
15 by many different people. CMI themselves have said that
16 in their advertising. It measures at the three and nine
17 micron level. So that's not out of the ordinary. I've
18 seen that and read that and heard that many times.

19 Q Does that -- does that circumstance -- if you
20 were speaking to a layperson, does that change your
21 understanding of what the filters -- what wavelengths
22 the filters are actually looking at?

23 A Does it change my understanding when you
24 generalize them, three and nine?

25 Q Yes, sir.

1 A No. It gives me a broad sense of where on the
2 infrared spectroscopy scale for ethanol it's looking at
3 the measurement in a generalized statement.

4 Q And you had said that if you were calling to
5 order up a part, you would use probably more specific
6 and technical language; is that correct?

7 A If not the part number itself, but yes.

8 Q To your knowledge, did CMI ever change the
9 filters in the Intoxilyzer 8000?

10 A Not to my knowledge, no.

11 Q And to your knowledge, is there any difference
12 in the part from what was the -- the filter parts from
13 when it was -- the instrument was first manufactured
14 until the instruments that are even manufactured today?

15 A Not to my knowledge.

16 Q And you're familiar, obviously, with the way
17 the Intoxilyzer 8000 works. You've spent many, many
18 years working with them, correct?

19 A Yes.

20 Q If CMI were to, for example, install a sensor
21 that was at an incorrect filter band width, in other
22 words, if the filter that they installed was outside of
23 the normal range for the spectrum of ethyl alcohol, what
24 would -- what would happen to that instrument? What
25 would that instrument do?

1 A Well, it -- and I'll answer with a
2 hypothetical.

3 It's got a three and nine micron filter, and
4 they accidentally stuck a 12 micron filter in there,
5 and -- through the manufacturing process, it would not
6 pass calibration, I don't believe.

7 Q In other words, it wouldn't be able to see --
8 you put your known standard in, and it would -- it
9 wouldn't be able to see it at all, or it would read --

10 A Well, you could probably have the software
11 change and look at a different point on the infrared
12 fingerprint of ethanol, but without a huge software
13 change, it would not pass calibration. It would
14 probably -- my experience is if it's an accidental wrong
15 filter in there, because interferent is detected by a
16 ratio between the filters, I think anything you put in
17 there would be identified as an interferent because it's
18 not seeing the proper ratios. So it would never be able
19 to be calibrated.

20 Q In other words, it would be a very expensive,
21 large and heavy paperweight for our purposes?

22 A Yeah, you couldn't use it for evidential
23 breath testing, that is correct.

24 Q You said that some of the tests, and, again,
25 Mr. Brown is going to go further into this, that some of

1 the -- there was a loophole. There was a software bug
2 that was very limited that affected the three-minute
3 sample time. It had to be within three minutes. And
4 then that bug was corrected.

5 Which of the defendants in the instant case
6 here were affected by that software bug?

7 A I can't answer that question. I -- if all of
8 them were on version 27, then the answer would be none.

9 Q Because it would be fixed?

10 A Correct. Version --

11 Q That bug was -- that bug is fixed.

12 A That loophole in the software was corrected
13 and tested and version 27 was installed in the
14 instruments in the State of Florida.

15 MR. SIGGS: If I could have one more minute,
16 Your Honor.

17 THE COURT: Okay.

18 MR. SIGGS: Your Honor, at this time, I'll
19 turn the questioning over to Mr. Brown.

20 THE COURT: Mr. Harrison, do you want to do
21 any redirect at this time, or do you want to wait
22 until they're done?

23 MR. HARRISON: I'll wait till they're done.

24 THE COURT: Okay. Go ahead, Mr. Brown.

25 MR. BROWN: Your Honor, just for the record

1 purposes, Mike Brown on behalf of the State for
2 this portion of the questions.

3 CROSS-EXAMINATION

4 BY MR. BROWN:

5 Q Now, Mr. Malhiot, you've been with FDLE since
6 2002, correct?

7 A 2002 through August 2010, that's correct.

8 Q Okay.

9 MS. MACK: Excuse me just a second.

10 Mr. Brown, you're going to move -- need to move
11 that mike closer because you are, of all the folks
12 that have talked today, you are the most soft
13 spoken.

14 MR. BROWN: Sorry.

15 MS. MACK: And we won't get a record.

16 MR. BROWN: I do have a tendency to be a
17 little soft spoken.

18 MS. MACK: Yeah, well, I think you probably
19 want a good record.

20 MR. SIGGS: It's not me.

21 MR. BROWN: That's fine. That's fine. I'll
22 speak up.

23 MR. SIGGS: Do you want to sit in my seat?

24 MR. BROWN: No. I'll speak up.

25 BY MR. BROWN:

1 Q Now, the Intoxilyzer 8000 came on-line around
2 2006, correct?

3 A On-line?

4 Q Yes.

5 A Yes.

6 Q For evidentiary use.

7 A March 26, 2006, if I remember correctly.

8 Q Okay. And you testified that you were part of
9 the development panel, committee for the State of
10 Florida, right?

11 A Well, Roger Skipper was the -- the, for lack
12 of a better person, point person and did most of the
13 research and development. He was my training officer as
14 I was first hired. So all the evaluations and studies
15 were done together.

16 But, yes, I was part of the team that
17 evaluated the instrument, researched the instrument.

18 Q Okay. You were -- you were -- you described
19 your involvement as being pretty deeply involved in the
20 process. You went to Kentucky, you went to CMI.

21 A Yes.

22 Q You were part of the team that worked on
23 developing the various software issues or other physical
24 issues for the Intoxilyzer 8000, right?

25 A Yes, there were physical and software things

1 that were changed between our first exposure to the
2 instrument and its evidential use, yes.

3 Q Okay. And at the end of that period, by the
4 time the instrument was approved for evidentiary use in
5 the State of Florida, you were part of the group of
6 people who approved that this was an appropriate to be
7 used for evidentiary use in Florida, right?

