

EXHIBIT 6

Case No. 2-1998-023S

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EXHIBIT 6

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C O N T E N T S

WITNESS	EXAMINATION
DARYL SMITH	
BY MR. WHITE	4

E X H I B I T S

NUMBER	IDENTIFIED
[NONE.]	

P R O C E E D I N G S

[8:12 a.m.]

MR. WHITE: For the record, today's date is April the 10th, year 2000, and the time is 8:12 a.m. And we are going to be at TVA in Chattanooga, Tennessee, and at the interview today we are going to be interviewing Daryl.

Daryl, if you could just identify yourself by your full name, date of birth and Social Security number?

MR. SMITH: Daryl Allen Smith, [REDACTED]

MR. WHITE: Okay. And it will be myself, Darrell White with the Office of Investigations for the Nuclear Regulatory Commission in Atlanta, Georgia, and also present will be legal counsel for TVA, Ed Bigluicci.

Ed, if you could just identify yourself?

MR. BIGLUICCI: My name is Ed Bigluicci, B-i-g-l-u-i-c-c-i, and I am Senior Licensing Counsel for TVA, Office of General Counsel.

MR. WHITE: And, Daryl, if you don't have any objections, I would like to swear you to the statement you are about to give.

Whereupon,

DARYL SMITH,

the interviewee, was called for examination and, having been first duly sworn, was examined and testified as follows:

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DIRECT EXAMINATION

BY MR. WHITE:

1 Q Okay. We are going to talk a little bit then this
2 morning about, I am assuming a recent discovery that you
3 made concerning some screws from Watts Bar Nuclear Plant
4 here in Tennessee. There has been an ongoing investigation
5 conducted by Office of Investigations for NRC concerning
6 these screws. And, Daryl, your connection with the screws
7 would be what?
8

9
10 A I am the metallurgist who performed some of the
11 testing on the screws and wrote the first report and the
12 clarified second report.

13 Q Okay. And, Daryl, if you could just go into the
14 discovery that you made, when you made this discovery
15 concerning the screws and what that discovery would be. And
16 maybe who else you told and just the circumstances
17 surrounding the discovery.

18 A All right. Well, I will just begin with the
19 chronology then of how the -- how it came about. The first
20 report was written with Figure 7 containing a photograph
21 showing a crack in a Set B screw. And then an endorsement
22 was issued on June 12th that referred to the new screws from
23 Sets A and B. Then the second report was issued with a
24 Figure 7 that had no mention of a Set B crack.

25 Q And if you could just clarify, Set B was

1 pertaining to what?

2 A Set B was pertaining to what was called a new
3 screw, okay, and Set A would be -- in the first report, Set
4 A contained 10 fractured screws and another screw which had
5 not fractured. We referred to this one as a new screw in
6 the first report, just as we did the Set B screws. In the
7 second report there had been a clarification that the whole
8 screw received in Set A was not a new screw, it was just one
9 that had been from the melt tank.

10 Q So, I guess you are telling me in the first report
11 you talked about Set A and B?

12 A That's correct.

13 Q And then in the second one, dated June 19th, 1995,
14 Set B screws were left out of the report?

15 A No, sir. We did still refer to the Set B screws,
16 it was just with regards to the crack, the quench crack
17 found in the Set B screw in the first report was not
18 mentioned in the second report.

19 Q Okay.

20 A And if you will look at the two reports, the Set A
21 includes, in the first report it says one new screw. Set B
22 refers to 12 new screws.

23 Q Okay.

24 A The Set A and B there were referring to a new
25 screw. In the second report, Set A referred to a whole

1 screw that was not in service, which later we found out that
2 was from the meltdown. Set B refers to the same new screws
3 as the first report. So you have --

4 Q You are still referring to Set A and B, it is just
5 that Set A is identified differently in one report?

6 A That's correct. There was a clarification there.

7 Q Okay. You can just go ahead and proceed as far
8 the, I guess, the screws.

9 A All right. Well, as you know, the first report
10 had some conjecture and some things in it which needed to be
11 clarified, as well as additional testing which needed to be
12 performed, and some corrections which needed to be made.
13 And in an attempt to do that, an endorsement and a second
14 report was issued.

