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UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF OHIO  
WESTERN DIVISION

UNITED STATES OF AMERICA,	-	Docket No. 3:06-CR-712
	-	
Plaintiff,	-	Toledo, Ohio
	-	October 12, 2007
v.	-	Trial
	-	
DAVID GEISEN, et al.,	-	
	-	
Defendant.	-	

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VOLUME 8 OF 15  
TRANSCRIPT OF TRIAL  
BEFORE THE HONORABLE DAVID A. KATZ  
UNITED STATES DISTRICT JUDGE.

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1 (Commenced at 8:37 a.m.)

08:33:53 2 THE COURT: Good morning, ladies and gentlemen.  
3 Please call your next witness, Mr. Ballantine.

08:37:40 4 MR. BALLANTINE: Ed Chimahusky.

08:37:45 5 (The witness was sworn by the clerk.)

08:37:46 6 - - -

08:37:46 7 EDWARD CHIMAHUSKY, DIRECT EXAMINATION

08:37:47 8 BY MR. BALLANTINE:

08:37:47 9 Q. Good morning.

08:38:18 10 A. Good morning.

11 Q. Would you please state your full name and spell your  
12 last name for the court reporter?

13 A. My full name is Edward Chimahusky. My last name is  
08:38:26 14 spelled C-h-i-m-a-h-u-s-k-y.

08:38:31 15 Q. Mr. Chimahusky, where do you work?

16 A. I work at the Davis-Besse Nuclear Power Station.

17 Q. How long have you worked as Davis-Besse?

18 A. I've worked there 20 years.

19 Q. Do you live nearby?

20 A. I live 20 miles south.

21 Q. And how is it that you trained to or came to work at  
08:38:46 22 Davis-Besse?

23 A. I was hired there in 1987 when I left active duty in the  
24 United States Navy.

25 Q. And what did you do in the Navy?

08:38:55 1 A. In the Navy I was assigned in the engineering department  
2 of nuclear submarines. My last tour was as the Chief Engineer  
3 Officer.

08:39:05 4 Q. Prior to that were you in college?

08:39:08 5 A. Prior to that I attended the Mississippi State  
08:39:12 6 University; Starkville, Mississippi, where I earned a bachelor  
08:39:15 7 of science in engineering.

8 Q. What kind of engineering?

9 A. Nuclear engineering.

08:39:29 10 Q. What jobs have you held at Davis-Besse?

08:39:32 11 A. I have -- when I first hired in I was a testing  
08:39:36 12 supervisor for modification testing. Around 1990 I became a  
13 system engineer, became responsible for the reactor coolant  
08:39:47 14 system, reactor coolant pumping. In 1997 I changed that  
08:39:52 15 position and became a system engineer in the balance of plant  
08:39:56 16 area, which is responsible for air compressors, feed water  
08:40:02 17 heaters, and pumps. In the year 2001 I moved from the plant  
08:40:08 18 engineering area to quality assurance. I was a quality  
19 assurance auditor and assessor until last May -- last May, June,  
08:40:17 20 about 2006, and then I became a supervisor in the Quality  
08:40:24 21 Assurance Department.

08:40:24 22 Q. I'd like to turn your attention to the time when you  
08:40:27 23 began working as a reactor coolant system engineer. That was  
08:40:30 24 about 1990?

25 A. That was 1990.

1 Q. What was the first outage you worked as reactor coolant  
2 system engineer?

3 A. Would have been in 1991. I believe it was, like, the  
08:40:40 4 7th refueling outage.

08:40:41 5 Q. During that outage, did you inspect the control rod  
08:40:46 6 drive mechanism flanges?

08:40:48 7 A. Yes, I did.

08:40:50 8 Q. Why were you doing that inspection?

9 A. That was one of the responsibilities of the reactor  
08:40:56 10 coolant engineer to perform that inspection.

11 Q. Tell the jury how you would -- how that inspection was  
12 done.

13 A. In 1991 the vendor at that time was Babcock & Wilcox,  
08:41:08 14 would perform a video inspection of the flanges. The way the  
08:41:12 15 video inspection is performed is you're standing up on top of  
16 the service structure about 12 to 13 feet above the mating  
08:41:20 17 surface where the control rod drive mechanism mates to the  
08:41:24 18 nozzle. There's a service structure there. You have a pole;  
19 there are two cameras at the bottom of the pole: One that looks  
20 in about 90 degrees; the other looks up at about a 45-degree  
21 angle. You would lower this pole between the flanges or  
08:41:41 22 between the control rod drive mechanisms, and there was, like, a  
23 stop mechanism, tape on this pole, so when you got to the right  
24 location, the pole would stop. There was a tape so you  
08:41:57 25 couldn't lower the pole anymore. One camera looked in so you

08:42:01 1 could look at the mating surface, where the mechanism actually  
08:42:06 2 bolted to the other flange. The other camera looked up so you'd  
3 look up underneath at the underside of the bolting and the  
4 underside of the flange where the split nut ring is seated.