8 A I was part of that team, yes.

9 Q Okay. And you personally also did agree that
10 this was an instrument that was appropriate for
11 evidentiary use in the State of Florida?

12 A I did.

13 Q Okay. If you had any serious doubts about the
14 operation of this instrument, it would have been voiced
15 prior to that time, correct?

16 A Well, we always had professional discussions
17 and disagreements. At FDLE, there was six of us, plus a
18 program manager and we discussed many things. We
19 disagree, and as a good soldier, you voice your
20 disagreement and when the decision is made, you support
21 the decision.

22 Q Well, at the end of that time, did you say,
23 you know what, I don't think this instrument should be
24 used? I don't think it is fair, accurate and reliable
25 for breath test --

1 A I never said that, and --

2 Q Okay.

3 A -- and -- no.

4 Q Okay. And you didn't -- you didn't believe
5 that. You believed it was -- you know, while you may
6 have wanted to do things differently for one thing or
7 another, on the whole, it was scientifically accurate
8 and reliable for evidentiary use, yes?

9 A Yes. It met the standards of form 34 and the
10 additional testing that was prescribed.

11 Q Okay. And as a department inspector, you
12 would do annual inspections on a variety of instruments,
13 correct?

14 A Correct.

15 Q And every time that you went through the
16 inspection, at the end, if you put your signature on it,
17 you agreed that this instrument was appropriate for
18 evidentiary use, right?

19 A I -- my signature signified that it met the
20 standards of the rule 11D-8, yes.

21 Q Okay. You wouldn't have put your signature on
22 there if you had any doubts that it wasn't operating
23 accurately and reliability -- reliably, would you?

24 A Well, yes. There's -- there was times I
25 signed that form and recommended they don't put the

1 instrument into evidential use.

2 Q Okay. But you would have put it on there for
3 that particular instrument?

4 A Not necessarily. It might have been on a
5 field note. The department inspection form that the
6 instrument generates specifically looks at specific
7 things, and I can write notes, but they were instrument
8 specific.

9 The field note allowed me a little more
10 discretionary authority. If something in the
11 environment was conducive to good testing, the
12 instrument may analytically pass the objective standards
13 of the rule, but something wasn't right in the
14 environment.

15 Q Okay.

16 A So I had discretionary authority above and
17 beyond the rule.

18 So to answer your question, yes, I may have
19 signed that form, but still not wanted the instrument in
20 evidential use.

21 Q Okay. But not -- you said but not because of
22 the instrument, but because of the environment, right?

23 A Yes. If it was instrument related, it should
24 be on the department inspection form.

25 Q Okay. You would never take an instrument that

1 you felt was unreliable, sign off and knowing it was
2 going to go back into service, right? You wouldn't do
3 that.

4 A No, I wouldn't. There was -- there was
5 discussion at FDLE at the time, what our authority was
6 versus rule 11D-8, and there were specific things that
7 we would recommend to agencies to take care of, but it
8 still passed the department inspection.

9 Q Okay.

10 A So there was a subjective area of rule. We
11 had oversight. And I'll give you a specific example.

12 I started checking flow sensors in 2009. It
13 could very easily have passed a department inspection,
14 but the flow sensor was still not within the tolerances
15 that I expected it to be, and I could tell them, hey,
16 send this out and have the flow sensor checked.

17 Did I have the authority to do that? It
18 wasn't in the rule. I don't know. But they sure did it
19 when I told them to.

20 So there's a subjective area of what we did in
21 addition to the objective standards of rule.

22 Q Okay. And if you -- and if -- any
23 circumstances, when you did an inspection, if you did an
24 inspection, if you subjectively believed that it needed
25 some further checking, any additional work, it wasn't

1 operating as it should, is there ever an instance that
2 you signed your name on it and let it go back into
3 service when you believed that it needed more checking,
4 needed more --

5 A I would have signed my name on the department
6 inspection form and whether they sent it out for repair
7 or not is up to them. I didn't have the authority to
8 tell them not to put it back in service.

9 Having said that, a hundred percent of the
10 time I recommended it, they did it.

11 Q Okay.

12 A So I don't want to mislead you in your
13 question.

14 Q I guess -- just to be clear.

15 A Certainly.

16 Q If it passed the parameters of your required
17 inspection under 11D-8, but you felt there were
18 additional issues as part of your overall inspection,
19 you would make a recommendation to the agency to have
20 that issue addressed, and they always would; is that
21 right?

22 A That is correct.

23 Q Okay. So you were given, as a department
24 inspector, you were given discretion to look at things
25 above and beyond the requirements of, I guess it's form,

1 was it 34; is that correct?

2 A I think 34 is your evaluation procedure.

3 Q I'm sorry, form 36.

4 A That is correct.

5 Q Okay.

6 A It is my understanding that that is the
7 minimum standards.

8 Q Okay. So it is your understanding that, under
9 the rule, under rule 11D-8, the department inspector, as
10 a minimum, must do what is laid out in form 36, but is
11 expected to do additional observation of the instrument,
12 to look at things through your extensive training and
13 experience to determine that it might need additional
14 maintenance or adjustment in the environmental factors,
15 things like that?

16 A That's what I did. Other inspectors would
17 respectfully 100 percent disagree and refuse, but that
18 is what I did.

19 Q Okay. That was your understanding of what you
20 were supposed to do?

21 A Yes. I was never told not to.

22 Q Okay. Now, you said you started checking flow
23 sensors yourself at around 2009, right?

24 A Yes. I looked back in the data, and the
25 earliest I could find was in 2009. I was -- during

1 department inspections, I was checking volume.

2 Q Okay. And you were checking volume using the
3 three-liter syringes?

4 A The three-liter syringe, yes, sir.

5 Q Okay. Now, if you were using the three-liter
6 syringe and it correctly measured volume, other things
7 being equal, you would agree with me that the 8000 was
8 accurately reliab -- accurately and reliably analyzing
9 subject samples, yes?