15 In between the two reports, I had some notes I had
16 taken. I am referring to the copy of the handwritten notes
17 dated June the 8th, 1995, in which I had made some notes on
18 some things that needed to be corrected, or clarified, or
19 changed between the first report and the second report.
20 These changes were things such as removing the items of
21 conjecture and things which did not need to be in the second
22 report.

23 [Inaudible] of the handwritten notes, it said to
24 etch to reveal the K step, include figure. And what I was
25 referring to there was the fact that there was quench cracks

1 in the screws which we showed in the as-polished condition
2 in the first report. And the second report needed to show
3 the quenched and tempered microstructure surrounding the
4 crack. Therefore, an etching was applied and a photograph
5 was included in the second report to show the crack in an
6 etched microstructure.

7 MR. BIGLUICCI: What do you mean by etched the
8 surface?

9 THE INTERVIEWEE: And you have a smooth polished
10 metal surface and you apply a light acid etch, the grains of
11 the metal get attacked and you wind up with dark regions
12 surrounding the grains. And they quench them, get the
13 microstructure, it gives it as a gray modeled appearance
14 such as you see in the photograph in the Figure 7 in the
15 second report.

16 BY MR. WHITE:

17 Q Once you etch it, would that change the course of
18 the crack?

19 A Not really. What is going to change how the crack
20 looks is the successive polishing steps. Iron will develop
21 iron oxide on the surface which will need to be removed
22 before you apply the acid, because it pacidates the metal.
23 Once the oxide is removed, then you have freshly exposed
24 metal. You can apply the acid within 30 seconds and you
25 obtain a uniform etch which is not destructive to the item.

1 Any problems after that, [inaudible].

2 And, as you see, in the first photograph, there
3 was a scratch which traveled across the crack, and that was
4 also needing to be removed. So as an intermediate step
5 between the first picture and the second picture, what we
6 did was put the sample on lapping media to remove some metal
7 and polish it again, and then we applied the etching. So,
8 basically, if you are thinking of the two pictures in three
9 dimensions, one would be right below the other, the etched
10 one, the second report being below, in physical space, the
11 first picture. And we polished down through the metal to
12 see the crack which is visible in the second photograph.

13 Q In layman's terms, I guess you were going to --
14 you were going to place acid on it to do your etching, and
15 in order to prepare for the etching, you polished it to
16 remove the scratch that you see and to prepare the surface,
17 the metal surface, to receive the acid?

18 A That's correct.

19 Q Okay. And polishing, I am assuming you are
20 telling me, might make it appear somewhat different?

21 A Yes. The cracked part is not uniform through the
22 sample, it changes direction or shape as you travel through
23 the sample, therefore, it is going to appear slightly
24 different, depending on what depth you are at.

25 Q So, in your opinion, Figure 7 in Set B and Set A

1 -- well, Report Number 1, Figure 7, Set B is the same as
2 Report Number 2, Figure 7, Set A?

3 A I have come to believe that those two are the same
4 crack, yes.

5 Q Okay. And if you could just elaborate on how you
6 discovered that, or reached that conclusion?

7 A Well, I believe that during the time this report
8 was written, we came to a belief that these -- that there
9 was a labeling problem in the first report, which was
10 corrected in the second report.

11 And during -- after the report was issued and
12 after a couple of years of this going by, I had forgotten it
13 and whoever else was involved with this, they had forgotten
14 it as well, or hadn't noticed or hadn't thought about it,
15 and during the questioning and the investigation which began
16 '97, it forced us, including myself, to all go back and
17 relook at these reports.

18 And one of the reoccurring questions was, my
19 original recollection was that somehow Figure 7 was changed,
20 but I couldn't remember why, and my best guess was that it
21 was changed to improve the flow or to keep the flow of the
22 report, and that the photograph of the crack from Set B was
23 inadvertently omitted.

24 Then, as the inspector would ask me, well, why was
25 the text omitted also? -- because there was a paragraph in

1 the report which referred to quench cracks from Set B, which
2 was also omitted from the second report, and I didn't have a
3 very good answer for him at that time. Again, I assumed it
4 was just an error. And the more I thought about it, the
5 more my mind began to think of different scenarios which
6 could cause such an omission.