08:42:18 5 At that time the vendor who performed the video  
6 inspection, who taped it all, would give the tape to the system  
7 engineer. The system engineer would spend hours reviewing the  
08:42:29 8 tape to identify the flanges.

9 Q. I'd like to ask Mr. Chimahusky to come down and  
08:42:38 10 demonstrate a couple things with the models.

11 THE COURT: Mr. Chimahusky, the inclination is to  
08:42:47 12 drop the mike. Try to keep it close to your mouth so that  
13 Tracy can hear you.

08:42:54 14 THE WITNESS: I understand to keep the mike close  
15 to my mouth.

16 BY MR. BALLANTINE:

08:43:00 17 Q. I'd like to start by asking you a couple questions about  
08:43:04 18 Government's Exhibit 125, which is a 1/8 scale model. First of  
19 all, would you tell the jury what we're looking at and, I guess,  
20 what's missing from this model?

21 A. What's missing from this model is the service structure.  
08:43:27 22 Mounted on top of this flange is a cylindrical structure  
08:43:33 23 approximately 12 to 13 feet high and bolts all the way around  
24 it. It supports the control rod drive mechanisms, which are  
08:43:43 25 attached at the top to keep them from moving. These come down

1 together, 61 of them. They mate with these flanges. And when  
2 you go in the inspection, you're standing up on top of this  
08:43:55 3 platform, I'd say about that high. So when you drop your pole  
08:43:58 4 in between -- so it actually comes in between the flanges here  
5 for the inspection.

6 Q. You mentioned the number 61. How many flanges total or  
08:44:09 7 nozzles are there to the reactor vessel head?

8 A. I believe there's 61, 57 to 61.

9 Q. Are there any blanks?

10 A. Yes. There are four, if I remember the numbers, that  
11 have a venting device on them, which is just a pipe coming up  
12 with a couple valves at the top to help vent. When you fill it  
13 up -- you've got to make sure it's filled. There are a  
08:44:39 14 couple -- there's three that just have a blank flange attached.  
15 And there's one that comes up, and it is connected to what we  
08:44:53 16 call our head vent line, which allows a continuous vent, so if  
17 any air would appear inside the vessel, it would vent up and go  
08:45:02 18 to the top of the steam generator.

08:45:06 19 Q. I believe you testified that you would be standing up on  
20 a platform up here and dropping a camera in between these -- and  
08:45:14 21 in among these flanges?

22 A. That is correct.

23 Q. Now I'd like you to take a look at the other model.  
08:45:26 24 This is Government's Exhibit 126. If you would describe for  
25 the jury what the camera would be looking at in this -- using

1 this model.

2 A. When you lower the pole with the camera -- as I said, it  
3 has two cameras on it. One would look straight in at this  
4 joint where the control rod drive mechanism and the nozzle  
08:46:03 5 flange mate. The other camera would look up underneath the  
08:46:07 6 underside to look at the -- what we call the split nut ring here  
7 and the bolts that hold it together.

8 Q. Split nut ring. What is a split nut ring?

9 A. The purpose of a split nut ring is to allow this bolt  
08:46:23 10 that protrudes -- it tightens it up, this split nut ring.

11 Q. So there are threaded bolts in here?

12 A. Yes, sir. There are threaded bolts.

08:46:34 13 Q. So these would come out?

14 A. Yes. What you would do, in an outage you would  
15 untighten these and pull them out.

16 Q. While we're here, why was it that you were doing a  
17 flange inspection?

18 A. The flange inspection was being performed because boric  
08:46:50 19 acid had always leaked in these flanges since -- basically since  
20 the time it was built. There's always leakage from the  
21 flanges, so we would inspect to allow a refit, repairs to be  
08:47:04 22 made to flanges.

08:47:06 23 Q. If you could take the stand again. I'm going to bring  
08:47:17 24 part of Government's Exhibit 126 up to the stand for you, just  
25 ask you to disassemble this flange. I just ask you to show the

1 jury on the inside of the flange what it was that was -- what  
2 the problem was.

08:47:44 3 A. The problem was you had two gaskets that set in these  
08:47:51 4 grooves. And over time the leakage would occur past these two  
08:47:56 5 gaskets and then come out the mechanism, or they'd come out --  
08:48:01 6 they would leak their way through the bolts. That's the  
7 leakage we would have to repair.

08:48:16 8 Q. What did flange leakage look like?