10 A Could you repeat the question? If the flow
11 sensor is working properly --

12 Q The flow sensor is working properly, all other
13 things being equal, that everything else is operating as
14 it should, and there's no user error, all other things
15 being equal, the Intoxilyzer 8000, as a system as a
16 whole, should accurately and reliably measure a
17 subject's breath sample, yes?

18 A Yes.

19 Q Okay. Should you find using the syringes or
20 now I guess they use the cylinder in Tallahassee; is
21 that right?

22 A They use a flow meter, which is a -- it's a
23 cylinder with a ball and flow is measured, yes.

24 Q Okay. Should you have come across an
25 instrument that did not accurately measure volume --

1 A Yes.

2 Q -- that instrument could be calibrated to then
3 correctly measure volume, right?

4 A It could, but not always. It may have needed
5 a flow sensor replacement.

6 Q Okay. It might.

7 A But at the time, we didn't have the equipment.
8 It would have to be sent out. FDLE did not physically
9 have it until June, July 2010.

10 Q Okay. But they do now?

11 A They do now, yes.

12 Q And you believe that this equipment can
13 accurately determine whether or not the instrument is
14 measuring flow properly?

15 A Yes.

16 Q And do you agree that the current equipment
17 that they have can accurately calibrate a flow sensor if
18 it doesn't need to be replaced?

19 A If it's -- yes, if it's calibratable,
20 adjustable and it accepts the new tolerances for flow,
21 it can be calibrated, flow, yes.

22 Q Okay. Have you had an opportunity to review
23 the procedures that have been determined by FDLE to
24 determine whether or not A, it's calibrated properly,
25 and if so -- if not, how to calibrate the instrument,

1 have you reviewed those procedures?

2 A Yes. Patrick Murphy and I helped write those
3 procedures.

4 Q Okay.

5 A Now, if they've changed since then -- the one
6 thing I'm not sure on is their determinant as to when
7 they calibrate and when they verify. I understand
8 generally and I understand how they determine that, but
9 the exact threshold, I don't know.

10 MR. BROWN: Your Honor, may I approach?

11 THE COURT: Yes.

12 MR. BROWN: I don't know what exhibit the
13 State's up to at this point.

14 UNIDENTIFIED MALE VOICE: 37 is our next one.

15 MR. BROWN: This would be 37?

16 UNIDENTIFIED MALE VOICE: This would be 37.

17 MR. BROWN: May I get an evidence sticker,
18 please?

19 UNIDENTIFIED MALE VOICE: Which one are you
20 doing? Which one is that?

21 UNIDENTIFIED MALE VOICE: What document is
22 that?

23 MR. BROWN: Oh, I'm sorry. This is the
24 Florida Department of Law Enforcement Alcohol
25 Testing Program Procedures Manual.

1 MS. MACK: What is it, Mike?

2 MR. BROWN: For the record, it's entitled
3 Florida Department of Law Enforcement Alcohol
4 Testing Program Procedures Manual.

5 MS. DOOLITY: Ms. Mack, Shannon Doolity, for
6 the record. That was part of what I re-emailed to
7 you and also disclosed in hard copy. So it's part
8 of that that I re-emailed you again.

9 MS. MACK: Oh, yeah. I don't think we're
10 disputing that you sent it. The thing -- we're
11 just trying to figure out what it is.

12 MS. DOOLITY: Yeah, if it would help you
13 locate it, I didn't know if you had it organized --

14 MS. MACK: Yeah, okay, we'll -- yeah.

15 UNIDENTIFIED MALE VOICE: Is that this?

16 MR. BROWN: That's it. And it should be 35
17 pages.

18 MS. MACK: Okay. And what is -- what are you
19 marking it?

20 MR. BROWN: State's 37 for identification
21 purposes only.

22 Your Honor, may I approach?

23 THE COURT: You may.

24 UNIDENTIFIED MALE VOICE: You plan on
25 authenticating this with Ms. Barfield later,

1 correct?

2 MS. DOOLITY: I'm sorry?

3 UNIDENTIFIED MALE VOICE: Are you planning on
4 putting -- because I might stipulate, because if
5 she's going to authenticate it later, if it makes
6 things go quicker.

7 MR. BROWN: Yes, yes.

8 MS. MACK: We'll stipulate, then.

9 MR. BROWN: Okay.

10 MS. MACK: How's that?

11 MR. BROWN: Very good. Thank you.

12 THE COURT: It will be admitted.

13 (State's Exhibit 37 admitted into evidence.)

14 MR. BROWN: (Indiscernible) I guess, for the
15 record, moving State's Exhibit 37 into evidence.

16 THE COURT: What is the title of that document
17 again, Counsel?

18 MR. BROWN: It's called Florida Department of
19 Law Enforcement Alcohol Testing Program Procedures
20 Manual.

21 THE COURT: Is there a date on it?

22 MR. BROWN: There is not, Your Honor. There's
23 various dates that are indicated throughout, but
24 (indiscernible) the dates.

25 THE COURT: All right. You may proceed.

1 UNIDENTIFIED MALE VOICE: (Indiscernible).

2 MS. MACK: We're not picking up what you're
3 saying.

4 UNIDENTIFIED MALE VOICE: I said I handed him
5 a copy. I'm having my own (indiscernible) page
6 number.

7 MS. MACK: Okay.

8 THE WITNESS: Maybe page nine, 7.5.

9 MR. BROWN: That's it. Thank you.

10 BY MR. BROWN:

11 Q Looking -- well, looking at page eight, and
12 then page nine, flow sensor calibration, 7.5.

13 A Uh-huh.

14 Q Are you familiar with these procedures? Have
15 you reviewed these procedures?

16 A Which ones specifically, Counsel?

17 Q 7.5, flow sensor calibration.

18 A Yes, I'm familiar with these procedures.

19 Q Okay. Do you believe that these procedures,
20 as indicated in State's 37, are sufficient for proper
21 calibration of a flow sensor or a pressure transducer?

22 A If it's calibratable and not broken and
23 needing replacement, yes.

24 Q Okay. Now, in -- also in 2.5, page -- page
25 eight, on 6.1, indicates that the instrument under

1 calibration will be inspected for damage, loose hardware
2 or missing or external parts. Simulators and hoses will
3 be inspected for leaks.

