1	UNITED STATES OF AMERICA
2	NUCLEAR REGULATORY COMMISSION
3	+ + + + +
4	OFFICE OF INVESTIGATIONS
5	INTERVIEW
6	x
7	IN THE MATTER OF:
8	INTERVIEW OF : Docket No. 1-2004-002
9	
10	(CLOSED) :
11	x
12	Tuesday, March 9, 2004
13	Training Center
14	PSEG Nuclear
15	Salem, NJ
16	
17	The above-entitled interview was conducted
18	at 4:47 p.m.
19	BEFORE:
20	SPECIAL AGENT Eileen Neff
21	SR. SPECIAL AGENT Jeff Teator
22	ALSO PRESENT:
23	Project Engineer Ted Wingfield
24	
25	2004-002 * NEAL R. GROSS
in this	NEAL R. GROSS s record was deleted COURT REPORTERS AND TRANSCRIBERS COURT REPORTERS AND TRANSCRIBERS

Information in this record was deleted in accordance with the Freedom of Information Act, exemptions 76 (202) 234-4433

FOIA- 3005-194

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APPEARANCES:

б

On Behalf of PSEG Nuclear and the Witness,



JEFFRIE J. KEENAN, ESQ.

PSEG Assistant General Solicitor

Nuclear Business Unit--N21

P.O. Box 236

Hancocks Bridge, NJ 08038

P-R-O-C-E-E-D-I-N-G-S

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4:47 p.m.

SPECIAL AGENT NEFF: Today's date is March 9th, 2004. The time is approximately 4:47 p.m. Speaking is Special Agent Eileen Neff, with U.S. NRC Region 1, Office of Investigations.

Also present from the same office is Senior Agent Jeffrie Teator, and from the Division of Reactor Projects, Project Engineer Ted Wingfield.

What follows is an interview of who is currently employed by PSEG Nuclear as at the Salem station.

PSEG Nuclear Assistant Solicitor General
Jeffrie Keenan is also present and will describe the
purpose of his appearance today, shortly.

As agreed, the interview is being tape-recorded and will be conducted under oath.

The location of this interview is the PSEG Nuclear Training Center at Salem, New Jersey.

The subject matter of this interview concerns the handling of a steam valve for a main feedwater pump turbine, VMS-42, in September 2002, and is being interviewed as the subject in

1	this investigation.
2	The allegations involve potential
3	violations of technical specification 6.8.1 as related
4	to station operating practices required for equipment
5	control, 10 C.F.R. 50.54(j), "Conditions of Licenses
6	and Operating Apparatus and Mechanisms Other Than
7	Controls," and 10 C.F.R. 50.5, "Deliberate
8.	Misconduct."
9	is appearing here today
10	voluntarily. And understanding what I've explained to
11	you, do you wish to go forward?
12	: Yes, I do.
13	SPECIAL AGENT NEFF: Can we, before we go
14	any further, place you under oath? Would you raise
15	your right hand, please.
16	Whereupon,
17	
18	having been first duly sworn, was examined and
19	testified as follows:
20	SPECIAL AGENT NEFF: Thank you.
21	What I'll ask you to do is Jeff, please
22	describe the purpose of your appearance here today.
23	MR. KEENAN: Yes. My name is Jeff Keenan
24	and I work for PSEG Services as Assistant General

Solicitor. Today I'm representing

and PSEG in a

1	joint capacity. I have reviewed issues relative to
2	the 22-MS-42 valve. I'm not aware of any conflict.
3	Should a conflict arise, we'll take a break from the
4	record and best handle that.
5	We would also like the ability to review
6	the transcript when it's available of course, under
7	the purview of the NRC.
8	SPECIAL AGENT NEFF: All right.
9	do you understand the purpose of Mr.
10	Keenan, as described?
11	Yes, I do.
12	SPECIAL AGENT NEFF: Okay. Does your
13	employer require you to have an attorney present when
14	you are interviewed by NRC Office of Investigations?
15	No, they do not.
6	SPECIAL AGENT NEFF: Were you in any way
L7	threatened with any adverse action if you did not
18	request corporate counsel?
۱9	No, I was not.
20	SPECIAL AGENT NEFF: Okay. Will the
21	presence of Mr. Keenan hinder your testimony in any
22	way?
23	No.
4	SPECIAL AGENT NEFF: Okay. Do you
5	understand that you have the right to a private

shifts?