9 A. It depends how bad the leakage was. If it was a very  
08:48:23 10 minor leak, you would see what I would call a white line in the  
08:48:27 11 mating surface. If it was a really major leak, it would be,  
12 like, a giant -- I call it a snowball. It would encapsulate  
13 the flange. I've seen leakage where it was bad enough that you  
08:48:41 14 -- that you have what I call stalactites hanging down. So it  
15 was like a giant ball of white snow.

08:48:49 16 Q. All right. So I think we were at the 1991 outage.  
17 What were the results of the inspection in that outage that you  
08:48:57 18 recall?

19 A. I believe in 1991 to my recollection we had  
20 approximately 21 to 22 flanges that we identified as leaking.  
21 We had about 22 flanges that we identified as leaking.

22 Q. What did the plant -- what did you do about those?

23 A. We identified the leaking flanges to management. We  
24 would have written a PCAQ to identify this and made  
08:49:21 25 recommendations for repairs. What we ended up repairing, I

1 believe, at that outage was around 15. That was all the time  
2 in the outage we had allowed to us to perform these repairs.

08:49:32 3 Q. Was there a new repair available to you in 1991?

08:49:38 4 A. In 1991 you would still put the same type of gasket in,  
08:49:45 5 you'd still put a gasket in and tighten it up. The actual  
08:49:49 6 mechanism in the gasket was different. The original gasket  
7 material was a stainless steel ring with an asbestos material  
8 impregnated, built into the ring of stainless steel. Some of  
08:50:02 9 the issues that we identified over the years was that asbestos  
08:50:06 10 wasn't a good sealing material, so that was changed from  
08:50:09 11 asbestos to a graphite-impregnated gasket.

12 So in 1991 we were already using these  
08:50:17 13 graphite-impregnated stainless steel gaskets which had better  
08:50:21 14 sealing properties. Also prior to, it may have been in '90 or  
15 '91 when these flanges were mated back together, you would have  
16 a giant torque wrench with an extender on the torque wrench that  
17 you would lower down between the nuts and the flange -- control  
08:50:43 18 rod drive mechanisms, and you would try to torque these nuts to  
19 a certain torque. That was identified as one of the mechanisms  
20 that also contributed the leakage. What was developed, and I  
08:50:54 21 believe it was put into play in 1990 -- it may have been used in  
08:50:58 22 '90, maybe '91, but I think it was 90 -- you had what we call an  
23 eight-legged torque tool.

24 This tool had eight little poles on it. It had a  
25 socket at the end of each of these and there was wires and you

1 could sense how much force was being applied. So what you did  
2 with this tool is you would come down, I believe you would  
3 tighten it, which would then stretch the bolt, then you'd  
4 tighten it some more. What this would do, you could do these  
5 all pretty much simultaneously. Then you could actually put a  
08:51:40 6 force on the joint torque. We found that as a better way to  
7 help keep these flanges from leaking.

8 So a combination of diametrically tightening them  
9 and the new material, we found it was successful in stopping the  
08:51:56 10 leakage.

11 Q. So you did a number of those in that outage. Then was  
12 there another outage when you were involved in flange  
08:52:04 13 inspections?

14 A. Yes, I was involved in flange inspections in '93, '94,  
08:52:09 15 '96, '98, and '99 and 2000.

08:52:15 16 Q. What happened in 1993? What were the results of --

17 A. In 1993, again, we saw some leakage. I don't remember  
18 how many actually leaked. I don't believe we repaired them all  
19 for the same reasons, there wasn't time allowed scheduled to  
08:52:30 20 perform all the repairs. So once again, we repaired those that  
08:52:33 21 exhibited the worst leakage.

22 Q. Did any of the flanges that had been leaking in 1991  
08:52:38 23 leak in 1993?

08:52:39 24 A. To the best of my knowledge, no.

08:52:43 25 Q. You did a flange inspection in 1994?

1 A. Yes. We did a flange -- we did a flange inspection  
2 every outage.

08:52:50 3 Q. What were the results of the 1994 inspection?

4 A. Again, there was leakage from the flanges. We believe  
5 we saw leakage from some of the flanges. We did in '93,  
6 recognizing again '93 -- I mix up some of these outages, but one  
7 outage, it may have been '93, we used a different outside vendor  
8 to perform the work. They developed their own torquing tool  
9 similar to the one the original vendor did. The original vendor  
10 had their own individuals perform the work. When this second  
08:53:19 11 vendor came in this one outage, I believe Davis-Besse engineers  
12 and maintenance personnel performed the torquing or the  
13 tensioning. I don't believe that was performed as well as the  
14 other ones because the next outage we did see some possible  
15 leakage from ones that we had fixed the outage before.

16 Q. What did you do about that?

17 A. We repaired those. And we didn't use the other vendor  
18 again. I'm not saying that was the reason, but it was just how  
19 their contracts were written.

