

1           UNITED STATES DISTRICT COURT  
2           STATE OF COLORADO  
3 Civil Action No. 96-CR-68-M  
4  
5 UNITED STATES OF AMERICA,  
6           Plaintiff,  
7 vs.  
8 TIMOTHY JAMES McVEIGH and TERRY LYNN NICHOLS,  
9           Defendants.

10 -----  
11           DEPOSITION OF FREDERIC WHITEHURST, Ph.D.  
12           December 17, 1996  
13           VOLUME II  
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1 PURSUANT TO AGREEMENT, the deposition of  
2 FREDERIC WHITEHURST, Ph.D., called for examination by  
3 the Defendant, Terry Lynn Nichols, was taken at the

4 United States Courthouse, Denver, Colorado, on the  
5 17th day of December, 1996, at the hour of 9:01 A.M.,  
6 before Bonnie Carpenter, a Notary Public and Certified  
7 Shorthand Reporter in and for the State of Colorado  
8 and a Registered Professional Reporter.

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2 FREDERIC WHITEHURST,

3 called as a witness for examination under the Rules,

4 having been previously duly sworn according to law, was  
5 examined and testified on his oath as follows:

6 MR. KOHN: Just as a preliminary remark.

7 Dr. Whitehurst, I don't think, got any sleep last

9 forward and if he -- I've told him that if he thinks  
10 his flu is interfering with his ability to testify  
11 here, he's just to let me know and we'll go and see if  
12 we can proceed.

13 MR. JONES: I really appreciate that and I  
14 wish I could stay and help you all, but I'll leave.

16 THE DEPONENT: I haven't a clue, sir.

17 MR. JONES: Just kind of blow them that way,  
18 would you? Just look at Jim Maddock.

19 MR. MADDOCK: I've already had it.

20 MR. KOHN: But he says he's ready to begin.  
21 Let's just hope we can get this over with. I just

23 MR. HARTZLER: You've met with him this  
24 morning and spoken with him, and you have no basis to  
25 believe that there's any problem with his testifying

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1 today? He'll let you know if there is?

2 MR. KOHN: As of now. I told him if the  
3 fatigue wears him down, just to let me know and we'll  
4 talk.

5 MR. HARTZLER: You placed on the record that  
6 we're relying on his judgment and I'm suggesting that  
7 we're, as well, relying on your judgment. Your  
8 judgment is we may proceed without problems?

9 MR. KOHN: Correct. And if I had a counter-  
10 indication, I would, you know, ask that we postpone  
11 the deposition, but, as of now, I think we can go  
12 forward.

13 EXAMINATION

14 BY MR. WYATT:

15 Q Dr. White, I introduced myself to you  
16 yesterday. I'm Bob Wyatt. I'm one of the attorneys  
17 for Timothy McVeigh and I'm going to attempt not to  
18 re-cover ground covered yesterday. I think, by  
19 necessity, on occasion, we'll have to do that because  
20 I'll have to make references to things that I would  
21 like to flesh out a little more than Mr. Tigar did for  
22 whatever purpose. That doesn't matter, but I will  
23 attempt to avoid overlap where possible.

24 But there are a lot of other areas that I  
25 would like to address and most of these, again, as

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1 Mr. Tigar indicated, are addressed in the materials  
2 that have been provided to us either through the OIG,  
3 through your Henthorn file or through other material  
4 that has been provided to us by the Government.

5 Yesterday, you told us a little bit about  
6 the hierarchy in the laboratory, in the trace analysis  
7 laboratory. And by "trace analysis," I'm referring to  
8 the explosives lab. Is that fair?

9 A Actually, the explosives unit is not where  
10 trace analysis takes place.

11 Q Okay.

12 A The materials analysis unit and the  
13 chemistry/toxicology unit and hairs and fibers are  
14 where -- or the microscopy unit are where trace  
15 analysis takes place.

16 Q And was that true when you first entered the  
17 Bureau as a laboratory examiner in 1986?

18 A Yes.

19 Q Okay. Would the -- would the chem/tox unit  
20 then be the unit that you were assigned to in 1986?

21 A No, it was not. The materials analysis unit  
22 is where I was assigned to.

23 Q Let's start there then. Would you describe  
24 for me what the hierarchy in the material analysis  
25 unit was in 1986 when you arrived there.

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1 A Yes. The unit chief's name was Charles  
2 Calfee. That's with a C. I think it's f-e-e. There  
3 were a number of disciplines that were housed in the  
4 materials analysis unit. And there were examiners of  
5 evidence that were in those separate disciplines where  
6 each -- each examiner had his own area of expertise.  
7 And then there are chemists that work generally for  
8 either one examiner or a number of examiners and then  
9 there are technicians or they are called physical  
10 science technicians.

11 Q Could you tell me which disciplines were  
12 maintained under the materials analysis unit?

13 A Paints, paint analysis, tape analysis, some  
14 plastic analysis essentially was done in -- it's  
15 called polymer analysis. Explosives -- and explosive  
16 residue, chemical analysis, cosmetics, some oil, some  
17 petroleum products.

18 Q Would that be for petroleum distillates that

19 were discussed yesterday?  
20 A Yes. But particular ones.  
21 Q Any other disciplines?  
22 A That was what I believe existed -- no.  
23 Building products wasn't there. I believe those are  
24 the ones that were in the materials analysis unit at  
25 the time. I may have -- I don't remember any others.

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1 Q You mentioned that the CTU or the chem/tox  
2 unit was where the trace analysis was performed at  
3 that time; correct?  
4 A No. Trace analysis was performed in a  
5 number of units. CTU, MAU and the microscopy or hairs  
6 and fibers unit.  
7 Q I misunderstood you a moment ago. So any  
8 type of explosives residue analysis that would have  
9 been conducted in 1986 and I guess during your entire  
10 tenure with the explosives unit would have been done  
11 under the auspices of the MAU?  
12 A Actually, there was a -- there was some  
13 materials that the CTU apparently were working on and  
14 those were smokeless powder materials. That's gun  
15 powder that goes in your -- we were doing it and they  
16 were doing it and there was some confusion about who  
17 was supposed to do it.  
18 Q Now, this hierarchy that you have  
19 established for us and described, would that have been  
20 in place the entire time you were with the explosives  
21 unit?

22 A Well, I was with the materials analysis  
23 unit. I wasn't with the explosives unit.  
24 Q I apologize.  
25 A No. Things changed. Minerology was brought

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1 in under the materials analysis unit early on. I  
2 think within a year after I got there, I believe. And  
3 glass analysis. And then later on -- let's see --  
4 we -- the whole elemental -- by the way, I missed that  
5 unit. In 1986, there was an elemental analysis unit.  
6 And the -- that -- the unit chief went away and the  
7 elemental analysis was assigned then to the materials  
8 analysis so that they could -- there would only be one  
9 unit chief. And then recently, explosives, paints,  
10 plastics, tape, cosmetics, and the petroleum materials  
11 were assigned out of materials analysis unit over to  
12 the chem/tox unit.

13 Q Do you know the basis for that?

14 A There were too many disciplines -- according  
15 to Mr. Corby, there were too many disciplines under  
16 the materials analysis unit chief and the -- the  
17 information that went around was that because these  
18 materials were organic materials, that they would be  
19 assigned and we'd have a one-stop shopping type  
20 situation in the chemistry/toxicology unit.

21 Q When you mentioned that they were organic  
22 materials and that's why they were assigned to the  
23 chem/tox, would explosives-related residues be organic  
24 materials?

25 A No. And in reality, neither are paints, not

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1 necessarily plastics, tapes or whatever. In reality,  
2 what we're talking about is complex matrix analysis.  
3 But when you look at a paint, when you look at a tape,  
4 the first impression you get is, you know, there's  
5 plastic there. That's organic material. It's a -- in  
6 my opinion, it's a misunderstanding of the role of the  
7 different units. But again, that is simply my  
8 misunderstand -- I mean, excuse me, my opinion.  
9 Anyhow ....

10 Q So what you've just described to us is how  
11 things stand today? The reorganization? Would that  
12 be fair?

13 A Yes. That's correct.

14 Q Could you describe for us exactly what the  
15 explosives unit is today if you know.

16 A Yes. The explosives unit is composed of a  
17 number of examiner agents and then a number of  
18 technicians. There's a unit chief and I -- I don't  
19 know how many agents. There's also under the -- the  
20 umbrella of explosive unit is now the bomb data  
21 center.

22 Q What is the function or role of the bomb  
23 data center?

24 A I believe it's education. It has an  
25 educational training role. Information-gathering

1 role. I think there's three or four agents assigned  
2 to it. I'm not sure how many. I know that -- two of  
3 the people -- I think there may be one or two more  
4 agents assigned to it and then some support staff.

5 Q I've seen reference in materials that the  
6 bomb data center may have also collected samples for  
7 contamination testing. Are you aware of that?

8 A No. When Mr. Kearny, my section chief,  
9 advised us we were going to do contamination studies,  
10 I consulted with a member of the bomb data center,  
11 Dave Jernigan, and a member of the explosive unit, Bob  
12 Heckman, and Jernigan and Heckman and my technician,  
13 Kelly Hargadon, now Kelly Mount, were assigned the  
14 task of -- the overall task of the contamination  
15 study.

16 Q Is that a formal study that was to be  
17 conducted in the lab?

18 A Well, it wasn't going to be just in the lab.  
19 We were trying to determine the national background  
20 problem of contamination. We get evidence from bomb  
21 crews all over the country and we were trying to  
22 figure out the reliability of a -- of, you know,  
23 our -- our data. Was it a contamination issue or not.  
24 And so we were going to -- that was the proposal. We  
25 were going to go out to bomb collection units all over

2 Q When you were referring to background

3 studies, is that similar to the information you were  
4 talking about at the Murrah Building yesterday when  
5 you asked the question how far away from the building  
6 do you go to determine whether there's background  
7 noise there?

9 to go out and swab the immediate environment of bomb  
10 crews all over the country. You know, for instance,  
11 we'd go to a -- the metropolitan police department of  
12 city X, can we go talk to your bomb guys, can we go in  
13 and take swabs from the area they work in, from their  
14 hands, can we determine is there a real issue with  
16 done this and we were going to try.

17 Q You listed for us within the explosives unit  
18 a number of examiner agents, technical assistants, and  
19 the unit chief. Are there any other categories of  
20 employees within that unit?

21 MR. HARTZLER: Well, I object. I thought  
22 his knowledge was limited. I thought your -- perhaps  
23 you had exhausted your knowledge of the explosives  
24 unit.

25 A Well, there's -- there was a secretary

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1 there. I apologize. I didn't mention the secretary.

2 But I -- I don't know anybody else.

3 Q (BY MR. WYATT) Okay. Let's go to the  
4 paint analysis unit. Can you describe for me what  
5 would be the type of personnel in that unit.

6 MR. HARTZLER: I object on relevance  
7 grounds. Mr. Wyatt, just so you know, obviously,

8 we're not going to elicit paint analysis testimony  
9 from the FBI laboratory in this case.

10 MR. WYATT: Fair enough.

11 A The personnel that conduct paint analysis  
12 are examiners of paint and chemists and technicians.  
13 There's also an individual that maintains the national  
14 automotive paint file.

15 Q (BY MR. WYATT) Is there a section chief or  
16 unit chief?

17 A Paint analysis is under a unit and for 30  
18 years -- about 30 years, it was in the materials  
19 analysis or instrumental analysis unit. That's the  
20 old name of it. Now it's in chemistry/toxicology.

21 Q So their unit chief would be whom?

22 A At this point, it's Roger Martz.

23 Q And would that be true the entire time of  
24 the Okbom investigation?

25 A No. No. At that time, it was James Corby.

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1 Mr. Corby retired December of last year and that's  
2 when paint went over to chem/tox.

3 Q All of these units that you've described for  
4 us, do they operate out of headquarters in Washington,  
5 DC?

6 A The bomb data center, for many years, was  
7 out of Quantico, if I remember correctly. And then  
8 when it was consolidated with -- with the explosive

9 unit, it went downtown and now it's out of  
10 headquarters. The other ones were out of and still  
11 are out of headquarters.

12 Q To your knowledge, was all of the  
13 examination in the explosives unit related to the  
14 Oklahoma bomb case conducted in headquarters in  
15 Washington, D.C.?

16 A I don't know if all of it was.

17 Q Would the only other lab -- FBI lab capable  
18 of doing that type of work be at Quantico?

19 A That I'm aware of, yes. Let me interject  
20 something. Part of the examination process is field  
21 sampling. And of course, field sampling wouldn't take  
22 part, you know, at FBI so that is an aspect of the --  
23 of the examination that would have taken place at the  
24 crime scene.

25 Q Without getting into the design of the

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1 building or where things are located, where units are  
2 located within the building, could you describe for me  
3 the proximity of the bulk explosives to the trace  
4 analysis areas.

5 MR. MADDOCK: You can answer.

6 A They are all in the same place.

7 Q (BY MR. WYATT) When you say they are in  
8 the same place, in the same general area within the  
9 building?

10 A Some bulk explosives on the basement -- stop  
11 me if I --

12 MR. MADDOCK: Yeah. Can we just take a  
13 little time-out?

14 (There was a recess taken from 9:19 a.m. to  
15 9:21 a.m.)

16 A Can you give me that question again, sir.

17 Q (BY MR. WYATT) Okay. The question was:  
18 I'd like for you to describe the proximity of the bulk  
19 explosives, wherever they are contained or kept, to  
20 the trace analysis lab. So far, you've told me that  
21 bulk explosives may be in the basement. I don't care  
22 about a particular location --

23 A Yes.

24 Q -- within the building. I think "basement"  
25 is a fair description. I don't think that's too

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1 broad. But could you tell me the proximity of those  
2 two?

3 A There is no segregation. We -- we don't  
4 have the facility to segregate raw explosives from --  
5 from trace explosives. The --

6 Q Are there any barriers whatsoever between  
7 the bulk explosives and the trace analysis lab?

8 A We have some small standards of bulk  
9 explosive in the materials or -- well, what used to be  
10 materials analysis unit area as standards. I have  
11 seen, in years past, large amounts, but we got away  
12 from that, first for safety reasons, but then for --  
13 there's a heightened awareness that's grown up in our  
14 community of the contamination issue and we have

15 attempted as much as possible to follow the -- the  
16 design of the British. You know, the concept the  
17 British have got where they want a concrete wall  
18 between bulk explosives and people that live on the  
19 one side of the wall and never go on the other. We  
20 don't have that capability. The design of the  
21 building doesn't allow that. So we just have to make  
22 do with what we can and have a more heightened concern  
23 about contamination.

24 Q So in your opinion, as a scientist, does  
25 that increase the likelihood of contamination?

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1 A Of course, it does.

2 Q If you -- if you store things like TNT and  
3 nitroglycerine in an area, they have vapor pressure.  
4 That means they send off molecules. We know this. We  
5 have empirical data to that effect that we get from  
6 the explosive detection research that's been done.  
7 There's nothing you can do about that. Those are  
8 vapors which are being excreted not at some time that  
9 the TNT is being exploded. That is just by the mere  
10 fact that the item is here in the room.

11 A Yes. Yes. But one question, this -- I need  
12 to really get you clear about this. One of the  
13 questions that I've had is -- for instance, I have an  
14 evidence locker and I don't know what's in the  
15 explosive and I can't segregate them because we just  
16 don't have the facility. Until -- in recent times,  
17 now we've put everything in cans. That's --

18 MR. HARTZLER: Let me just interrupt you.

19 I'm sorry. I'm feeling increasingly uncomfortable

20 with an answer you made. It conflicts with my

21 understanding of something.

22 MR. WYATT: I object because that's coaching

23 the witness.

24 MR. HARTZLER: I'm not talking to him. I'm

25 just clarifying.

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1 MR. JONES: Okay.

2 MR. WYATT: I'm sorry.

3 MR. HARTZLER: I wanted to advise you so

4 that you're not misled if maybe he said something that

5 might not be --

6 MR. WYATT: Okay.

7 (There was a brief delay in the

8 proceedings.)

9 A Mr. Wyatt, I think it's important to

10 understand that I did a study myself to find out if

11 this phenomenon had taken place.

12 Q (BY MR. WYATT) You mean the vaporization?

13 A Yes. Yes. Because -- because when I store

14 the material, I don't know what's in it, I don't --

15 until I do the analysis -- and sometimes it takes

16 months or even years before I can get to the evidence,

17 I had a concern that my own evidence locker might have

18 been contaminated and I did swipes in my evidence

19 locker and found no such contamination. Had I, I

20 would have reviewed all the cases that I'd worked in

21 the past that contamination would have affected. So  
22 that's a possibility, you know, theoretically. I did,  
23 you know -- I found contamination issues elsewhere,  
24 okay. But with -- what I was saying to you, the bulk  
25 explosive separation is not -- we're not designed to

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1 deal with it right now. But if we're not, then we  
2 have to understand the extent of the problem and I  
3 looked within detectable limits. In my own evidence  
4 locker where small amounts of raw explosive could have  
5 caused this issue over a nine-year period of time,  
6 I -- I wiped and didn't see. So, you know, it -- if  
7 it were an issue, we'd have system contamination  
8 throughout the lab. Everything we wiped, we would  
9 find material on. Or that's my opinion. I -- I just  
10 haven't seen that.

11 Q You just indicated that there might have  
12 been raw samples in your locker. So can I take that  
13 to mean that raw samples of bulk explosives and  
14 specimens to be examined are both maintained in the  
15 same locker?

16 A Yes, sir. I have required of the people  
17 that send me raw explosives -- don't get the wrong  
18 idea about this -- if it's bigger than a pencil  
19 eraser, don't bring it over to my office. I don't --  
20 you do with it what you want to, but don't bring it  
21 over to my office. There's no need, with our  
22 analytical capabilities, to have more than just that

2 3 m u c h m a t e r i a l . A n d t h e y w i l l  
b r i n g i t a n d p u t i t

24 in -- in little vials with a screw top cap on it.

25 Things like C4 plastic explosive and TNT and those

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                  1      s o r t s o f t h i n g s , w e j u s t h a v e n o  
n e e d t o h a v e m o r e

2 than, you know, a very small amount.

3      MR. HARTZLER: I think I can relieve any

4 anxiety here by asking you to ask the witness to

5 clarify some of the terms you've been using. I think

6 you used raw explosives and bulk explosives and then

7 trace explosives. And I think maybe the confusion was

                  8      p e r h a p s i n m y l i s t e n i n g t o h i m a s  
t o w h e r e t h e v a r i o u s

9 things are in my understanding of what those different

10 terms mean. Would you mind just asking for that

11 clarification?

12      A I mean the same thing.

13      Q (BY MR. WYATT) You mean that trace

14 analysis, raw explosives, and bulk explosives are all

15 the same thing?

16      A No. No. The trace analysis is -- you know,

17 I get something that I've got residue on. The bulk

18 analysis, I've got a raw explosive. Bulk or raw

19 explosive, you know, it's -- it's the same -- excuse

20 me. I'm sorry I wasn't clear about that. It's the

21 same concept.

22      Q So the bulk and the raw are considered

23 synonymous?

24      A Sure.

25      Q But the trace analysis of your specimens,

1 that's an entirely different subject?

2 MR. HARTZLER: May I simply ask is the trace

3 the unknown and the bulk the known or are they all

4 unknowns?

5 A Well, they are -- trace is not necessarily

6 unknown because, you know, if it comes in on evidence,

7 it's, of course, unknown, but if we've collected it

8 from tests at the range or something, you know, we

9 know what we put into the -- into the device that went

10 off.

11 Q (BY MR. WYATT) To get us back where we

12 were --

13 MR. HARTZLER: I'm sorry. Go ahead. I

14 didn't mean to --

15 MR. WYATT: Let's go off the record for just

16 a moment.

17 (There was a discussion off the record.)

18 Q (BY MR. WYATT) Dr. Whitehurst, there's

19 some confusion here as to whether the raw and bulk

20 explosives that we've used synonymously are questioned

21 items to be tested as a specimen --

22 A They could be.

23 Q -- or whether they are standards and known

24 items that you were using to test the specimens.

25 A They could be.

1 Q Could be both.

2 A Yes.

3 Q Now, back to the question of storage in your  
4 locker. Would the bulk or raw explosives that are  
5 standards, are they maintained in the same locker  
6 where specimens of unknown items might be maintained,  
7 as well?

8 A No. My standards are maintained in a  
9 refrigerator and they are in vials. Okay. It hasn't  
10 always been that way, but they are in vials that are  
11 glass vials. There's no screw top cap on them. They  
12 are totally contained and there's no leakage through  
13 those. There's no possibility, unless you break the  
14 glass, for contamination with those. There are --  
15 those standards are of the explosive, itself. The --  
16 there are explosive systems like C4 which contains  
17 four or five things in it that I might want to compare  
18 to a future sample of a C4-like material to see if  
19 they came from the same place that we also have. And  
20 those -- again, this much. I don't need any more than  
21 that. (Deponent indicating.)

22 Q And you're referring to the size of an eraser  
23 or the end of an ink pen?

24 A That's correct. We just don't need a lot of  
25 raw explosive to -- we have had occasion where raw

1 explosive comes in and a certain amount of it came

2 over to the lab and, you know, I -- I objected to it  
3 being there and it went away. Explosives gave me a

4 little bit and took it back to the explosives area.

5 Q So earlier, when you testified that raw or  
6 bulk explosives may have been maintained in the same  
7 locker as specimens, you were referring to unknown  
8 items to be tested with respect to all three of those?

9 A Yes.

10 Q Not standards?

11 A Yes.

12 Q Okay. With regard to the swipes that you  
13 took to test your locker for contamination, what were  
14 the detection limits?

15 A We were using GC chemiluminescence. We were  
16 in the low picogram level with that.

17 Q How was it standardized?

18 MS. WILKINSON: I'm sorry?

19 A How is the instrument standardized?

20 Q (BY MR. WYATT) Yes.

21 A I just have an understanding of the  
22 instrument. There's a -- there is a standard that we  
23 get from the -- the instrument manufacturer that we --  
24 you know, I'm -- I accept his standard. And it says,  
25 you know, the concentration of this is X or Y or Z or

1 whatever. There's about six materials in that  
2 standard and we don't -- we do not do a quantitative  
3 analysis. But the -- the standard is supposed to be  
4 of a particular concentration and I accept that  
5 concentration. I have not traced that concentration  
6 down with -- you know, with an NIST standard or with  
7 an extensive research project.

8 Q Is there a separate magazine where bulk  
9 explosives for standard purposes are kept?

10 A I understand there's a separate magazine  
11 where there are explosives that's in the building. I  
12 only know of two standards that are there in that --

13 in that -- but I don't go down to that area myself.  
14 It's an explosives unit area.

15 Q And what is the proximity of that magazine  
16 to the trace analysis lab?

17 A It's three -- three or four levels down.  
18 Three or four floors of the building down.

19 Q And is it on a different side of the

20 building or anything of that nature?

21 THE DEPONENT: Jim?

22 MR. MADDOCK: It's okay.

23 A It's really essentially in the center of the  
24 building underneath the ground.

25 Q (BY MR. WYATT) Would the trace analysis

1 lab be either directly below or directly above the

2 magazine?

3 A No.

4 Q Okay. I understand from representations of

5 the Government that the laboratory has neither a

6 positive nor a negative pressure in the explosives

7 unit or the trace unit at the FBI laboratory. Can you

8 describe the ventilation system that's used there?

9 Are you familiar with it?

10 A Yes, sir, I am.

11 Q Can you describe that for us.

12 A Yes. I have been very active with

13 facilities management in association with that

14 ventilation system. It's outside air that comes from

15 the roof and blows directly into the -- into the lab

16 and comes through -- it comes through aluminum, the

17 inside of the aluminum -- what do you call these

18 things, channels or ducts is insulation -- that's

19 where the insulation is. Okay. And it comes down and

20 then the out-take of the air is in our laboratory

21 right above the cellotex. It's not like the air comes

22 in one duct and goes back out of another duct. What

23 happens is the air comes in one duct and it comes back

24 and is sucked above and the whole area above the

25 cellotex, the false ceiling, is where the stuff goes

1 back out of the building.

2 Q So what you're saying is that all of the  
3 incoming air into the trace analysis lab is outside  
4 air that is not associated with any other part of the  
5 building?

6 A Well, I don't know that. I know the fellow  
7 that handles that facility and I deal with it and he's  
8 a personal friend. And I think there's a mix --  
9 mixing of -- I'm outside my area of expertise. In  
10 talking with him, I'm of the opinion that there's a  
11 mixing of air, but I can't -- you'd have to nail that  
12 down elsewhere.

13 Q Based on what he has told you and your  
14 understanding of it, what do you mean by "mixing of  
15 air"?

16 A I -- we really shouldn't explore that any  
17 further. You know, I just --

18 Q Has he told you something about it?

19 A I'm -- you know, I'm outside my -- okay.  
20 Sure. You know, if you brought all the air from the  
21 outside, it would be -- in the wintertime, it would be  
22 too cold. In the summertime, it would be too hot. So  
23 you have to mix it with something that's already in  
24 the building and that's what I understand. But other  
25 than that, I -- the only lines that I've really

1 followed that I had experience with following were  
2 back a few years ago and they -- they -- they come

3 from the upstairs and I don't know how the mixing  
4 takes place.

5 Q Has the FBI lab conducted any studies to  
6 determine whether the ventilation system could  
7 contribute to contamination in the trace analysis unit  
8 or laboratory?

9 A Yes, I did. And the contamination issue was  
10 a lead contamination issue.

11 Q Is that all that you were looking for was  
12 lead contamination?

13 A We were looking for heavy metals.

14 Q Would that exclude finding traces of  
15 explosive residues?

16 A We did not explore that issue.

17 Q As an expert in bomb residue analysis, is  
18 that an issue that you are aware of from international  
19 symposia?

20 A Yes, sir. We know that we need a positive  
21 pressure environment there. In 1987, Rod Asbury, my  
22 unit chief, tried to design a positive pressure  
23 environment in the materials analysis unit which was  
24 going to cost us about \$250,000 to put in and we  
25 just -- we never could get it -- you know, it never

1 happened and we've been -- we've tried now for two or  
2 three years to get a positive pressure environment.  
3 For whatever reason, it just doesn't materialize.  
4 We'd like a clean room or whatever and we've -- you  
5 know, we've gone and talked to people. But it just

6 hasn't -- hasn't been accomplished.

7 Q Okay. So you're not saying it's an  
8 engineering problem? It's more of a financing problem  
9 or budgeting problem?

10 A I -- I don't know that, sir. I know  
11 Mr. Asbury did a -- you know, an extensive study. Was  
12 going to enclose our whole instrument area, put it  
13 into positive pressure and put a false floor in and  
14 his concern was -- there is a thoroughfare through the  
15 lab and he wanted to get that thoroughfare isolated  
16 and that was 1987. And Mr. Asbury went away. He was  
17 reassigned. And the project went down and there's  
18 been sort of efforts every once in a while since then.  
19 In fact, there's an effort ongoing right now that  
20 Monica Knuckles -- Monica Knuckles is working with --  
21 through our health services people to get a clean  
22 room, just a small thing, so, you know, but we just  
23 haven't accomplished it.

24 Q And to your knowledge, is this any  
25 information or data that the bomb data center would be

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1 examining?

2 A No, sir. I -- I wouldn't see that. They  
3 might, though.

4 Q What is the significance for analyses  
5 purpose -- what is the significance of the positive  
6 pressure lab?

7 A The significance is to increase the  
8 reliability of our -- of our opinion that this

9 material came off the explosive -- I mean, off the --  
10 the piece of evidence as opposed to in the air or  
11 whatever. Along these lines, I -- I had a cardboard  
12 box. I did a -- a -- a study with dynamite back a few  
13 years ago and what we did was to blow things up. Blow  
14 dynamites up close to some jeans, blue jeans and then  
15 just keep them for a number of years and see how long  
16 the oils would stay on the -- on the dynamite (sic).  
17 And I guess about six or eight months ago, I  
18 took the box down and as I was doing my analysis --  
19 this thing was a box stored up on the overhead. That  
20 was just a big golly-whopping signal for PETN.  
21 There's no -- it hadn't been there before. I haven't  
22 a clue as to how it got there, but it's -- you know,  
23 that's been stored up on the overhead.  
24 It's another thing that heightens an  
25 awareness about -- about, you know, where did the PETN

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1 come from. PETN is a fine dust. But I wouldn't know.  
2 It just wasn't there before.  
3 Q Could you tell me again when was the -- when  
4 was that experiment conducted?  
5 A I think -- I think we blew up the -- the  
6 dynamite in 1991 or '92 and then kept that evidence --  
7 or that -- you know, the witness material for four  
8 years.  
9 Q So 1996?  
10 A Sure. I'm not -- you know, I'd have to look  
11 at my records. It might have been 1991 through 1995.