4 Do you see that section there?

5 A Yes, sir.

6 Q Was that something that was always done when
7 you did an inspection?

8 A Yes. It was part of the external examination
9 of the instrument.

10 Q Okay. There's nothing specifically in the
11 rule that required that; is that right?

12 A I'd have to refer to the department inspection
13 procedures form. But, no, specifically, damage, et
14 cetera, et cetera, no.

15 Q Department inspection procedures, specifically
16 form 36; is that correct?

17 A Yes.

18 Q That should already have been entered into
19 evidence as what?

20 MS. MACK: I don't see it. I don't see it,
21 Mr. Brown.

22 MR. HARRISON: No, no, we put it in.

23 MS. MACK: We may have put it in.

24 UNIDENTIFIED MALE VOICE: The defense may
25 have.

1 MS. MACK: Yeah, we did.

2 MR. HARRISON: The department inspection
3 procedures is Defense Exhibit CC.

4 MR. BROWN: Okay. Thank you.

5 Your Honor, may I approach again?

6 UNIDENTIFIED MALE VOICE: This is CC, 136?

7 MR. HARRISON: Yes.

8 THE COURT: The clerk does not have AA, BB or
9 CC as admitted. Is there any objection?

10 MR. HARRISON: We stipulated to all of those
11 at the beginning.

12 UNIDENTIFIED MALE VOICE: That's correct.

13 THE COURT: Okay. Then they will be admitted.

14 (State's Exhibits AA, BB and CC admitted into
15 evidence.)

16 THE COURT: DD has not been offered.

17 MS. MACK: Right.

18 MR. HARRISON: That is correct.

19 MS. MACK: That was ID only, but the others
20 were, Judge.

21 THE COURT: Very good. Thank you.

22 MR. BROWN: Approaching with Defense's CC.

23 THE WITNESS: Thank you, Counselor.

24 BY MR. BROWN:

25 Q Now, you read it. This form 36, it's the

1 department inspection procedures, correct?

2 A Yes.

3 Q And nowhere on that form does it require that
4 you check for, you know, leaks, loose tubes, things like
5 that.

6 A It does not -- well, leaks, loose connections
7 as far as you have to use a simulator with an airtight,
8 leak resistant -- but damage, those types of things as
9 you refer to, no, it does not.

10 Q Okay. Is there anything on form 36 that would
11 indicate that if you were to find just simply a loose
12 tube, what the procedure is for fixing that?

13 A The procedure, no.

14 Q Okay. If you were to come across a loose
15 tube, would you ever attempt to just simply fix it
16 yourself?

17 A Most of the time, yes.

18 Q You would expect to be able to fix something
19 like that. You've been trained to do so?

20 A Yes.

21 Q If there was a loose tube, and air was
22 escaping at some point, it would affect the reliability
23 of result, wouldn't it?

24 A It certainly could, yes.

25 Q Okay. Wouldn't you agree that the procedures

1 that are outlined under the FDLE manual, on a whole,
2 allow for those various other things that you might
3 discover, correct?

4 A The manual, yes.

5 Q Okay. Would you agree with it that, as a
6 general maintenance inspection, there's just a slew of
7 things that you would be looking for that are above and
8 beyond what rule 11D-8 requires?

9 A That are not specifically identified on the
10 inspection procedure --

11 Q Yes, sir.

12 A -- yes.

13 Q Any of which may or may not, depending on what
14 the item might be, could affect how the instrument
15 operates.

16 A Yes.

17 Q It could affect how the instrument analyzes a
18 breath sample, make sure it does it reliably, depending
19 on what the issue might be.

20 A It's possible, yes.

21 Q Okay. And you were able to perform this
22 routine maintenance and these inspections without a rule
23 being promulgated specifically to tell you to do it,
24 right?

25 A Well, that's correct. But realizing that once

1 that repair, trouble, whatever was done, then a new
2 inspection was done to ensure that it met the
3 requirements of rule after such repair or maintenance.

4 Q Okay. In order -- in order to cover
5 everything that's in the procedures manual, the 35-page
6 procedures manual, there would have to be 35 pages of
7 rules, correct?

8 A Well, no. I disagree, because the procedures
9 manual goes into things as how a person gets public
10 records.

11 Q Okay. But the things that deal directly with
12 the maintenance and inspection of the instrument, every
13 single one of those details would have to be promulgated
14 as a rule, right?

15 A Well, no. I mean, I see what you're saying,
16 but a lot of this doesn't necessarily have to do with
17 instrument inspections. When you say 35 pages, I would
18 say probably less than half of that deals with the
19 instrument inspection, so --

20 Q Well, let's say 2.1 through 2.19, the section
21 that is entitled Breath Testing, that whole section
22 would have to be promulgated as individual rules, right?

23 A No. I think there are specific tasks in this
24 manual that go to instrument inspection, instrument
25 calibration, instrument auditing, and there are specific

1 sections that really don't have a lot to do with
2 specific instrument audits, but yes, I agree with you
3 that those items in here, if you were to make them rule,
4 would be numerous pages of rule.

5 Q Okay. Do you believe that, as your time as
6 inspector, you were able to faithfully inspect and
7 determine whether or not an instrument was appropriate
8 for evidentiary use without a rule being promulgated for
9 each and every one of these things that you looked at?

10 A Yes. I -- I think I was able to perform my
11 duties without having a specific rule on every single
12 thing I did.

13 Q Because some of these things are just routine
14 maintenance, right?

15 A Some of them are preventative maintenance,
16 routine maintenance, different tasks that were
17 performed.

18 Q Okay. Would you agree that calibration of a
19 flow sensor is a maintenance requirement for the
20 Intoxilyzer 8000?

21 A Whether it's preventative maintenance or
22 repair maintenance, the validation and calibration flow
23 routine is a maintenance function, yes.