08:53:50 20 Q. The next outage was in 1996; is that right?

08:53:53 21 A. After 1994, yes, the next outage was in 1996.

22 Q. Please tell the jury about your experience with the  
23 flange inspection in that outage.

08:54:02 24 A. By the time we got to 1996, I believe all but nine to

08:54:07 25 ten flanges had been repaired and with the new gasket material.

1 After the inspection we may have saw a number that leaked, but I  
08:54:17 2 had recommended that regardless of the prior outage, that  
3 regardless of the numbers that we saw leaking, that we  
08:54:24 4 disassemble the other ones such that at the end of the outage  
5 all of the flanges, whether they had leaked or not, would have  
6 had the new gasket material. So that's what we did. But at  
7 the end of 1996 all the flanges had the new material for the  
08:54:38 8 gaskets.

9 Q. What was the industry experience with this new material?

10 A. I believe the industry experience was the same. They  
08:54:44 11 found it was successful.

08:54:48 12 Q. What was your experience with the new material?

08:54:50 13 A. My experience was once you use this new material on the  
08:54:57 14 gasket, and you tighten it properly, it wouldn't leak anymore.

08:55:01 15 Q. So you had the problem licked?

08:55:03 16 A. I would say that we had a more successful outcome.

08:55:17 17 Q. You mentioned that in 1996 you thought you might have  
18 had a few nozzles that leaked. Does it stick out in your mind  
19 at all that there was bad leakage in 1996?

20 A. I don't believe there was bad leakage in 1996.

08:55:30 21 Q. No stalactites?

22 A. To my knowledge, no.

08:55:35 23 Q. So moving forward, the next outage where you worked on  
08:55:38 24 flanges, that was 1998; is that right?

08:55:40 25 A. That is correct.

08:55:41 1 Q. What was your experience with that inspection?

08:55:44 2 A. During that inspection, we identified one flange, Delta  
08:55:49 3 10, that may have exhibited some leakage. We didn't have a very  
4 good picture of it. The leakage we characterized as very  
5 minor. On a scale from one to 10, which we categorized these  
08:56:03 6 before, would have been something like a two; very minor. And  
7 we made the recommendation based on the very minor leakage that  
8 we not perform a repair.

08:56:14 9 Q. Who were you working with, if anyone, to do this  
10 inspection?

08:56:18 11 A. In 1998, at that time, like I said, I had already  
08:56:21 12 transitioned from the reactor and coolant system engineering job  
13 to the balance of plant position. There was a new reactant  
08:56:29 14 coolant system engineer. So I was performing this inspection  
15 on top of the service structure to acclimatize him, give him the  
16 experience so when he did the inspection at the next outage, he  
08:56:45 17 would know what he was looking at.

08:56:49 18 Q. Was there another outage between 1998 and 2000?

08:56:54 19 A. Yes. In 1999 the unidentified leakage at the plant was  
08:57:01 20 exhibiting increasing leakage. So there was a decision made in  
08:57:06 21 early 1999 to perform what we called a midcycle outage. It may  
08:57:11 22 have been in April, may have been in May, don't remember which  
23 month it was. And there were different teams put together to  
24 inspect and look for leakage in different parts of the plant.  
25 I was put in as the outage project manager to perform an

08:57:25 1 inspection of the control rod drive mechanism flanges.

08:57:29 2 Q. And why was it that you were doing that inspection?

3 A. I was in charge of that inspection because I had been

08:57:36 4 performing these flange inspections back through 1991.

08:57:41 5 Q. I'd like you to have a look, Mr. Chimahusky, at

08:57:44 6 Government's Exhibit 160, please.

08:57:46 7 A. I'm looking at Exhibit 160.

8 Q. Without getting into the contents of that document,

9 would you tell the Court what it is?

10 A. This is a work order that gave permission for the vendor

11 at that time, it was FTI, Framatome Technologies, I believe, to

08:58:03 12 perform a video inspection of the control rod drive mechanism

08:58:07 13 flanges.

08:58:09 14 Q. Does your name appear anywhere on this document?

08:58:14 15 A. Yes. My name and signature appear several times

16 because I was the supervisor in charge of this task.

08:58:21 17 MR. BALLANTINE: Your Honor, I'd move to admit

08:58:23 18 Government's Exhibit 160.

08:58:25 19 MR. HIBEY: No objection.

20 MR. CONROY: No objection, Your Honor.

21 THE COURT: It will be admitted without objection.

22 Thank you.

08:58:32 23 BY MR. BALLANTINE:

08:58:38 24 Q. Mr. Chimahusky, let me ask you first before we go

25 through this document, what was your experience in 1999 with the

1 flange inspection?