12 Q Is it -- go ahead.

13 (Mr. Kohn conferring with the deponent.)

14 Q (BY MR. WYATT) Is it your opinion as an  
15 explosives residue expert that a positive pressure lab  
16 should be used in this type of atmosphere?

17 A Yes, sir. If at all possible. Sure.

18 Q You said that that increases the  
19 reliability. Is there any percentage increase or  
20 decrease in the rate of air?

21 A You know, it would -- it would tend to  
22 increase the reliability. Another way of looking at  
23 that is if you do a background study and find out  
24 where there's contamination and make sure when you  
25 bring evidence in that you handle it in a particular

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1 way, you know, we have limitations in the building  
2 that we're in. We can work around those limitations,  
3 so I can't talk about, you know, a percentage of  
4 increasing reliability. If an explosives examiner has  
5 stuff coming in a can, it's all closed. And he has an  
6 understanding of everything that's touched that and  
7 during his time, he takes it out, he does his -- now  
8 he's got his gloves on and he does his analysis and he  
9 puts it back in and things seal up pretty quickly, you  
10 know, it reduces the possibility there's been any  
11 contamination. Personally, I -- I would question -- I  
12 hadn't even thought about the fact that we might mix  
13 air from another -- another, you know, area, but I  
14 would question that there was a great possibility of

15 contamination coming out of the air ducts for organic  
16 explosives. We live in Washington, D.C. and it's not  
17 a common thing in the air, I would hope, you know.  
18 And you know, there's not explosives in our air duct  
19 system. People haven't put blocks of explosives. But  
20 in reality, a positive pressure environment is -- is  
21 what just settles the question.

22 Q Would you expect any inorganic explosive  
23 residues to be in the air in Washington, D.C.?

24 A Things like ammonia, nitrates, that sort of  
25 thing, could -- we tested some -- some garages, some

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1 swipes off garages in New York City one time and found  
2 you get ammonia ions and nitrate ions showing up just  
3 from swipes off walls where there's been no bomb at  
4 all. And, you know, if you read the environmental  
5 literature, you could see that those kinds of things  
6 might cause an issue.

7 Q You mentioned the thoroughfare through the  
8 lab just a few moments ago and you mentioned it  
9 yesterday, as well. Are you referring to the same  
10 thoroughfare through the lab?

11 A Through the materials analysis unit lab,  
12 yes.

13 Q I believe also, yesterday, you described  
14 that as having carpeting?

15 A Yes, it does.

16 Q Does the fact that that is carpeted as  
17 opposed to having tile or concrete or something of

18 that nature -- would the texture of the floor increase  
19 the likelihood of contamination?  
20 A I think what it does, it -- what bothers me  
21 about it is you can't just -- you can't mop it. You  
22 can't clean it. You can't make sure that -- you  
23 can't. You vacuum it. And we know that explosives  
24 are sticky. We know that EGDN and nitroglycerin stick  
25 to cloth, can stick around for -- we now know, for

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1 years. The Canadians have got information they can  
2 find it after ten years. And there's absolutely no  
3 purpose for this. You simply raises an issue of well,  
4 when the guys from explosive unit came out of the area  
5 where we were storing bulk explosives or came from the  
6 bomb range and came walking through our area, if they  
7 contaminated that carpet, you know, the -- the  
8 maintenance staff at night cannot come through and  
9 clean that carpet. They can't come through and clean  
10 it with water or something to take it off. It just is  
11 preposterous, in my opinion, to have it in there.

12 Q Is the entire trace analysis laboratory  
13 carpeted?

14 A No, sir. No, sir.

15 Q Just the thoroughfare?

16 A There is part of the thoroughfare -- we have  
17 a national automotive paint file that it's just a  
18 bunch of paint panels and when you walk through the  
19 materials analysis unit area, when you walk through  
20 that area, you immediately start or -- very quickly

21 thereafter start walking on this blue carpet and it  
22 goes until, I guess, about 20 feet. And then it --  
23 it's some -- it was to make the laboratory that -- the  
24 rationale was it -- you know, it made it look better  
25 or it was -- you know --

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1 Q More aesthetically pleasing?

2 A When visitors came through, it was more  
3 aesthetically pleasing.

4 MR. MADDOCK: Can I just take a time-out  
5 here and talk to him?

6 (There was a recess taken from 9:48 a.m. to  
7 9:50 a.m.)

8 A I need to clarify something. The trace  
9 analysis area includes chem/tox, elemental analysis,  
10 microscopy unit and what is the materials analysis  
11 instrumental area that -- a lot of is not only  
12 chem/tox. There's a number of rooms there that have  
13 got instruments in them. The room where we deal with  
14 trace analysis of explosives has got this carpet in  
15 it. That area. The people that come through that  
16 area are not tourists. We do have a tour route and  
17 you go around the tour route. They are not tourists.  
18 Okay. They are people that work in the building or  
19 contractors or whatever that are going through. It's  
20 a thoroughfare to get from one side of the building to  
21 the next for FBI employees.

22 Q (BY MR. WYATT) Are the four units that you  
23 described just then all set forth in separate rooms?

24 A Chemistry/toxicology took over a lot of the  
25 capability of the materials analysis unit, so chem/tox

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1 has three or four rooms -- three or four rooms and  
2 materials analysis and chem/tox have to share one of  
3 those rooms and materials analysis has three or four  
4 rooms.

5 Q Now, today, the explosives are all tested  
6 under the auspices of the chem/tox unit?

7 A Yes. That's correct. Uh-huh. There is  
8 a -- you're right about that. Our new trace -- there  
9 is a new trace area that's an old office. I don't  
10 think it's relevant to this. It does have carpet on  
11 it, but it's not -- this is a new thing that would not  
12 affect this matter so it's -- it's really irrelevant.

13 Q Would testing or any ongoing analysis of  
14 data or specimens in the Oklahoma City bombing be done  
15 in this new area that you just mentioned?

16 A Equipment to do that testing is in the new  
17 area. I don't know -- I'm not in that -- I don't do  
18 that anymore and so I -- I have seen explosive residue  
19 testing in that new area and raised that issue, but I  
20 don't know about Oklahoma City testing.

21 Q Is that entire area carpeted?

22 A Yes, it is.

23 Q What instruments are in that area?

24 MR. HARTZLER: I'm sorry. Your  
25 suggestion -- we're going to spend some time on this.

1 Your suggestion is there's going to be additional  
2 chemical analysis that's going to be done?

3 MR. WYATT: I don't know if there is or not.

4 MR. HARTZLER: Well, I don't know that there  
5 would be. What are we thinking of? You can pursue  
6 the questioning, but I don't know that we're going to  
7 do additional chemical analysis in particular. I  
8 can't imagine.

9 MR. WYATT: Do you know, Mr. Hartzler,  
10 whether any testing has been done in that laboratory  
11 on this case?

12 MR. HARTZLER: I thought you were talking  
13 about --

14 MR. WYATT: That area of the trace analysis  
15 lab. Do you know if any specimen in this case has  
16 been examined in that laboratory?

17 MR. HARTZLER: In that new area?

18 MR. WYATT: Yes.

19 MR. HARTZLER: Oh, yeah. You mean with a  
20 positive result? You mean something that came up with  
21 a positive result?

22 MR. WYATT: Maybe, maybe not.

23 MR. HARTZLER: Okay. Well, maybe we can  
24 establish the time that this new area was established.  
25 That might help.

1 MR. WYATT: That's fair.

2 Q (BY MR. WYATT) When was that new area  
3 established?

4 A I think it's been within the last six  
5 months, but that would be something you'd have to ask  
6 Mr. Martz.

7 Q Okay. And then my original question was  
8 what instruments are actually maintained in that new  
9 area of the trace analysis lab?

10 A I've seen small mass spectrometers, ion  
11 mobility spectrometers. I don't know what else is  
12 there.

13 Q Okay. In the other portion of the trace  
14 analysis lab where carpeting runs through the  
15 thoroughfare, what instrumentation is in direct  
16 proximity with that carpeting?

17 A What is direct proximity, sir?

18 Q Five feet, ten feet, fifteen feet. What is  
19 a proximity that you as a scientist would feel  
20 concerned about?

21 A Two miles. I don't think carpet should be  
22 in a trace analysis lab at all.

23 Q Okay. Can you tell me then what  
24 instrumentation is in that room.

25 A Two pyrolysis GC mass specs, an x-ray powder

1 diffractometer, two GC chemiluminescence, Egis  
2 detectors.

3 Q That's the same -- Egis is the same as GC  
4 chem?

5 A That's correct.

6 Q Egis is a brand?

7 A Yes. A GC. That's a gas chromatography  
8 infrared mass spec unit. A high performance liquid  
9 chromatograph.

10 Q That's HPLC?

11 A Yes. HPLC. Another GC chemiluminescence,  
12 not an Egis detector. A gas chromatograph. A high  
13 performance liquid chromatography unit with a  
14 conductivity detector on it. A high performance  
15 liquid chromatograph with a UV visible detector on it.  
16 A high performance liquid chromatograph is for size  
17 exclusion chromatography.

18 Q Size exclusion --

19 A Chromatography. That's to detect and --  
20 that's set up to detect sugar in explosives. A high  
21 performance liquid chromatograph with a UV visible  
22 detector on it.

23 Q I believe you mentioned that once already.

24 A No. These are -- these are different rigs  
25 because we have different -- different things we do

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1 for explosive residue. And a gel permeation  
2 chromatograph.

3 Q Gel permeation --

4 A Chromatograph. Those are the instruments  
5 that are in that room.

6 Q Now, again, this is back to the touchy area  
7 of tours. Other than personnel at the lab,  
8 maintenance people, cleaning crews, who would have  
9 access to the trace analysis laboratory?

10 A At this point, it's shut down tight. It's  
11 shut down tight.

12 Q When you say "at this point" --

13 A We don't -- we don't -- there's a -- a  
14 specific directive there are not going to be tours  
15 through that laboratory.

16 Q When did that directive come down?

17 A I don't know. You'd have to -- you'd have  
18 to -- I guess within the last six months.

19 Q So since the Okbom analysis began? After  
20 it --

21 A Yes.

22 Q After it had begun?

23 A Yes.

24 Q Possibly as much as a year into that  
25 analysis?

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1 A I -- April 1995. I don't know that.

2 (Mr. Kohn conferring with the deponent.)

3 A There is documentation that establishes  
4 that, sir.

5 Q (BY MR. WYATT) Where would that type of  
6 documentation be maintained? In a lab manual?

7 A I've seen it on our bulletin board.

8 Q Is there some standard location where the

9 official directive would be maintained?

10 A I don't know that, sir.

11 Q I believe that, yesterday, you mentioned  
12 that on that thoroughfare that we've discussed today,  
13 not in the new area, but in the old area, that there  
14 were tours that included dignitaries, military and  
15 others.

16 A I didn't say that, sir. But that's correct.

17 Q Would that be logged somewhere as to what  
18 tours were given and who was present?

19 A I -- I don't know that. There's another --  
20 I'm not being complete about this when I think about  
21 it. There's another area where all the tourists that  
22 go through the tour route come out into the laboratory  
23 area and go down a hall and then go back into the tour  
24 route. And that's outside the explosive unit area.  
25 So I don't know how many tourists we have come through

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1 a day, but, you know, I think it's in the hundreds of  
2 people. And they have to go out. They are -- they  
3 don't go through the lab. They go down a hallway. We  
4 all use the same hallway and the -- they come out and  
5 that's still going on.

6 Q Do you know if there is any testing for  
7 contamination done after those tours?

8 A I've never done it. I'm not aware of it.

9 Q And that was not standard operating  
10 procedure at the trace analysis lab while you were  
11 there?

12 A I've never seen it done.  
13 Q If we can move into the classification of  
14 items for a moment, I'd like to go over that. What is  
15 your definition of a Q item?  
16 A Evidence comes in and somebody wants to  
17 ask -- there's Q's and K's that we deal with.  
18 Q Are there AS for also submitted?  
19 A Yes. That's right. When somebody wants to  
20 ask a question about an item, it's not written in  
21 stone. You can have an item come in that's a known.  
22 You still want to ask something about it. But we --  
23 if you know this is like a standard might be a known  
24 or something that was taken from a known place, it --  
25 it's really -- really not very -- really not very much

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1 written in stone. Somebody's Q may be somebody else's  
2 K.  
3 Q Would there be instances then where a  
4 particular single item would receive both a Q and a K  
5 number?  
6 A I've never done that. I -- I can't imagine  
7 unless you -- you know, you have some idea where that  
8 would be.  
9 Q Do you believe that that would be a  
10 violation of protocol if that was occurring?  
11 A No, sir. No, sir. I -- I can't imagine the  
12 circumstances -- the Q and K classification is a very  
13 loose classification. Not very loose, but it's a  
14 loose classification and in the past, we've discussed

15 it. It's kind of a -- well, who cares. There's the  
16 items of evidence and we compared this to this. I  
17 can't see that would be an issue. If there's some --  
18 you know, if there's some issue there, it's not  
19 something I'm aware of.

20 Q What about also submitted items? What is  
21 your definition of an also submitted item, an AS item?

22 A Those are things that we're not going to do  
23 any tests on. Photographs. That sort of thing.

24 Q If testing is done on an AS item, would it  
25 be given a Q or K number?

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1 A I haven't had to deal with that, you know.  
2 I have no experience with that.

3 Q Is there a procedure at the FBI laboratory  
4 for handling that situation?

5 A I don't know that there is. I've never  
6 heard about it.

7 Q Are AS items given numbers like Q1, Q2, Q3  
8 in sequence or are they just simply AS items?

9 A I've had AS1, AS2, AS3. I've never  
10 associated Q's.

11 Q I apologize. That's a poorly-phrased  
12 question. I was just using the sequence as an  
13 example. Would AS items be designated as AS1, AS2 and  
14 so on?

15 A I've done that. I've done that.

16 Q And is that standard operating procedure in  
17 the laboratory?

18 A I think it is.

19 Q So any AS items that are referenced in  
20 materials that have been provided to us in discovery  
21 should have a specific sequential number so that we  
22 can identify a particular item?

23 MR. HARTZLER: Well, I object. I mean, if  
24 he doesn't know the circumstances, he doesn't know the  
25 circumstances.

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1 A The only way I can answer that is if I had  
2 it, that's what I would do. I don't know what other  
3 people would do. Do you know?

4 Q (BY MR. WYATT) Yes. And there is no  
5 procedure that you're aware of at the FBI laboratory  
6 for addressing that issue?

7 A Not that I'm aware of.

8 Q As an expert in the analysis of explosives  
9 residues, is it your opinion that the AS items would  
10 need to be identified separately if you're going to  
11 conduct testing on them so that other experts will  
12 know exactly which items are being tested?

13 A That would make sense. If I were going to  
14 test an item, I wouldn't have given it an AS label, an  
15 also submitted label. I -- I could see where somebody  
16 might mistakenly give something an AS and then come  
17 back and say, oh, no, we want to test this. But I --  
18 you know, we're really getting into an area I've never  
19 had any experience with. I --

20 Q But my question is: As an examiner, do you

21 need to know by labeling an item exactly what that  
22 label is so that other examiners who may wish to look  
23 at that to confirm it or to test it themselves  
24 independently -- for instance, a defense examiner --  
25 would that need to be labeled so that we know that

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1 there is a specific AS item as opposed to all AS items  
2 which may come into the file?

3 MR. HARTZLER: I object to the length of the  
4 question and I think he's already answered that  
5 previously about the significance of the  
6 classification and the numbering.

7 Q (BY MR. WYATT) Do you understand my  
8 question?

9 A I understand your question. I -- I would  
10 consider it confusing to get a pile of -- of many,  
11 many items and not know which one had been tested that  
12 gave a particular result. I would consider that  
13 confusing. I can't imagine that that would happen,  
14 you know. It isn't -- it's nonsensical.

15 Q You mentioned that the classification Q, K,  
16 or AS is rather loosely based. Is there some written  
17 classification somewhere that defines what those  
18 should be?

19 A I'm not aware of any. I have, in the past,  
20 had a couple of large cases where I had hundreds, if  
21 not thousands of items and did a classification and  
22 found down the line somebody else had a different idea  
23 about how to classify. It -- those times, it was very

24 confusing to me and I raised the issue, but we didn't  
25 have a -- an established protocol for that. But

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1 that's been back in the early nineties, 1991, 1992,  
2 when I was handling those cases.

3 Q To the best of your knowledge then, is that  
4 a subjective determination made by the person who  
5 classifies the evidence?

6 A Yes.

7 Q Would that person be a scientist or a lab  
8 tech or someone who might be in a secretarial or -- or  
9 other type of administrative position?

10 A It wouldn't be a secretarial position  
11 that -- that I'm aware of. It would be a lab tech.  
12 For instance, with a case like this, the explosive  
13 unit has people like Brett Mills who does that sort of  
14 thing. In my case, I would work on a case and I might  
15 do the classification or if I were the principal  
16 examiner, my technician might do the classification.  
17 So we have either examiners or technicians do the  
18 classification.

19 Q Did you present a formal study or formal  
20 outline of why a protocol was needed to your  
21 superiors?

22 A No, sir, I didn't.

23 Q It was just discussed with them?

24 A Yes. It was -- you know, it was confusing.

25 It was irritating and I said why don't we have

1 something written in stone here.

2 Q And what was their response, if any?

3 A We just really never settled the issue. I

4 don't know if that is -- you know, is a settled issue

5 at this point or not.

6 Q Is the packaging and labeling of evidence

7 from the crime scene an important issue for you as an

8 examiner of trace -- or explosive residue?

9 A Yes.

10 Q Why is that?

11 A Packages can leak. The particular type of

12 plastic you might put around a material might leak

13 explosives. For instance, in the object we were

14 talking about yesterday that's got those crystals on

15 it --

16 Q Q507?

17 A Yes. If you packaged that wrong, by the

18 time it got to the analyst, the stuff may have scraped

19 off. You know, it's -- it is important to -- to treat

20 the evidence as if it's sacred. You know, if you

21 throw a whole bunch of stuff all in the same -- in the

22 same bag, you need to think about why you're doing

23 that.

24 Q In situations such as the Oklahoma City

25 bombing, who would be responsible for determining how

1 to package evidence at the crime scene?

2 A I think it would depend upon what you wanted  
3 to do with the evidence. If you wanted to do  
4 explosive residue analysis, Steve Burmeister would  
5 probably be the more appropriate person to decide  
6 that. He's --

7 MR. HARTZLER: I'm sorry. I thought the  
8 question was a factual question, not eliciting your  
9 views as to who the appropriate person was.

10 Q (BY MR. WYATT) I'm not particularly  
11 interested in the person as much as the title or their  
12 background such as a lab tech, a chemist, a scientist.  
13 What type of person would need to make that  
14 determination of the type of packaging?

15 A There is --

16 MR. HARTZLER: I'm sorry to interrupt.

17 A There is no particular --

18 MR. HARTZLER: Pardon me. Are you asking  
19 him who does it?

20 MR. WYATT: No.

21 MR. HARTZLER: Who did it?

22 MR. WYATT: Let me just start over.

23 Q (BY MR. WYATT) It's my understanding that  
24 the FBI issues equipment to people gathering the  
25 evidence at a crime scene. Is that a fair statement?

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1 A I think that's a fair statement.

2 Q And that equipment might include gloves, it  
3 might include rakes, shovels, plastic bags, paint

4 cans, things of that nature?

5 A Yes.

6 Q Somebody at the crime scene has to determine

7 how a particular item is packaged, whether that's in a

8 teflon can, a plastic bag, and I understand there are

9 different types of plastic bags. Who makes those

10 types of determinations?

11 A Nobody in particular. In my experience,

12 it's nobody in particular.

13 Q So any particular person who is assigned to

14 a particular crew who is gathering evidence could make

15 the determination of how to package?

16 A In my experience, that's what's happened.

17 Q There is no protocol then that is a standard

18 protocol for the packaging of explosives evidence?

19 A I believe that that's been established now.

20 Q When would that have been established?

21 A I don't know that.

22 Q Since you have left the explosives unit?

23 A Since I've left working on explosives, which

24 was June 14 of '94.

25 Q Do you know whether that protocol would have

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1 been established after the Oklahoma City bombing?

2 A My impression in talking to Mr. Burmeis --

3 MR. HARTZLER: I object. I mean, why don't

4 you just -- you can testify as to specific

5 conversations, but your impressions of a conversation

6 are not suppose -- are not particularly helpful.

7 THE DEPONENT: Okay.

8 MR. HARTZLER: Why don't you just tell us  
9 what he said and what you said to him.

10 A Steve recently told me that it's all in cans  
11 and I see the cans coming to his office and that's  
12 been the last three or four months.

13 Q (BY MR. WYATT) Do you know if that is a  
14 written protocol?

15 A I don't know that.

16 MR. KOHN: One second.

17 (Mr. Kohn conferring with the deponent.)

18 Q (BY MR. WYATT) We've now addressed the  
19 packaging issue somewhat. I may have some other  
20 issues on that. But now the labeling issue. Who  
21 makes the determination of how to label items located  
22 at a crime scene? For instance, a high-profile crime  
23 like the Oklahoma City bombing.

24 MR. HARTZLER: I'm -- pardon me just for  
25 interrupting. We went through this and I understood

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1 that he was saying no one, in his experience, makes  
2 the determination for the packaging and you're going  
3 on to labeling now. Would you mind just giving us --  
4 asking for -- eliciting some background from him as to  
5 what he's basing any of these views on? I'm  
6 assuming -- he already said based on my experience. I  
7 presume that having been to a crime scene, you're  
8 asking for the same sort of information now, his  
9 having been at crime scenes.

10 A Based on my experience in the lab, the  
11 technician working for the principal examiner labels  
12 the Q's and K's in the explosive unit.  
13 Q (BY MR. WYATT) The technicians working for  
14 the primary examiner? Is that what you said?  
15 A Yes.  
16 Q Or is that the principal examiner?  
17 A Principal examiner, yes. The PE.  
18 MS. WILKINSON: Can we go off the record one  
19 moment.  
20 (There was a discussion off the record.)  
21 Q (BY MR. WYATT) Thank you. We're back on  
22 the record. It's been pointed out to me that there is  
23 a distinction between the labeling at the laboratory  
24 and the labeling at the crime scene. What I was  
25 referencing at this time is labeling at the crime

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1 scene.  
2 A I don't know who in particular is -- from my  
3 experience is designated the labelings at the crime  
4 scene personally.  
5 Q And would there be a written protocol as to  
6 how to label items at a crime scene?  
7 A Not at the crime scenes, the large crime  
8 scenes I've been to.  
9 Q Could that be a significant issue for you as  
10 an examiner?  
11 A It hasn't been in the past as long as I can  
12 identify where the material came from with the

13 markings that are associated with it.

14 Q So someone has to determine at the crime  
15 scene certain markings that need to be established in  
16 order for you to understand the significance of the  
17 evidence?

18 A Or for whoever is dealing with my data to  
19 understand the significance.

20 Q So to some extent, a decision has to be made  
21 as to what has to go on the labels, what information  
22 needs to be available to the examiners?

23 A Yes.

24 Q Is there a protocol in the laboratory that  
25 establishes -- excuse me -- a written protocol that

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1 establishes what that information should be?

2 A I've never seen one.

3 Q If there are not written protocols for the  
4 packaging and labeling at the crime scene, how is  
5 there any control or quality assurance maintained by  
6 the FBI?

7 A The crime scenes that I've been to, that has  
8 not been an issue that -- if, in my mind, I felt there  
9 was a quality assurance issue, Fred Whitehurst would  
10 raise it. There hasn't been a quality assurance issue  
11 at the major crime scenes that I've been to with  
12 that -- that as a particular issue.

13 Q As an example, I believe someone had said --  
14 and it may have been you yesterday -- that there are  
15 certain types of plastic bags that are permeable to

16 certain explosive vapors or liquids, things of that  
17 nature.

18 A Yes.

19 Q So as an examiner, would you be concerned  
20 with the type of plastic bags used to contain evidence  
21 from a crime scene if it's explosives nature?

22 A Yes.

23 Q Is there a manner in which the FBI has dealt  
24 with that type of packaging problem?

25 A There is at this time, yes.

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1 Q When would that procedure have been  
2 established?

3 A It goes back to the -- the cans. And that's  
4 my -- my understanding is that's in the last few  
5 months.

6 Q That's the teflon cans?

7 A Yes.

8 Q Paint cans?

9 A Yes.

10 Q Is it the polyethylene plastic bags that are  
11 not a problem for leaking or vapors escaping or things  
12 of that nature?

13 A All of the plastic bags have a problem with  
14 leaking. The solution is either cans or there's an  
15 aluminum-lined bag that, for instance, the Canadian  
16 people use. We chose not to use that because you  
17 can't see through the bag.

18 Q I apologize. I'm showing my ignorance.

19 There is a difference, though, between certain bags  
20 used at evidence crime scenes and your typical plastic  
21 bag you get at the grocery store?

22 A I don't know that there's a difference. A  
23 polyethylene bag is a polyethylene bag.

24 Q Okay. When plastic bags are used to gather  
25 or contain explosives or -- excuse me, evidence from

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1 an explosives crime scene, how would those bags be  
2 sealed?

3 A With Ziploc and now with evidence tape.

4 Q At the time of the Oklahoma City bombing, do  
5 you know if that procedure was used?

6 A No, I don't.

7 Q In your experience, is evidence from a major  
8 crime scene, for example, the World Trade Center --  
9 because you were involved in that; correct?

10 A Yes, sir.

11 Q Does evidence typically arrive with the bags  
12 properly sealed?

13 A No, sir.

14 Q Is it a frequent occurrence that bags may  
15 still be sealed but ripped when they arrive at the  
16 explosives laboratory? In other words, the Ziploc may  
17 be sealed, but the bag may be exposed?

18 MR. HARTZLER: You're asking him about his  
19 past experience?

20 MR. WYATT: Yes.

21 MR. HARTZLER: Are you identifying a

22 particular case still?

23 MR. WYATT: No, sir. Just is that a

24 frequent occurrence.

25 MR. HARTZLER: Let me ask -- I misunderstood

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1 the last question perhaps. I thought you were asking

2 about his experience at World Trade. Did I

3 misunderstand that?

4 MR. WYATT: I did ask him that.

5 MR. HARTZLER: Now you've expanded your

6 question. I'm sorry. I don't understand. I didn't

7 follow the leap there. I didn't follow it. I'm

8 sorry.

9 Q (BY MR. WYATT) Dr. Whitehurst, did you

10 understand that I was using the World Trade Center

11 case only as an example because that's a major

12 explosives crime scene that you were involved in?

13 A Yes.

14 Q And my question, the original question, was

15 whether, in your experience, there is a pattern or a

16 frequency with which evidence arrives at the

17 explosives laboratory from major crime scenes that is

18 not in a sealed condition according to the protocol

19 you just described to me.

20 A I saw evidence in that matter that was not

21 sealed. That the bags were open. I can't tell you I

22 saw bags ripped. There were boxes and boxes and boxes

23 and boxes of evidence stacked on top of each other.

24 Just lots and lots of stuff. And sometimes the bags

25 are sealed, sometimes they are not.

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1 Q And in your experience in major crime scenes  
2 where there is a significant amount of bulky evidence,  
3 is that a pattern or a frequent occurrence?

4 A My experience is the World Trade Center so I  
5 can't talk to a pattern.

6 Q Okay. So you have a limited database in  
7 which to examine that? Do you have specific knowledge  
8 as it relates to the Oklahoma City bombing whether  
9 material arrived at the lab properly sealed in bags or  
10 containers?