7 And then last year, just before going into my
8 third talk with Gary Claxton, my third interview at Central
9 Labs, I felt strongly enough in my suspicion that perhaps I
10 should bring it to light. So, when the third interview was
11 concluded, Mr. Claxton turned off his tape recorder and
12 asked me to go off record and offer any further information
13 which he had not asked during his questioning. It was at
14 that time that I pointed out to Mr. Claxton that I suspected
15 that the two cracks, which one was labeled Set B in the
16 first report and the second was labeled Set A in the second
17 report, were the same crack.

18 Q Okay.

19 A He nodded his head and concluded the interview at
20 that point, and nothing further was said.

21 After the third interview, I felt like that was
22 the more plausible explanation for why the text was omitted
23 as well, because if we realized that the cracks were the
24 same and that there never was any quench cracks in a Set B
25 screw, then that would explain why the text was removed from

1 the report. It all seemed to make sense, and I assumed that
2 Mr. Claxton would share this information with the OGC office
3 and all the other people who were involved in the
4 investigation.

5 And, so, nothing else was said about it until the
6 interviews in Atlanta began to come about, and we were in a
7 meeting and I mentioned --

8 MR. BIGLUICCI: Before you go on there, the
9 interviews in Atlanta, what are you referring to?

10 THE INTERVIEWEE: Well, the interview we have got
11 to go down to on --

12 MR. BIGLUICCI: Okay.

13 THE INTERVIEWEE: Before the NRC board.

14 MR. BIGLUICCI: In preparation for the upcoming
15 enforcement conference in Atlanta.

16 THE INTERVIEWEE: That's correct.

17 MR. BIGLUICCI: Okay. All right. I just wanted
18 to make sure it was clear.

19 THE INTERVIEWEE: And I was talking to some of the
20 other individuals in the room during preparation for that
21 and I mentioned that scenario, and they had not heard of
22 this, which surprised me somewhat. I had assumed that Mr.
23 Claxton would have made that clear for everyone. But, so,
24 then I went through the process of explaining my logic as
25 far as why I suspected that.

1 Then after the -- then everyone began to question
2 that. We all discussed it and then after that particular
3 meeting I went back to my desk and pulled up the two figures
4 which I had stored electronically, and I overlaid them,
5 colored one red and colored the other blue and overlaid them
6 on the computer screen and it appeared that they were indeed
7 the same crack.

8 And then I just e-mailed everyone who was at the
9 meeting that electronic file which showed that information.
10 And then I believe it was from Southern -- is that the
11 instrument done on that, did someone else look at that who
12 is somewhat of a forensic expert or --

13 MR. BIGLUICCI: I think we had Terry Woods look at
14 it. We sent that same file to Terry and asked for his
15 opinion, and we also sent it to NRC. I know that Licensing
16 did it once, probably sent it to NRC and other residents
17 looked at the matter. So, we actually, when you sent that
18 file, we just started to disseminate it and get as much
19 input as we could on that. We assumed you had the
20 technology to do that.

21 THE INTERVIEWEE: So, at that point, around March
22 16th of this year, it was considered verified that these two
23 were the same crack. And the two figures then, the
24 different appearance of the two figures can be explained
25 like this. In the first figure you had a typical crack from

1 Set A on the top, then you had the as-polished crack from
2 Set B on the bottom.

3 MR. BIGLUICCI: Let's go to that first report, the
4 actual report and the picture found in Figure 7, there are
5 two pictures there. There are these --

6 MR. WHITE: And that is Report Number 2?

7 MR. BIGLUICCI: Report Number 1 first. We will
8 handle Report Number 1. The third page has Figure 7. In
9 the top picture you see it is labeled "as-polished,
10 longitudinal view." That is the Set A screw. And then the
11 bottom picture is the as-polished, transverse screw, Set B.

12 MR. WHITE: Okay.

13 MR. BIGLUICCI: And then you have Set -- here you
14 want to set Report Number 2 right beside that. And if you
15 go to the third page of that, you will see that there are
16 three pictures there, Darrell.