2 A. In 1999 as we prepared for this outage we had a number  
3 of individuals involved from the operations area, from the  
4 planning area, from the maintenance area, from the vendor. And  
5 through our evaluation and research, we decided that we would  
08:59:03 6 look -- we would not look at all the flanges, that we felt that  
7 if we looked at flange Delta 10, which had the potential for  
8 leakage at the outage before, and a representative sample of  
9 other flanges, that that would give us what we would call  
08:59:17 10 reasonable assurance that there was no leakage and that if we  
11 had seen any leakage from any of these flanges, then we would  
12 have continued and looked at all the other flanges.

13 Q. What were your findings?

14 A. Our findings indicated that we didn't have any leakage  
08:59:31 15 from any of the flanges we inspected.

16 Q. In particular did you have a good look at D-10?

08:59:37 17 A. Yes. We were able to look at Delta 10 again. One  
08:59:42 18 thing to maybe try to picture, in other outages when we  
08:59:46 19 performed inspections, there's a lot of cables that go over the  
20 top of the service structure, power cables, indication cables,  
21 and those cables were all removed so it's easy to have access.  
22 In 1999 we didn't remove any of the cables because we didn't  
09:00:00 23 remove any of the flanges, so we had to be very careful walking  
24 in the areas so we didn't break anything. So we weren't able  
25 to put the camera in the exact same hole, as we would call it,

1 on the service structure to perform the inspection of Delta 10.  
2 So we looked at Delta 10; we had a different view of it. And  
3 the view that I saw at that time basically confirmed my original  
09:00:24 4 thoughts that there was no leakage from Delta 10. There was no  
5 change to the amount of boric acid that was there. We were able  
6 to tell that the boric acid wasn't connected to the split nut  
7 ring. It looked to be, at that time, boric acid from past  
8 leakage that we were unable to previously clean.

9 Q. Please tell the jury about how you go about cleaning  
09:00:47 10 boric acid off of the nozzles after you would have inspected and  
09:00:52 11 repaired one.

12 A. For the mechanisms, you would pull those out and have  
09:00:56 13 real good easy access to clean those. For nozzles themselves,  
09:01:00 14 especially if you had boric acid underneath, it would be like  
15 taking a -- I guess the best way to identify would be like  
09:01:09 16 taking a toilet brush on a pole at a 45-degree angle that you're  
09:01:14 17 lowering 12 to 14 feet, and then pulling it up and trying to  
09:01:19 18 clean it. So it was very difficult to try to clean the old  
09:01:22 19 boric acid off that had previously leaked. And it looked to us  
09:01:26 20 like this was boric acid that we had not been able to clean  
21 before.

09:01:32 22 Q. Looking at Government's Exhibit 160, did you record  
09:01:36 23 findings for the plant from the inspection?

24 A. Let me look at the exhibit.

09:01:49 25 The exhibit states that the video inspection was

09:01:54 1 performed with no apparent leakage from the flanges.

09:02:05 2 Q. Were you aware of what conclusions were made about where  
3 the unidentified leakage was coming from after the 1999 midcycle  
4 outage?

09:02:15 5 A. Various areas in the plant were inspected. I don't  
09:02:19 6 believe any smoking gun was found for where the leakage was.

7 Q. Did the problem get solved after that midcycle outage?

09:02:29 8 A. To the best of my knowledge, no, it did not.

09:02:35 9 Q. Now I'd like to move ahead to the 2000 outage. Were  
10 you involved in flange inspection during the 2000 outage?

09:02:42 11 A. Yes, I was.

09:02:45 12 Q. What was your experience during that outage?

09:02:48 13 A. When the 2000 outage came along, by that time Dan Haley,  
14 who was a system engineer in 1998, had moved to a different  
09:02:57 15 position in Engineering. We had a new engineer, Andrew  
09:03:01 16 Siemaszko.

09:03:05 17 THE COURT: You speak very quickly. Please slow  
09:03:11 18 down so Tracy can record what you say.

09:03:11 19 A. We had a new system engineer, Andrew Siemaszko, as the  
09:03:16 20 reactor coolant system engineer. And I was going to perform  
21 the same task in 2000 with him as I did in 1998 with Dan Haley  
22 with the inspection.

09:03:25 23 BY MR. BALLANTINE:

09:03:25 24 Q. You were going to work with him, on-the-job training up  
25 on top of the service structure?

1 A. That is correct.

09:03:32 2 Q. Did you do that?

09:03:34 3 A. For a portion of the inspection, yes.