11 A No.

12 Q Is there a reason why the laboratory has a  
13 protocol to have the bags sealed at the scene at the  
14 time of collection?

15 MR. HARTZLER: Did you say is there a reason  
16 why they do have a protocol?

17 MR. WYATT: Yes.

18 Q (BY MR. WYATT) Is there a reason for  
19 sealing them at the scene?

20 A Well, to stop cross-contamination.

21 Q If bags arrived at the laboratory in a torn  
22 or unsealed condition, does that raise a concern for  
23 you as an examiner of explosives residue?

24 A It could if you mix -- if I picked up a  
25 whole bunch of metal from one blast scene, the bomb is

1 the bomb is the bomb at that blast scene. I could put  
2 it all in one bucket and ask what have you got. If  
3 the bags are ripped, so they are ripped. You know, a  
4 cross-contamination -- there would be a contamination  
5 of something with itself. But if I got evidence from  
6 another facility and put them together -- you know,  
7 suppose there were a number of houses you went to or  
8 whatever -- that would be an issue with me.

9 Q Or for example, if there were evidence from  
10 more than one crime scene in your bulky evidence  
11 storage area, would it apply to that, as well?

12 A Yes. It would. Uh-huh.

13 Q And is that something that generally occurs,  
14 that more than one case that is bulky evidence in a  
15 particular storage facility?

16 A Yes. Uh-huh.

17 Q Would you say that occurs regularly?

18 A All the time I was doing evidence, I had a  
19 locker and in my locker were many, many cases.

20 Q Could you just give me some indication of  
21 the size of this locker you're talking about?

22 A It's about seven feet tall and four feet  
23 wide and maybe two and a half feet deep. It would not  
24 be the kind of place that I stored bulky evidence  
25 from -- from, say, the World Trade Center. That bulky

1 evidence was stored in a particular facility and what  
2 I wanted to look at, you know, wanted to test for  
3 residue came and if I put it into my locker, I was  
4 going to put it into my locker sealed and it wasn't  
5 going to be contaminating other evidence.

6 Q I understand that the laboratory maintains  
7 what I'm referring to as a master list of specimens  
8 which would identify the Q numbers, the K numbers,  
9 what those items are.

10 A Yes.

11 Q Is that a fair statement?

12 A Yes.

13 Q And that's standard procedure at the lab,  
14 regardless of the case?

15 A In my experience, yes.

16 MR. KOHN: Bob, let me know when it's a good  
17 time for the afternoon break. Because we've --

18 MR. WYATT: Just one moment.

19 MR. KOHN: Sure. Whatever you need.

20 Q (BY MR. WYATT) Does that -- should that  
21 master list of specimens identify where that item was  
22 originally seized or obtained by the FBI? For  
23 instance, a crime scene?

24 A I don't know that. I don't know that.

25 Q Is that something that you would be

1 interested in as an examiner?

2 A No. My interest is, you know, as an  
3 explosive residue analyst. First of all, is there

4 anything there. And I conduct the analyses.

5 What's -- the significance of what's there depends

6 upon was there contamination, how close to the lab --

7 to the bomb scene it was, those sorts of things.

8 Normally, I don't -- I don't very often get that kind

9 of information.

10 Q Okay. Is there some mechanism for tracking

11 which of those known items or question items have been

12 examined to date in a particular case?

13 A Yes.

14 Q And is that maintained in one particular

15 document or database as a general rule?

16 A If -- if I as an auxiliary examiner conduct

17 analysis, then it's in my records and when I've given

18 it back to the principal examiner's technician or the

19 principal examiner, he also maintains his record of

20 where -- you know, that it's come back.

21 Q So would that be the only place that that's

22 reflected? There would not be -- and I recognize that

23 this is a compound question. Maybe I can just explain

24 it. There would not be some master list that says

25 these Q items or K items have been examined; these

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1 have not?

2 A I have no experience with that. You know,

3 what you're delving into now is the explosive unit

4 expertise or the explosive unit protocol and so -- I

5 don't know about that.

6 Q At the time that you were in that unit, was

7 there a procedure for handling that?

8 A I wasn't in the explosive unit.

9 Q Okay. But you were in a unit that examined  
10 or performed trace analysis for explosives?

11 A Yes. Yes.

12 Q And at any given time, would you be able to  
13 identify by going to some source document other than  
14 lab notes whether those items had been examined to  
15 ensure the status of the project?

16 A There would be no need for me to. The only  
17 thing that I had a responsibility for were the items  
18 that were in -- that had been sent to me. I have, on  
19 occasion, in the past gone to the technician of the  
20 principal examiner and said, you know, what's the  
21 status of this thing because I was waiting for it.

22 You know, is so and so finished with this or this  
23 piece and they have been able to tell me that.

24 Q Just a couple more questions and we'll take  
25 the morning break. Who would be the person

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1 responsible for determining whether a particular item  
2 of evidence from an explosives crime scene would be  
3 examined in the laboratory?

4 A The individual responsible for it is the  
5 principal examiner.

6 Q And in the case of the Oklahoma City  
7 bombing, would that be David Williams?

8 A It was his responsibility. I -- I  
9 understood from talking to Brett Mills that Brett

10 Mills was actually handling that. You know Brett  
11 Mills?  
12 Q I know who he is, yes, sir.  
13 A Okay.  
14 Q And he is the lab tech; is that correct?  
15 A He was. Now he's an examiner trainee.  
16 Q But he is not a qualified examiner under FBI  
17 protocol today?  
18 A I don't know if he's been qualified yet. He  
19 was not a qualified explosives expert.  
20 Q Is there a written procedure that determines  
21 the criteria for those items that will be tested or is  
22 it a subjective determination made by the principal  
23 examiner or his assistant or designee?  
24 A I don't know that there's a written  
25 procedure -- protocol. I think it's subjective and it

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1 amounts to either his -- his opinion or else talking  
2 with other people.  
3 MR. WYATT: Okay. Why don't we take our  
4 morning break. It's 10:30.  
5 (There was a recess taken from 10:30 a.m. to  
6 10:49 a.m.)  
7 Q (BY MR. WYATT) We're back on the record  
8 now after about a 19-minute break. To follow this  
9 same line of questioning, we have talked about  
10 packaging and labeling and I believe that we've  
11 exhausted that. I want to inquire of you in the same  
12 vein how the transportation of the evidence is

13 significant to you as a laboratory examiner, if at  
14 all. Can you describe that.  
15 A Yes. If you -- if you, for instance,  
16 transport the evidence in a vehicle that's been  
17 contaminated itself, you can have transfer. So you  
18 could have a problem there. For instance, you know,  
19 if you put your material -- your evidence in the back  
20 end of a bomb truck -- you know, a bomb tech truck,  
21 that might -- or throw it up on the shelves next to  
22 the bomb tech equipment or something like that, that  
23 could raise an issue. It could raise a question. If  
24 it was in teflon-lined cans --

25 MR. HARTZLER: I'm sorry. It could raise an

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1 issue --

2 A Of contamination. Cross-contamination from  
3 the truck, itself, or from the vehicle. If you -- if  
4 you put it in -- suppose bomb techs all come to the  
5 crime scene in a sedan. They are all sitting in  
6 there. We don't know if the vehicle they are in has  
7 been contaminated. If they don't put the evidence  
8 into a can or into a container or a plastic -- an  
9 appropriate plastic bag and just throw it on the back  
10 seat or front seat of the sedan and drive it around,  
11 you know, it raises an issue of was there, you know --  
12 could there be a transfer of material from one -- you  
13 know, from the vehicle to the -- you know, to the  
14 evidence.

15 Q (BY MR. WYATT) Its ultimate destination?

16 A Yes. Uh-huh.  
17 Q And in most of these explosives type crimes,  
18 I have to assume that the evidence is coming to you  
19 from all over the country in a general sense, not as  
20 to one particular case. My point is: The  
21 transportation issue is more than just from the crime  
22 scene to some intermediate storage area. Would it be  
23 fair that that same contamination issue applies from  
24 the storage area -- for example, the Oklahoma City  
25 warehouse, whatever that warehouse might be -- to the

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1 FBI laboratory --

2 A There --

3 Q -- in Washington, D.C.?

4 A Any vector of transfer of contamination is  
5 an issue. Any -- anytime you touch that evidence or  
6 move it or whatever. Whatever it comes in contact  
7 with, you have to think that -- it doesn't mean there  
8 was an issue. It means you just have to consider was  
9 there an issue. That's all.

10 Q Is there a standard protocol in the FBI  
11 laboratory dealing with explosives evidence or  
12 evidence from explosives crime scenes for taking swabs  
13 or other control samples of the transportation  
14 vehicles?

15 A I don't know of one, sir.

16 Q Would that be something, while you were  
17 examining explosives, that you would be familiar with  
18 if it existed?

19 A Yes.  
20 Q And would that be because someone in your  
21 unit would be conducting the sampling on the swabs?  
22 A Yes.  
23 Q Are there other reasons you would be aware  
24 of that?  
25 A I was running the program.

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1 Q Okay. So at least up to the time you left  
2 in June of 1994, left that unit, there was no such  
3 protocol?  
4 A That's correct. That I was aware of.  
5 Q Do you know whether such a protocol exists  
6 today in that unit?  
7 A No, sir.  
8 Q Now, as --  
9 MR. JONES: I'm sorry. It doesn't exist  
10 or -- no, it doesn't exist or no, he doesn't know?  
11 A I don't know.  
12 MS. WILKINSON: Could you --  
13 (There was a discussion off the record.)  
14 MS. WILKINSON: Can I ask for a  
15 clarification, please, Mr. Wyatt? Were you asking  
16 whether there was a protocol for transportation that  
17 was generated from the materials analysis unit?  
18 Because I believe that's what Dr. Whitehurst said,  
19 he's not aware of one from his unit. Or were you  
20 asking for somewhere he was in the FBI that supervises  
21 evidence collection?

22 Q (BY MR. WYATT) For clarification purposes,  
23 I was asking you, in your experience, while you were  
24 an examiner in the trace analysis lab, examining  
25 evidence from explosives crime scenes, was there some

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1 type of protocol which addressed the transportation of  
2 evidence from an explosives crime scene to the  
3 laboratory?

4 A I was not aware of such a protocol.

5 Q And you understand that I'm asking you about  
6 control swabs and other quality assurance type  
7 mechanisms to ensure there's no contamination?

8 A I was not aware. I would have done the --  
9 the control swab -- I mean, I would have been the one  
10 that did it. I didn't do it.

11 Q Okay. Now, today, the explosives residue  
12 analysis is conducted under the auspices of the CTU?

13 A That's correct.

14 Q And you are involved in the paint analysis.

15 Is that also part of the CTU?

16 A No. I'm not involved in the paint analysis.

17 Q You are not.

18 A No. I was -- I was taken out of that  
19 program.

20 Q When were you taken out of that program?

21 A March.

22 Q Of '96?

23 A Yes.

24 Q Is the paint section in the CTU?

25 A Yes, it is.

323

1 Q So as an examiner, at least through -- or  
2 trainee, at least through March of 1996, would you  
3 have had access to protocols within the CTU?

4 A I still do now.

5 Q And are you aware today of a protocol that  
6 addresses the quality assurance or contamination issue  
7 relating to transportation of evidence from an  
8 explosives crime scene?

9 A No, I -- I don't know that there is or is  
10 not such a protocol.

11 Q Are you aware of whether there was one  
12 related to the paint analysis section while you were  
13 within that unit?

14 A Whether there was one what, sir?

15 Q A protocol addressing that same issue.

16 Transportation and quality assurance.

17 A No. No. Not in paint, no, sir.

18 Q You're not aware of one --

19 A I don't believe one exists.

20 Q Okay. If such a protocol exists, would you,  
21 as a scientist, expect that protocol to be in writing?

22 A Yes.

23 Q And is that something that you would  
24 consider good science?

25 A Yes.

1 Q Would failure to maintain these protocols in  
2 a written form be bad science?

3 A Yes.

4 Q Why?

5 A A protocol is the manifestation of  
6 institutional knowledge about a particular area of  
7 expertise. And by putting a protocol on paper, it  
8 allows it to be judged by all sorts of parties.

9 Q I'm sorry. All sorts of parties?

10 A All kinds of parties, to be published, to be  
11 looked at, to be made better. The writing of  
12 protocols and the maintenance of protocols is  
13 something that the FBI laboratory is pushing very hard  
14 at this point. I mean, it's part of a quality  
15 assurance program that's ongoing at the FBI. If you  
16 haven't written down what you're doing, you can have  
17 protocol drift, which means people decide on their own  
18 that this really isn't an important thing to do or  
19 without having all of the knowledge of everyone that's  
20 put ideas into this protocol concept, just sort of  
21 going on your own and deciding this is what I want.  
22 Without all of that knowledge base, you can miss  
23 things, just as I have some alternative explanations  
24 for data here that have been pointed out.

25 Q So would it be fair for me to characterize

1 what you have said as indicating that it would be

2 nonstandardized within a particular unit if there is  
3 no written protocol?

4 A That's a very broad statement and --

5 Q I don't want to put words in your mouth.

6 A Yes. I understand. I'm saying that's a  
7 very broad statement. You know, your protocol might  
8 not necessarily involve how you get into the  
9 laboratory every morning or when you open your desk or  
10 things like that or driving the truck from New York  
11 City to headquarters, do you know, that kind of thing,  
12 so there are certain aspects of what you do that might  
13 not need a protocol associated with them. So that --  
14 you know, as far as let's analyze this paint sample,  
15 we very much need to write down the protocol so you'll  
16 have something to validate. As far as how is it going  
17 to be physically carried from the contributor, you  
18 know, to -- I mean from maybe the principal examiner  
19 over to the AE, I don't see a protocol necessary  
20 there. Am I answering your question?

21 Q You're answering my question.

22 A Okay. Okay.

23 Q I will come back to this. I want to address  
24 one other quick area because I overlooked it. We  
25 addressed the packaging, the labeling, and the

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1 transportation and we've talked about storage. But is  
2 the storage of evidence from a crime scene also an  
3 issue of significance to you as an examiner of  
4 explosives or explosives evidence?

5 A Yes.

6 Q Why is that an issue to you?

7 A Well, where you store the evidence, what it  
8 comes in contact with as far as cross-contamination  
9 could be an issue. Whether it contaminates evidence  
10 from other cases could be an issue. Whether it's  
11 accessible by anyone that wants to go up and handle it  
12 that might contaminate that, you've lost control over  
13 your understanding of where did those residues  
14 actually come from. That would be -- that would be an  
15 issue.

16 Q Yesterday, you mentioned that storage of  
17 items or packaging, as well, in plastic bags could  
18 result in some type of permeation from that bag; for  
19 instance, a vapor escaping the bag and contaminating  
20 another piece of evidence --

21 A Yes.

22 Q -- be it the same case or another.

23 A Yes.

24 Q I don't care about that. Would you agree  
25 that the reverse may also be true; that storage and

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1 packaging within a plastic bag, the seepage could be  
2 from the table or shelf or something else into the  
3 bag, as well as the possibility of escaping from the  
4 bag?

5 A Certainly.

6 Q I'm sorry for that tangent. I do want to go  
7 back to the protocol.

8           You described the protocol as a  
9 manifestation of the procedures in the lab and that  
10 may be a loose interpretation.

11       A    Manifestation of the institutional  
12 knowledge.

13       Q    Would that also be important for the  
14 purposes of outside examiners being able to determine  
15 what procedures are followed in the FBI laboratory?

16       A    Yes.

17       Q    And would that apply equally to independent  
18 examiners such as this commission, the five-member  
19 panel, the OIG investigation, as well as defense  
20 attorneys or their experts?

21       A    Yes, sir.

22       MR. KOHN: I just want to state something  
23 for the record. The use of the phrase "commission,  
24 five-member panel." Just to clarify, my understanding  
25 is that it's not really a commission and that the five

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1 members are technical consultants to the Inspector  
2 General of the Department of Justice. I just wanted  
3 to clarify that.

4       MR. WYATT: Certainly. I didn't mean to  
5 confuse the record.

6       MR. KOHN: That's fine.

7       MR. WYATT: I'm assuming we're at Exhibit 2.

8       (Deposition Exhibit 2 was marked for  
9 identification.)

10       (There was a discussion off the record.)

11 Q (BY MR. WYATT) For the record, I believe  
12 that Ms. Wilkinson has advised me that this document  
13 that is marked as Whitehurst Exhibit 2, which is Bate  
14 stamped Burmeister 002935, is the written protocol  
15 that you were discussing yesterday or that you  
16 mentioned existed.

17 MS. WILKINSON: I believe I stated that  
18 Agent Burmeister had a written protocol for explosive  
19 residue that sounded similar to the one Dr. Whitehurst  
20 was describing yesterday in his notes and I believe  
21 Dr. Whitehurst will have to tell you if it is the same  
22 one that he drafted and put on the wall of the residue  
23 or MAU unit.

24 Q (BY MR. WYATT) I don't want to be unfair  
25 to you. There appears to be a date of 10-95 on this

329

1 document. Would you agree with that?

2 A I -- I don't know.

3 Q Okay. You don't know what this number is at  
4 the bottom right-hand corner of the page?

5 A It looks like October 1995. It looks like  
6 the version of October 1995 and it sounds about right.

7 Q Is this document what you have referred to  
8 as the explosives residue protocol that you prepared  
9 and placed on the wall in the laboratory?

10 A No, sir. This is not. As I said, protocols  
11 are dynamic. They change over time. And this  
12 protocol is one -- for instance, there's a change here  
13 that Ron Kelly, a chemist at the FBI laboratory and an

14 examiner now and I discussed one day concerning  
15 ammonium ions and this -- this -- this then does not  
16 represent --

17 MR. HARTZLER: You're referring -- I'm  
18 sorry. You're referring to a section of the --

19 A I'm --

20 MR. HARTZLER: -- document that's in the  
21 lower left-hand midsection.

22 MR. KOHN: Just to clarify the record, the  
23 "this" referred to a line that was coming out of a box  
24 that called "HPLC/CD" and there's an arrow coming out  
25 of that box and pointing to another box that says

330

1 "HPLC/PD."

2 A Okay. I guess to sort of sum it up, this  
3 protocol is not the one that's on the wall right now.  
4 This is a -- an updated version of it, yes.

5 Q (BY MR. WYATT) It's not the same one as  
6 the one on the wall right now?

7 A Yes. That's correct.

8 Q And that's based on your recent observations  
9 of that wall?

10 A Yes. It's -- it -- in fact, it's actually  
11 on a piece of -- of cork board. It's mounted and it's  
12 a very big -- big -- we have a xerox machine that  
13 blows things up very big and that's -- this is not  
14 that one.

15 Q Is this protocol, Whitehurst Exhibit Number  
16 2, even similar to the one that you developed?

17 A Yes. It -- it is. Uh-huh.

18 Q Is it built upon that, in your opinion?

19 A Yes, it is.

20 Q Is the only written protocol that you have  
21 referenced regarding the examination of explosive  
22 residue the flowchart in whatever form from the day  
23 you drafted it and posted it on the wall through at  
24 least the one we're looking at Whitehurst Exhibit 2 --  
25 is the flowchart the only written form of the protocol

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1 that you're aware of?

2 A No, sir. This is just a flowchart. This is  
3 to give you a raw overview of what's going on. For  
4 instance, the box HPLC here that you see --

5 Q You're referring to the same thing by the  
6 ammonium ion represented by NH<sub>4</sub>?

7 A Yes. That's correct. It says HPLC/CD,  
8 which means conductive detector. It seems a high  
9 performance liquid chromatographic instrument was used  
10 with a conductivity detector. That really isn't  
11 protocol. There's a method underneath that that talks  
12 to the kind of column that's used, the kind of  
13 instrumentation, the setting of instrumentation. That  
14 sort of thing. And that is written in -- on paper in  
15 a notebook that's -- that's a protocol notebook that  
16 is -- or it was when I left it at headquarters.

17 Q That's what I want to get into. For right  
18 now, I don't want to address the substance of this.  
19 We may do this when everybody has a copy of it and

20 it's easy to identify. So there is a manual or a  
21 notebook somewhere that contains the actual written  
22 protocols to be followed within the laboratory that  
23 analyzes explosive residues at the FBI?  
24 A There was a -- a notebook, loose-leaf binder  
25 notebook -- there are two of them that have the

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1 literature survey that supports this.  
2 Q Would that be the validation?  
3 A No. It's the literature -- it's the -- you  
4 know, why do you do this this way --  
5 Q Okay.  
6 A -- you know. That -- I think they are  
7 three-inch thick black notebooks. They were in 1994.  
8 In order to write a protocol, we had to -- you know,  
9 we had to say, well, what's -- you know, what's behind  
10 this protocol. And then there are the separate  
11 sections of what are the instrumental settings of each  
12 one of these -- these --  
13 Q Instrumentations?  
14 A -- blocks here. Yes. Uh-huh.  
15 Q And the blocks refer to the various  
16 instrumentation?  
17 A Yes. That's correct.  
18 Q I didn't mean to cut you off. That's why I  
19 finished the sentence. Do you know at least up until  
20 the time that you left that unit or until you last had  
21 access to those protocols whether the protocol loose-  
22 leaf notebook or manual kept a record of when the

23 protocols changed and whether the old protocol is  
24 maintained as well as the new?  
25 A I don't know that.

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1 Q Was that done when you were in charge of  
2 that division or section?

3 A No. During the time that I was in charge of  
4 that, we -- we were instructed that we needed to start  
5 writing our protocols down and to build those  
6 protocols. We were going to be accredited and we  
7 needed the protocols down, you know, and so I had been  
8 in the unit about four years when that effort  
9 started -- started taking place.

10 Q So it would be approximately 1990 when the  
11 effort to prepare written protocols began?

12 A Yes. Something in a notebook that said this  
13 is what we're doing.

14 Q And is that notebook something that all of  
15 the examiners, both the scientists and the lab techs  
16 and the chemists would have access to?

17 A Yes, it is.

18 Q Is that something that they should be  
19 familiar with in conducting examinations within the  
20 trace analysis section of the lab?

21 A If they are working with explosive residue  
22 analysis, they should be familiar with it, yes.

23 Q Would you expect for an independent person,  
24 for example, my expert, to examine evidence and draw  
25 conclusions, that they would need access to the

1 protocols?

2 A If -- if an independent expert is going to  
3 understand the protocol that we use, they have got to  
4 have access to it to understand it. If they are going  
5 to analyze material the way we analyze it, they need  
6 to know what it is that we do because you can put  
7 different settings in an instrument and not get the  
8 same answers, you know. You can configure an  
9 instrument differently and not get the same output, if  
10 you will, the same data.

11 Q Is that what's referred to as the  
12 calibration curve, for example?

13 A No. It's just simply that if you use -- if  
14 you use different instrumental conditions -- if you  
15 want to know did I really get this answer out of this  
16 instrument, you're going to have to use the  
17 instrumental conditions that I used. You know, if  
18 you're going to review what I've done and there's only  
19 one way to do that and that's with a protocol and, you  
20 know, written out as to what we do. Up until about  
21 1990, a lot of this -- a lot of this was something we  
22 had in our heads.

23 Q You mentioned that that -- that the manual  
24 or the protocol notebook, I believe you referred to it  
25 as, was a three-ring loose-leaf binder.

1 A Two of them.

2 Q Did you say three-inch loose-leaf binders?

3 A Yeah. About three-inch.

4 Q Were they full?

5 A Yes.

6 Q So it's three inches thick of material?

7 A Mostly what they are full of is the  
8 literature survey that supports the protocol.

9 Q Now, you've referenced that one notebook is  
10 the literature survey and the one is the protocol.

11 A Both of the notebooks have literature survey  
12 in them and then a small part of the notebooks has the  
13 protocol, the instrumental description, that sort of  
14 thing.

15 Q And if you were wanting to interpret data  
16 provided on a particular analysis -- you as an expert  
17 in the examination of explosive residues -- would you  
18 want access to both of those notebooks, including the  
19 literature in order to interpret the data?

20 A Yes, sir.

21 Q Is that something that you feel would be  
22 necessary for a scientist to perform their own  
23 interpretation or render their own interpretation of  
24 the data?

25 A Not -- not necessarily. An expert of, say,

1 Dr. Lloyd's experience would not need our literature

2 survey. Okay? If he was trying to understand why I  
3 came to the conclusions I came to, he would need, you  
4 know -- because it's based on that literature, okay.

5 But --

6 Q Okay. So let me just stop you there then.  
7 At least for him to understand the conclusions drawn  
8 by that particular laboratory, he would need to know  
9 what literature those conclusions were based upon?

10 A Yes. They are the basis for the argument  
11 that you use.

12 Q Through June of 1994, were you the person  
13 responsible for the development of those protocol?

14 A From about 1987, '88 -- about 1988 is when  
15 I -- when I got involved in -- if it's going to go any  
16 further, if we're going to do anything with this  
17 protocol, yes. So it's about a six-year period of  
18 time.

19 Q Through the time that you would have left  
20 that unit?

21 A Yes.

22 Q June of 1994?

23 A I didn't leave the unit then, but I was not  
24 doing explosives after that time. Yes.

25 Q Fair enough. I apologize.

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1 A Sure.

2 Q Do you know who has been responsible for any  
3 modifications of that protocol?

4 A Yes. Mr. Burmeister. Mr. Burmeister.

5 Q Is he the only person who's been responsible  
6 for that, to your knowledge?

7 A To my knowledge. You know, I know, for  
8 instance, this modification -- and I'm pointing to a  
9 modification on --

10 Q The same one we've talked about in H4?

11 A -- that came as a result of Mr. -- Mr. Kelly  
12 and I, but I've noticed another modification here  
13 that's -- you know, I hadn't noticed that. That would  
14 be something Mr. Burmeister would put in there.

15 Q Is there some person who would be up the  
16 chain of command that would have to approve the new  
17 protocol suggested by you or Mr. Burmeister, whoever  
18 was responsible for preparing it?

19 A There is now.

20 Q When was that set up and instituted?

21 A I think within the last year.

22 Q Prior to that, would that have been a  
23 subjective determination made by the designer of the  
24 protocol, meaning you or Mr. Burmeister?

25 MR. HARTZLER: I'm sorry. What do you

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1 mean -- I object to the "subjective determination."

2 Q (BY MR. WYATT) Okay. What I'm asking you  
3 is prior to someone who is in a supervisory capacity  
4 above your position or Mr. Burmeister's position  
5 having instituted a policy where they have to approve  
6 changes to the protocol, prior to June 14 or June 19,  
7 1994, would you have been able to make the subjective

8 determination whether the protocol needed to be  
9 changed or would you have needed approval from the  
10 powers-that-be above you?

11 A I would have done it. I wouldn't have  
12 needed approval.

13 MR. HARTZLER: Okay. I didn't understand  
14 what the significance was of your putting in the  
15 subjective. I'm just -- I mean, you're asking him if  
16 he can make it without review? Is what you're asking?

17 MR. WYATT: Basically, yes.

18 A Yes, I would have put it in there. I would  
19 have been the only person available to review.  
20 Mr. Burmeister and I would have talked about it  
21 together. We would have discussed it at conferences  
22 with other experts in the field. That was the basis  
23 for it. Now --

24 Q (BY MR. WYATT) But your unit chief would  
25 not have had to sign off on that?

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1 A No.

2 Q But today, there is a policy for someone in  
3 the chain of command to approve these if there is a  
4 suggested modification?

5 A That's correct.

6 Q Who would that person be? Or persons?

7 A The documentation that I've seen, I -- I  
8 believe it is -- it is the assistant director or  
9 deputy assistant director, I believe, who would be  
10 ultimately responsible for the change. But there is

11 documentation. There's actually something that -- in  
12 our quality assurance documentation that will address  
13 that.

14 Q You said who is ultimately responsible. Are  
15 there intermediate persons who have to review that and  
16 give their stamp of approval?

17 A I don't know. I haven't had to write a  
18 protocol.

19 Q Would the policy that addresses that or the  
20 directive be something that is in writing at the FBI  
21 laboratory?