17 MR. WHITE: That is correct.

18 MR. BIGLUICCI: Okay. Go ahead, Daryl.

19 THE INTERVIEWEE: All right. The first report has
20 a typical view, or a typical crack from Set A in the top
21 view. It also has a crack in the Set B screw at the bottom.
22 Then what was changed, to go to the second report then, was
23 the crack from the Set B screw in the first report was
24 replaced with the photograph of the same crack in the etched
25 condition, and clarified that this was from a Set A screw in

1 the second report.

2 Then the Set A crack in the top photograph from
3 the first --

4 MR. WHITE: I'm sorry.

5 THE INTERVIEWEE: -- report was substituted for
6 typical cracks from Set H, which were the two photographs in
7 the lower view of Figure 7 in the second report.

8 MR. WHITE: Okay.

9 THE INTERVIEWEE: And the reason that Set H was
10 included is because there was some additional testing
11 between the first report and the second report was just
12 captured by this photograph, because those -- that screw set
13 had not been examined in the first report and it was
14 included in the second report.

15 Somehow between the first report and the second
16 report, there was a question raised as far as which of these
17 two screws, the Set A or the Set B, was a new screw and
18 which was a whole screw that was removed from service. And
19 I am going to explain in a minute more on that, though.

20 So that was how Figure 7 became changed.

21 BY MR. WHITE:

22 Q And, so, if I am correct, in the first report,
23 this bottom photograph, as-polished in Set B, was in the
24 second report this transverse cross-section in Set A?

25 A That is correct.

1 Q Okay.

2 A Now, in the first report, as I mentioned, there
3 was some confusion as to which screw, A or B, was a new
4 screw. The whole screw received in Set A was referred to as
5 a new screw, as was the screws received in Set B. And it
6 was, the report was written such that Set A and B were
7 assumed to be from the same location, therefore, the only
8 difference between the screws were the bags they were
9 received in, therefore, the labels were kept separate. And
10 I believe that there might have been some confusion as far
11 as the labels for the micros as well, which the micros are
12 the pieces of metal which were polished that we took
13 pictures of.

14 Then on June 8th when we had the meeting to make
15 the clarification between the first report and the second
16 report, I made a note that the screw that I etched to reveal
17 the K step, and in the second report then, the only crack
18 that has been etched is that photograph shown in Figure 7.
19 So, therefore, that sentence refers to the crack which is in
20 question between Set B and Set A.

21 Q So that is the only one that was etched, so that
22 has to be the same crack?

23 A So it was requested the crack a little bit, so I
24 know that that was reexamined between the first report and
25 the second report.

1 On June 12th an endorsement was issued to
2 reexamine the new screws and used screws for identification
3 as far as which set contained cracks. In the endorsement,
4 we are still referring to the new screws as from Sets A and
5 B.

6 MR. BIGLUICCI: See, that is in the table here,
7 Darrell, the first line of the table. Sets A and B.

8 THE INTERVIEWEE: There is also a line at the
9 bottom with a second asterisk that said that one new screw
10 was received with the original batch of fractured screws,
11 Set A, in which cracks were found at the thread root. An
12 additional set of 12 new screws was received in Set B, and
13 of the seven screwing screws remaining in Set B which were
14 not destroyed for other testing, no additional cracks were
15 found.

16 So, in other words, we still believed that A and B
17 were the same, that the whole screw from Set A and the new
18 screws from Set B were the same as of the issuance of the
19 June 12th endorsement. And, again, you may not be familiar
20 with laboratory terminology, but the term "endorsement" here
21 does not mean to accept. Endorsement means to clarify.

22 MR. WHITE: Okay.

23 THE INTERVIEWEE: So, in this sense, an
24 endorsement would be like an addendum or additional
25 information, or a correction or something of that nature.

1 MR. WHITE: All right.

2 THE INTERVIEWEE: Then, after the June 12th
3 addition -- addendum was, or endorsement was issued, we
4 somehow clarified the fact that the photograph in the first
5 report labeled Set B was mislabeled, that actually that was
6 from a Set A.

7 BY MR. WHITE:

8 Q When you say we, who would have been involved in
9 that?

10 A Myself, the engineering technician, Phil Gass,
11 Delsa Frazier, anyone else at the lab who was working on
12 this project which I don't remember who else might have
13 been.