24 Q Okay. It's not a modification of the
25 instrument in any way, is it?

1 A Well, it depends on how you define
2 modification.

3 Q Nothing -- no physical parts are being
4 changed?

5 A There's no physical parts being changed.
6 There is software data that is being changed because
7 part of the software is storage of the calibration data.

8 Now, is it physically modifying? No. It is
9 routinely changed anytime it's calibrated.

10 Q Okay. And you calibrate various parts of the
11 instrument, correct?

12 A During the calibration process, not the
13 inspection process.

14 Q Right. But once a year it's required to be
15 calibrated, right?

16 A I'd have to review their manual if they
17 mandate it once a year. I know that a validation of the
18 calibration is done once a year.

19 Q Okay. So at the very least, you need to
20 determine whether or not it is properly calibrated?

21 A Correct.

22 Q And if not, it needs to be calibrated?

23 A Correct.

24 Q These calibrations do not necessarily require
25 any modification of the physical hardware of the

1 instrument or the software.

2 Is it fair to say that it is the same as
3 hitting a tare button on a scale, T-A-R-E?

4 A Yes. As a matter of fact, one of the things
5 is to tare the dry gas regulator.

6 Q Okay.

7 A So it's reestablishing the zero on the
8 regulator.

9 Q Okay. But that's on a modification of the
10 instrument. That's --

11 A You're not physically modifying the
12 instrument, no.

13 Q Okay. Now, I want to talk about slope and the
14 time being measured and things like that.

15 You had mentioned during direct that there are
16 multiple levels of quality assurance, right?

17 A Correct.

18 Q And you talked about other safeguards.

19 Other safeguards would include the 20-minute
20 observation, right?

21 A That's a procedural safeguard, not a -- yes.

22 Q Okay. I mean, in the procedure for an
23 accurate and reliable breath test, there's both the
24 things that the instrument does on its own and then the
25 things that the operator does to help ensure that you

1 have a reliable breath test, right?

2 A Correct. There's procedural, there's
3 instrumentation, there's software. There's interwoven
4 quality control, yes.

5 Q Interwoven and overlapping?

6 A Yes.

7 Q In many cases -- I mean, sometimes, redundant?

8 A Intentionally redundant, yes.

9 Q Okay. One of those might be the 20-minute
10 observation, right?

11 A As a safeguard?

12 Q Yes, sir.

13 A Yes.

14 Q Its purpose is to determine, you know, that --
15 to make sure there's no mouth alcohol, right, that
16 nothing --

17 A Well, it's to reasonably ensure. You can't be
18 a hundred percent. You observe them for 20 minutes to
19 make sure they don't consume any alcohol and try and
20 guard against regurgitation of alcohol.

21 Q So hopefully the operator -- it's one level of
22 a safeguard. It's to make sure that they're not
23 regurging -- regurgitating alcohol, they're not putting
24 anything in their mouth by touching their mouth, things
25 like that, right?

1 minutes, Mr. Brown, and then we'll go into
2 redirect.

3 MR. BROWN: Yes, Your Honor.

4 BY MR. BROWN:

5 Q Now, you said, for the measurement of slope,
6 it will do four measurements per second, correct?

7 A That's correct.

8 Q And those four measurements, it's measuring --
9 it's measuring alcohol concentration in the sample
10 chamber, right?

11 A Correct.

12 Q And just to make sure we're clear for the
13 record, the Intoxilyzer 8000, it doesn't take one big
14 sample, blow it up like a balloon in the sample chamber
15 and say this is how much alcohol is in this total
16 sample, right? It doesn't work that way.

17 A No. It's a free flow system.

18 Q It's a free flow system that every quarter of
19 a second it's measuring how much alcohol concentration
20 is in the sample chamber at that moment.

21 A That is correct.

22 Q So four times a second it gets those
23 measurements as a sample flows through, correct?

24 A That is correct.

25 Q And so that analysis is not based on volume

1 directly. It's just this is the concentration of the
2 alcohol in the sample chamber at that moment, right?

3 A For each --

4 Q For each of those --

5 A -- snapshot.

6 Q Each snapshot?

7 A Yes. But the snapshot is not what's
8 displayed, but yes.

9 Q Right. Right. But that's not the final
10 result, but that's what it's doing.

11 A No --

12 Q It's not saying total volume, total
13 concentration is this.

14 A No.

15 Q It's saying snapshot, snapshot, snapshot every
16 quarter second?

17 A Correct.

18 Q Now, you had to have one second of air before
19 you said the electronics turn on?

20 A Well, you have to have flow of minimum flow to
21 start the instrument and then continuous flow for one
22 second for all the electronics to turn on, the
23 measurements to start.

24 Q Okay. So for that first second, are you
25 saying that it does not measure slope at that first

1 second?

2 A There's been some debate about that. One, how
3 long does it take for the exhaled air to fill the breath
4 tube and the preheat chamber before it even hits the
5 analytical portion.

6 So that first second we calculated it, it
7 needs seven measurements, and that takes 1.75 seconds.
8 So that's why we say that one second is really
9 artificial, but yes.

10 Q So, actually, you've got 1.75 seconds of a
11 sample passing into the system before it will start to
12 get a measurement?

13 A Before it can give you a final result.

14 Q Okay. Otherwise, you should get what flag?

15 A Well, it depends. A lot of times, you'll get
16 no sample provided or low volume sample. Either of
17 those.

18 Q Okay. Are you specifically aware of any
19 circumstances of any specific tests or group of tests
20 where it should have given one of those flags and did
21 not?

22 A Well, yes, there's -- there's many different
23 circumstances where we see that, flags that aren't
24 appropriate with what you see on its face, but can be
25 explained through research and development.

1 There's -- every once in awhile, you'll see a
2 volume displayed with a flag of no volume or no sample
3 provided. And that can be explained as the pressure
4 transducer volume with a puff of air is reset to zero,
5 but the alcohol is still retained.

6 So it's possible to have alcohol concentration
7 with no sample provided. So there are anomalies in the
8 data that the messages and the volume and the alcohol
9 don't match.