22 A Yes. Yes, sir, it is.

23 Q What are the qualifications of those  
24 supervisors for approving the protocol or disapproving  
25 it?

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1 MR. HARTZLER: I object.

2 Q (BY MR. WYATT) If you know?

3 MR. HARTZLER: Pardon me. Just let me state  
4 if -- I hope I can influence you. You're now talking  
5 about institutional changes that took place after he  
6 was there and, indeed, after the beginning of the  
7 Oklahoma City bombing analysis, I believe.

8 MR. WYATT: Correct.

9 MR. HARTZLER: I just don't recall. You can  
10 help me. You don't need to ask him. When was it that  
11 this new procedure was in place?

12 MR. WYATT: Within the last year.

13 MR. HARTZLER: So you're -- you now want to

14 know about the details of a procedure that was put in  
15 place within the last year and -- would you mind  
16 helping me -- does this have any effect on our  
17 proceedings?

18 MR. WYATT: If examinations were done after  
19 the date that was instituted, it is my opinion that it  
20 is very relevant.

21 MR. HARTZLER: Okay. Well, let's let me  
22 consult and find out if they were. You do not --

23 MR. WYATT: I know we've received lab  
24 reports which indicate testing was done within the  
25 last year. They are still doing testing according to

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1 representations made in court.

2 MR. HARTZLER: Okay.

3 Q (BY MR. WYATT) Do you -- and you may have  
4 answered the question. I apologize if you did. Do  
5 you know the qualifications of the supervisory people,  
6 whoever they might be, for approving a protocol from  
7 the explosives laboratory other than you or  
8 Mr. Burmeister as the policy or directive now  
9 provides?

10 A I don't know what you mean by  
11 "qualifications," sir.

12 Q Are they scientists?

13 A My deputy assistant director is not.

14 Q The unit chief is not? Is that a fair  
15 statement?

16 A No. My unit --

17 Q I mean --  
18 A The unit chief --  
19 Q The chem/tox --  
20 A The chem/tox unit chief has a background, an  
21 undergraduate degree in biology.  
22 Q Roger Martz is who you are referring to?  
23 A Yes. Yes. And my section chief is a Ph.D.  
24 microbiologist, I believe.  
25 Q Of those three people you've mentioned, your

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1 unit chief, your section chief and the assistant --  
2 A Deputy assistant director. We don't have an  
3 assistant director.  
4 Q Would any of those people, in your opinion,  
5 have the qualifications necessary and the education  
6 necessary to put their stamp of approval on this as a  
7 valid protocol?  
8 A I think they would have to trust  
9 Mr. Burmeister's and my opinion about this is what I  
10 think. I don't think that they would understand the  
11 total ramifications of the protocol. I don't think  
12 that's possible.  
13 Q What is your section chief's name?  
14 A Randy Murch.  
15 Q And there's -- refresh my memory if you  
16 don't mind. There's not been any testimony about that  
17 person during this deposition yesterday or today?  
18 MR. HARTZLER: I think his name came up.  
19 MR. WYATT: Did it?

20 MR. HARTZLER: I think so. I may be wrong.

21 Q (BY MR. WYATT) You've testified in the

22 past that you don't believe Roger Martz has the

23 qualifications to perform explosives analysis;

24 correct?

25 A Yes, I have.

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1 Q And is that still your opinion today?

2 A Yes, it is.

3 Q What is the procedure within that unit, the

4 explosives unit or the -- I guess it's the chem/tox

5 unit, but we're referring to the trace analysis lab

6 for the examination of explosives. What is the policy

7 for evaluating the protocol?

8 A I don't know.

9 Q Do you know if there is a policy for

10 evaluating the protocol?

11 A I'm not aware of any policy.

12 Q Is that something that you think should

13 exist as a good scientist or in practicing good

14 science?

15 A It would be good to have such a policy

16 established.

17 Q Now, I am referring to and using

18 "evaluation" synonymously with "validation." Does

19 that change your answer?

20 A There is no validation policy that I'm aware

21 of for this protocol.

22 Q And when you're referring to "this

23 protocol," are you referring to the protocol used in  
24 the explosives laboratory or are you referring to  
25 Whitehurst Deposition Exhibit 2 or both?

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1 A There is no validation procedure that I'm  
2 aware of that will validate this protocol.

3 Q Meaning Whitehurst Deposition Exhibit 2?

4 A Yes. That's correct.

5 Q You're --

6 A That's correct. I'm sorry. Yes. That's  
7 correct.

8 Q But are you also referring to that in the  
9 generic sense of the charts that you prepared, the  
10 flowcharts or the protocols?

11 A There's no written policy. That particular  
12 flowchart, I was in the process of validating when I  
13 was transferred.

14 Q So as of June 1994, the protocols  
15 established for the explosives unit, for lack of a  
16 better term -- you know what I'm referring to?

17 A The explosive residue analysis.

18 Q Okay. For the explosives residue analysis  
19 were not validated? Those at least through that date?

20 A Yes. I was in the process of doing hundreds  
21 and thousands of experiments to do that validation.

22 Q But as of the time you were transferred,  
23 June 1994, those protocols had not been validated?

24 A That's correct.

25 Q And am I to understand from what we've been

1 discussing that there's no validation of the protocol  
2 as it currently exists today in the explosives residue  
3 analysis?

4 A I don't know that. I know that there is  
5 research ongoing within the Government -- and I won't  
6 expound on that -- to validate -- generally validate  
7 such a protocol. But it -- my understanding is  
8 research hasn't started. It is -- it's at the  
9 proposal stage.

10 Q So in other words, there is no validation?

11 A There may be validation. I -- you know, I'm  
12 talking to another Government entity that I will not  
13 put on the table here. Okay? But whether  
14 Mr. Burmeister has validated this protocol or not  
15 would be a question you'd have to ask him.

16 MR. WYATT: Excuse me just a moment.

17 (There was a brief delay in the  
18 proceedings.)

19 Q (BY MR. WYATT) To get to something a  
20 little more specific regarding the protocol, does the  
21 protocol -- well, first of all, let me ask you, are  
22 you familiar with the current protocol used in the  
23 explosives residue analysis lab?

24 A Not any more than what you've shown me here  
25 and I found something new on that, so my familiarity

1 is about five minutes old.

2 Q And that's with reference to something that  
3 appears to have been created in October of 1995?

4 A Yes.

5 Q When you left the laboratory in June 1994,  
6 did the protocols define the criteria for the  
7 following terms -- and you can discuss them  
8 individually; I'm not trying to limit you -- found,  
9 the second one is identified, the third one  
10 consistent, the fourth one confirmed. Did the  
11 protocol define when those terms should be used?

12 A No.

13 Q In the absence of that information being  
14 defined in the protocol, would outside or independent  
15 examiners be able to interpret what is set forth in  
16 the lab reports when those terms are used?

17 A No.

18 (Mr. Kohn conferring with the deponent.)

19 Q (BY MR. WYATT) Were those four terms  
20 part --

21 MR. HARTZLER: Pardon me, Rob. Do you mind  
22 just a minute?

23 MR. WYATT: No.

24 (There was a brief delay in the  
25 proceedings.)

1 (The referred-to question was read by  
2 the reporter.)

3 MR. HARTZLER: You're asking if the  
4 examination is limited to the reports. Look at the  
5 reports and know what's happened? Is that your  
6 question?

7 MR. WYATT: I'll stand on the question  
8 asked. I think the question makes sense.

9 Q (BY MR. WYATT) Did the question make sense  
10 to you, Dr. Whitehurst?

11 A Yes, it did.

12 MR. WYATT: I'll stand on the record.

13 A Mr. Wyatt, I could not read the report,  
14 itself, and reach the conclusion you're talking about.

15 Q (BY MR. WYATT) You couldn't interpret the  
16 data in the lab report?

17 A Well, our data doesn't go with the lab  
18 report.

19 Q The lab report is an interpretation of the  
20 data; is that a fair statement?

21 A Yes. Yes.

22 Q So in order to understand the examiner's  
23 interpretation of the data tested or sampled, one  
24 would have to know the definitions of those terms?

25 A Yes.

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1 Q Were those four terms utilized by the  
2 explosives residue analysis section of the lab while  
3 you were there, operating in the lab?

4 A I used the terms "consistent with" and  
5 I'd -- "identical to," yes.

6 Q You did not use the terms "found" or  
7 "confirmed"?

8 A I might have. I remember mostly "consistent  
9 with" or "identified as."

10 Q And just so I understand, is -- is my -- and  
11 I shouldn't -- I don't mean to put words in your  
12 mouth. I can let you define, but I believe you  
13 defined it yesterday; is that correct? Consistent  
14 with and identified as? Or did you? I know it was  
15 discussed.

16 A I don't remember.

17 Q Okay. Would you define what was your  
18 understanding of "identified as" at the time you were  
19 examining evidence in that lab.

20 A If I identified a material, I didn't have  
21 any doubt in my mind and did not see how the data  
22 could be interpreted as anything but that's what the  
23 material that's there.

24 Q What was the criteria for reaching that  
25 conclusion?

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1 A It wasn't written for me -- for me. It was  
2 that I had used an instrument.

3 Q Okay. Excuse me. You said the criteria was  
4 not written for you.

5 A It was -- yes.

6 Q Okay. But what was the criteria?

7 A If I used a -- for instance, a GC mass spec  
8 to identify -- to -- to get data and then I used

9 another technique which was orthogonal which was a  
10 completely different technique, that's all I could do.

11 Time constraints, that's all I could do.

12 Q Two tests?

13 A If I got generally -- there were some  
14 limited situations and I talked about one yesterday,  
15 but, generally, if I used, for instance,  
16 chromatography techniques, my understanding of  
17 chromatography is there are always alternative  
18 explanations. If I used a GC mass spec and a FTIR,  
19 for instance, then I would identify the material.

20 Q And by "orthogonal," you were referring  
21 to --

22 A Something that's --

23 Q -- two tests that are entirely different,  
24 but they are able to gauge or measure the same  
25 substance?

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1 A Yes.

2 Q And I believe you said that you want those  
3 to be as different approaches as possible.

4 A Yes. Can I take a quick break?

5 (There was a recess taken from 11:38 a.m. to  
6 11:40 a.m.)

7 (The previous question was read by  
8 the reporter.)

9 Q (BY MR. WYATT) Do you feel that you've  
10 sufficiently defined "identified as," as you  
11 understood it as the drafter of the protocol at that

12 time?

13 A Yes.

14 Q Could you define for me what is "consistent

15 with"?

16 A Yes. The data -- in looking at the data

17 from the techniques that we could apply to the

18 material, understanding that there could be something

19 else that also could give you the same data, such as

20 in chromatography with a nonspecific detector,

21 retention times in chromatography might be the same

22 for a number of different things, even if you used

23 different columns, different setups. And at the most,

24 I would -- I would want to say consistent with.

25 Understanding -- not black boxing, but understanding

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1 the equipment, the concepts like the metathetical

2 reaction I talked about yesterday where -- where ions

3 can change partners in solution, I can't -- I can't

4 tell you they didn't change or did change because the

5 matrix that they are in exposed residue is different

6 every time. Consequently, the only thing I could say

7 is consistent with. I -- towards the end of my

8 tenure, I was -- I wanted to start using the

9 expression "consistent with, though not proof of" and

10 I raised that, but I never was able to get that -- you

11 know, to sort of get that as something that -- it

12 hadn't materialized yet.

13 Q Why, in your opinion, was it recommended to

14 change the language to "consistent with, but not proof

15 of"?

16 A Well, I would have recommended that. It was  
17 just something that it -- it fits better.

18 Q Okay.

19 A It's -- it's more in line with what I  
20 believe that the data means. "Consistent with, though  
21 not proof of" would say there's something else out  
22 there that might also -- it's not proof of the  
23 identity of a material. Okay. Again, it was a -- it  
24 was -- it was not something that became an issue. It  
25 was something that Mr. Corby and I were talking about

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1 before.

2 Q Is that -- strike that.

3 Is part of the basis on which that  
4 recommendation was made is so that defense attorneys  
5 and juries, if they get access to that material, would  
6 have a better understanding of the lab report?

7 A So that my customer, whoever read the lab  
8 report, would have a better --

9 Q Your customer would be -- excuse me. I  
10 apologize. Go ahead.

11 A -- would have a better understanding of my  
12 feeling of the weight of that evidence. Of that  
13 interpretation. Yes.

14 Q And your customer, in the general scheme of  
15 things, is an Assistant United States Attorney?

16 A Is the justice system, yes.

17 Q Meaning the prosecution?

18 A My immediate customer is the -- is the  
19 prosecution, but that product, of course, is -- it can  
20 be used in the justice system.

21 Q Meaning the courts?

22 A Yes.

23 Q And possibly, ultimately, a jury?

24 A Yes.

25 Q What steps were taken by you to change that

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1 language or get it approved?

2 A I would have simply talked with Mr. Corby  
3 about it. As I matured in my understanding of the  
4 data that I had and this field of expertise over the  
5 years, my reports began to change form. It's easy to  
6 see that. I -- I -- and as I struggled to make it  
7 more clear, without being too verbose about everything  
8 that, you know, I was working on, I started -- you  
9 know, I thought a lot about it and talked a lot about  
10 it to my unit chief and those were the efforts -- and  
11 also to my colleagues. I would have talked to  
12 Mr. Burmeister quite often, but the efforts that were  
13 made were simply scientific discussions and alteration  
14 of the way I was presenting. As I became more -- had,  
15 you know, more understanding of what the data meant.

16 Q Obviously, the unit chief did not approve  
17 this.

18 A No. Mr. Corby was very supportive of these  
19 efforts. We worked through this together.

20 Q So would it have gone up to another level in

21 the chain of command?

22 A No --

23 Q The recommendation?

24 A Mr. Corby would have been the one that

25 signed out on it. It wouldn't have gone any further.

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1 Q Is he the person then that disapproved that

2 change or recommended change in language?

3 A He would have been. It wasn't his -- you

4 know, the concerns that were expressed about those

5 changes were not expressed from Mr. Corby after we

6 worked it out and he -- it was a settled issue of

7 where are we going.

8 Q How did your colleagues react to that

9 recommended change in language?

10 A There was concern about the verbosity, I

11 guess is the word, of the language. About the fact

12 that I was putting too much on paper. Those kinds

13 of -- those kinds of concerns were expressed.

14 Q You have referenced that pressures have been

15 placed upon you as an examiner and perhaps others to

16 prove guilt. Is that a fair statement? I don't --

17 again, I don't want to put words in your mouth.

18 A I understand. I need to be careful about

19 this. Yes, at times, I have -- I have had those

20 pressures, yes.

21 Q And you have observed them with other

22 people, as well? Is that a fair statement?

23 A I have observed those kinds of situations,

24 yes. Uh-huh.

25 Q Not involving yourself?

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1 A Yes. I need to call them to mind while I'm  
2 thinking about this, but at least -- observed at least  
3 one other person. If I go through my letters, I  
4 might ...

5 Q Okay. In your opinion, does the recommended  
6 change increase the level of understanding of the  
7 reader of those documents?

8 A Yes.

9 Q Then, is it fair for me to assume from that  
10 or to imply from that that in the absence of that  
11 language, the lab report, standing on its own, not  
12 with lab notes, not with protocols, might be  
13 misleading --

14 A Yes.

15 Q -- to the trier of fact?

16 A Yes. That's the reason I would want -- as I  
17 learned about this, I want to put it in there.

18 MR. HARTZLER: I'm sorry. We've been  
19 talking so long about the recommendation and the "it,"  
20 that I've lost sight. Are we still talking about the  
21 proof of, consistent with, issue?

22 MR. WYATT: Yes.

23 MR. HARTZLER: And his recommendation was --

24 MR. WYATT: Consistent with, but not proof  
25 of.

1 MR. HARTZLER: Okay.

2 A I never instituted that.

3 Q (BY MR. WYATT) I understand. But is that  
4 an accurate statement of what your recommended  
5 language was?

6 A Today. Today. Two or three years ago,  
7 "consistent with" was sufficient.

8 Q If you, as an examiner, performed an  
9 analysis on a particular piece of explosives evidence  
10 and on one technology or instrumentation, you get a  
11 positive hit for explosive residue, in another  
12 technique, you get a negative, what are the criteria  
13 in that situation for establishing identification of  
14 consistent with or negative?

15 A I need to understand the equipment. The  
16 lower detection limits of, not just black box the  
17 instrument I've used.

18 Q Okay. What do you mean by "black box"?  
19 This is the second time you used --

20 A Here's an instrument. You know which  
21 buttons to push, you feed something into it, you don't  
22 understand the technology, out the back end comes an  
23 answer.

24 Q Okay.

25 A Okay. Now, as a scientist, I'm going to

1 understand the technology because the thing I'm  
2 feeding into it may have a very good reason for not  
3 giving the right -- excuse me -- an appropriate answer  
4 coming out the back end of it. Okay. I need to  
5 understand intimately what's going on with it. If I  
6 used a GC chemiluminescence instrument which has a  
7 detection limit of way down to 20 to 100 picograms,  
8 and in order to confirm the presence of material go to  
9 a GC mass spec which has detection limits at maybe at  
10 nanogram levels. I haven't done anything for  
11 anything. That mass spec hasn't said it's not there.  
12 The mass spec can't see it. I've actually cheated my  
13 customer. I'm saying we can't confirm it, therefore,  
14 you know, it must not be there. Okay.

15 Q So at -- what is the criteria then for  
16 establishing in that -- in the situation where you  
17 have one positive test and one negative or no result,  
18 what is the criteria for the determining whether  
19 that's consistent with or identified as or is there  
20 any criteria in the explosives residue analysis lab?

21 A I'm not -- you know, I -- I'm sorry I'm a  
22 little confused about this. I'm -- you know, what's  
23 the criteria whether -- we're saying consistent or  
24 identified. I thought we had gone through that.  
25 This isn't a -- there's no written criteria if

1 that's what you're saying. There's not something in  
2 our protocol that will allow a -- you know, somebody

3 to review and ask that question. There is in that  
4 book right there, in environmental, it's just written  
5 right down. You know, I --

6 Q And you're referring to Environmental  
7 Laboratory Data Evaluation, the Roy-Keith Smith book  
8 that --

9 A Yes.

10 Q -- was referenced yesterday? And I believe  
11 that their publisher is Abbey Chemical Consultants?

12 A It's -- actually, Genium Press puts it out.  
13 G-e-n-i-u-m.

14 Q Okay.

15 A In environmental laboratories -- in the  
16 environmental laboratory -- I'd recommend that book,  
17 by the way. In environmental laboratories, those  
18 criteria are established. They -- they are not in our  
19 laboratory.

20 Q In a forensic laboratory?

21 A Yes.

22 Q And this is something you generally  
23 addressed yesterday?

24 A They are not in our -- yes. They are not in  
25 our laboratory. We have -- we're analytical chemists.

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1 We have an understanding of analytical chemistry which  
2 grows as time goes on. But establishing those bright  
3 line rules is not something that's -- they are going  
4 in place now. You know, these are issues we've --  
5 we've been struggling with for 20, 25 years. The

6 first part of the struggle, Mr. Wyatt, was the  
7 development of technology to handle and that --  
8 that's -- we're pretty much there now. Now it's what  
9 does the data mean when we get it out and we -- we can  
10 get the -- you know, the guidance out of the  
11 environmental science arena. And it's very valuable,  
12 but as far as it's being written down, that's --  
13 you're not going to find it.

14 Q Were you suggesting that it's in the process  
15 of being written down for the lab now?

16 A It's in the process of maturation. The  
17 ideas that you're talking about, the consistent with  
18 and whatever, those are not part of a protocol. Those  
19 are part of the -- the -- you know, teaching from --  
20 from teacher to student type thing that we go through  
21 and mature as we go along.

22 Q I believe in the past, you referenced that  
23 as the father-son approach?

24 A Yes.

25 Q It's passing it down from student to

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1 student?

2 A Yes. Yes.

3 (There was a brief delay in the  
4 proceedings.)

5 Q (BY MR. WYATT) If the Egis or GC chem  
6 technology found a positive within 20 to 100 picograms  
7 of -- I guess that's the level of detection; is that  
8 right?

9 A Yes.

10 Q And a mass spectrometer with nanogram  
11 sensitivity levels may have precluded that detection.  
12 Would you as a scientist or an expert in this field of  
13 explosives residue analysis find that as a -- as a  
14 situation of identified as, confirmed with or  
15 negative?

16 A First of all, I wouldn't use that protocol.

17 Q Okay. Why is that?

18 A Because I know the limitations of the GC  
19 mass spec. And I know that if I now tell you I can't  
20 confirm it, I don't know whether it's there or not,  
21 without using another GC chemiluminescence and being  
22 able to say it is consistent, there's a high  
23 probability it is.

24 Q If I could stop you for just a minute  
25 because you confused me.

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1 A Excuse me.

2 Q You said GC mass spec?

3 A Yes.

4 Q Is that the same in this situation as GC  
5 chem?

6 A No. It's not. They are different  
7 instruments.

8 Q All right. That's what I wanted to  
9 understand.

10 A I'm saying I wouldn't follow that protocol  
11 because the mass spec is not as sensitive. I might

12 throw a mass spec into the -- into the game -- into  
13 the analysis because -- because the -- the material --

14 MR. KOHN: You can keep answering. You're  
15 talking to the record. You can finish your answer.

16 A Because the material may be there in  
17 concentrations enough, okay, that's fine. But just  
18 because the GC mass spec doesn't see it, for me,  
19 that's not the end of the analysis. In the British  
20 lab, for instance, they use three GC chemiluminescence  
21 instruments at the defense research agency.

22 Q (BY MR. WYATT) The DERA?

23 A It used to be -- it's DERA, yes. It's Fort  
24 Halstead-Seven Oaks.

25 Q Okay.

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1 A Okay. There, they believe after three  
2 instruments, they have got an identity. Because they  
3 have done a lot of these analyses and there's a high  
4 reliability, as far as they're concerned, but we  
5 haven't.

6 Q In other words, they validated their  
7 protocol?

8 A Well, they have done -- yes. Sure. Many  
9 many, many, many, many, many, many of them and they  
10 haven't found themselves in error. But even so, at  
11 the '93 conference, they presented that they will  
12 sometimes use GC mass spec. It gets a little mushy in  
13 there. It's not absolute. But I wouldn't do a GC  
14 chemiluminescence and then a GC mass spec and then

15 find nothing with the GC mass spec and cheat my  
16 customer of a more positive answer that I could get  
17 from using another GC chemiluminescence instrument  
18 with a different column in it. A chemiluminescence  
19 instrument can be wrong with a -- you know, it's sort  
20 of like a sieve where material goes through it. Put  
21 it through another sieve and you -- you are -- you are  
22 discounting a whole bunch of materials when -- you're  
23 not saying it's an absolute positive. But it's a  
24 consistent with, with a high degree of reliability.  
25 Am I -- am I making sense?

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1 MR. MADDOCK: If I could interrupt here for  
2 just one minute. I need to speak with Fred and Steve  
3 off the record.

4 MR. WYATT: Sure.

5 (There was a recess taken from 12:00 p.m. to  
6 12:01 p.m.)

7 MR. HARTZLER: We're going to break after  
8 one question here? Is that what you said?

9 MR. WYATT: It might be two questions.

10 MR. KOHN: We want to take a lunch break  
11 soon.

12 Q (BY MR. WYATT) Did I get into an area that  
13 we can't get into?

14 A No. No. We're okay. No. We're okay.

15 MR. WYATT: Mr. Maddock is representing that  
16 we're okay.

17 MR. MADDOCK: We're fine.

18 Q (BY MR. WYATT) Okay. Just to boil it  
19 down, using that example that I gave you, do you  
20 understand the example on the Egis and the MS?

21 A Yes.

22 Q Would you agree with me that there are two  
23 alternatives there? It is possible that there is an  
24 identification of or a consistency with the explosive  
25 residue and also possible that there is no

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1 identification at all using that example?

2 A That's correct.

3 Q There are diametrically opposed  
4 alternatives?

5 A That sounds correct.

6 MR. WYATT: I would recommend we break for  
7 lunch.

8 (There was a luncheon recess taken from  
9 12:02 p.m. to 1:37 p.m.)

10 (Ms. Bradley and Mr. Jones are no longer  
11 present.)

12 Q (BY MR. WYATT) Doctor, I believe we were  
13 talking about the protocols when we broke at noon  
14 today and if memory serves me properly, the last set  
15 of questions addressed who was responsible for  
16 approving or disapproving the protocols. And that's  
17 the general area that we were discussing, just to  
18 bring us back a little bit. I'd like to address a few  
19 specific pieces of documentation, but they will be  
20 addressed in a general way. I just want to know what

21 the standards were or the procedures at the laboratory  
22 and I simply offer these as examples. We may not need  
23 to mark them as exhibits. Are you familiar with the  
24 fact that lab reports issued by the FBI laboratory  
25 frequently address more than one area of expertise

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1 within the same document?

2 A Yes, I am.

3 Q Is there any particular reason why that's  
4 done?

5 A Historically, the principal examiner has  
6 incorporated the auxiliary examiner reports into his  
7 reports. His or her reports. And at times, sometimes  
8 the principal examiner has nothing -- nothing left to  
9 do on a case and the case sits around for a while  
10 because the auxiliary examiner can't get to it and so  
11 the flag, if you will, is passed to the auxiliary  
12 examiner to send out the report.

13 Q Okay. Now, the example I'm giving -- so  
14 that I'm not confusing to you, I am looking at what is  
15 marked as lab report serial number 105. I'm going to  
16 refer to the number and it doesn't matter what's in  
17 it. But, for example, this shows me a situation  
18 addressing video enhancement in their unit, soil  
19 examination, explosive residue analysis and those are  
20 the only three that are listed here. Do you find that  
21 to be typical of the way that laboratory reports  
22 gather information?

23 A Yes, sir.

24 Q Using this same serial number, I'm going to  
25 refer to the section on explosive residue analysis. I

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1 don't care that it's admitted for the record. It's  
2 not a substantive question. And here's the rest of  
3 the document if you'd like to see it. I'm going to  
4 address the techniques on the next page.

5 MS. WILKINSON: Okay. I just want to make  
6 clear who did this residue analysis.

7 MR. WYATT: I have a list of examiners if  
8 you need that.

9 MS. WILKINSON: Could I use that? I think I  
10 know, but I want to make sure.

11 MR. WYATT: I'm not going to ask him about  
12 the analysis. Only --

13 MS. WILKINSON: I know, but you're asking  
14 about the technique and it's relevant as to who was  
15 conducting the technique.

16 MR. WYATT: Okay.

17 MS. WILKINSON: Perhaps we can do this,  
18 Mr. Wyatt. We could just ask -- Agent Burmeister will  
19 know -- Dr. Whitehurst will know what Agent  
20 Burmeister's symbols were if you could ask him that.

21 MR. WYATT: Certainly.

22 MS. WILKINSON: Just to make sure we agree.  
23 I wanted to sure it is. I see it indicated. I just  
24 want to make sure. AR, I believe. That's page what  
25 of that document?

1 MR. WYATT: It is page 3 and 4 of this  
2 document.

3 MS. WILKINSON: I believe we're going to  
4 object to you handing a lab report in this case to  
5 Dr. Whitehurst. Wouldn't we? In showing him  
6 evidence. If you could just ask him questions about  
7 the document --

8 MR. WYATT: Certainly, I don't have any  
9 objection to that.

10 MR. HARTZLER: You --

11 MR. WYATT: Actually, I do have an objection  
12 to that, but I mean, he's an expert. There's -- I  
13 don't think there's any complaint of that by the  
14 Government and I think that he can interpret data so I  
15 do have an objection to that, but, for purposes of  
16 this document, I don't have any objection. I am  
17 looking at a document that is serial number 105 for  
18 the record. And I guess that's an arbitrary number  
19 used by the prosecution as opposed to a laboratory  
20 report number, but, for purposes of the record, we are  
21 in agreement, the parties, that we know which document  
22 we're talking about.