14 Q So it would have been a group effort and, I guess,
15 conclusion reached by a group instead of one individual?

16 A My best recollection seems that it was more so my
17 discovery and my handling it. Everyone else contributed,
18 however, I don't believe it was -- we didn't sit around and
19 discuss it for a long period of time. It was just --

20 Q Did someone have to sign off that they agree on
21 this?

22 A No, typically not. Any changes that we make
23 between the first and second report just get reviewed in the
24 final version of the second report before it was signed.

25 Q Okay.

1 A So, once we determined that the photograph was
2 mislabeled and we clarified in the second report, Figure 7,
3 to show the etched crack and referred to it as the crack in
4 the whole screw from Set A, and not the screw from Set B,
5 then the part in the conclusions which referred to the crack
6 in Set B was also removed. As a result, we had the mention
7 of the crack in the Set A in the second report, but no
8 mention of the cracks in Set B.

9 MR. WHITE: How is your tape? It is still going.

10 THE INTERVIEWEE: Yes. I think it stops when I
11 quiet.

12 MR. WHITE: Okay.

13 THE INTERVIEWEE: Now, I made some notes of some
14 other things to tell you, but I can't make out this writing,
15 so -- because I am looking off of Ed's notes. If it is
16 okay, I would like to take a moment to confer.

17 MR. WHITE: Sure. Okay. We are going to go off
18 the record and it is now 8:40 a.m.

19 [Recess.]

20 MR. WHITE: We are back on the record and the time
21 is now 9:00 a.m.

22 BY MR. WHITE:

23 Q And, Daryl, if you would just go ahead, and we are
24 going to just reiterate real quickly what the difference
25 between the first and second reports, what the differences

1 are and why Daryl feels the differences in the two reports.

2 A Okay. The first report contained a photograph of
3 a quench crack which was labeled as a Set B screw.

4 Somewhere between the issuance of the first and second
5 report, that was determined to be an incorrect label. The
6 label was clarified to read as a Set A screw and the same
7 photograph, or the same crack was polished and etched and
8 into the top location on Figure 7 in the second report.

9 What this means was that no quench cracks were
10 found in the Set B screws and the endorsement dated June
11 12th also mentions that seven additional screws from Set B,
12 the remaining screws which had not been destroyed by other
13 testing, were also examined for areas of cracks and no
14 cracks were found in any of the remaining Set B screws,
15 which further backs up the statement that I made that we
16 suspected that there were no cracks in any of the Set B
17 screws.

18 Therefore, the text in the figure -- or the text
19 in the report was changed to eliminate the quench cracks
20 which were found in the Set B screws in the second report.

21 Q And real quickly, Daryl, do you know who
22 discovered, prior to the second report, during your testing,
23 that the cracks in Set B and Set A were the same?

24 A I do not recall that, but I know that I was the
25 person changed the figure, therefore, I was aware of it.

1 Q Okay. The change in terminology on the one screw
2 that was found in Set A and then that was originally
3 identified as a new screw. Subsequent to the second report,
4 it was determined that -- if you could just go into some
5 detail that why we changed the terminology.

6 A Prior to the issuance of the second report, we
7 determined that the whole screw received in Set A was not a
8 new screw. The endorsement on June 12th --

9 MR. WHITE: We have just turned the tape over.
10 The time is 9:04 a.m. and we are continuing with the
11 interview of Daryl Smith.

12 THE INTERVIEWEE: The endorsement on June 12th
13 refers to Sets A and B as new screws. This was clarified in
14 the second report, that the screw from Set A was a whole
15 screw from service, or a whole screw that was removed from
16 the melt tank, which would be the clearest way to put it,
17 which I don't believe that was mentioned in the second
18 report, but that is where it was from. And the Set B screws
19 remained called -- were also called new screws.

20 BY MR. WHITE:

21 Q So, in the first report, the one screw found in
22 the melt tank was referred to as a new screw, but
23 subsequently it was determined that it should not be called
24 a new screw because it may have been in service and popped
25 out or whatever.