4 Q. Please tell the jury about that portion of the  
09:03:39 5 inspection that you were involved with.

6 A. Up on top of the head, I was able to show Andrew the  
09:03:45 7 cameras, how it was set up. We inspected some flanges. I  
8 showed him the 90-degree and the 45-degree video outputs. I  
9 showed him what I discussed with him, what boric acid leakage  
10 would look like. We had inspected, I believe, a row, maybe 10  
11 to 12 flanges.

09:04:05 12 We were going to continue at that time. Andrew  
13 told me that he didn't need me up on the head anymore, that he  
14 felt he was an experienced engineer, knew what he was looking at  
15 and didn't need me there. And since I had other  
09:04:17 16 responsibilities at the outage, I left and continued my normal  
17 tasks.

09:04:21 18 Q. Did you have any, I guess, reaction to his saying that  
19 he didn't need you up there anymore?

20 A. No, not really. I mean, he had been engineering, I  
21 believe, at another B & W plant. He was involved with boric  
22 acid; he may have seen it in the past. So I said okay.

09:04:41 23 Q. For the row of flanges that you inspected, do you know  
24 whether you were up there when the D-10 flange was inspected?

25 A. Yes. We were able to inspected the Delta 10 flange

09:04:52 1 while I was there.

09:04:53 2 Q. What were the results of that view?

3 A. Based on the views that we saw on Delta 10, we still  
4 didn't see any change from what we saw in '98 or '99, and I came  
09:05:04 5 to the conclusion that that flange was not leaking, and sort of  
6 reaffirmed to me that the boric acid that was on it was the old  
7 boric acid that hadn't been cleaned.

09:05:15 8 MR. BALLANTINE: Your Honor, at this point I'd like  
9 to display to the jury and to Mr. Chimahusky Government's  
10 Exhibit 141, which I believe has been admitted.

09:05:57 11 BY MR. BALLANTINE:

09:05:57 12 Q. Mr. Chimahusky, what are we looking at on the monitor  
13 there?

14 A. We appear to be looking at the underside of a reactor  
09:06:05 15 coolant pump flange with the studs sticking out.

09:06:13 16 Q. Have you recently looked at --

09:06:38 17 (Discussion had off the record.)

18 BY MR. BALLANTINE:

19 Q. You have recently looked at a video record of the 2000  
09:06:44 20 flange inspection?

09:06:45 21 A. Yes, I have.

22 Q. Did that refresh your recollection of what the bottom  
23 picture is showing?

24 A. The bottom picture reflects what we saw in 2000. And  
09:06:55 25 if you look at it, right in here it looks like what comes up

09:07:04 1 straight then turns to the left, it doesn't appear that there's  
09:07:12 2 any connection from that trail of boric acid to either the split  
3 nut ring or the stud itself. To me that wasn't leaking.

09:07:21 4 Q. I'm going to go ahead and zoom in on this part of the  
09:07:27 5 exhibit and ask you to go ahead and indicate that again to the  
6 jury. What was it you were just trying to explain?

09:07:33 7 A. Okay. If you look at this trail of boric acid up where  
8 the purple dot is, it makes that bend to the left where it goes  
09:07:45 9 horizontal. And if you look at it, the trail of boric acid  
09:07:48 10 stops. It's not connected to the split nut ring; there's no  
11 connection to the underside of any of the studs. So based on  
12 the fact that's not connected to anything, and it looks the same  
13 as it did on the other pictures, it's not fresh leakage.

09:08:06 14 Q. When you say it looked the same as it did on the other  
15 pictures, you're referring to the prior two pictures?

16 A. I'm referring to the pictures identified from 1998 and  
09:08:17 17 1999 above it.

09:08:23 18 Q. Mr. Chimahusky, were you at the plant in the summer of  
09:08:28 19 2001?

20 A. Yes, I was.

21 Q. At that time were you aware that the NRC had issued a  
22 bulletin, 2001-01?

23 A. Yes, I was.

24 Q. Were you involved in any way in the preparation of that  
09:08:40 25 bulletin?

1 A. No, I was not.

2 Q. Did anybody at the plant come to you and ask you about  
09:08:44 3 your experience with the flange inspections going back, I guess,  
4 to 1991?

09:08:50 5 A. To the best of my recollection, no, no one did.

09:08:53 6 Q. Specifically did Andrew Siemaszko come and consult with  
7 you about the past flange leakage?

8 A. Not to my knowledge.

9 Q. Did Rod Cook?

10 A. Not to my knowledge.

11 Q. Did David Geisen?

09:09:03 12 A. Not to my knowledge, no.

09:09:08 13 Q. Have you had experience at some point doing head  
09:09:12 14 inspections?

15 A. I was involved with head inspections in 1991 and in  
16 1993.

09:09:19 17 Q. Did anybody come to you and ask you to look at images  
18 from a head inspection and ask you whether you thought the boric  
19 acid in those images was active or wet?