10 Q And under those circumstances, it's still
11 registering that there is a volume, correct?

12 A I've seen alcohol concentrations with zero
13 volume in the data.

14 Q Specifically when did you see that?

15 A With alcohol concentrations and no volume in
16 the data?

17 Q Yes.

18 A When somebody will give a puff of air during
19 the samplization and it will reset the volume to zero,
20 but not reset the alcohol concentration.

21 Q Okay.

22 A It's a rare -- it's not a common thing. It's
23 very rare, but those anomalies are in the data, and I
24 was part of the research that -- and CMI, to show how
25 those anomalies can happen. It's not like an unknown.

1 Q Have you seen those anomalies in any of the
2 Charlotte County instruments?

3 A I haven't -- I haven't looked at the Charlotte
4 County data.

5 Q You haven't looked at any of the Charlotte
6 County data?

7 A I have not.

8 Q Are you aware of any specific instances where
9 the pressure transducer was, in fact, giving readings of
10 above 1.1 liters when there wasn't that size of volume
11 in the sample chamber?

12 A In Charlotte County instruments?

13 Q Yes, sir.

14 A I do not.

15 Q Counsel has talked about two separate Sarasota
16 instruments.

17 Now, this one here, this 81348, that's a
18 Sarasota County instrument, correct?

19 A That's that repair invoice?

20 Q Yes, sir.

21 A Yes.

22 Q Referring to FF.

23 A Yes.

24 Q Okay. You're not aware of any flow sensors
25 being replaced in Charlotte County?

1 A I have not reviewed repair records for
2 Charlotte County.

3 Q Have you looked at data sets for Charlotte
4 County for any instruments here?

5 A I have not.

6 Q Are you aware of any breath test under the
7 current cases that this motion envelopes, where there's
8 been a situation where you've gotten a alcohol reading
9 without a sufficient sample volume?

10 A I have not reviewed the data in this -- in
11 this county.

12 MR. BROWN: Your Honor, may I have just a
13 moment to confer with counsel?

14 THE COURT: Yes.

15 MR. BROWN: Thank you, Your Honor.

16 I'm sorry.

17 BY MR. BROWN:

18 Q Actually, just one other part, slope not met
19 and slope not level.

20 A Yes.

21 Q I always got these confused. Just let me try
22 to get it correct.

23 A I do sometimes, too, Counselor.

24 Q Slope not met is when it goes up, peaks, and
25 drops off, correct?

1 A Correct.

2 Q Slope not level is when it just keeps going
3 up?

4 A It has not plateaued.

5 Q You said that you had to have at least -- at
6 least one second time for a sample. Otherwise, I guess
7 it -- you wouldn't get a reading at all?

8 A I think you'd get no sample provided, and I
9 think what you need is a minimum of 1.75 seconds to
10 get --

11 Q So you've got, basically, you have at least
12 seven data points. Otherwise, you will get some error
13 flag that says you don't get a reading, correct?

14 A Correct.

15 Q Regardless of the volume that's being
16 provided, you have to have gotten enough pressure that
17 you're getting 1.75 seconds of sampling before you'll
18 get any kind of a reading?

19 A Correct, but --

20 Q Whether it's a valid slope an invalid slope?

21 A Correct, but you have to -- part of that
22 question was proper flow.

23 Q Okay.

24 A The pressure transducer is what measures
25 proper flow.

1 Q Can you --

2 A But you're correct.

3 Q Can you cite to any specific breath test or
4 group of breath tests or a breath test instrument where
5 it was able to determine flow, but there were problems
6 with it actually registering enough volume?

7 A Where there's problems with flow? Could you
8 repeat the question?

9 Q Let me rephrase that.

10 A Please.

11 Q Have you looked at any of the data sets from
12 any instruments that needed calibration?

13 A I have.

14 Q Okay. And any of these instruments that
15 needed calibration, could you determine whether or not
16 they were reading abnormally high or abnormally low?

17 A Not from the data sets, no.

18 Q Okay.

19 A Other than if you did a statistical analysis.

20 Q If it was reading abnormally low, meaning
21 that, let's say someone did actually put two liters of
22 air in, but it said it was only 1.5, then if somebody
23 put less than 1.1 liters in, it should actually read
24 higher and you should still have a valid -- a valid
25 sample, correct? It's -- for example --

1 A If --

2 Q -- the actual sample is 1.5 liters.

3 A Correct.

4 Q It says 1.0, the error goes to the defendant,
5 right?

6 A Well, it wouldn't be a valid -- it wouldn't
7 accept it as a valid sample.

8 Q Even though it's reading 1.5?

9 A Oh, I'm sorry, reading. I thought it was --
10 no. If it's reading 1.5, the instrument thinks it's
11 1.5, it will accept it as 1.5.

12 Q Okay. And vice-versa. If it's reading 1.0,
13 but actually 1.5 --

14 A Correct.

15 Q -- then it will say volume not met.

16 A That is correct.

17 Q Okay. Are you aware of any circumstances
18 where the calibration was off on the flow sensor, that
19 it was reading where -- that situation where the actual
20 sample was 1.0 and the reading was 1.5 or it was
21 reading --

22 A Well, you're asking a physical impossibility.
23 If the flow sensor is off, you don't know what the
24 actual was. So to answer your question, is no, I'm not
25 aware of it because you don't know what the actual is.

1 You just know what the instrument measured it at.

2 Q Okay. So is it a fair statement to say that
3 you're unaware of any data set, experimentation, any
4 controlled experiments that would say whether or not
5 that a flow sensor reading being inaccurate will
6 directly affect the breath sample analysis?

7 A Well, that's not what I said. And that wasn't
8 your question, as I understood it.

9 What I've said is that if you have a flow
10 sensor that is inaccurately measuring flow or volume,
11 that is the number you'll be left with. You will not
12 know what the true reading was. So you can't have
13 evidence or show the negative because it doesn't exist.
14 What the actual volume was doesn't exist.