1 A It may have been installed and removed and
2 dropped, therefore, it was not proper to call it a new
3 screw. And when that realization came about, that the screw
4 from Set A was not a new screw, then the cracks which were
5 documented were examined. Based on my notes, we knew that I
6 had to etch one of the cracks to reveal the K step and the
7 crack that I chose to etch to reveal was the crack that was
8 previously labeled as Set B, however, then discovered to be
9 actually from Set A.

10 And then, therefore, the photograph was correctly
11 labeled in the second report as a crack from Set A and the
12 text referring to the quench crack in Set B screws was
13 removed from the conclusions and left out of the second
14 report.

15 Q And, again, do you remember specifically removing
16 that out or would you just feel like that that would have
17 been a logical reason why it changed in the second?

18 A I believe that would be -- that is the best
19 explanation logically as far as how the changes came about.
20 I don't particularly recall making any of the changes or
21 performing any of the testing, although I know I did. It
22 has just been so long that I don't remember.

23 Q And you had pointed out as well in the second
24 report, Set B screws were not altogether dropped from the
25 report, they were referred to?

1 A That is correct. The Set B screws were mentioned
2 to also contain slight quench areas in the second report,
3 both in the text and in Figure 12. The locations of slight
4 quenching were mentioned in the Set B screws, as well as the
5 Set A screws. That is some of the additional testing which
6 was performed.

7 The slight quenched areas were alluded to in the
8 first report by the mixed mode failure mechanisms, and then
9 later clarified by microstructural examination in the second
10 report.

11 The fact that we mentioned the slight quenching in
12 the second report is significant because slight quenching
13 and quench cracks are about on the same importance level
14 from a metallurgical standpoint. They are both relatively
15 insignificant in these types of applications, however, just
16 merely worth of note. And the fact that we noted the slight
17 quenched areas is just as consequential as the fact that we
18 noted the quench cracks.

19 Therefore, this shows that there was no motive to
20 cover up any removal of information which would prove
21 deleterious to the Set B screws, because the slight quench
22 microstructure discovered in four of the seven Set B screws
23 which were examined was just as noteworthy, however,
24 inconsequential to the application.

25 And, therefore, by the same token that we pointed

1 out the quench cracks in the Set B screws, slight quenching
2 also showed a desire to show what was present in the screw.
3 However, it was not -- it was not discovered in the first
4 report because we didn't have time to do it. And, so, it
5 was just included in the second report to back up the
6 mention of the mixed mode failure in the first report.

7 Q In the first report you had Conclusions 1 through
8 7. And in the second report, do you also have a list of
9 conclusions?

10 A We have a paragraph in the second report which
11 summarizes the information which was found.

12 Q In the first report, Number 6, the presence of
13 quench cracks in the screws [inaudible] received from the
14 manufacturer, is that also discussed in the second report?

15 A No, it is not.

16 Q And what would the reason for that be?

17 A Because upon examination of the crack, in
18 determining that it was actually a Set A screw, and upon
19 examination of the seven remaining screws in Set B which
20 were not destroyed, and no quench cracks having been found
21 in the Set B screws, it was determined that it should not be
22 mentioned in the second report. But the incorrect statement
23 that there were quench cracks in the new screws from the
24 manufacturer should be omitted from the second report
25 because it was incorrect.

1 Q And you specifically remember a discussion between
2 everyone on that?

3 A No, sir, I do not have a very clear recollection
4 of hardly anything that went on during this time. But that
5 seems to be the most logical thing.

6 Q Okay. So that is just -- that is something that
7 you don't specifically recall, but that is the conclusion
8 you have reached why Number 6 is missing?

9 A That is correct.

10 Q Okay. Just clarifying that, do you recall anyone
11 telling you to remove Number 6 from the second report
12 specifically?

13 A No one told us to do that.

14 MR. WHITE: Okay. All right. Ed, do you want to
15 clarify something?

16 MR. BIGLUICCI: I just want to make a point,
17 because I have been involved in some of these, you know,
18 management meetings where we sort of came to this
19 realization. And the way I got there, and I am not the most
20 astute on this subject, I will admit to that, but when I was
21 looking at the endorsement, and I know Gary had some periods
22 with this as well, I kept focusing on that second footnote
23 in the endorsement and the statement in the table that says
24 new from Sets A and B, cracks found, one.