20 A. No, to the best of my recollection, no, they did not.

09:09:53 21 MR. BALLANTINE: Your Honor, the government has no  
09:09:55 22 further questions for Mr. Chimahusky.

23 THE COURT: Cross-examination, Mr. Hibey.

09:10:01 24 - - -

09:10:01 25 EDWARD CHIMAHUSKY, CROSS-EXAMINATION

09:10:02 1 BY MR. HIBEY:

09:10:02 2 Q. Good morning, Mr. Chimahusky. My name is Richard  
3 Hibey. I represent Dave Geisen.

09:10:37 4 A. Good morning.

09:10:39 5 Q. Mr. Chimahusky, once a flange has leaked one time,  
09:10:52 6 wouldn't you say the potential for leaking may increase?

09:10:57 7 A. Yes, the potential could increase.

8 Q. And on occasion you might get some steam cutting; isn't  
9 that right?

10 A. Yes, that is correct.

09:11:07 11 Q. And a steam cut in a flange under the pressure of 2,200  
09:11:17 12 pounds per square inch could spew out a great deal of boron;  
13 isn't that right?

14 A. It is possible, yes.

09:11:31 15 Q. And at that pressure, there would be little leakage, if  
09:11:39 16 any, going down the flange onto the nozzle, wouldn't you agree,  
09:11:48 17 when you have a steam cut?

18 A. That is possible, yes.

09:11:51 19 Q. It is possible for a leak in a flange to develop after  
09:12:02 20 the 1999 midcycle outage and the April 4th, 2000, 12th refueling  
09:12:21 21 outage?

22 A. Yes, that is a possibility.

09:12:24 23 Q. Now, you participated in the disassembly of the flange  
09:12:30 24 in 1996; is that correct?

09:12:33 25 A. I wasn't there for the entire maintenance, no. We would

1 be involved with the inspections. We would keep track of what  
2 the vendor did. But we weren't there every minute of the day  
09:12:46 3 while they were actually performing the inspection.

4 Q. Let me just amend that slightly. What you're telling  
09:12:51 5 me is that when you were testifying on direct examination to  
09:12:57 6 disassembly of the flange, you know that that occurred in 1996  
7 even though you weren't there?

8 MR. BALLANTINE: Objection. I don't think he  
09:13:06 9 testified about a disassembly of a flange on direct.

09:13:11 10 MR. HIBEY: Well, didn't he pull apart a flange  
11 here on direct examination, or did I miss that?

12 MR. BALLANTINE: He was demonstrating -- we can  
13 have a sidebar.

09:13:24 14 THE COURT: Why don't you two discuss it.

09:15:18 15 (Whereupon the following discussion was had at the  
16 bench outside the hearing of the jury:)

17 MR. HIBEY: This thing is in pieces. That's what  
18 I'm talking about. He said he did this in '96.

19 MR. BALLANTINE: That's what he didn't say. He  
20 was demonstrating what the problem is.

21 MR. HIBEY: I can ask him whether they did it in  
22 '96.

23 THE COURT: Whether he testified that he  
24 participated in it or not, he was demonstrating, as I recall,  
25 what a disassembly is.

1 MR. HIBEY: Well, if he didn't put a date on it,  
2 I'm going to put a date on it.

3 MR. BALLANTINE: He was demonstrating what the  
4 inside of this flange looks like. I'm not sure that he was  
5 demonstrating --

6 THE COURT: I don't think this should be on the  
7 record.

09:15:30 8 (End of side-bar discussion.)

09:15:32 9 BY MR. HIBEY:

09:15:32 10 Q. I am holding in my hands and under my arm Government's  
09:15:41 11 Exhibit Number 126. And it is -- will you describe what I'm  
12 holding?

09:15:50 13 A. You're holding an example of what the -- a flange and a  
14 nozzle coming up from the reactor vessel is, that's the long  
15 one. The small one also in your right hand is a representation  
16 of the bottom part of the control rod drive mechanism flange  
17 that would mate to the nozzle flange. And you're holding four  
09:16:16 18 exhibits of what would be studs and a split nut ring.

09:16:22 19 Q. On direct examination Mr. Ballantine had you take this  
09:16:28 20 apart; is that correct?

09:16:29 21 A. That is correct.

09:16:31 22 Q. But apparently we did not establish this, now I'd like  
09:16:37 23 to, that this was done in 1996 to a number of the flanges?

24 A. That is correct.

09:17:07 25 Q. And, therefore, in 1996 certain work was done with

09:17:12 1 respect to the flanges when they were disassembled?

2 A. They were probably cleaned, yes.

3 Q. And that was that toilet brush reference that you made;

4 is that correct?

5 A. Yes.

09:17:25 6 Q. That's where they clean it out around the circular part

7 of this exhibit?