23 Q (BY MR. WYATT) Under the explosive residue  
24 analysis section, I see that there is an analysis of  
25 five Q numbers and one K number. Or at least that's

1 what it purports to be. There's two K numbers. Let  
2 me correct that. Then at the conclusion of that  
3 section, the following language appears. "The  
4 specimens were examined using the following  
5 techniques: Optical microscopy, chemical spot  
6 testing, gas chromatography with mass spectrometry  
7 detection, gas chromatography with chemiluminescence  
8 detection, x-ray powder diffraction and scanning  
9 electron microscopy with energy dispersive x-ray  
10 analysis." Is there any way from looking at this  
11 report to determine which of those procedures were  
12 used to examine these specific items?

13 MR. HARTZLER: I think we could stipulate  
14 that -- you're asking him as an expert to render an  
15 opinion as to whether he can tell? I'm not sure  
16 exactly what expertise you're going for there.

17 MR. WYATT: I want to find out what the  
18 procedure is in the lab. That's what I'm getting to.  
19 The --

20 MR. HARTZLER: What's the procedure for  
21 reporting?

22 A Obviously, that report says what it says.

23 MR. WYATT: Correct.

24 MR. KOHN: I'm also going to state for the  
25 record so Dr. Whitehurst knows this, if you think you

1 need to look at a document to give --

2 A No. I heard what he said. I heard what he  
3 said.

4 MR. KOHN: Okay.

5 Q (BY MR. WYATT) My point is, there are a  
6 number of techniques -- five or six techniques that I  
7 read into the record. There may be more than that.  
8 There are a number of techniques identified, yet it's  
9 impossible to determine from this lab report, in my  
10 opinion, whether a particular specimen tested positive  
11 or negative with each of those techniques. Would you  
12 agree with that?

13 A Can you read it again, sir.

14 Q Okay. And I'm not telling you what the --

15 A By the way --

16 Q Because I don't think that matters that  
17 much. But it says that the following techniques were  
18 used: Optical microscopy, chemical spot test, gas  
19 chromatography with mass spectrometry detection, gas  
20 chromatography with chemiluminescence detection, x-ray  
21 powder diffraction and scanning electron microscopy  
22 with energy dispersive x-ray analysis. And in there,  
23 there are a number of specimens which were examined in  
24 the explosive residue lab. And all I'm simply trying  
25 to find out is is it possible from these reports to

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1 determine which of those techniques were used on these  
2 samples?

3 A This is a -- a difficult question. And I  
4 need to expound on it a little bit. Mr. Maddock, if I  
5 go outside the bounds -- I'll do this slowly.

6 MR. MADDOCK: Let's step out.

7 THE DEPONENT: Think -- I think that we can  
8 do this.

9 MR. MADDOCK: All right.

10 A When I introduced the type of equipment that  
11 I used into the first paragraph, it was a change in  
12 the way laboratory reports were written. I was  
13 Mr. Burmeister's training agent. Mr. Burmeister  
14 accepted that. And the understanding that we had was  
15 that if you said an instrument was used and -- and  
16 put -- and associated that instrument with analysis on  
17 specimens, then all of those instruments were used on  
18 specimens.

19 Q (BY MR. WYATT) On each specimen?

20 A On each specimen. Okay. However, since  
21 the -- since that makes -- that makes for a lot of  
22 paper. It does. It makes for a lot of paper because  
23 sometimes you don't -- you don't follow -- you follow  
24 the protocol, but you come up to a point where you  
25 don't need to go any further. Okay. So you might

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1 have 500 specimens you've looked at and you'd have 500  
2 paragraphs. Mr. Burmeister has changed the way he  
3 does his report by the -- I know that he says one or  
4 more of these have been used. And I don't know -- you  
5 know, I can't look at that piece of paper so I'm not  
6 quite sure from what you said to me whether -- whether  
7 it's the way I -- he was taught or it's the way he's  
8 now doing it. Am I making sense there?

9 Q Okay. It's my understanding that the

10 previous procedure for each item, you would identify  
11 the techniques used for that item. And then there  
12 would be another paragraph for the next specimen.

13 Another paragraph --

14 A Yes.

15 Q -- for the next specimen?

16 A If there were five specimens that used the  
17 same equipment, the same whatever, instruments,  
18 there's no reason to separate them. You know, it's  
19 just too verbose. Okay. If you put them all into  
20 item so-and-so and so were analyzed with da, da, da,  
21 his report or -- whoever's report that is, it says the  
22 following instruments were used. It doesn't say that  
23 they were used on particular items, does it?

24 Q No.

25 A I see. And so in that case, I believe I'd

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1 agree with your -- your -- you know, if I were looking  
2 at that on the outside and had no idea about the  
3 history of the development of that particular work, I  
4 wouldn't know, either. I wouldn't know unless I  
5 looked at the notes. I mean, I looked at the -- the  
6 laboratory notes that go along with that report.

7 Q Is it reasonable to expect that all of those  
8 different types of tests would be used in examination  
9 of one sample?

10 A Not necessarily.

11 Q In fact, it would be highly unlikely,  
12 wouldn't it?

13 A No. Not highly unlikely. It's not -- you  
14 know, this is the block diagram of what we do, but  
15 there might be points at which we get that there's no  
16 reason to go any further.

17 (There was a brief delay in the  
18 proceedings.)

19 Q (BY MR. WYATT) Just to carry that one step  
20 further. For the SEM, the scanning electron  
21 microscopy, would that be performed when swabs are  
22 used?

23 A In explosive residue?

24 Q Yes, sir.

25 A There are some situations that it might be.

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1 But not -- swabs mostly in my understanding and the  
2 way I, you know, work with swabs is for organic  
3 materials, not inorganic materials. For the organic  
4 high explosives. And there wouldn't be a reason to  
5 use SEM in that -- in that particular situation.

6 Q You're familiar with the technique of using  
7 a confidential set of initials to identify the  
8 reporting agent on the lab report?

9 A Yes.

10 Q And by that I mean that if you're the  
11 examiner, the initials would not be FW? They might be  
12 some other set of initials?

13 A Yes. And by the way, I'm not sure that they  
14 are confidential. They are -- I do have examiner's  
15 initials, but the adjective "confidential," I don't

16 know --

17 Q I should say anonymous.

18 A Okay. It doesn't indicate the name, but it  
19 is not something we hold as a -- you know, in secret  
20 or anything like that. It's --

21 Q Fair enough. I'm just saying to the general  
22 reader, they wouldn't necessarily know this unless  
23 they knew what those initials stood for?

24 A That's correct. Uh-huh.

25 MR. HARTZLER: I'm sorry. I didn't

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1 understand. When you said they wouldn't know, you  
2 were pointing at something.

3 MR. WYATT: I'm pointing to the XR or XO or  
4 YR, or whatever the random initials are.

5 MS. WILKINSON: They are not random.

6 MR. WYATT: Okay.

7 MR. HARTZLER: You're just saying that no --  
8 the uninformed reader wouldn't know whose initials are  
9 reflected because they are somehow coded.

10 Q (BY MR. WYATT) Correct? You'd agree with  
11 that?

12 A Yes. I agree with that.

13 Q In your experience, when there are several  
14 different areas of examinations covered in one report,  
15 is it possible -- excuse me -- yes, is it -- is it  
16 possible for the reader to know who all contributed to  
17 this report?

18 A Not necessarily. In my experience, my

19 initials have been left off of documents and there was  
20 no way at all to tell that I had anything to do with  
21 the report.

22 Q Do you know what the policy is that supports  
23 that or why that's done?

24 A No. There wasn't a policy. It was a  
25 violation of the policy.

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1 Q What is the policy?

2 A If I worked on a -- on a case, my initials  
3 are supposed to be on the document. And -- and not my  
4 initials, but, you know, the laboratory symbols is  
5 what they are called. My symbols are supposed to be  
6 on the document. There was a number of instances that  
7 I've -- cases I've reviewed where my symbols were left  
8 off the document.

9 Q Now, is that true if you are an auxiliary  
10 examiner as opposed to a primary examiner?

11 A Yes. It was a -- it was in instances where  
12 I was an auxiliary examiner.

13 Q So as a defense attorney, looking at  
14 laboratory reports provided to me by the Government, I  
15 should be able to identify each person who contributed  
16 to a particular lab report by looking at these  
17 laboratory symbols in the upper right-hand corner?

18 A Not necessarily, sir.

19 Q Okay. Why not?

20 A Because of the violations of policy that  
21 I've seen where my initials were taken off for

22 whatever reason.

23 Q In your experience, is that something that  
24 is still going on with respect to yourself?

25 A I don't work on cases anymore.

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1 Q Okay. Have you experienced in the past that  
2 other persons than you, their initials were left off  
3 or their laboratory symbol?

4 A I have no data about that.

5 Q Okay. Is there any way to determine from  
6 looking at these reports whether the representatives  
7 behind these laboratory numbers or -- what did you  
8 call them --

9 MR. HARTZLER: Symbols.

10 A Lab symbols, yes.

11 Q (BY MR. WYATT) -- lab symbols are the  
12 primary examiner as opposed to the auxiliary examiner?

13 A The first set of symbols, the first symbols  
14 would be the primary examiner, in my experience.

15 Q And is that based on written protocol or  
16 procedure in the laboratory?

17 A I'm not aware of a written protocol to that  
18 effect.

19 Q And when I use the word "protocol" in that  
20 respect, I just mean a directive or some type of  
21 regulation. Is your answer still the same?

22 A Yes.

23 Q Now, in this particular example that I've  
24 given you, serial number 105, we've identified at

25 least three different types of testing and there

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1 appear to be seven different laboratory numbers given  
2 on this document. And each laboratory number has a  
3 different set of initials or laboratory symbols  
4 attached to it. When those numbers don't correlate --  
5 we have seven report numbers and only three subject  
6 headings -- is it possible for the reader to determine  
7 which individuals contributed to which section of the  
8 report, just from reading the laboratory report?

9 A I don't know how that would be possible.

10 MS. WILKINSON: Could you hold on one  
11 second.

12 (There was a brief delay in the  
13 proceedings.)

14 MS. WILKINSON: Can I see that document so I  
15 can show Mr. Hartzler something.

16 MR. WYATT: (Tenders document.)

17 MS. WILKINSON: Okay.

18 Q (BY MR. WYATT) Is there any particular  
19 reason why negative findings based on the techniques  
20 would not always be listed -- excuse me -- that  
21 negative findings would always be listed in laboratory  
22 reports, but positive findings or false-positives  
23 would not be listed in the laboratory reports?

24 A I can't see any reason.

25 Q Is there any policy or encouragement at the

1 FBI lab to report in that fashion?

2 A To leave out positive findings?

3 Q Yes, sir. Or false-positives.

4 A No.

5 Q Yesterday, you discussed that laboratory  
6 reports, in your experience, have been changed without  
7 your knowledge.

8 A Yes, sir.

9 Q And I believe you may have related that that  
10 had occurred with other individuals and you were aware  
11 of that situation occurring. Or based on their  
12 representations to you.

13 A Yes. Yes.

14 Q If the reports are changed by some upper  
15 level person or someone higher in the chain of command  
16 than the reporter, is there any way that we would know  
17 that by looking at the reports?

18 A I don't believe so, sir.

19 Q Other than the PE modifying the findings or  
20 opinion of the AE, do you have an opinion whether  
21 changing in the reports is appropriate?

22 A It's inappropriate.

23 Q Why would that be?

24 A We are qualified to have expertise in a  
25 particular area and the FBI puts us through training

1 and moot court, oral boards, and we're found to be --  
2 have expertise in a particular area. If an individual  
3 without expertise in that area should change your  
4 report, as has happened numerous times in my reports,  
5 there's got to be a reason for it. There's got -- you  
6 just don't go in and rethink a -- a product and put it  
7 out differently. But the reason's got to be based on  
8 scientific reasoning. The scientific reasoning behind  
9 what the report says is established in the unit by the  
10 examiner and the unit chief where the analyses were  
11 conducted and any changes have to be done with the  
12 concurrence of the auxiliary examiner and the unit  
13 chief, up to and including commas.

14 Q You said they have to be examined also by  
15 the auxiliary examiner.

16 A The changes have to be approved. The  
17 auxiliary examiner is the scientist that looks at the  
18 evidence. You know, there are some things you just  
19 can't write on paper. There's a whole experiential  
20 base that you've got where you can draw from that --  
21 that leads to your conclusions that an individual  
22 without, say, a background in science or whatever  
23 doesn't have.

24 Q Is the PE the person who is responsible for  
25 the dictation of the report or the final product of

1 the report or what should be if it's not changed?

2 A That used to be. It's no longer.

3 Q What is the procedure today?

4 A PE's are, from what I understand at this  
5 point -- I've seen written -- the reports go directly  
6 from the examiner to -- to the outside of the lab,  
7 from the way I understand it. I don't do cases  
8 anymore, but I understand that change has been made.  
9 Principal examiners no longer incorporate into the  
10 reports. I could be wrong about that.

11 Q So the auxiliary examiner would be the one  
12 responsible for the preparation of the report, as you  
13 understand it?

14 A That goes out, yes.

15 Q And that is the person who is actually  
16 conducting the -- actually conducting the examination  
17 or supervising it?

18 A Yes.

19 Q By supervising -- a lab tech might be doing  
20 part of the work?

21 A Yes. That's correct.

22 Q If the PE -- excuse me. When did that  
23 change in procedure occur, to your knowledge?

24 A I think it's within the last six months, but  
25 you'd have to check that, sir.

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1 Q Would there be someplace where I could check  
2 that change in policy?

3 A There is documentation to that effect.

4 Q Where would I find that type of  
5 documentation?

6 A I've seen it on bulletin boards. I don't

7 know where. It would possibly be in our quality  
8 assurance group at Quantico.

9 Q Prior to that change in policy, is there any  
10 way that I could look at reports and determine whether  
11 the PE and the AE did not agree with the results or  
12 findings?

13 A In -- in most instances -- there -- we  
14 hadn't written this down. It was kind of like  
15 something so -- so accepted that, you know, nobody  
16 would even question it or have to write it down. You  
17 don't rewrite somebody else's report.

18 MR. HARTZLER: I'm sorry. The question is  
19 where could he look to find --

20 THE DEPONENT: I understand.

21 MR. HARTZLER: Pardon me. I thought maybe  
22 there was a misunderstanding.

23 A In most instances, you could depend upon the  
24 product as -- that was agreement because the principal  
25 examiner would send the product to the auxiliary

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1 examiner before the product went out. Or at the point  
2 the product went out, if there were disagreements, you  
3 know, okay. In a few situations, that wasn't the  
4 truth and I don't know how you would tell what those  
5 situations were because the violations were of, you  
6 know, an accepted procedure. Not written, but it's  
7 just accepted. We're not -- they were so bizarre that  
8 who would know where they were at. Am I --

9 MS. WILKINSON: Did you ask him if there was

10 nowhere -- if there was anywhere you could find this?

11 MR. WYATT: I asked him if it's in the  
12 report.

13 MR. HARTZLER: I'm sorry. I misunderstood,  
14 too.

15 MS. WILKINSON: Could you ask Dr. Whitehurst  
16 if that was his understanding of the question?

17 Q (BY MR. WYATT) We were talking about  
18 looking at the face of the report. Did you understand  
19 the question to be that?

20 A Yes. What I was trying to say is you could  
21 normally look at the face of the report and count on  
22 the product. And that's -- okay. But other than  
23 that -- so no, just looking at the report, itself,  
24 there's nothing to indicate that we had a  
25 disagreement.

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1 Q Is it appropriate scientific procedure -- if  
2 there is disagreement between the AE and the PE and  
3 that is not reflected in the report, is that  
4 appropriate scientific procedure?

5 MR. HARTZLER: I object to the assumption  
6 that it is procedure. Scientific procedure.

7 MR. WYATT: Protocol. Methodology.

8 MR. HARTZLER: But I --

9 Q (BY MR. WYATT) In your opinion as an  
10 expert witness, as a laboratory examiner, would the  
11 report accurately reflect the findings if it did not  
12 represent a disagreement between the PE and the AE

13 when one did actually occur?

14 A Yes. If there is disagreement and -- a lack  
15 of ensuredness of something, it should -- it should  
16 be -- it should be reviewable. I mean, if Dr. Lloyd  
17 and I disagree with something in the scientific  
18 community, we disagree with it openly so we can just  
19 sit down with a table of people and talk about our  
20 disagreements. I -- I don't think -- you know, if we  
21 have a fundamental disagreement in our laboratory  
22 environment and we haven't resolved that disagreement,  
23 that goes to the reliability of the product that's  
24 going out.

25 Q So again, just to simplify the question, yes

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1 or no, if the report does not reflect the disagreement  
2 between the PE and the AE and there is a disagreement  
3 as to the interpretation of the results or  
4 interpretation of the data, is it good science or  
5 appropriate procedure to render that report without  
6 reflecting the disagreement?

7 MR. HARTZLER: Before you answer, I have to  
8 object. You're compounding it and there's a  
9 difference between whether it's appropriate procedure  
10 or appropriate report writing and your question is it  
11 good science or appropriate report writing.

12 Q (BY MR. WYATT) Let's start with the first  
13 one. Is it appropriate report writing?

14 A You know, Mr. Wyatt, that -- that is not a  
15 simple black and white situation. If the man that

16 disagrees with me is the janitor, there's no weight to  
17 the reliability of his disagreement. If the man that  
18 disagrees with me is not a scientist, why are we going  
19 to raise these irrelevant issues? The PE's generally  
20 that I've dealt with do not have an expertise in my  
21 area. If he raises an objection to what I have  
22 written, well, okay, you know, I can't object to a  
23 particular type of brain surgery, either. Do you see  
24 what I'm saying?  
25 Q Now I understand where you're coming from.

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1 A Yes. Yes. So it would not -- it would not  
2 give me heartburn, okay, if it weren't there. I mean,  
3 I wouldn't have a concern if it weren't there. If  
4 there is relevant scientific disagreement, then I  
5 would have a concern that it -- that it wasn't there.

6 Q Okay. Fair enough. To shift gears just a  
7 little bit, who is responsible for the maintenance of  
8 the instrumentation in the laboratory, the explosives  
9 residue laboratory?

10 A There are various and sundry people that use  
11 the instrumentation.

12 Q Would those be the scientists themselves,  
13 the lab techs, chemists, all of the above?

14 A Sometimes. In the situation with quadropole  
15 mass spec -- triple quadropole mess spec, Unit Chief  
16 Roger Martz has been the individual that worked on  
17 that equipment for years.

18 Q And in other instances --

19 A I was responsible for the maintenance of  
20 high performance liquid chromatography equipment when  
21 I was involved and I don't know who is responsible for  
22 it now.

23 Q Without asking about the individuals, would  
24 that be something that a lab tech would be given the  
25 responsibility to handle?

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1 A I have seen that practice.

2 Q Would the same be true with the PE?

3 A Yes.

4 Q Okay. The AE, obviously?

5 A Yes.

6 Q Would there be any others?

7 A No.

8 Q Now, to be more specific, if you have a  
9 decomposing column in a particular spectrum, who would  
10 be responsible for determining at what point that  
11 column is changed?

12 A Whoever is running the instrument. Whoever  
13 is assigned to that instrument. When I had  
14 decomposing columns, it became obvious they were  
15 decomposing. I kept quality assurance notebooks and  
16 there are in the FBI lab sitting beside each  
17 instrument during my -- well, starting, I guess, about  
18 the late eighties, going forward maybe '90 and forward  
19 where, you know, once a week or, if necessary, once a  
20 day, whatever, we ran an HPLC on a -- a standard and  
21 compared it to what we'd seen in the past. And, you

22 know, the comparison was there and when the thing  
23 broke down or didn't -- you know, had gone past a  
24 point where we considered -- and it's a subjective --  
25 it's a subjective judgment -- where we couldn't use it

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1 anymore, then we just changed the column.

2 Q Since it's a subjective decision, there's no  
3 written protocol on that; correct?

4 A There's not that -- well, sir, it's been  
5 since 1994 since I used that equipment.

6 Q During your experience in the laboratory for  
7 eight years, was that your experience?

8 A That was my experience.

9 MR. WYATT: Could we go off the record for  
10 just a moment.

11 (There was a discussion off the record.)

12 MR. WYATT: Do you have any objection to me  
13 showing those items to the witness to ask general  
14 questions about the spectra, not to interpret the  
15 data?

16 MR. HARTZLER: You want to show him the  
17 charts, the graphs?

18 MS. WILKINSON: The log? You want to show  
19 him the log?

20 MR. WYATT: I think it's necessary -- the  
21 log just is for the judge's edification. I don't care  
22 if he sees it or not.

23 MS. WILKINSON: He can see it.

24 MR. HARTZLER: Okay.

25 MS. WILKINSON: He's not going to maintain a

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1 copy so it doesn't matter.

2 MR. WYATT: Okay. Just a moment before we

3 go back on.

4 (There was a brief delay in the

5 proceedings.)

6 MR. HARTZLER: Could you -- just so we know

7 and I can tell you, do you mind coming over here, Bob,

8 so we can talk for a minute?

9 MR. WYATT: Sure.

10 (There was a discussion off the record.)

11 (Deposition Exhibit 3 was marked for

12 identification.)

13 MR. WYATT: For purposes of the record, I

14 have marked as Whitehurst Number 3 five pages of

15 documents which are Bate stamped Burmeister 002651,

16 Burmeister 002652, Burmeister 002653, Burmeister

17 003817 and Burmeister 003739. I will represent that

18 the first document is a -- an analysis log which

19 analyzes certain spectra. I believe from a GC chem

20 analysis. The fourth page is an analysis -- from a

21 GCMS and the final page is another set of spectra from

22 a GC chem. The Government has objected to showing

23 these exhibits to the witness and I let them make

24 their own objection, but I am proffering that this --

25 these exhibits are spectra and I'm simply wanting to

1 use them as representative samples to illustrate a  
2 question so that it will make explaining the question  
3 much easier. They are simply demonstrative exhibits.

4 MR. HARTZLER: Are you going to tender the  
5 record to the judge or are you going to ask him to  
6 come in and rule?

7 MR. WYATT: We can tender it to him and  
8 handle it tomorrow. She'll be printing out a copy  
9 tonight.

10 (There was a discussion off the record.)

11 MR. HARTZLER: Well, our objection is in  
12 showing documents to this witness who is here by  
13 agreement, I thought principally to provide defense  
14 counsel with an opportunity to learn about procedures  
15 within the laboratory and not to render an expert  
16 opinion that might counter the expert opinion of the  
17 Government's expert, in this case, Steven Burmeister.  
18 My understanding is defense counsel had an opportunity  
19 to hire their own experts to review the analysis and  
20 the opinions of the Government's experts and I did not  
21 understand that that would be the purpose of having  
22 Dr. Whitehurst here today or yesterday.

23 MR. WYATT: For purposes of the record, I am  
24 not attempting to elicit Dr. Whitehurst's expert  
25 opinion concerning the findings in this particular

1 situation. In fact, it's been represented by

2 Ms. Wilkinson at the last hearing that there would be  
3 no evidence presented concerning NG or nitroglycerine  
4 because of the possibility of contamination of the  
5 scene because of the ammunition.

6 MS. WILKINSON: I don't think that's exactly  
7 correct.

8 MR. WYATT: In general, would you agree with  
9 that?

10 MS. WILKINSON: It's not -- there won't be  
11 any presentation. I said that the experts -- I  
12 believe Agent Burmeister and others will say that they  
13 have to interpret that finding of NG based on their  
14 knowledge that law enforcement officers and others  
15 carried firearms and NG is often in the background.  
16 So the finding, while identified, has to be  
17 interpreted through expertise. It would not be  
18 probative as a finding of PETN or RDX or some other  
19 high explosive.

20 MR. WYATT: With that, I'll ask the witness  
21 my questions and see if he can respond.

22 Q (BY MR. WYATT) What I'm trying to find out  
23 is if a particular standard is used in the GC chem  
24 and, for instance, peak number 2 -- does peak number 2  
25 represent nitroglycerine, to your knowledge?

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1 A I don't remember.

2 Q Okay. Assuming for purposes of this line of  
3 questioning that peak number 2 represents  
4 nitroglycerine; is that fair?

5 A Yes, sir.

6 Q Okay. If peak number 2 does not register on  
7 the standard, but then it does register on the sample  
8 that is associated with that according to the log  
9 sheet, would a positive finding of NG or  
10 nitroglycerine be acceptable, in your opinion?

11 A No, sir.

12 Q Why is that?

13 A You use the standard to find out if the  
14 instrument is working correctly.

15 Q So in this case, would that be a possible  
16 decomposed standard?

17 A It could be. It also could be that in my  
18 experience with that particular instrument, that there  
19 are other materials that will give the same response  
20 as NG. I have that experience.

21 Q But in this instance, I'm really focusing on  
22 the standard which elicited no peak.

23 A It could be decomposed. You know, my  
24 understanding of how that technology works, that would  
25 make sense to me that it was a decomposed standard.

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1 Q Based on -- would it be a possibility of a  
2 degraded column?

3 A There are -- there are -- yes. But there  
4 are a number of things that could -- could explain --  
5 explain that. There are a number of -- of -- if I can  
6 expound, one thing might be that you've got material  
7 on the collector that reacts with NG but not with the

8 interferant of NG. If I didn't see the NG in the  
9 standard, I would -- I have to ask that question.  
10 I -- I haven't any choice. I have to ask that  
11 question. There's no -- there's no NG showing up, but  
12 I've got a peak that shows up at the same place as NG.  
13 What's wrong here? I would have to run it again. If  
14 it's a -- if it is a --

15 Q Run another standard?

16 A Run another standard or I'd go get another  
17 standard if I repeated that.

18 Q As a scientist, would you rely on the  
19 standard that did not peak out appropriately as a  
20 standard to compare a sample or a specimen if the  
21 standard is not peaking out?

22 A If the standard -- if you're not talking  
23 about it's not peaking for, say, NG, if it's got PETN  
24 in it, it doesn't -- it's irrelevant to the issue, but  
25 if the NG is not peaking out, I would -- I would

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1 ask -- you know, there's so many things that could  
2 cause that. I'd have to explore that issue. I  
3 couldn't just go through and run the sample.

4 Q So -- could you rely upon it then? Yes or  
5 no?

6 A No. No. I would have to -- you know,  
7 Mr. Wyatt, I could rely upon the technology. I would  
8 have to explore -- stop in place and explore the  
9 reasons, try to understand why this thing is not --  
10 not functioning the way it normally does.

11 Q Would you agree with me that a standard on  
12 NG should have a good, crisp peak?

13 A Sure.

14 Q And that's generally one primary peak, would  
15 you agree with that?

16 A NG gives you one peak in the Egis, yes.

17 Q If you have a standard that is giving you  
18 two peaks or two columns for NG on the GCMS, would you  
19 find -- would you suspect there's some problem with  
20 the standard?

21 A Yes, sir. Not necessarily the standard. It  
22 might be decomposition of the NG. One of the issues  
23 that may or may not come up here -- I don't know, but  
24 it should be on the table -- is that for many years,  
25 the chem/tox unit did not use a primary standard.

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1 They got their NG out of smokeless powder. They  
2 bought a commercial product. The guy said that that  
3 was NG in it and that's what they used for their  
4 standard. We got in a big -- a big to-do about that  
5 because it wasn't a primary standard and primary  
6 standards were available so that might be -- I don't  
7 know that it is. It could be the issue. But if I had  
8 two peaks, have heartburn about that -- and, you know,  
9 that's why we worked our way through that issue.

10 Q Now, when you would come into these two  
11 situations, one where NG was spiking out with two  
12 peaks and another -- and/or another situation where it  
13 wasn't spiking out at all, is there a procedure for

14 examining why that occurred? Is there a protocol?

15 A Not that I'm aware of.

16 MR. HARTZLER: You meant is there a  
17 procedure within the FBI?

18 MR. WYATT: Yes. In that unit. In the  
19 explosives residue analysis lab.

20 A Not that I'm aware of.

21 Q (BY MR. WYATT) As a scientist and expert  
22 in that area, is that something that you would expect  
23 to be addressed in a protocol?

24 A No, sir. It -- that I -- there are so many  
25 situations we're faced with --

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1 MR. WYATT: Go ahead.