25 And I just asked, Daryl, I am having a hard time

1 understanding, from the second footnote there, it says that,
2 "Note that one new screw was received with the original with
3 the original batch of [inaudible] screws, Set A, [inaudible]
4 new screw in which cracks were found." So, I mean I just
5 asked the question, if you have one screw in which a crack
6 was found and it was Set A, and that is what the table says,
7 one crack of eight, where is the cracked Set B screw? And
8 he looked at me, he is like, well, you dummy, there is no
9 cracked Set B screw. That is the point I was trying to
10 make.

11 I think that is the point I said, well, let's go
12 back to the pictures and that is when, if you look at the
13 pictures, I think those are the same darn screw.

14 MR. WHITE: So, it is not what [inaudible], what
15 is missing in that would, where is the cracked screw?

16 MR. BIGLUICCI: That is how I got to it. I backed
17 into it that way.

18 MR. WHITE: That is the only cracked screw we have
19 got here.

20 MR. BIGLUICCI: So, I asked him where it was, and
21 he said, well, there was none. And I think that that is the
22 same screw if you look at this. I know we started with --
23 we got both reports out again, and looked at those and we
24 had -- you know, Terry was in the room, and Mark Bersinsky,
25 who also has a background in metallurgy. And so we started

1 looking at the two and rotating the two, because they are in
2 different -- you can just see they are in different
3 configurations. And we started rotating them around and
4 Daryl said, well, let me -- I still have the original
5 pictures back at the labs, I mean the original photographs.
6 I can go back on my computer and superimpose them and that
7 should answer it, you know, conclusively.

8 And he did that later that day and that is, I
9 think the very next morning is when he put out that the
10 figures, it showed -- I mean they looked the same to me, but
11 I am, you know, I am not a metallurgist. That is when, you
12 know, we distributed it around and everybody came and said,
13 hey, that is, you know, definitely the same screw.

14 So that is the way I backed into it. You know, we
15 sort of characterized it as -- and I know we have talked to
16 Gary a little bit about it, that there was a possibility
17 that that was the case. But we were all focused on, you
18 know, I think the nature of the interviews was focused on
19 what -- who directed you to take it out? Why did it -- why
20 did it the Set B, if you look it, why did the Set B picture
21 come out and who directed you to do that? Or did you do it
22 under your own volition? That was the nature of the
23 interviews, the way it was focused on. No, nobody has ever
24 told me to take it out. I can't recall exactly why they
25 would remove it.

1 It was sort of defensive mode. You know, the
2 questioning was often just so the answers were defensive and
3 I never focused on the fact that -- I know Gary, in the
4 interviews, recognized that there was an issue between new
5 and pulled screws and he recognized there was some confusion
6 there, but I never bought into it.

7 MR. WHITE: Just assumed and went on the
8 assumption that it was --

9 MR. BIGLUICCI: Right. That a substitution was
10 made and if a that substitution was made, you know, for flow
11 purposes or whatever, because that is the recollection he
12 had the time. It took, basically, eight of us in a room
13 looked at it, and three metallurgists looking at it and
14 rotating pictures around to, you know, for Daryl to finally
15 say, well, listen, I think that is the same screw. That is
16 when the certainty, we were able to prove that that was the
17 case and made that information available to as many people
18 as we could.

19 BY MR. WHITE:

20 Q All right. And just for the record, did you, I
21 guess you felt like that there was enough similarity here
22 after looking at it and told Gary Claxton and, subsequently,
23 I guess that wasn't passed on down through the
24 investigation. But just to clarify, did anyone bring you
25 the pictures or ask you to say that these were same?

1 A No one asked me.

2 Q Originally?

3 A No one prompted me.

4 Q Okay.

5 A When I first mentioned -- or the first
6 recollection I had of it was when I sat down after the third
7 interview and I pulled out both copies of the figures and
8 sat down with Gary in the front conference room at Central
9 Labs and showed him exactly what I was talking about
10 visually, as well as verbally put it.