09:17:32 8 A. They would generally clean the mating surface itself,

9 the flat part.

10 Q. The flat part?

11 A. Yes. And up underneath.

09:17:51 12 Q. And when the flanges were put back together in 1996,

13 they remained in their composed state into 1999; isn't that

09:18:05 14 right?

09:18:07 15 A. That is correct.

09:18:11 16 Q. And in 1999 then you conducted only a flange inspection;

17 is that correct?

18 A. A partial flange inspection, yes.

09:18:18 19 Q. So by 2000, the possibility of later leakage may

20 increase, would it not, with respect to the flanges?

21 A. Possibly, yes.

09:18:39 22 Q. And when you conducted the inspection of the flanges, as

09:18:48 23 you've just described on your direct examination, the

24 inspector -- that would be you?

25 A. Yes.

1 Q. -- would be -- I think you used the number 12 to 15,  
09:19:03 2 maybe even 17 feet above the flange; is that correct?

09:19:08 3 A. That is correct.

09:19:11 4 Q. It would be, therefore, using this exhibit, Government's  
09:19:18 5 Exhibit 125, the angle would be this way looking down; isn't  
6 that right?

09:19:24 7 A. Yes, you would be looking down on it.

09:19:31 8 Q. Now, with that -- from that perspective and with the  
09:19:41 9 cameras that you were working, you wouldn't be able to tell if a  
09:19:50 10 flange had a steam cut; isn't that correct?

11 A. If a flange had a steam cut, that is correct, you would  
12 not be able to tell that until you disassemble the flange.

13 Q. And that is my next question. The flange would have to  
14 end up in this disassembled state before you could undertake the  
15 process of determining whether it had a steam cut; is that  
09:20:13 16 correct?

09:20:13 17 A. That is correct.

09:20:19 18 Q. Now, you were in the 2000 inspection for about an hour;  
09:20:25 19 is that right?

09:20:25 20 A. That sounds about right.

09:20:28 21 Q. Then after that hour you were excused to go to your  
22 other duties; is that right?

23 A. That is correct.

09:20:39 24 Q.. And you had no more involvement with the flange  
09:20:44 25 inspection activity that took place in the 2000 outage; is that

09:20:49 1 right?

2 A. That is correct also.

09:20:52 3 Q. All right. Now I want to show you an exhibit which is

09:21:03 4 Defense 14 in evidence. It is a video of the D-10 flange

09:21:15 5 disassembled in the year 2000.

09:21:25 6 And, of course, this is always the most challenging

7 part of the examination. My pulse rate is up. Please. Do we

8 have sound?

9 (Video is shown.)

09:23:08 10 MR. BALLANTINE: The government will stipulate, one

11 of these, one of these is the Delta 10 flange. Mr. Hibey can

09:23:15 12 certainly indicate to the witness.

09:23:20 13 MR. HIBEY: I wanted to do that with the aid of the

14 sound, but I appreciate the accommodation. If you'll indulge

15 me, Your Honor, for a moment, perhaps we can repair the

16 situation.

09:23:36 17 THE COURT: Mr. Hibey, we're going to send -- the

09:23:43 18 technician who replaced the monitor for the jury box is still in

19 the building. We're going to try to get him in here.

09:23:54 20 MR. HIBEY: I appreciate that, Your Honor. There

21 is an alternative which is we would give the jury about five

22 minutes either in place or upstairs; we can bring, I am told,

23 our unit over to here, and supposedly that's likely to fix the

24 situation.

09:24:18 25 THE COURT: He's on his way.

09:24:25 1 MR. HIBEY: Just to set this up. Thank you, Mr.

09:24:28 2 Ballantine.

09:24:29 3 BY MR. HIBEY:

09:24:29 4 Q. You're going to see this film clip of the D-10 flange  
09:24:34 5 disassembled during the 2000 outage. And I want you to look at  
09:24:40 6 it.

7 A. Okay.

09:25:22 8 MR. HIBEY: Your Honor, in the movie Chicago the  
9 lawyer Richard Gere did a tap dance.

10 THE COURT: I think you can spare us that.

11 (Recess taken.)

12 (Remainder of transcript by Court Reporter Angela  
13 Nixon.)

14 - - -

15  
16

17 **C E R T I F I C A T E**

18

19 I certify that the foregoing is a correct transcript from the  
20 record of proceedings in the above-entitled matter.

21

22 \_\_\_\_\_

23 Tracy L. Spore, RMR, CRR

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Date

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EDWARD CHIMAHUSKY, DIRECT EXAMINATION

1426

BY MR. BALLANTINE:

EDWARD CHIMAHUSKY, CROSS-EXAMINATION

1445

BY MR. HIBEY:

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