2 A -- that it would not concern me that this  
3 wasn't written up within a protocol. It would concern  
4 me that an analytical chemist, looking at the data was  
5 not concerned about, you know, what's going on here.  
6 This instrument isn't working the way we believe it's  
7 supposed to.

8 Q (BY MR. WYATT) Could that also reflect  
9 that there is some type of calibration problem?

10 A My understanding, calibration has to do with  
11 quantitative analysis and we don't do quantitative  
12 analysis.

13 Q Why is it that the FBI laboratory and  
14 explosive residue analysis lab does not conduct  
15 quantitative analysis?

16 A Because it generally doesn't answer the

17 question that we ask. We generally ask is something  
18 there, not how much of something is there. We don't  
19 have procedures to determine how much residue is on an  
20 object. We just don't.

21 Q Is there equipment available to test that?

22 A Well, there are -- procedures could be built  
23 into our equipment in our laboratory that could be  
24 used to test that. However, it doesn't answer a  
25 question that we're faced with. And with -- with

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1 residues.

2 Q With respect to nanograms or picograms of  
3 certain substances, would that -- if there are just  
4 minute amounts or traces of these substances, could  
5 that indicate contamination of the instrumentation?

6 A No, sir.

7 Q Could it --

8 A Not necessarily.

9 Q Could it indicate contamination of the  
10 specimen?

11 A Not necessarily.

12 Q Could it indicate contamination of the  
13 operator?

14 A Not necessarily.

15 Q Okay. And you've said "not necessarily" in  
16 response to all three questions. That suggests to me  
17 that there is a qualification there.

18 A Yes.

19 Q Could it indicate those things as well as an

20 alternative?

21 A Contam --

22 MR. HARTZLER: I'm sorry. Let me object. I

23 lost track of it. There's a preface to that question.

24 "Could it" being what?

25 MR. WYATT: Contamination of the person, the

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1 instrumentation or the sample.

2 MR. HARTZLER: No. But the "it." Could it

3 be an indication of, and the "it" is what you had said

4 as a preface to your first three questions.

5 MS. WILKINSON: The small amount.

6 MR. WYATT: Picograms or nanograms of the

7 substance.

8 A Contamination is -- is not, in my opinion,

9 in the circumstances, a quantifiable situation. And I

10 need to explain that. If I grab ahold of a stick of

11 dynamite, I've got a lot of NG on it. If I shake your

12 hand, I've got a little bit of NG on me. Well, you

13 know, we haven't defined where the contamination could

14 come from. Those instruments tell me something is

15 present. They will also tell me how much is present.

16 But without understanding how much is on each object

17 that stuff touched, I -- I don't think that I can

18 address this contamination issue.

19 Q (BY MR. WYATT) Does the quantity depend

20 upon the circumstances of the contact?

21 A Yes.

22 Q And how is that?

23 A I guess way over in -- in this range is if I  
24 had a heart condition and I -- and I took NG tablets  
25 and I held them in my hand, you know, that would be --

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1 I mean, there's just flat out NG there. Way over in  
2 this instance, there might very well be somebody in  
3 this room with NG in them because I'm in explosives --  
4 I'm not now, but I work in an area where there might  
5 be something on a table. So you don't know -- when  
6 you go into a bomb truck, for instance, you don't --  
7 you know, NG, for example, has a high vapor pressure.  
8 It could sit and go away on a metal surface. You  
9 can't -- you've got to look at a history to define  
10 that and I don't think that's possible.

11 Q Are the circumstances of the contact not  
12 important in forensic science?

13 A Of course, they are.

14 Q In what way?

15 A If I shake your hand, that's a contact. If  
16 I open that door, that's a contact. If you come  
17 behind me and open that door, your contact with that  
18 door might get PETN and RDX on you if I've just held  
19 some plastic explosive.

20 Q So under those circumstances, isn't that  
21 something that you have to consider for purposes of  
22 determining if there's contamination?

23 A Yes. Whether there's been contact or not.  
24 But I can't define to you how much material I've -- I  
25 could. I could, sir, but we don't take swabs of law

1 enforcement officers' hands.

2 Q If the circumstances of the contact are  
3 important, then why isn't the quantity important?

4 A If you -- if you want to run after that, you  
5 can. Okay? We'd have to have a very large database  
6 to make those kinds of determinations and it's a  
7 database that continually would get larger and larger  
8 and larger and larger. It's not -- it is not  
9 something we've defined. There are studies where  
10 contact, opening doors or whatever have been done and  
11 how much material is present. Okay? But suppose I  
12 open the door and there's a tiny amount left, but it's  
13 the same amount that might come from -- I don't  
14 know -- the vapor pressure or whatever. We just don't  
15 have that data, Mr. Wyatt. I see what you want to  
16 know here, but it's not an area that we delve into.  
17 What we have to do to address that issue is just  
18 simply determine at each step of the way, is there a  
19 possibility of contamination through a qualitative  
20 analysis.

21 Q Now, there was one other spectra that I  
22 wanted to address. And that's a situation and this  
23 time, just -- we can still use nitroglycerine. That's  
24 fine. If there are multiple -- excuse me -- using  
25 PETN as your example or as your standard, your control

1 item, if there are multiple peaks within a small band,

2 would you rely upon that type of standard?

3 MS. WILKINSON: Could you clarify what

4 machine you're talking about.

5 Q (BY MR. WYATT) GC chem Egis.

6 A I haven't had to -- I -- yes, I understand

7 where you're coming from there and I guess I would

8 look at the baseline resolution of the peaks. And I

9 would also do standard additions to the peaks. I

10 wouldn't rely on it specifically, but with our Egis, I

11 haven't -- chemiluminescence -- GC chemiluminescence

12 never presented that issue to me. Had it presented

13 the issue, I wouldn't know which peak was which. And

14 I did have that show up in another situation. I

15 wouldn't know which peak was which and I would have to

16 address that, yes.

17 Q And how would you address that finding

18 within your standard?

19 A One way, if the peaks are too close, would

20 be to change the column and broaden out the column or

21 change the analysis conditions. Another way would be

22 to put in a standard addition.

23 Q Maybe -- Dr. Lloyd suggests that maybe I

24 haven't been clear and I accept that. What I'm

25 suggesting is that would you -- would you agree with

1 me that a PETN spike or peak should also be a single

2 crisp peak?

3 A Yes, sir.

4 Q If we have a row of peaks all within the  
5 same band for that particular item, it's just a group  
6 of peaks, not necessarily within the same band?

7 A Yes.

8 Q Would you rely upon that type of standard?

9 A What I would have to do would be to run -- I  
10 would either have to have information from the  
11 manufacturer related to that particular column, where  
12 the column had been run or I'd have to run the  
13 individual materials themselves to tell me at which  
14 point the peaks came out. I'd have to run a standard  
15 on top of the standard so it's called a standard  
16 addition in order to determine once I run this  
17 standard, the peak gets higher and I see, okay, that's  
18 NG and then I run PETN and that's PETN and we've done  
19 that in the past.

20 Q Would that be the standard method for  
21 addressing this issue?

22 A I don't know that it's the standard method,  
23 but it's a method that I've used.

24 MR. WYATT: I will just move on and indicate  
25 for the record that the Government has objected to us

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1 showing you the exhibit so that we could explain this.

2 I think we're just spinning our wheels trying to have

3 me explain something that is so technical.

4 Q (BY MR. WYATT) You mentioned something

5 just then that I wanted to come back to from this  
6 morning and that was that you may rely upon the  
7 standard provided by the manufacturer of the  
8 equipment. Is that what you just said?

9 A Yes.

10 Q What data is provided to you by the  
11 manufacturer to support that those standards are  
12 accurate?

13 A Standard chromatograph --

14 MR. HARTZLER: May I interrupt you,  
15 gentlemen? I'd have no objection if we took an early  
16 afternoon break. In fact, that would be convenient.

17 MR. WYATT: That's fine.

18 MR. HARTZLER: Would that help you out and  
19 you could sort things out?

20 MR. WYATT: Certainly.

21 MR. HARTZLER: Okay. Why don't we resume  
22 then about 3:00.

23 MR. WYATT: Okay.

24 MR. HARTZLER: Thank you.

25 (There was a recess taken from 2:41 p.m. to

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1 3:00 p.m.)

2 Q (BY MR. WYATT) Back on the record. We've  
3 had about a 22-minute break. Dr. Whitehurst, in your  
4 opinion as an examiner of explosives and trace  
5 analysis, is it good science for the examiner or the  
6 laboratory in general to rely upon the standards  
7 provided by the manufacturer of, for instance, the GC

8 chem without running your own independent standard to  
9 verify that? That the standard is accurate?

10 A I wouldn't answer that generally, yes. I  
11 would say generally, no. I'm well-acquainted with the  
12 quality of this particular manufacturer. The Egis,  
13 the Thermetics Corporation. Also -- well, that's --  
14 and we get the standard. We run against that standard  
15 to begin with. And then the standard is appropriate.

16 Q So what you're telling us is you do validate  
17 the standard?

18 A Yes. And the -- the standards that we use  
19 are -- are separate standards.

20 MS. WILKINSON: Mr. Wyatt, could you make it  
21 clear if it's done every time or at the beginning when  
22 the machine first comes to the laboratory?

23 Q (BY MR. WYATT) That's a fair statement.  
24 Is that only done one time when the machine is new or  
25 is that done --

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1 A No. No. No. We get the standards from the  
2 manufacturer. I validated the standard myself that we  
3 had a long time ago. You know, when we first get --  
4 in fact, we bought this instrument in 1993, I believe.

5 Q Okay. So the question was: Is the standard  
6 provided by the manufacturer only validated one time  
7 and then it's used as a standard after that or do you  
8 occasionally check the standard?

9 A No. I -- I validate -- you know, I  
10 validated that standard once or twice and that's all

11 and then I trust the standard.

12 Q Would you agree with me, sir, that the  
13 GCECD, the GC chem, the HPLC, and the IMS are general  
14 screening tools in the analysis of explosives residue?

15 A I would not agree with that statement about  
16 the IMS. I do not trust the IMS.

17 Q That's because you have --

18 A Experience with its high failure rate. The  
19 other instruments are general screening tools. They  
20 are a gas chromatographic column or HPLC column. I  
21 don't know if you named one gas chromatographic  
22 column with a nonspecific -- a relatively nonspecific  
23 detector on them.

24 Q Would you agree with me that more specific  
25 tests for -- not screening tests but actually tests to

405

1 identify substances would include the SPMS, the GCMS,  
2 and the LCMS?

3 MS. WILKINSON: Could you repeat those? I'm  
4 sorry.

5 MR. WYATT: SPMS, the GCMS and the LCMS.

6 A I take it by the SPMS, you mean the solid  
7 probe mass spec.

8 Q (BY MR. WYATT) Solid probe. Yes.

9 A They are more specific detectors, yes.

10 Q And by "more specific," does that mean they  
11 have a -- a higher detection level?

12 A A higher reliability of specificity, if you  
13 will.

14 Q Would you consider -- or strike that.  
15 In the FBI laboratory, in the trace analysis  
16 laboratory, when you were there, was it standard  
17 operating procedure to accept the GCECD, the GC chem,  
18 or the HPLC as orthogonal techniques when used in  
19 conjunction with one of those others? One of those  
20 three? Same three.

21 A It would give you results consistent with --  
22 results consistent with.

23 Q Would you rely upon that -- using one of  
24 these same three techniques as an orthogonal technique  
25 when using one of those same three techniques on a

406

1 sample? In other words, you used two of those three  
2 general machines to come up with a positive or  
3 negative result.

4 A There was a period of time in which we had  
5 to because we didn't have other capability. But a  
6 positive result could be a positive consistent with a  
7 high degree of reliability or a positive  
8 identification.

9 MR. KOHN: I don't think that --

10 Q (BY MR. WYATT) And basically, my question  
11 is is that an orthogonal type technique?

12 A I wouldn't view it as an orthogonal type.

13 Q And it's my understanding that the protocol  
14 at the laboratory is to use an orthogonal type  
15 technique in order to validate the substance or to  
16 confirm it.

17 A As much use as possible, yes.

18 Q Does the FBI laboratory maintain

19 descriptions of the conditions and parameters of the

20 instrumentation that it uses?

21 A Yes.

22 Q Such as the temperature of injections and

23 columns in the GC?

24 A Yes, sir.

25 Q Where would that type of data be maintained?

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1 A In the protocol.

2 Q And that's in the written protocol in the

3 protocol notebook?

4 A Yes. That's where it should be. Uh-huh.

5 The conditions -- by the way, the Egis GC

6 chemiluminescence, some of that is proprietary. Some

7 of it is proprietary and we don't have -- we don't --

8 when I was using the instrument after I'd procured it,

9 we didn't have that. The type of column, the length

10 of the column, those sorts of things.

11 Q Fair enough. With the name and

12 manufacturer, the model year, things of that nature,

13 would that type of data also be kept on the

14 instrumentation as being used at any given time?

15 A Yes, it would.

16 Q And would that be something that would be

17 maintained even if that equipment is no longer in use

18 to confirm testing that was done in the past?

19 A It's maintained on the data, itself. If you

20 have a chart --

21 Q So on the GC chem --

22 A On the GC chem, you know it's an Egis and

23 you have to look at other gas chromatograph detectors

24 and there's a stamp or it's filled in and this tells

25 you the column and the -- and the -- the -- whatever.

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1 Q This morning, just to clarify things, I

2 thought you told me there was another GC chem that was

3 not Egis that was used in the laboratory.

4 A Yes. It's new.

5 Q That's a new piece of equipment?

6 A Yes. It's a new piece of equipment.

7 Q Okay. Are the rates of error for false-

8 positives or false-negatives kept for each instrument?

9 A No, sir.

10 Q Is that something that you believe should be

11 done to conduct good science?

12 A Yes, sir.

13 Q And the FBI laboratory does not have a

14 protocol for maintaining that type of information?

15 A I did not do it myself.

16 Q You did not prepare a protocol to that

17 effect?

18 A I didn't keep a false-positive, false-

19 negative record myself and I don't know that it's

20 being done now.

21 Q Is there a protocol that addresses that

22 situation?

23 A I don't know if there is or not.

24 Q And --

25 A There was not as of 1994.

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1 Q So in the explosives residue analysis lab,

2 there was not one when you left?

3 A Yes. Our -- our record is -- is anecdotal.

4 MR. KOHN: One second.

5 (Mr. Kohn conferring with the witness.)

6 Q (BY MR. WYATT) So just so I'm clear then,

7 the rates of error for the instrumentation is not

8 something maintained by the FBI laboratory when it

9 does explosives residue analysis?

10 A Not on paper that I'm aware of, sir.

11 Q If it's not on paper, is there some other

12 way it would be stored?

13 A It's just anecdotal. We know when we were

14 here, when we were there and, you know --

15 Q So you're not suggesting it's in a database

16 somewhere to distinguish it?

17 A It is not that I'm aware of.

18 Q Okay. Not any written form. Is it standard

19 protocol to print out all spectra from samples that

20 are run in the laboratory? By samples, I mean

21 specimens.

22 A Excuse me?

23 Q Okay. As opposed to blanks or standards,

24 when you are testing a particular Q or K item, is it

25 standard protocol to print out the spectra for each

1 item?

2 A I do that. I don't know that it is part of  
3 a written protocol.

4 Q In your opinion as an expert in the analysis  
5 of explosives residue, should that data be maintained  
6 by the FBI laboratory for sample testing?

7 A I think any instrumental output at all  
8 should be maintained.

9 Q Do you have any explanation why there might  
10 be skips in the sequence of spectra in any given case?

11 A No, sir.

12 Q Would it be consistent with good scientific  
13 practices to not print out each sample spectra tested  
14 or the spectrum for each sample tested?

15 A It should be done. Years ago when I was  
16 trained in the laboratory, my training indicated -- in  
17 my early interaction in the laboratory, I saw  
18 instances where data came out that was an explanation  
19 for why it -- you know, it was just garbage. Instead  
20 of keeping it, I mean, it was disposed of. I don't  
21 think that's good laboratory practice. I don't think  
22 it's necessarily unethical or out of line or whatever,  
23 you know. If you have prepared a sample wrong, if you  
24 can say why the data is out of line, if you know that  
25 there's something wrong with the way you prepared the

1 sample or whatever, if you have an explanation, then  
2 the data is no good. I personally think that in these  
3 circumstances, with this -- everything we generate  
4 should be kept. It makes for a lot of paper. But we  
5 need to be able to articulate our reason for why so it  
6 can be -- it can be judged, if you will, why this  
7 data -- we don't think is good.

8 Q With the standards in the industry, the  
9 examination of explosives residue -- let's strike  
10 that. Let me rephrase that.

11 If the printouts of the spectra are not  
12 maintained, would the standards in the industry  
13 require that there be some notation in the lab notes  
14 explaining why they are not?

15 A There are not now.

16 Q Pardon?

17 A There are not such standards right now.

18 Q Okay.

19 A Such standards don't exist. There's no  
20 protocol. There's nothing that says print it out no  
21 matter what.

22 Q And you mean that's -- there's no protocol  
23 at the FBI lab?

24 A One of the things that might happen, for  
25 instance, with the GC chemiluminescence instrument

1 that would explain missing, is that you put in a  
2 sample, it's so concentrated that you have to run that

3 instrument 50 or 60 or 100 times in order to get the  
4 material gone.

5 Q On a blank.

6 A On a blank.

7 Q Correct.

8 A That it's just washed over the instrument.

9 That -- it -- you know, I would -- I would imagine for  
10 purposes of judging why those blanks were gone, the  
11 missing tape, if you will, that you'd write something  
12 down, that would be -- that would be something that  
13 would be valuable. And I -- I could see that, you  
14 know, I hadn't -- that hadn't been suggested to me  
15 before.

16 Q In the absence of that information being  
17 written down, does that cause you, as a scientist, any  
18 concern about the operation of the equipment?

19 A No, sir.

20 Q About the validity of the samples tested?

21 A No. If I -- if I had reason to question, I  
22 would question. I'm missing data. But I don't have  
23 reason to question. I know with the Egis, it gets  
24 overloaded very easily. It's just a common thing.  
25 It's a very sensitive piece of equipment. So we don't

1 get 25 yards of paper coming off of it while we're  
2 trying to get RDX or PETN or whatever to wash out of  
3 it.

4 Q Other than running these blank samples to  
5 clear your machine, so to speak, is there any

6 legitimate purpose not to print out the spectra from a  
7 scientific standpoint?

8 A I can't think of any right now.

9 Q For purposes of these next series of  
10 questions, I'm going to talk about a chain of custody.  
11 I am not referring to chain of custody in the legal  
12 sense. I am referring to the continuity or  
13 maintaining where items have been within the  
14 laboratory. Can we agree on that? We can use that  
15 definition. In the British terms, they refer to it as  
16 a continuity report. Are you familiar with that term?

17 A Yes. I know what you're referring to.

18 Q Is there a procedure for maintaining the  
19 continuity report or the chain of custody at the FBI  
20 laboratory specifically as it relates to explosives  
21 residue analysis?

22 A There is now.

23 Q When did that procedure go into effect?

24 A Within the last year. Maybe year and a  
25 half.

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1 Q What is that procedure today?

2 A I have dealt with it only in that I've seen  
3 it and I've seen the documentation to it. I think --  
4 I'll describe it, but I think it's best to ask a case  
5 worker who's actually working cases. There is a piece  
6 of paper that now is a document log -- I mean, an  
7 evidence log or whatever that -- that is, you know --  
8 it's filled out. Before, there were a number of ways

9 that we were doing it. Some people were just keeping  
10 it on scratch -- not scratch paper, but, you know, a  
11 piece of paper. Some people were keeping it as notes  
12 on -- but we have standardized that procedure now.

13 Q So in other words, with each item that is  
14 floating around the lab for whatever purpose, going  
15 from unit to unit or just for maintaining it there for  
16 storage, is there a sheet of paper dedicated to that  
17 item, that Q item or K item?

18 A There are a number of sheets of paper.  
19 Every auxiliary examiner -- if I understand the  
20 process correctly, every auxiliary examiner has those  
21 sheets of paper.

22 Q But -- maybe I wasn't clear. For each item,  
23 would there be an individual log?

24 A No. Not that I'm aware of.

25 Q So there is a master log that is just a

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1 running log of all Q and K items within the lab at any  
2 given time?

3 A There might be in -- in a principal examiner  
4 environment. When the AE gets -- most of the cases, I  
5 worked with an AE. When the AE gets the evidence,  
6 there is a log that's filled out that stays with that  
7 and is part of the record. Okay? So each -- suppose  
8 you had an examiner in explosives, an examiner in  
9 hairs and fibers and an examiner in materials  
10 analysis. They would have a log of their handling of  
11 the evidence is what I understand right now.

12 Q And would that log account for each person  
13 whose hands that item came into? You should --

14 A I believe it does right now.

15 Q Now, previous to this protocol or procedure  
16 from a year ago, what was the practice within the lab  
17 for identifying the chain of custody or the continuity  
18 report?

19 MR. HARTZLER: By the way, I think that he  
20 testified he wasn't certain when it came into effect,  
21 but a year to a year and a half ago, possibly.

22 MR. WYATT: Okay.

23 MR. HARTZLER: Is that right?

24 MR. WYATT: We'll let the record speak to it  
25 itself. I don't have an objection. Whatever he

1 testified to.

2 MR. HARTZLER: Your question incorporated a  
3 year.

4 Q (BY MR. WYATT) Certainly, I'm not limiting  
5 it to time. Whenever the procedure was recently  
6 changed, what was the practice before that?

7 A There were a number of practices. Some  
8 examiners didn't want their technicians' or the  
9 scientists' names on the papers. I wanted anybody  
10 that touched my evidence or dealt with it to have  
11 their initials. I wanted to be able to identify --  
12 and that's something I had to incorporate in the way I  
13 did things after three or four years. So, you know,  
14 sometimes you'll be able to know who touched the

15 evidence from, you know, back a while ago and  
16 sometimes you won't. You won't know, for instance, if  
17 I send a piece of -- of material over to the SEM,  
18 unless -- now, you will, but a long time ago, you  
19 might not know unless you just know that the fellow  
20 that runs the SEM worked on it or the FTIR or  
21 whatever.

22 Q You indicated that about four years into  
23 working at the lab, you implemented that same type of  
24 procedure in the explosives residue analysis unit? Is  
25 that my understanding?

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1 A Explosives residue, yes.

2 Q So at least as it relates to people handling  
3 evidence within that small unit, there would be a  
4 continuity of reporting?

5 A Not necessarily. That was what I wanted to  
6 do. And I believe that that practice has carried  
7 forward, but I don't know.

8 Q Is that information necessary or important  
9 or significant to you -- strike the word "necessary."

10 Is that important or significant as a  
11 scientist for contamination issues?

12 A Yes, sir.

13 Q Why is that?

14 A When it's out of my sight, I need to know  
15 or -- you know, someone would maybe, if they were  
16 questioning the contamination issue, need to find out  
17 where did it sit? Who touched it? Did you lay it,

18 you know, on a table? Did you, you know -- have you,  
19 oh, interrogated that table? Have you analyzed --  
20 done a contamination study on that table? That kind  
21 of -- those kinds of issues might -- and if I don't  
22 have any personally, I'd like to know where it was.  
23 If I was going to address the contamination issue, I'd  
24 want to follow each step and know what was done with  
25 that piece of evidence. May I give you an example?

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1 Q Certainly.

2 A If I send a piece of -- of material to the  
3 SEM, he doesn't do it immediately. He puts it in a  
4 locker. I've never tested his locker for  
5 contamination. I don't know what else he's had in  
6 there. Well, okay. That might be a question you'd  
7 raise. Okay.

8 Q One question, what is an SEM?

9 A Scanning electron microscope.

10 Q Okay.

11 (Mr. Kohn conferring with the deponent.)

12 Q (BY MR. WYATT) In your opinion as an  
13 expert in explosives residue analysis, is it good  
14 science to not have that information concerning the  
15 chain of custody or continuity?

16 MR. HARTZLER: I object. You're compounding  
17 it again. The first question is is it a scientific  
18 question. And then the question is is it good  
19 science. But to ask him the compound, I think, is  
20 unfair.

21 MR. WYATT: I said in his experience --  
22 MR. HARTZLER: I understand.  
23 MR. WYATT: -- is it good science.  
24 MR. HARTZLER: I understand. The question  
25 is, first, is it a scientific issue. The scientific

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1 question. And if it's a scientific question,  
2 obviously, you can rely on his scientific knowledge.

3 Q (BY MR. WYATT) Is it a scientific issue?  
4 Do scientists in this industry rely on chain of  
5 custody information for --

6 A It could affect your interpretation of the  
7 data that you've got.

8 Q Okay. Now, is it good science, in your  
9 opinion, not to have that information?

10 MR. HARTZLER: I'm sorry. I'm sorry. I  
11 just -- I think it's an unfair question. My objection  
12 is if you're asking him if he's given an item to  
13 evaluate and he examines it and comes up with a result  
14 of his science, is that result affected by whether or  
15 not there is contamination or not or the possibility  
16 of contamination? Is that --

17 MR. WYATT: I'm asking him if the omission  
18 of the chain of custody information for contamination  
19 purposes is practicing good science.

20 MR. HARTZLER: My question is: Are you  
21 talking about the good science being his examination,  
22 his analysis of the residue, whether or not the  
23 machines and the data that he interprets --

24 MR. WYATT: I think the question is --

25 Q (BY MR. WYATT) Do you understand my

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1 question, Dr. Whitehurst?

2 A I think the issue of good science, I can

3 couch in another -- let me do this slowly and stop me.

4 I --

5 Q Let me just simplify the question. Is it

6 good laboratory practice or not?

7 A I don't think it's good laboratory practice.

8 Q And as a scientist with experience and

9 expertise in examining explosives residue, would you

10 be able to rely on the fact that contamination is not

11 present when you don't have that data?

12 MR. HARTZLER: I object. If he's asking a

13 contamination question, the answer is obvious. But if

14 he's asked to examine a piece of evidence and come up

15 with a scientific result of the examination, it's a

16 different issue. I mean, clearly, if contamination is

17 an issue he's asked to examine, he said just a moment

18 ago, if he were to address the contamination issue.

19 (Mr. Kohn conferring with the deponent.)

20 Q (BY MR. WYATT) Dr. Whitehurst, maybe I can

21 simplify this. Contamination is always a concern in

22 trace analysis for explosives residues; correct?

23 A Yes.

24 Q That's something that any good scientist in

25 the field would have to consider?

1 MR. HARTZLER: Object.

2 A Yes.

3 MR. HARTZLER: Clearly, any lawyer would  
4 have to consider it, but you're asking him, I thought  
5 you were trying to get to the point does it affect his  
6 result. When I it out a result and when he gets data  
7 and interprets the data, that's the science that he's  
8 applying to the particular item. He said a moment  
9 ago, if he were asked to address the contamination  
10 issue, please, I fully understand. He is -- as a  
11 member of the FBI laboratory asked to identify the  
12 contamination issue, clearly, there are issues that he  
13 needs to address. You keep imposing this science as  
14 though whether -- if I give him a piece of material  
15 and ask him to analyze it, the PETN or not, well, the  
16 result is the result. Is that fair? Is that fair?

17 MR. KOHN: I don't think.

18 MR. WYATT: Actually --

19 MR. KOHN: No. I think the way the  
20 structure -- I think the question was to come from  
21 here.

22 MR. HARTZLER: We're informal.

23 MR. KOHN: My concern is some of the  
24 proceedings, three or four people start asking  
25 questions at the same time.