15 So I don't know of any sets that show that.

16 Q Are you aware of any controlled experiments
17 that show one way or the other?

18 A FDLE completed a controlled experiment. I
19 haven't completely reviewed that and it hasn't been peer
20 reviewed, and I don't think I've seen the final report.
21 I've seen a lot of the data.

22 Q Okay.

23 MR. BROWN: Okay. I don't have any further
24 questions.

25 THE WITNESS: Thank you, Counselor.

1 THE COURT: Mr. Harrison?

2 REDIRECT EXAMINATION

3 BY MR. HARRISON:

4 Q Dealing with the -- if I'm dealing with a flow
5 calibration problem, where I've got a flow sensor that's
6 out of calibration.

7 A Okay.

8 Q You'd agree that could happen two ways. It
9 could give us false low volumes or false high volumes?

10 A Correct.

11 Q If I'm dealing with a set where I'm dealing
12 with false low volumes, the potential evil for the
13 accused would be they gave more than 1.1 liters and
14 they're being accused of not giving a valid sample and a
15 refusal, correct?

16 A Correct. That is the danger. And, in fact,
17 that was looked at years ago when we saw problems, and
18 it was manually discovered when we got reports that
19 people had trouble blowing into the instrument.

20 Q Okay.

21 A And whether it was a flow sensor or there's a
22 screen at the bottom of the breath tube was clogged or
23 somebody had physically had problems.

24 So it was possible that those would be
25 considered refusals.

1 Q Right. What we call deemed refusals.

2 But now, we're dealing today, here, with folks
3 who actually gave a breath test. So their concern here,
4 if we're out of calibration, they could have a false
5 high volume, because if it's out of calibration the
6 other direction -- like the one in Sarasota, we could
7 tell that, with those big volumes, that they were giving
8 inflated results, correct?

9 A Of volume?

10 Q Yes.

11 A Yes.

12 Q And when we were seeing inflated results, we
13 don't know how much it's inflated for any given sample?

14 A No, you don't. When we're talking about 12
15 liters, human physiology tells us that that's more than
16 double inflation of the actual breath because the normal
17 adult male, looking at thousands of these in the data,
18 is going to be somewhere in the range of three to five
19 liters, and you start seeing 12s, that's more than
20 double the normal volume of an adult male.

21 Q And then some of the people who were in the
22 one to three liters very well might have given a result
23 less than one liters, but it's guess, fair?

24 A Well, it could if it's -- if it's mismeasuring
25 it by double, it's possible, yes.

1 Q And those would be samples that we may have
2 issues of detecting interferences, mouth alcohol or
3 properly dealing with slope because we had a smaller
4 sample?

5 A It is possible.

6 Q Okay. When you went up to CMI and they were
7 looking at the software, that was after Florida had done
8 its initial approval of the Intoxilyzer 8000, correct?

9 A Correct.

10 Q So all of those changes would have been
11 changes that were made to the initial version of the
12 Florida software, the 8100.10?

13 A 8100.10 was provided for evaluation. I don't
14 know if it was necessarily a Florida software, because
15 after we approved it, we went into development of forms,
16 development of writing of rule, procedures. I think
17 8100.10 was a baseline software to test the instrument's
18 analytical abilities.

19 Q Now, we have in evidence, though the clerk
20 doesn't have this, from the previous hearing, do you
21 recall that in the initial evaluation of the Intoxilyzer
22 8000 in Florida, they had like 8100.09, and it failed,
23 and they had to go through and have a software patch and
24 they came back with version 10, do you recall that?

25 A I remember we had hardware and software

1 failures on instruments at the beginning.

2 Q The -- the first one with version 9, there was
3 a software problem. And then version 10, one of them
4 shorted out and they went through with the approval with
5 one Intoxilyzer, does that sound familiar?

6 A Well, there was a wire that got caught that
7 started smoking, and it was -- I believe it was a power
8 supply to the printer or the card reader, but, yes, it
9 did start smoking and we had to unplug it, and that
10 instrument could not complete the evaluation process,
11 yes.

12 Q All right. But the point I'm getting at, the
13 changes that you were at CMI would have been -- you were
14 involved with talking about the changes between version
15 10 and version 26 when it first rolled out, correct?

16 A Correct. That's why there's so many gap
17 numbers. All of those beta test versions, or most of
18 them or a lot of them, had 14, 15, 16, 17 version
19 numbers. And every time we made an update, they changed
20 the numbers.

21 They have subsequently changed the way they
22 number their software since then. That's why you don't
23 see a bunch of beta versions between 26 and 27.

24 Q All right. And then just to make it clear,
25 because we already have it in the record with the

1 testimony from Mr. Schofield that the Florida version,
2 8100.10, was different than the DOT version that was
3 approved, but you were not involved with any -- any part
4 of FDLE as far as what the differences were between the
5 DOT and version 10, correct?

6 A No, I don't remember any discussions or --

7 Q Okay.

8 A It was my understanding that those versions
9 that we evaluated in 2002 were baseline versions. They
10 didn't have customer-unique requirements.

11 Q But if Mr. Schofield is saying that what we
12 had was different than what was DOT, you'd have to defer
13 to him, correct?

14 A I have nothing to doubt his word.

15 Q In dealing with your discussions dealing with
16 CMI, did any discussion ever come up with changes
17 dealing with the slope or the mouth alcohol routine?

18 A I don't recall any discussions of that nature
19 that I was involved in.

20 Q And in dealing with the filters, you said that
21 the way that the Intoxilyzer would detect an interferent
22 would be the ratio of light absorbed between the two
23 different filters, correct?

24 A Correct.

25 Q So if CMI were to -- if you were to change a

1 filter from, say, 9.1 to 9.4 microns, the ratio would be
2 different.

3 A The absorptivity between the two filters would
4 be different, and the absorptivity at that single filter
5 that was changed would be different than what the
6 software would be anticipating.

7 Q So if CMI was going to change from, say, 9.1
8 to 9.5, I'm just making numbers up, if you're going to
9 change the hardware, you would also have to change the
10 software. Otherwise, it would be readily apparent it
11 wouldn't work.