11 Q At that time had you discussed it with anyone
12 else?

13 A No, I don't believe I had.

14 MR. WHITE: Okay. I don't have anything else to
15 add.

16 Did you want to go on the record?

17 MR. BIGLUICCI: Yeah. There is one thing that I
18 wanted to mention. You had various reconciliations over the
19 period of some time on these reports, and one of the
20 earliest ones, in fact, I think the earliest one is where
21 Delsa was asked to sort of go through and make a comparison
22 of Report 1 and Report 2, and that was in the '97 timeframe.
23 She put down a series of 17, a list of 17 differences that
24 she noted, as far as Report 1 versus Report 2. I know Gary
25 has a copy of that. And that was also incorporated as an

1 attachment to Terry Woods' reconciliation report in '98.

2 We went back and looked at all that documentation
3 again to see -- the critical question with us was -- when
4 was the first time this may have come to someone's
5 recollection? How early in the process? Might this have
6 been at least raised as an issue? And I noticed -- and we
7 all noticed collectively that if you look at Delsa's
8 reconciliation, her point number 6 in that reconciliation
9 talks about that in the cytography section, both reports
10 discuss examination of screw A and a screw from G. That
11 wasn't as relevant to us as the next sentence. A different
12 micrograph is showing Figure 7 for a new screw A first
13 report, versus whole screw A, second report.

14 That was our first indication that at least at
15 some time in her reconciliation, she must have recognized
16 that these were, in essence, two A photographs. And I don't
17 think she recalled subsequently, because she had basically
18 the same explanation, as did Delsa, when asked, you know,
19 did someone ask to take it out? No. Did someone, you know,
20 put any pressure on you? No. That it was done for flow
21 purposes.

22 So, I think at that point she was -- when Daryl
23 talked to you earlier about Report Number 1, Report Number 2
24 and setting them side-by-side, you can see that a
25 substitution was made for A on the Set B to Set A, but also

1 there was a substitution made, if you look from the other
2 direction, there was a substitution made for flow purposes
3 or for clarification purposes, or to show just a different
4 perspective on a crack, and then went from top left to
5 bottom right, the as-polished Set A on the top of Report
6 Number 1 becomes the intergranular crack found at thread
7 root from the screw that was removed from service in Set H.
8 That substitution was made.

9 MR. WHITE: So, not only is the crack that we are
10 concerned with from the screw that was found in the ice at
11 the bottom of the melt tank, but -- and that that was moved
12 in the first and second report, but, as well, there was
13 another photograph that was moved for flow.

14 MR. BIGLUICCI: Right. And substituted for flow
15 purposes. And it is not clear in her mind, when she talked
16 about Figure 7, a change being made, whether or not she was
17 focusing on that change or this change from the B to A or
18 was it a change from the A to the H. And she is confused on
19 that. So what we have is three, four, five year
20 recollections of a one figure, of, in essence, five
21 different pictures moving around.

22 So, I think, it was our thought that the confusion
23 is probably stemming more from that than -- and from the
24 lapse of time than from anything else. So I just want to at
25 least put out those -- that background there in order for

1 you to make your judgment on what that report was talking
2 to.

3 MR. WHITE: All right. Great.

4 BY MR. WHITE:

5 Q Is there anything else, Daryl, or, Ed, that you
6 would like to add?

7 A Not at this time.

8 MR. BIGLUICCI: I think that is all that we can
9 do.

10 MR. WHITE: All right. Well, that will conclude
11 the interview of Daryl Smith. The time is 9:20 a.m.

12 [Whereupon, at 9:20 a.m., the interview was
13 concluded.]

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CERTIFICATE

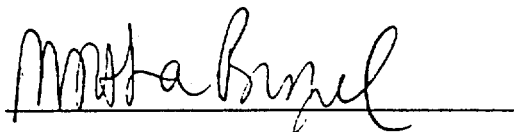
This is to certify that the attached proceedings before the United States Nuclear Regulatory Commission in the matter of:

Name of Proceeding: INTERVIEW OF
DARYL SMITH
(CLOSED)

Docket Number: 2-1998-023

Place of Proceeding: Chattanooga, TN

were held as herein appears, and that this is the original transcript thereof for the file of the United States Nuclear Regulatory Commission transcribed by me from recorded tapes provided by the Nuclear Regulatory Commission, and that the transcript is a true and accurate record of the foregoing proceedings to the best of my belief and ability.



Martha Brazil

Transcriber

Ann Riley & Associates, Ltd.