1 MR. HARTZLER: We don't do that. We're  
2 running late in the day. I want to clear the record.  
3 Go ahead.  
4 A Maybe I can clear this up. Okay. In  
5 science, we need controls. If we don't have controls,  
6 we don't have science. If I don't know who touched  
7 the thing, I can't tell you -- I'm not a technician  
8 that tells you there's PETN there. I'm a scientist  
9 that tells you what the meaning of finding PETN or  
10 finding the data means. If I've got no controls over  
11 that and I don't know who touched it and where it lay  
12 or whatever, I can't give you a reliable answer.  
13 Q (BY MR. WYATT) Fair enough.  
14 A Did that do it?  
15 Q That did it.  
16 A Wow.  
17 MR. HARTZLER: It didn't do it for me.  
18 MR. WYATT: You can ask follow-up questions  
19 later.  
20 MR. HARTZLER: When? When --  
21 MR. WYATT: During cross-examination.  
22 MR. HARTZLER: When is that going to be?  
23 I'm concerned about having the record being a little  
24 muddied. We're running out of time.  
25 MR. WYATT: I understand that. We didn't

1 put limitations on the deposition.  
2 MR. HARTZLER: Neither did we. Just give me

3 a few minutes at the end of the day, Bob. Is that  
4 okay?

5 MR. WYATT: I don't know.

6 MR. HARTZLER: Two minutes. 120 seconds.

7 MR. WYATT: There's only so many -- I --

8 MR. KOHN: I just want --

9 MR. WYATT: I think we have to proceed in  
10 the fashion in which you all set the limitations. You  
11 said it was going to -- you said it would be one  
12 person asking questions. I can't have my expert just  
13 sit here and talk to him as you all did with your  
14 people. You all set the limitations, on Saturday, you  
15 had an opportunity to question him and I feel certain  
16 he would answer if more than one person asked him  
17 questions on Saturday.

18 MS. WILKINSON: We had no experts present.  
19 That's what you're implying.

20 MR. WYATT: I'm not suggesting that.

21 MR. HARTZLER: Sure. That was informal.

22 MR. WYATT: That was much more informal.  
23 You all are the ones who on the record asked the court  
24 to limit it to one person asking questions and to use  
25 a standard deposition format.

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1 MR. HARTZLER: Well, we don't need to  
2 discuss this right now rather than waste time. I  
3 don't agree that it was our requirement. I thought  
4 Mr. Kohn was the one that set those requirements.  
5 We -- we can change the agreement if that's what

6 you're looking for. If you want to have more people,  
7 that's fine. We can do that. Is that what you're  
8 suggesting? I thought you were the ones that wanted a  
9 deposition and Mr. Kohn said one questioner and we  
10 went along with that.

11 MR. WYATT: Let's move along. You might get  
12 your opportunity to do it today. I don't have a major  
13 objection to you asking him a question, but I do have  
14 an objection to changing the procedure in midstream.

15 MR. HARTZLER: That's very fair. I just  
16 didn't want the record to be, I thought, very  
17 misleading. That's why I make the objection.

18 MR. KOHN: I'm going to throw in one thing.  
19 In a letter, I did state that my preference was to  
20 have only one person asking questions to be clear on  
21 that because in another time we did this, we had  
22 multiple people who were asking questions. Sometimes  
23 chiming in two at the same time. The procedure just  
24 was --

25 MR. HARTZLER: That wouldn't happen here.

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1 MR. KOHN: -- disjointed and, Joe, I don't  
2 think the question you want to ask, there's anything  
3 wrong with it, but I just don't want to get like it  
4 happened one other time when, all of a sudden,  
5 everyone is chiming in. I'm trying to hold on to some  
6 structure.

7 MR. HARTZLER: Fair enough. Fair enough.

8 Q (BY MR. WYATT) In your expert opinion,

9 should lab notes be dated?

10 A Yes.

11 Q Should the lab notes identify the PE?

12 A I haven't done that myself in the past as a

13 PE. I haven't seen a -- a problem with that myself in

14 the past. I guess it's because they are my lab notes

15 and I recognize the handwriting.

16 Q Should the lab notes identify the AE?

17 A Again, I've -- I've done AE lab notes and I

18 recognize them as my notes and I don't -- we have a

19 protocol in place in which in my last few cases I

20 worked, all the pages were numbered and all of them

21 were initialled. But I don't remember doing that. It

22 wasn't an issue with me.

23 Q Would you agree that at times, examiners can

24 move, change jobs, die, whatever? Changes in

25 circumstances can change within the lab?

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1 A Sure.

2 Q And failure to identify that information,

3 would that impact someone else interpreting the data?

4 A I think we've recognized that and I think

5 the change has been put in place now.

6 Q Okay. Would it identify or should it

7 identify lab techs or chemists?

8 A I believe that it should.

9 Q Both of them? I'm using that

10 interchangeably.

11 A Yes. That's correct. I believe that it

12 should.

13 Q Should the lab notes identify the chain of  
14 custody or continuity?

15 A Yes.

16 Q Should extraction procedures used in  
17 analyzing a particular item be identified in the lab  
18 notes?

19 A I believe it's part of the procedure. I --  
20 I have done it myself.

21 Q Would that be something that you, as a  
22 scientist, would expect to see in someone else's lab  
23 notes if you were going to interpret the data?

24 A Yes.

25 Q Would that be something you would need to

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1 interpret the data?

2 A Yes.

3 Q Should identification of the solvents used  
4 be identified in the lab notes?

5 A Yes.

6 Q Should the instrumental analyses used be  
7 identified? And by that I mean, each technique?

8 A Yes.

9 Q Should the results of the analysis be  
10 identified in the lab notes?

11 A Yes.

12 Q And I would take it that you would dispute  
13 whether quantitative data should be included in the  
14 lab notes.

15 A If you do quantitative data. I have done  
16 cases where I did quantitative data. Not in residue  
17 analysis that I remember, though.

18 Q Okay. With respect to each of those items  
19 that I've asked you whether they should be in the lab  
20 notes, is that significant in interpreting the data?  
21 Is all of that information significant in  
22 interpretation of the data?

23 A The names of the lab techs, if you have to  
24 talk to them, the names of people that worked on it,  
25 if you have to talk to them.

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1 MR. HARTZLER: May I just ask for  
2 clarification? You're asking him is it important for  
3 interpretation of the data such as the spectra that  
4 are printed out? Is that your issue?

5 MR. WYATT: Lab notes.

6 MR. HARTZLER: Then you said data.

7 Q (BY MR. WYATT) Whatever is included --  
8 whatever sampling or testing was done, is it important  
9 for the interpretation of the data or the results of  
10 testing to know these things that I have just asked  
11 you?

12 MS. WILKINSON: Can I ask for one  
13 clarification? I think we're getting a  
14 misunderstanding between the two of you. Is it  
15 important for the person who's actually issuing the  
16 expert opinion like Dr. Whitehurst if -- or are you  
17 talking about someone else coming in for a second

18 review?

19 Q (BY MR. WYATT) If someone is wanting to  
20 interpret that data, someone other than the person who  
21 performed the testing, would they need to know all  
22 that information in order to responsibly interpret the  
23 data?

24 A I think if they were going to question the  
25 people that did the work, they would, yes. The

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1 rest -- the names of the individuals, I don't see --

2 Q So should we expect to find that information  
3 in the lab notes of examiners from the FBI explosives  
4 analysis laboratory?

5 A Not necessarily.

6 Q Why not?

7 A You might want it, but you may not find it.

8 I -- I don't know what's going on right now. I know  
9 that the man that took over for me has very extensive  
10 notes.

11 Q Mr. Burmeister?

12 A Yes. His notes are very extensive.

13 Q Would you expect to find this data or these  
14 various categories of information I've described in  
15 his notes?

16 A Yes. I think so.

17 Q Is there anything else other than those  
18 categories of items that you would expect to find in  
19 the lab notes of a good scientist?

20 A You didn't talk about the instrumental

21 conditions. You talked about the instruments, but you  
22 didn't talk about the conditions. An instrument can  
23 be configured in a different manner and that --  
24 without that, then you can forget it. You know, it's  
25 not that -- using a GC mass spec, you're using

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1 particular conditions in the GC mass spec and you've  
2 got to put that in.

3 Q For instance, yesterday, Mr. Tigar said that  
4 various machinery or instrumentation can be programmed  
5 by the operator?

6 A Yes, it can.

7 Q And that's the type of information you're  
8 talking about now?

9 A Yes. Without that, the work can't be  
10 repeated.

11 Q Anything else that you would expect to find  
12 in the lab notes?

13 A No. Not that I can think of.

14 Q In your expert opinion, should protocols be  
15 developed prior to a particular occurrence or  
16 examination or can those protocols be changed during  
17 the examination?

18 MR. HARTZLER: Before you answer, I have  
19 allowed of lot of this to go on. We're spending a lot  
20 of time. My objection is that I understood this  
21 deposition to be for the purpose of discovering  
22 information, not to use him as an expert witness to  
23 elicit his expertise in these various areas to review

24 things. I've let it go on. You know, it's -- it was  
25 objectionable, but I wonder if we could address that

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1 with the court. Is there another area you could slip  
2 into and move on?

3 MR. WYATT: My purpose in that is in the  
4 absence of that, I don't want someone crying foul on  
5 foundation. That this witness is not capable or  
6 qualified to be making these decisions. I mean, if we  
7 have a stipulation --

8 MR. HARTZLER: "This witness" being  
9 Dr. Whitehurst?

10 MR. WYATT: Yes. I mean, I don't want you  
11 to challenge at some future point that he is not an  
12 expert in this field and, therefore, cannot give us  
13 opinions about this information. When we're asking  
14 for procedures.

15 MR. HARTZLER: Sure. If you were to call  
16 him as a witness and qualify him as an expert? Is  
17 that your point? I'm sorry. I misunderstand.

18 MR. WYATT: I'm talking about for purposes  
19 of the record being made in this sworn testimony  
20 today.

21 MR. HARTZLER: I know. We've been going  
22 over a number of things. You've been asking him is  
23 this -- in your opinion, is such and such necessary.  
24 In your opinion. I thought our purpose was to  
25 discover information. He had provided information to

1 the Inspector General. We have disclosed a fair  
2 amount of that. I thought we were going to elucidate  
3 that in these days of deposition. I thought it was  
4 primarily for discovery purposes and you're now trying  
5 to elicit his opinion reviewing hypothetical  
6 situations and various other things. I'm not seeing  
7 the relationship to the discovery process is all.

8 MR. WYATT: The relationship is we don't  
9 have protocols, although we've been told that we have.

10 MR. HARTZLER: You don't have that?

11 MR. WYATT: We don't have that. There's  
12 manuals. We discovered that today. If I don't go  
13 into these, I don't know what's out there. That's  
14 what I'm trying to find out is are those things there  
15 and if not, should they be.

16 MR. HARTZLER: I have --

17 MR. WYATT: Should we be looking for them.

18 And that's why I'm asking the questions. That's  
19 simple foundation.

20 MR. HARTZLER: I didn't object to those  
21 questions.

22 MS. WILKINSON: That's not what this  
23 question was. This is an opinion question.

24 MR. WYATT: Well, the objection is certainly  
25 noted for the record regardless.

1 MS. WILKINSON: Mr. Wyatt, just to make the  
2 record clear, I think we've said that we are trying to  
3 find additional protocols and that we were in the  
4 process of getting them to you all. I believe that's  
5 what we said during the last discovery hearing when we  
6 talked about protocols. We said the specifics would  
7 be in the examiner's notes, but we were trying to  
8 determine if there were additional protocols. I don't  
9 know --

10 MR. WYATT: My point is, the specifics are  
11 not there.

12 MS. WILKINSON: Well, that's --

13 MR. WYATT: That's our opinion.

14 MS. WILKINSON: My point is I think you're  
15 interested in the general protocols, some of the  
16 things that Dr. Whitehurst has been talking about and  
17 we said we'd go back and look for those materials.  
18 It's not that we're not going to provide them.

19 MR. WYATT: Can I ask when those will be  
20 provided?

21 MS. WILKINSON: We're still in the process.  
22 I know we got some in today. Some of the things  
23 Dr. Whitehurst has discussed with me, I've never heard  
24 of before.

25 MR. WYATT: For the record, I would note we

1 have a January 9 deadline to make challenges to all  
2 experts. Without this information, we cannot make  
3 those challenges and would have to seek a continuance

4 of that date without the appropriate information and  
5 appropriate time to review it.

6 MS. WILKINSON: Well, we're working on  
7 getting it as soon as we can. Like I said, the  
8 notebook that Dr. Whitehurst described, I've never  
9 heard of it. That doesn't mean --

10 MR. WYATT: There's no dispute in this room  
11 that we haven't been asked for this stuff since we  
12 filed our discovery request in December of 1995.  
13 That's in there.

14 MR. HARTZLER: I don't know. I mean, there  
15 may be.

16 MS. WILKINSON: It's not clear on all those  
17 items. But anyway, the dispute is -- we'll go look  
18 for all the items and try and get them to you.

19 Q (BY MR. WYATT) Are there any written  
20 protocols concerning the handling of bulk explosives?

21 A I don't know of any.

22 Q And that was neither true at the time you  
23 were in the lab or today, to your knowledge?

24 MR. HARTZLER: You mean that he doesn't  
25 know.

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1 A I need to -- Mr. Maddock, I need to talk to  
2 you, sir.

3 (There was a recess taken from 3:43 p.m. to  
4 3:45 p.m.)

5 MR. WYATT: Everything resolved on that?

6 MR. MADDOCK: Yes.

7 MR. KOHN: Do you have a record to make?

8 MR. MADDOCK: In conformance with the  
9 instructions that letter that was circulated to  
10 everybody, Dr. Whitehurst is instructed not to answer  
11 that question.

12 MR. WYATT: Okay. Okay. And the question  
13 was whether there are written protocols concerning the  
14 handling of bulk explosives.

15 MR. KOHN: Yeah.

16 MR. MADDOCK: That's correct. He's been  
17 directed not to answer that question.

18 MR. WYATT: And would it be fair to assume  
19 then that any follow-up questions concerning bulk  
20 explosives may not be answered?

21 MR. MADDOCK: I think we have to take it one  
22 at a time.

23 MR. WYATT: Okay.

24 MR. MADDOCK: Maybe it would help -- could  
25 you clarify what you mean by "bulk explosives."

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1 MR. WYATT: Standards.

2 MR. MADDOCK: You're talking about  
3 standards?

4 MR. WYATT: I'm talking about any bulk  
5 explosives that might be exposed to the trace analysis  
6 unit at any time. We're discussing contamination is  
7 what we're discussing or possibilities thereof.

8 MR. MADDOCK: Okay.

9 MR. KOHN: You can't answer. Let's go off

10 the record a minute.

11 MR. WYATT: Just so you're clear, too.

12 Standards -- I'm not limiting that to some minute item

13 that can be placed through one of these instruments.

14 I'm talking about visible pieces of explosive material

15 that might venture into the laboratory for whatever

16 purpose.

17 (There was a recess taken from 3:47 p.m. to

18 3:51 p.m.)

19 MS. WILKINSON: He can answer the question,

20 Mr. Wyatt.

21 MR. MADDOCK: I think we've clarified the

22 issue that you wanted to ask the question again.

23 Q (BY MR. WYATT) We were off the record a

24 moment ago when I said -- when I corrected myself.

25 I'm not referring necessarily to minute standards.

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1 I'm talking about any ex -- possible exposure of the

2 laboratory to bulk explosives, any visible amount, any

3 minute amount. I don't care what the amounts are.

4 A I'm not aware of any written protocol.

5 Q Okay.

6 MS. WILKINSON: Excuse me. Can we clarify?

7 For the storage of --

8 MR. WYATT: For the storage. I referenced

9 handling. I didn't use the word "storage."

10 MS. WILKINSON: Could you define what you

11 mean by "handling."

12 MR. WYATT: People coming into contact with

13 bulk explosives.

14 A I'm not aware of any written protocol for  
15 the handling, coming in contact with bulk explosive.

16 MS. WILKINSON: Just to make the record  
17 clear, that's in contrast, to my understanding, to the  
18 actual testing of the material. Would that be true?  
19 Could you ask Dr. Whitehurst that? Just to try to  
20 distinguish handling from actual testing because when  
21 you use the word "handling," it's hard to tell. You  
22 could --

23 Q (BY MR. WYATT) I am distinguishing those  
24 two things. You understand that in the question?

25 A Yes. Yes.

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1 MS. WILKINSON: Good.

2 Q (BY MR. WYATT) Are there procedures --  
3 excuse me -- are there written protocols in place at  
4 the FBI laboratory related to the handling of bulk  
5 explosives in the testing of samples?

6 (There was a recess taken from 3:53 p.m. to  
7 3:54 p.m.)

8 MR. MADDOCK: I direct that he not answer  
9 that question.

10 MR. WYATT: Was that on the record?

11 Q (BY MR. WYATT) Mr. Maddock has directed  
12 that you not answer that question; is that correct,  
13 Mr. Whitehurst -- Dr. Whitehurst?

14 A That's correct. Yes.

15 MR. WYATT: I would certify that issue to

16 the Court, by the way, if you need to mark that.

17 MS. WILKINSON: Excuse me for a second.

18 (There was a brief delay in the  
19 proceedings.)

20 MS. WILKINSON: Okay.

21 Q (BY MR. WYATT) As a scientist who examines  
22 explosives residue, is contact with bulk explosives an  
23 issue that concerns you?

24 A Yes, it is.

25 MR. HARTZLER: Can we -- can we continue on

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1 the discovery? I mean, you're asking him as though he  
2 was -- worked for the Maryland lab or something.  
3 You're not going to utilize him as an expert.

4 MR. WYATT: I think it applies to whether my  
5 asking these other questions is relevant. And I think  
6 I have to lay a foundation for the Court.

7 MR. HARTZLER: We're not going to object to  
8 your questions eliciting information about the FBI  
9 laboratory. I understood this to be the purpose of  
10 the deposition. That question could have been asked  
11 of -- of somebody from any state or country in the  
12 world. It's not unique to the FBI.

13 MR. WYATT: If it's important to the FBI --

14 MR. HARTZLER: We're not asking if it's  
15 important to the FBI.

16 Q (BY MR. WYATT) Is it important to the FBI  
17 laboratory whether it is?

18 MR. MADDOCK: Excuse me. I just want to

19 make a point of clarification that was raised at the  
20 outset of this thing in the letter that I provided to  
21 Mr. Whitehurst is that when he expresses a view here,  
22 he's expressing his own personal opinion and it is not  
23 necessarily the position of the FBI.  
24 MR. WYATT: Okay.  
25 MR. MADDOCK: Okay.

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1 MR. KOHN: That's set forth in the letter  
2 that's Exhibit Number 1. I think that's, you know,  
3 understood.  
4 Q (BY MR. WYATT) Was that the position of  
5 the FBI on June 1994 when you left that unit?  
6 A Yes, sir.  
7 Q I'm simply going to ask these next  
8 questions. You may or may not be able to answer them,  
9 but Mr. Maddock has advised I need to ask them for the  
10 record.  
11 MR. MADDOCK: Bob, if I could, just to  
12 clarify that last question, even when you ask him a  
13 question, is it the -- is it or was it the position of  
14 the FBI, he is not the authorized person to state that  
15 it is or was the position of the FBI. In other words,  
16 this is all his personal opinion, not the FBI's  
17 official position.  
18 MR. WYATT: As represented in your letter  
19 which is Exhibit 1.  
20 MR. MADDOCK: Exhibit 1.  
21 MR. WYATT: Okay.

22 Q (BY MR. WYATT) Now, I recognize that's a  
23 ground rule for this deposition. I'm not trying to  
24 get you beyond that. If such protocols exist, is  
25 there a manual where those protocols are maintained

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1 dealing with handling of bulk explosives?

2 MR. MADDOCK: Can we talk outside again?

3 MR. WYATT: Again, Mr. Maddock, just so I  
4 can clarify these things, I'm asking these questions  
5 because you advised me I have to ask them to certify  
6 them to the Court. I'm not trying to get into a  
7 situation where we have to keep going on and off the  
8 record.

9 MR. MADDOCK: I understand.

10 MR. WYATT: I follow your procedure. I  
11 don't have a problem with it. I'm just trying to  
12 clarify it.

13 (There was a recess taken from 3:58 p.m. to  
14 3:59 p.m.)

15 MR. MADDOCK: He can answer the question.

16 MR. WYATT: He can answer?

17 MR. MADDOCK: Yes.

18 Q (BY MR. WYATT) Dr. Whitehurst, is there a  
19 manual for those protocols if they exist maintained at  
20 the FBI laboratory?

21 A I don't know the answer to that.

22 Q Would FBI representatives in the trace  
23 analysis lab related to trace analysis for explosives  
24 residue have access to that protocol if it exists?

25 A If it existed, we'd have access to it, but I

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1 don't know that it exists.

2 Q If it exists, should FBI representatives  
3 working in that area of the trace analysis lab be  
4 familiar with those protocols?

5 MR. HARTZLER: Before you answer, again, I  
6 mean, you're eliciting his opinion as an expert  
7 scientist. You're not discovering information that's  
8 unique to him in his position with the FBI.

9 MR. WYATT: I think it's an appropriate  
10 question.

11 MR. HARTZLER: Well, we ought to bring the  
12 judge in because I have the impression this is going  
13 to go on. Frankly, I let it go on for a while.

14 MR. WYATT: Let's certify the question and  
15 we'll handle it tomorrow with the record. We'll  
16 certify that question. I want to understand.

17 Mr. Maddock has not directed Dr. Whitehurst not to  
18 answer that question; is that correct?

19 MR. MADDOCK: Could you repeat the question?

20 MR. WYATT: Could we read it back, please.

21 (The referred-to question was read by  
22 the reporter.)

23 MR. MADDOCK: I'd like to go off the record  
24 for a minute.

25 (There was a recess taken from 4:02 p.m. to

1 4:07 p.m.)

2 MR. WYATT: Is there a problem with the  
3 question?

4 MR. MADDOCK: There is. I think we're going  
5 to need that question clarified. Could we have the  
6 question read back?

7 (The referred-to question was read by  
8 the reporter.)

9 MR. MADDOCK: We need clarification on what  
10 specific protocol that you're asking him about.

11 Q (BY MR. WYATT) Okay. I am asking him if  
12 there are any protocols dealing with the handling of  
13 bulk explosives as it may relate to their introduction  
14 into the trace analysis lab in any way.

15 MR. MADDOCK: I'm going to have to direct  
16 him not to answer that question.

17 MR. HARTZLER: Beyond that, just so my  
18 objection is clear, if you're going to certify this, I  
19 would have no objection, notwithstanding Mr. Maddock's  
20 direction, if you were to ask him something such as  
21 does he know if FBI personnel have such knowledge or  
22 familiarity, has he spoken to them about their  
23 familiarity, things of that nature which I understand  
24 would elicit information for discovery purposes. I  
25 understand that. But your question was phrased in

1 such a way as to elicit from him an opinion as to the  
2 propriety as though he is here in a -- some management  
3 or expert capacity to opine upon whether or not they  
4 should be familiar with those protocols and that's --  
5 that's my objection.

6 MR. WYATT: I am asking it just, so you will  
7 know in response to that, as someone who works in the  
8 laboratory, should he be familiar with that protocol  
9 if it exists.

10 MR. HARTZLER: I understand that. And it's  
11 the same kind of question you might ask your own  
12 expert or we might ask our own experts.

13 MR. WYATT: That's -- the objection is that  
14 he's not an expert here and that's not what he's here  
15 for.

16 MR. HARTZLER: Correct.

17 MR. MADDOCK: That's not the basis that I've  
18 directed him not to answer the question.

19 MR. WYATT: Your direction still stands? He  
20 is not to answer the question?

21 MR. MADDOCK: It does.

22 MR. WYATT: We can certify that one, as  
23 well. Can we go off the record for just a moment.

24 (There was a discussion off the record.)

25 Q (BY MR. WYATT) We're just trying to

1 quicken things.

2 MR. KOHN: Just so I understand what you  
3 just said, you're going to not ask an entire line of

4 questioning?

5 MR. WYATT: I'll ask one at a time, the same  
6 procedure we've been doing. If there's a problem,  
7 Mr. Maddock will ask to go off the record.

8 Q (BY MR. WYATT) Is there a procedure or  
9 protocol for trace analysis lab personnel in the  
10 explosives area to obtain bulk explosives?

11 A I'm not aware of one.

12 Q Do trace analysis -- excuse me. Do trace  
13 analysts or examiners, be they scientists or lab techs  
14 or other employees of that unit, do they obtain bulk  
15 explosives?

16 MR. MADDOCK: Let's go off the record,  
17 please.

18 (There was a recess taken from 4:11 p.m. to  
19 4:12 p.m.)

20 MR. MADDOCK: Okay. He can answer that  
21 question.

22 Q (BY MR. WYATT) Do you recall the question?

23 A Would you repeat it.

24 (The referred-to question was read by  
25 the reporter.)

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1 A The answer is yes.

2 Q (BY MR. WYATT) Is permission required by  
3 the unit chief or others to obtain bulk explosives?

4 A No.

5 Q So am I to understand that a lab tech or  
6 chemist or AE can have access to bulk explosives

7 without any limitations by the FBI laboratory in the  
8 trace analysis area?

9 MR. MADDOCK: I'm not sure I understand the  
10 question.

11 Q (BY MR. WYATT) Okay. In the explosives  
12 analysis unit, the same unit we've been talking about  
13 all day today -- and I recognize that's not its proper  
14 term -- based on your response to the last question,  
15 is it fair for me to assume that there are no  
16 restrictions placed upon people working in the trace  
17 analysis laboratory as it relates to contact or  
18 handling of bulk explosives?

19 MR. MADDOCK: We're going to have to go off  
20 the record for a minute.

21 (There was a recess taken from 4:14 p.m. to  
22 4:16 p.m.)

23 MR. MADDOCK: He can answer the question.

24 Q (BY MR. WYATT) Do you recall the question,  
25 Dr. Whitehurst?

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1 A Yes. There are supervisory restrictions  
2 dependent upon the supervisors involved.

3 Q What are those restrictions?

4 A I established that I don't want any more  
5 than the amount that would fit in a size of a pencil  
6 eraser. My predecessor had no -- did not appear to  
7 have any restrictions at all. The -- my successor  
8 appears to have reasonable restrictions.

9 Q Your successor, Mr. Burmeister?

10 A Yes.

11 Q So any restrictions on the handling or  
12 contact with bulk explosives on employees or  
13 representatives who work in the trace analysis lab is  
14 limited to the supervisory restrictions of that unit,  
15 not of the FBI laboratory as an entity?

16 MR. MADDOCK: Can I just say something for  
17 the record here? You're asking him -- I just want to  
18 make it absolutely clear -- his personal view on  
19 this -- and not whether there is any other law or  
20 regulation that pertains to that issue?

21 MR. WYATT: I think if it's within his  
22 knowledge, either way.

23 MR. MADDOCK: I'm just saying, you're asking  
24 for his personal view as opposed to whether there are  
25 other restrictions?

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1 MR. WYATT: I'm asking for his personal  
2 knowledge of that, yes.

3 Q (BY MR. WYATT) Do you know if those  
4 restrictions are limited only by the trace analysis  
5 unit or is that an FBI directive regarding the lab or  
6 is there some other FBI directive that relates to  
7 that, if you know.

8 A I've not seen such paperwork. When I was  
9 handling the program, it was my end -- my only  
10 restriction was I wanted it in small amounts, but any  
11 technician could go get explosives, small amounts. If  
12 they brought large amounts, they had to put up with

13 me. And there wouldn't -- nobody would know that they  
14 had handled the material.

15 Q Is there a log maintained as to who has  
16 contact with bulk explosives? And I'm referring again  
17 to people who work in the trace analysis lab.

18 A There wasn't during my tenure. I don't know  
19 if Mr. Burmeister is doing that or not.

20 Q Is there a protocol regarding what type of  
21 protective clothing, if any, is required when in  
22 contact with or handling bulk explosives?

23 A I'm not aware of one.

24 Q Is glassware used in preparing standards  
25 from bulk explosive reused at any time?

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1 A Yes.

2 Q How is that glassware treated -- or excuse  
3 me. Is it washed or treated in some way after that  
4 type of use?

5 A I don't know. That was an issue in the  
6 laboratory. We bought an oven to heat it up. We'd  
7 wash it up, we'd heat it up overnight. I don't know  
8 if that's being done right now. We did find explosive  
9 residues in our glassware, especially RDX that stuck  
10 quite often. You know, it's a very sticky material.  
11 And that came from our running the control samples.  
12 But the glassware is reused. Or excuse me. The  
13 glassware was reused during my tenure.