12 A Correct.

13 Q You can't change one without the other.

14 A You'd have to change the software to look at
15 that absorptivity at a different micron range.

16 Q As far as what was changed or not changed
17 dealing with the ratio and filters, that's not something
18 that ever came up in any of your discussions when you
19 were working for FDLE and CMI, correct?

20 A I don't recall any discussions of filter
21 changes or micron changes or anything like that.

22 Q Okay. You indicated in 2009 that you started
23 checking the flow sensors in your part of the state; is
24 that correct?

25 A I did.

1 Q Do you know if any of the other agents -- or
2 excuse me, department inspectors were checking flow
3 sensors back then?

4 A I know Mr. Sereth and Mr. Skipper did not.
5 Mr. Hackney was near retirement and I took over part of
6 his area. Ms. Gettings (phonetic) was in the Panhandle.
7 I don't believe she did.

8 As far as I know, I was the only inspector
9 doing it at the time.

10 Q So as far as dealing with the Intoxilyzers
11 here in Charlotte County, do you know if their flow
12 sensors were being checked back --

13 A I know Don Sereth was not.

14 Q Okay. And Don Sereth is the one that was
15 checking the Intoxilyzers here in Charlotte County?

16 A Yes. He was responsible for this region.

17 Q Do you still have State's Exhibit Number 37 in
18 front of you?

19 A I do.

20 Q Okay. Dealing with -- that particular manual
21 discusses a number of different items in addition to
22 department inspections, correct?

23 A Well, correct. It goes into blood testing,
24 administrative procedures, public records, yes.

25 Q All right. Can you go to page five?

1 A Yes.

2 Q Is that -- is that where the procedures in
3 this manual talk about department inspections?

4 A 2.2, yes.

5 Q And that starts on page five.

6 What page does that end on?

7 A It appears to be just one full page. It ends
8 on page six, which goes to 2.3, breath test instrument
9 registration.

10 Q And then if we're reading under the department
11 inspections, though, if I am looking under department
12 inspection -- do you see where it says, bold, department
13 inspection?

14 A I do.

15 Q Under the first bullet, it also refers to
16 section 2.9 for quality control procedures -- excuse me,
17 2.19; is that correct?

18 A Let me see where you're at.

19 Q In the -- under --

20 A Oh, yes, yes, the first dot, to ensure quality
21 control checks, procedures 2.19 have been conducted
22 prior to beginning department inspection.

23 Q And then if we go to that, let's go to page
24 28. And that deals with quality control procedures
25 dealing with the flow sensor; is that correct? It tells

1 you how to check the flow rate?

2 A Yes.

3 Q And that only is -- that goes on two pages,
4 but it's less than a page in length, correct?

5 A Well, it goes on to stability checks and then
6 instrument setup. So I'd say, in totality, maybe a
7 page, page and a half.

8 Q Okay. But the total part dealing with the
9 department and procedures, talking about dealing with
10 the flow sensor check, would add less than three pages
11 to the rules, correct?

12 A I think that's a fair assessment, yes.

13 MR. HARRISON: That's all I have.

14 MR. BROWN: Your Honor, may the State be
15 permitted a very brief recross?

16 THE COURT: Very brief.

17 RECCROSS EXAMINATION

18 BY MR. BROWN:

19 Q On the bottom of page 29, that section of
20 quality control, it says, breath tube particulate
21 screen.

22 Do you see that, sir? It's the very last item
23 on the bottom of page 29 of State's 37.

24 A Yes. I think I mentioned it before, being
25 hard to blow into the instrument.

1 Q Right. Is that -- is that -- was that in the
2 procedures manual at the time that you were acting as a
3 department inspector?

4 A It was not.

5 Q Okay. Did you check the particulate screen?

6 A Only if there was a problem reported with
7 people blowing or I had a problem blowing. It was not a
8 routine to remove the breath tube and check that screen,
9 no.

10 Q Were the routine things in the inspection
11 procedures manual at that time, similar to checking the
12 particulate screen, that type of thing? Were those type
13 of procedures in the procedures manual?

14 A There was an area, department inspection, in
15 the manual, but particulate screen or flow sensor or any
16 of that was not at the time.

17 Q Okay. But it is now.

18 A It is now.

19 Q As a department inspector, you are required to
20 do these procedures during an inspection, correct?

21 A The procedures manual?

22 Q Yes.

23 A Yes.

24 Q A department inspector would not have the
25 discretion to disregard any of these procedures, would

1 they?

2 A I would sincerely think not, no.

3 Q Okay.

4 MR. BROWN: Thank you, sir. No other
5 questions.

6 THE WITNESS: Thank you, Counselor.

7 THE COURT: Nothing else. All right. Thank
8 you.

9 UNIDENTIFIED MALE VOICE: Yes, sir.

10 THE COURT: All right. We'll be -- anything
11 else we need to address by way of housekeeping
12 before we recess for tomorrow?

13 MS. MACK: Where will we be in the morning and
14 the time, please?

15 THE COURT: We'll find out for you.

16 MS. MACK: Thank you.

17 THE COURT: We'll be in recess until 9:00
18 tomorrow.

19 MS. MACK: Thank you, Judge.

20 MR. HARRISON: 9:00. Yes, Your Honor.

21 (Proceedings recessed.)
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1 STATE OF FLORIDA

2 COUNTY OF COLLIER

3

4 I, Joyce B. Howell, do hereby certify that:

5 1. The foregoing pages numbered 1 through 137
6 contain a full, true and correct transcript of
7 proceedings in the above-entitled matter, transcribed
8 by me to the best of my knowledge and ability from the
9 digital recording provided by the court.

10 2. I am not counsel for, related to, or
11 employed by any of the parties in the above-entitled
12 cause.

13 3. I am not financially or otherwise
14 interested in the outcome of this case.

15

16 SIGNED AND CERTIFIED:

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18 _____ Date: August 20, 2012
19 Joyce B. Howell

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