14 Q And do you know whether it's reused today?

15 A No, sir, I don't.

16 Q Are there records of that contamination  
17 sampling that you just referenced regarding the  
18 glassware used with bulk explosives?  
19 A No, sir, I don't -- I -- I may have  
20 mentioned that in -- I believe I did in some letters  
21 to the IG, but other than that, the records are not --  
22 you know, we'd find out and that would be it. There's  
23 not any record that I'm aware of.  
24 Q There's no detection levels written down  
25 somewhere?

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1 A Huh-uh.  
2 Q No identification of what the substance was  
3 that was found?  
4 A Not in records.  
5 Q And by "records," you're referring to any  
6 written format that we could go back and look at or  
7 any auditory format?  
8 A Yes, sir.  
9 Q Was it standard operating procedure to  
10 sample all glassware for contamination if it was at  
11 any time in contact with bulk explosives?  
12 A Yes, sir. That's what I did. I believe  
13 that's what Mr. Burmeister is doing.  
14 Q And I apologize, I may have asked this  
15 question. We've gone back and forth so much. Was  
16 there a written protocol that addresses that issue?  
17 A I didn't have one. I don't know if there is  
18 one now.

19 Q You mentioned that you were not in the paint  
20 section of the CTU anymore; correct?

21 A That's correct.

22 Q What is your role today with the FBI? What  
23 is your position?

24 A I'm associated -- I'm a member of the  
25 hazardous -- hazardous materials response unit. My

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1 specific job is to develop robotics, to develop remote  
2 detection capabilities and to look at tag-ons.

3 Q To look at what?

4 A Tag-ons. It's a research mode.

5 Q What unit does that hazmat duty come under?

6 A The hazardous materials response unit.

7 Q So it's an individual unit within the  
8 laboratory?

9 A Yes. That's correct.

10 Q Similar to the materials analysis unit or  
11 the chem/tox unit?

12 A That's correct.

13 Q Who is your direct supervisor?

14 A Drew Richardson.

15 Q Is he the unit chief?

16 A He's the acting unit chief.

17 Q Is he the only unit chief that you've served  
18 under in that division or unit?

19 A Yes. That's correct.

20 Q When did you transfer into that unit?

21 A I was officially transferred about a month

22 ago.

23 Q Were you working in that unit prior to the  
24 official transfer?

25 A Yes, I was.

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1 Q And when did your -- when did you cease to  
2 work for the paint section of the chem/tox unit?

3 A I never worked for the chem/tox unit. I  
4 worked for the materials analysis unit and when the  
5 paint analysis went to chem/tox, I didn't go with it.

6 Q What year was that?

7 A That was --

8 Q What month?

9 A It was about March of this year.

10 Q March of '96?

11 A Yes.

12 Q What did you do during the interim period or  
13 what was your role in the FBI between March of '96 and  
14 about a month ago when you moved into the hazmat unit?

15 A I worked a little bit in addressing  
16 researching environmental crime problems. Doing a lot  
17 of literature survey. Reading. Also in the  
18 development of robotics and the development of remote  
19 detection capabilities.

20 Q Were you under the auspices of any  
21 particular unit within the lab?

22 A Yes. I -- I was not officially reassigned  
23 over to the hazardous materials response unit.

24 However, I essentially worked for -- I didn't have --

25 I had an official unit chief, but I didn't -- you

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1 know, I actually answered to somebody else.

2 Q And your official one was from the what,

3 the -- the chem/tox or materials analysis unit?

4 A No. From materials analysis unit. That's

5 where I was on paper.

6 Q Okay. Okay. Going back to the bulk

7 explosives questions very briefly. In your opinion,

8 does contact with bulk explosives impact upon

9 contamination issues in the trace analysis unit?

10 MR. HARTZLER: I have the same objection.

11 MR. MADDOCK: Can we go off the record on

12 that?

13 (There was a recess taken from 4:26 p.m. to

14 4:28 p.m.)

15 MR. MADDOCK: He can answer that question.

16 MR. WYATT: He can answer that question.

17 Q (BY MR. WYATT) Do you recall the question,

18 Dr. Whitehurst?

19 A I understood the question to be does the

20 bulk explosive handling impact on the trace analysis

21 program. It could. But in order to answer that

22 question, it would have to have the empirical data

23 to -- to say whether it did or not. The impact it

24 would have would be upon, I guess, the reliability.

25 If you don't have the information, but you know you

1 have bulk explosives being handled by trace analysts,  
2 we know there's a possibility that there could be.  
3 What's the degree? You know, what's the probability,  
4 you know, you don't know until you get the data.

5 Q Has there been a monitoring of contamination  
6 on people handling bulk explosives in the FBI  
7 laboratory, in your experience?

8 A No, sir.

9 Q There have been no studies that have  
10 monitored possible contamination in regard to bulk  
11 explosives, to your knowledge?

12 A Of people?

13 Q Correct.

14 A Not that I'm aware of.

15 Q Of their clothing?

16 A Not that I'm aware of.

17 MR. KOHN: One second.

18 (Mr. Kohn conferring with the deponent.)

19 A I was -- I was taken out of the program in  
20 June of '94. However, I was pretty much in the area  
21 until -- for about a year. And before that, I had not  
22 seen any -- any monitoring program for contamination  
23 and up until about, I guess -- you know, it would be  
24 reliable to depend on this until about the summer of  
25 1995.

1 Q (BY MR. WYATT) Is your answer changed in

2 any way if we don't use the word "monitoring," but use  
3 the word "survey" or "sampling"?

4 A No.

5 Q The answer is the same?

6 A I did -- I found PETN on me one time, but it  
7 was a -- you know, it was so obvious that there was --  
8 until it showed up as a contaminant, it was on my lab  
9 coat in my pocket until it showed up as a contaminant,  
10 you know, in a firecracker case. It just didn't make  
11 sense. So we went around looking and it was in the  
12 left-hand pocket of my lab coat. You know, in -- I  
13 couldn't see it, but it was there. But other than  
14 that, during my tenure, we didn't monitor.

15 Q Is there a sampling or survey or monitoring  
16 of the --

17 A I need to fix that.

18 Q Certainly.

19 A In the -- at the on-site crime laboratory in  
20 the World Trade Center case, every person that came in  
21 the area was interrogated with the Egis. Absolutely  
22 everything that came through. We had an armed guard  
23 and to get past that armed guard and -- and me, we had  
24 to understand, okay, so there -- that monitoring was a  
25 specific situation over a ten-day period of time.

456

1 Q You brought up the fact that there was an  
2 on-site crime lab; correct?

3 A Yes.

4 Q At World Trade Center?

5 A Yes.

6 Q Is that standard operating procedure in  
7 major explosives cases?

8 A It depends on the case.

9 Q Do you know if that was done in Okbom?

10 A I had heard there was some equipment at  
11 Okbom. I heard there was IMS and Egis out there, but  
12 I wasn't there.

13 Q Earlier in the deposition, early this  
14 morning, you mentioned something about a bomb tech or  
15 an AE taking a bomb vehicle to the scene. Do you  
16 recall that testimony?

17 A I recall -- the way you're -- the way you're  
18 stating that, I don't know what scene. I talked in  
19 general about someone taking a vehicle to a crime  
20 scene, but, you know, in no particular crime scene.

21 Q Okay. Is there a particular bomb tech truck  
22 or something that is taken to crime scenes, major  
23 explosive crime scenes?

24 MR. MADDOCK: Let's go off the record for a  
25 minute.

457

1 (There was a recess taken from 4:32 p.m. to  
2 4:35 p.m.)

3 Q (BY MR. WYATT) You recall the question,  
4 Dr. Whitehurst?

5 A Is there a particular vehicle that goes to  
6 crime scenes, bomb vehicle, yes, there is.

7 (There was a discussion off the record.)

8 Q (BY MR. WYATT) Is the bomb truck, as I  
9 understand it and as I have characterized it, called,  
10 in your understanding, an FBI crime scene vehicle?

11 A I -- I've never called it that.

12 Q What is the purpose of this, quote, bomb  
13 truck?

14 A There's a lot of equipment on it for  
15 processing bomb crime scenes.

16 Q Instrumentation?

17 A During my tenure, there wasn't any  
18 instrumentation. Things like generators, shovels,  
19 rakes. I don't know if they have got sieves on it.  
20 That kind of thing.

21 Q In your testimony this morning, you  
22 mentioned that particularly in relation to  
23 transportation issues as it relates to contamination,  
24 that you would have some type of concern if an  
25 explosive -- excuse me -- if a sample or item from the

458

1 crime scene was transported in a bomb truck.

2 A Yes.

3 Q Are you referring to the same bomb truck  
4 that I have -- that we've been talking about right now  
5 when you spoke this morning?

6 A Not necessarily.

7 Q The same type of vehicle?

8 A I would have a concern, a heightened concern  
9 and to address that concern, I would have to do a  
10 contamination study of the truck. I mean, that -- you

11 know, Mr. Wyatt, I think it's important. A heightened  
12 concern about contamination does not mean there's  
13 contamination. A lot of people make that mistake.

14 Q When you have a heightened concern?

15 A Yes.

16 Q Is -- when there's a heightened concern in  
17 the FBI trace analysis unit, at least when you were  
18 there in your tenure, was sampling done to determine  
19 if, in fact, there was contamination?

20 A In the truck?

21 Q In any situation when the heightened concern  
22 arose.

23 A In --

24 Q Was it standard operating procedure is what  
25 I'm asking you.

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1 A Oh, no.

2 Q Are you familiar with the U.S. military  
3 CONWEP? That's C-O-N-W-E-P, all caps. A computer --

4 A No.

5 Q -- program.

6 A No.

7 Q Are you familiar with any computer programs  
8 or algorithms that measure the amount of an explosive  
9 used based on crater dimensions?

10 A An associate of mine has written some of  
11 that -- another -- we use one at the FBI. He's  
12 written the other one. And I've conferred with him  
13 about the ramifications of that in light of, you know,

14 if you see a hole this big, can you tell what the  
15 explosive was. The gentleman's name was Frank Tatum.

16 Q You said he has written the one that I'm  
17 referring to?

18 A No. Not -- I don't think CONWEP. If --  
19 he's --

20 Q He has written another similar type program?

21 A Yes. That's correct. It's a competitor on  
22 the market.

23 Q And that is in the civilian market as  
24 opposed to --

25 A No.

460

1 Q -- government?

2 A You know, he solicited the -- the -- you  
3 know, his product with the FBI. They just haven't  
4 purchased it, to the best of my knowledge.

5 Q When investigating crime scenes, does the  
6 trace analysis unit examine the crater? Or  
7 representatives of that unit?

8 A We take samples of --

9 MR. HARTZLER: I'm sorry. Just a second.  
10 Could you give me a moment? I'm sorry to interrupt.

11 MR. WYATT: Was there an objection?

12 MR. HARTZLER: Yes. Is your question to him  
13 whether or not he, when he has gone to the crime  
14 scenes, has done this or are you asking him for some  
15 kind of general format practice, procedure?

16 MR. WYATT: Is there a procedure?

17 MR. HARTZLER: Okay. I don't think that was  
18 the form of the question.

19 MR. WYATT: I agree. I'll rephrase it.

20 Q (BY MR. WYATT) Is there a protocol or  
21 procedure for examining the crater at a crime scene  
22 and is that -- and the protocol I'm referring to is in  
23 the trace analysis unit.

24 A Not that I'm aware of. It's not a written  
25 procedure. If you go to them, there's a crater, you

461

1 go in and collect samples from the crater.

2 Q Is there a procedure that's not written to  
3 do that?

4 A Not any more so than, you know, just what  
5 you've got in your head.

6 Q So there's no standardized procedure for  
7 what to look for in a crater?

8 A No.

9 Q But the crater is examined by people from  
10 that unit?

11 MR. HARTZLER: I object. Are you asking  
12 about a particular incident or what do you mean?

13 MR. WYATT: In general. Would that be  
14 standard operating procedure?

15 A In general, samples from the crater would be  
16 taken.

17 Q (BY MR. WYATT) Do you know if that was in  
18 the Okbom case?

19 A No, I don't.

20 Q Are you familiar with the concept of  
21 explosives modeling?  
22 A Yes. Vaguely. Yes. Uh-huh.  
23 Q Can you describe for us what that is.  
24 A My understanding of it -- and again, I'm not  
25 an explosives engineer, so this will be very crude.

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1 Please understand that. That you describe  
2 mathematically, if you will, with some sort of  
3 algorithm, you model what might happen when a -- an  
4 explosive goes off. When I refer to it and I've  
5 written about it --

6 Q Are you referring to animation or are you  
7 referring to --

8 A What is the --

9 Q -- what do you expect to find?

10 A What is the blast damage, what do you expect  
11 to find. If you put it in this kind of building, what  
12 will it look like. If you put it in this kind of car,  
13 what will it look like. When how much goes off, that  
14 kind of thing. Collect a little bit of empirical data  
15 or a lot of empirical data and see if you can  
16 extrapolate from the empirical data to something you  
17 haven't seen yet.

18 Q Is there a standard protocol at the FBI  
19 laboratory in the explosives area -- I'm not limiting  
20 myself to trace analysis, if you know, for explosives  
21 modeling.

22 A I don't know that. I -- I understand they

23 have a computer program that addresses what's in  
24 the -- you know, go and look at a crater and take  
25 measurements and that's my understanding. I've never

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1 used the program or seen it used, though. So it's  
2 very shaky.

3 Q Are you aware --

4 MS. WILKINSON: Excuse me.

5 (There was a brief delay in the  
6 proceedings.)

7 MR. MADDOCK: I'd like to go off the record.

8 (There was a recess taken from 4:44 p.m. to  
9 4:47 p.m.)

10 MR. MADDOCK: I've directed Mr. Whitehurst  
11 not to answer any more questions about the modeling  
12 program. There are aspects of that which are  
13 classified.

14 MR. WYATT: Let me be sure I understand the  
15 agreement between counsel at the table. When we were  
16 off the record, I suggested to Mr. Hartzler, based  
17 upon his request, to clarify some issues before we  
18 closed today that I would allow him -- I would pass  
19 the witness to him to do some clarification and then  
20 when we finish up tonight, then I could come back and  
21 finish my questioning tomorrow. Is that what the  
22 agreement is?

23 MR. HARTZLER: You can certainly continue  
24 tomorrow. Obviously, I'm concerned that -- and I only  
25 have ten minutes and I'm concerned about how long

1 you'll take, but you've indicated that you hope to  
2 finish in --

3 MR. WYATT: I'm going to significantly  
4 narrow -- I'm just going to go through and hit some  
5 highlights that I feel that Mr. Tigar may or may not  
6 have explored to the degree that I want to. And I  
7 will hit those issues --

8 MR. HARTZLER: All right.

9 MR. WYATT: -- for the most part. I'm not  
10 going to limit myself.

11 MR. HARTZLER: Your full expectation is  
12 sometime tomorrow morning, we'll have an opportunity  
13 to conclude any questioning that we have?

14 MR. WYATT: That's what I would hope.

15 MR. HARTZLER: May I ask that before -- you  
16 try to do everything in an hour and a half so we would  
17 have the time after the --

18 MR. WYATT: I will do everything I can to do  
19 that. I can't restrict myself until I go back and  
20 review all of the notes, but I will attempt to do that  
21 and as I've indicated to you off the record and  
22 Ms. Wilkinson earlier, we have no objection to  
23 rescheduling. I know that the issue of rescheduling  
24 is going to be a timing issue related probably more to  
25 Mr. Kohn and Dr. Whitehurst than it is to us. We can

1 make ourselves available.

2 MR. HARTZLER: Why don't we proceed and see  
3 how it goes tomorrow morning.

4 MR. WYATT: That is the agreement, I will  
5 continue in the morning.

6 MR. HARTZLER: Thank you.

7 EXAMINATION

8 BY MR. HARTZLER:

9 Q I wanted to clarify the -- your answers that  
10 I did not understand about the reliability of the  
11 results that you get when you examine a piece of  
12 evidence. And because I only have a few minutes, I'm  
13 not trying to feed you an answer so stop me if you  
14 think I'm saying anything that's incorrect. But I  
15 understood that you're saying, in effect, that when  
16 you report out a particular result, that would include  
17 your opinion that the item was not contaminated  
18 because you have done the research into the handling  
19 of that item and you would not report it out as  
20 reliable -- as having your results being reliable if  
21 you had not done that research. Am I correct?

22 A If I have any information that there could  
23 have been a contamination issue, I would report it out  
24 that there could have been a contamination issue. I  
25 mean -- I can't just -- it wouldn't be appropriate for

1 me to say in every report I put out there could have

2 been a contamination issue because it's -- it sort of  
3 weighs down the system.

4 Q I understood from a moment ago when you  
5 testified there's a significant distinction between  
6 there being contamination and there being a  
7 contamination issue.

8 A Yes.

9 Q And I'm trying to rely on the distinction  
10 that you made. Correct me if I'm wrong. I recognize  
11 that there are many situations that could raise an  
12 issue of contamination; is that right?

13 A Yes.

14 Q And the fact that the issue of contamination  
15 is raised does not mean that there is, in fact,  
16 contamination; is that correct?

17 A Yes. That's --

18 Q So I'm not asking you if your report would  
19 reflect if there is an issue of contamination. I'm  
20 trying to draw a distinction between the results that  
21 you get in your laboratory and you report out and  
22 whether or not when you report it out, it means that  
23 there has been no contamination, to your knowledge.

24 A If I report the result out and I have any --  
25 any feeling that there might have been contamination,

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1 then I would -- I would report that out.

2 Q And if you have not reported that out, it's  
3 an indication that there is no indication of  
4 contamination?

5 A That I don't know that there's been any  
6 contamination. That's correct.

7 Q Right. And of course, your not knowing that  
8 there's contamination doesn't mean that there was not  
9 contamination; is that right?

10 A Yes.

11 Q So you might report out a result simply not  
12 knowing whether there was contamination and it  
13 wouldn't affect your report; is that right?

14 MR. WYATT: I'm sorry. Could you answer  
15 that again? I had some --

16 MR. HARTZLER: Sure. I've done the same  
17 thing to you.

18 MR. WYATT: -- drift.

19 Q (BY MR. HARTZLER) You could issue a report  
20 of a particular result not indicating any  
21 contamination or contamination issue, for that matter,  
22 and in fact, there -- there might be some instance in  
23 which there is contamination is what you're saying?

24 A Yes.

25 Q So if I were to bring you a -- some material

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1 and ask you to conduct a scientific examination of  
2 that particular material and let's say that it  
3 contained trace amounts of PETN, your report would  
4 reflect what as a result of your examination?

5 A My results either were consistent with or my  
6 results identified the presence of.

7 Q Okay. And let's assume that you ran

8 orthogonal tests to conclude -- to reach your result.

9 A Yes.

10 Q Your result then would be what?

11 A That I would say what I did. I would say  
12 what I found and I'd say, you know, it is the opinion  
13 of the examiner that there's PETN present on this  
14 sample or something to that effect. Yes.

15 Q Okay. And the reliability of that  
16 particular scientific conclusion doesn't depend on  
17 whether or not I have contaminated the item, does it?

18 A That's correct.

19 Q So when you --

20 MR. WYATT: Excuse me. When you're  
21 referring to --

22 MR. KOHN: You're meaning the examiner?

23 MR. HARTZLER: I was the hypothetical  
24 presenter of the evidence.

25 MR. WYATT: Okay.

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1 Q (BY MR. HARTZLER) So in your mind then,  
2 there is a distinction between the -- the science and  
3 the collection of the evidence or the chain of  
4 custody, presentation of the evidence?

5 A No, sir.

6 Q Well, what I do in the chain of custody,  
7 obviously, can raise a contamination issue and, in  
8 fact, contamination? We agree on that?

9 A Yes.

10 Q But the reliability of the result that you

11 just reported out is not dependent on that  
12 contamination or contamination issue; is that right?  
13 A The question I'm asked is not -- you know,  
14 this depends upon the question that I'm asked and  
15 analytical chemists, one of the major areas of concern  
16 to an analytical chemist is sampling and where you  
17 know you have to ask yourself, where did this -- did  
18 we sample this off somebody's hand or somebody's bomb  
19 bunker or off a piece of metal. So it could be -- it  
20 could -- it's part of the science. It's part of the  
21 whole analytical chemistry process.  
22 Q I'm not questioning whether it's part of the  
23 analytical process.  
24 A Yes.  
25 Q And certainly, we would all, I think,

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1 concede that it's part of the core process. That's  
2 just simply not at issue. So I can separate that out.  
3 A Okay.  
4 Q And in terms of even, for example, the  
5 principal examiner of the report, I'm not even trying  
6 to address that. You understand?  
7 A Yes.  
8 Q Certainly, in terms of the conversations you  
9 might have with the prosecutor who might be eliciting  
10 that evidence, that's still a different issue.  
11 A Yes.  
12 Q I'm asking you whether or not the result  
13 that you reported out, that being identified PETN is

14 reliable.

15 A Yes.

16 Q It is?

17 A Yes.

18 Q Regardless of your knowledge of -- of

19 contamination?

20 A Yes.

21 Q You're familiar with Ron Kelly, I believe,

22 because his name was invoked?

23 A Yes.

24 Q In your opinion, is he qualified to collect

25 evidence?

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1 MR. WYATT: Now, are we -- are we going to

2 allow the Government to ask expert questions and

3 object to the defense?

4 MR. HARTZLER: Sure. No. I appreciate

5 that.

6 Q (BY MR. HARTZLER) Maybe I should ask you.

7 Do you recall whether or not you were asked about --

8 let me withdraw that question so I can be clear. I

9 may be mistaken about a question you asked. Okay.

10 And if I am, then I don't -- I do not particularly

11 care whether he can give an opinion about that.

12 Weren't you asked about the qualifications

13 of particular individuals to collect evidence at the

14 scene or how they would process evidence at the scene?

15 Am I wrong about that line of questioning?

16 A I seem --

17 MR. WYATT: By me?  
18 MR. HARTZLER: I think it was yesterday.  
19 A I seem to remember that, sir.  
20 Q (BY MR. HARTZLER) Well, is Ron Kelly a  
21 scientist?  
22 A He's -- sure. Yeah. I'm a little bit  
23 hesitant there. I -- he's -- he's not -- he's not the  
24 caliber that -- that Steve Burmeister is and I haven't  
25 seen his work recently.

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1 Q Do you know whether or not he went to the  
2 scene in Oklahoma City?  
3 A Yes, he did.  
4 Q The day of the bombing?  
5 A Uh-huh.  
6 Q That's a yes?  
7 A Or whenever he went. I understand that he  
8 did go with Steve Burmeister.  
9 Q Okay. And do you know in what capacity he  
10 went to the scene?  
11 A Well, he was a trainee at the time and I  
12 think he went as an assistant for Steve Burmeister.  
13 Q You had indicated, I believe, that the  
14 principal examiner should be a scientist. Did I  
15 misunderstand that?  
16 A Yes. I believe that I did. Yes. And I --  
17 and I believe that. Uh-huh.  
18 Q Okay. I don't mean to again read anything  
19 into it. Your tone reflects you might want to clarify

20 it. If not, I'll proceed.

21 A I think, most ideally, that the principal  
22 examiner in these complex matrix analysis arenas  
23 should be a scientist.

24 Q And the responsibility of the PE is to do a  
25 variety of things, including some non-science; is that

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1 not fair?

2 A Yes.

3 Q Is it the PE's responsibility to manage the  
4 crime scene?

5 A That's what they have done in the past, yes.

6 Q And is it necessary to have a scientist to  
7 manage the crime scene?

8 A If you're bringing in assets, you have to  
9 understand what you need -- what assets you need. And  
10 if you -- if you've got people working with you that  
11 understand that, that you trust, how can you trust  
12 somebody if you don't understand what they are saying  
13 to you. You haven't a clue as to what's coming out of  
14 their mouths. So I -- do the question again. It's --  
15 it's almost 5, Joe. Excuse me. Just -- not yet.

16 Q Well, I'm -- I really should ask you  
17 specifically about crime scene management and a scene  
18 at which Burmeister is there as the chief chemist.

19 A Yes.

20 Q With scientists of the caliber of Steve  
21 Burmeister on site, my question is: Do you need a PE  
22 who is a scientist, in your opinion?

23 A I think that would be the most ideal  
24 situation. So that the assets that are needed -- how  
25 to understand what's the scientific data, though,

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1 whatever that's coming out, it would be most ideal if  
2 you would have a scientist at such a crime scene.

3 Q Yes.

4 A I think that it isn't absolutely necessary  
5 if you've got a manager who's willing to trust the  
6 people working with him and -- and what do you call  
7 it -- delegate authority and -- and take people's word  
8 for, you know, this is what I need, this is what I  
9 need, this is what I need.

10 Q It's not a matter of -- of needing them in  
11 order to have reliable science as a result of the  
12 crime scene management, is it?

13 A Say that again in a different way.

14 MR. KOHN: Actually, I'm going to either --  
15 if you want -- if this is -- I'm going to ask that we  
16 take five-minute break if this is a short line of  
17 questioning and you want to finish it. My witness  
18 needs a little break. We've gone a little after 5 now  
19 and so my question to you, Joe, is is this something  
20 that you can -- like a line of questioning you're very  
21 close to wrapping up or do you just want to do it  
22 tomorrow?

23 MR. HARTZLER: Well, I'm -- you know, I  
24 wouldn't mind continuing tonight, but we have a lot of  
25 people here.

1 MR. KOHN: He had no sleep last night and I  
2 can tell by his responses right now, he's slowing  
3 down.

4 MR. HARTZLER: I certainly don't want to  
5 make anyone uncomfortable. I say let's take it up  
6 tomorrow in the a.m. then.

7 ... WHEREUPON, the deposition was adjourned  
8 at 5:02 p.m.

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7 Re: USA vs. McVeigh, et al.  
Case No. 96-CR-68-M  
8 United States District Court  
District of Colorado  
9

Dear Mr. Tigar:

10  
11 In order to conform to the requirements of  
the Colorado Rules of Civil Procedure, attached is the  
12 original deposition of FREDERIC WHITEHURST, Volume II,  
taken in the above cause.

13 Deposition not signed \_\_\_\_\_  
Deposition signed by the deponent \_\_\_\_\_  
14 Correction sheet(s) included therein,  
and copy(ies) of same forwarded to  
15 interested counsel \_\_\_\_\_  
Signature waived \_\_\_\_\_  
16

17 Please retain the original copy of the  
deposition UNOPENED in your possession until such time  
18 as it is required by any party in a hearing or trial  
of the above cause.

19 Yours truly,

20

21 Bonnie Carpenter, CSR, RPR

22 Trial Date: March 31, 1997

23

24 RECEIVED BY \_\_\_\_\_ DATE \_\_\_\_\_

25

2 ) ss  
CITY & COUNTY OF DENVER )

3  
4 I, Bonnie Carpenter, Notary Public of  
5 the State of Colorado, duly appointed to take the  
6 deposition of the above-named Deponent, do hereby  
7 certify that previous to the commencement of the  
8 examination of the said above-named Deponent, he was  
9 first by me duly sworn to testify the truth, the  
10 whole truth and nothing but the truth touching and  
11 concerning the matters in controversy between the  
12 parties hereto, so far as he should be interrogated  
13 concerning the same;

14 That said deposition was stenographically  
15 reported by me at the time and place heretofore set  
16 forth, and was reduced to typewritten form under my  
17 supervision as per the foregoing;

18 That the foregoing is a true and  
19 correct transcript of my shorthand notes then and  
20 there taken;

21 That after the deposition was transcribed,  
22 the same was submitted by letter to the Deponent for  
23 reading and signing, a copy of which is hereto  
24 annexed;

25 That I am not kin or in anywise  
associated with any of the parties to said cause of  
action or their counsel and that I am not interested  
in the event thereof;

IN WITNESS WHEREOF, I have hereunto  
set my hand and seal this \_\_\_\_ day of \_\_\_\_\_,  
1996.

My Commission Expires: 9-16-99.

\_\_\_\_\_  
Bonnie Carpenter  
Notary Public  
999-18th Street  
Suite 1230  
Denver, CO 80202