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is not shift; that responsible for the shifts.

SPECIAL AGENT NEFF: Responsible for the

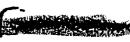


Correct.

SR. SPECIAL AGENT TEATOR: Explain that.



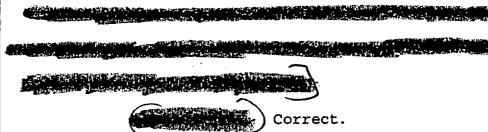
You have an



the shift designates the responsibilities, responsible for the performance of the shifts. Staff is responsible for the procedure group, procedures, say, temporary standing orders, that type of thing, the more staff-type activities.

> SR. SPECIAL AGENT TEATOR: Okay.

SPECIAL AGENT NEFF: So from Okay.



SPECIAL AGENT NEFF: Okay. don't we go -- we'll go to the time frame, September 2002. The steam leak developed, is my understanding, on the back shift.

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Correct.

SPECIAL AGENT NEFF: It was pretty --

pretty late at night.

Correct.

SPECIAL AGENT NEFF: Can you explain your purpose, your presence there that day, and what capacity you were in?

Yeah, we -- one of the expectations that my manager at the time, who was had, was that if we were doing plant manipulations on the back shifts, that one of us, either himself. would be present for power changes, whether it was up, down, or any other significant testing that was going to take place. So on the specific day in question, September 21st, I came in late to work -- I don't know; it was sometime in the afternoon -- to support the turbine valve testing which was scheduled for that night on Unit 2. To perform turbine valve testing, power had to be reduced to 47 percent for the testing to commence. such, that was

SR. SPECIAL AGENT TEATOR: Of that evolution or of the whole shift?

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Of that evolution.

SR. SPECIAL AGENT TEATOR: The testing?

Yeah.

SR. SPECIAL AGENT TEATOR: Okay. Specific to that testing?



Correct.

SR. SPECIAL AGENT TEATOR: All right.

SPECIAL AGENT NEFF: When you came in -you were saying you came in late in the afternoon. At
what power level were you when you came in?

were at 100 percent power. And I believe I watched the shift start the down-power, and then I proceeded to my office once I felt comfortable with the activities that were in progress, and asked to be notified when we were -- prior to performance of the test.

SPECIAL AGENT NEFF: Okay. The -- so at what point in time are you in the evening, then, when you're going to your office?

I'm not sure exactly what time I went to my office. I know it was approximately 11:00 o'clock when Van Ford came to my office to get me and reported the steam leak.

SPECIAL AGENT NEFF: At around 11:00 p.m.?

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SPECIAL AGENT NEFF: Okay. So what

happened from there?

So Van came in, said, "Hey, we have a steam leak, and the 22-MS-42 has been identified. You want to come take a look?" I said, "Sure." from -- physically from the location of the steam leak, is within, I would say, a hundred yards, if not less, same elevation. It's just basically through one door: walk out my open office door, down the hallway, through a door into the turbine building.

And as soon as we opened the door to go out, we could both hear the noise and see the steam. And Van's first comment to me was -- upon entering the turbine building, was, it's gotten worse since he looked at it last, which was, you know, several minutes prior to coming to my office.

SPECIAL AGENT NEFF: Okay. And what were you observing at that point, and what kind of a -- kind of a plume and --

It was a pretty significant steam leak.

SPECIAL AGENT NEFF: In what way worse?



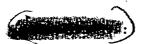
I mean, I don't know how it

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was worse. He said just the size of the steam plume or the leak was worse, right, so I would imagine that the plume was extending further than it was when he was out there earlier. My guestimate would be that the plume at that time was maybe extending 20 feet from the valve itself.

SR. SPECIAL AGENT TEATOR: When you got out there --



Yeah.

SR. SPECIAL AGENT TEATOR: -- to see it the first time?



Yeah.

SR. SPECIAL AGENT TEATOR: Okay.

SPECIAL AGENT NEFF: All right. And what were you discussing at that point?

I think we were -- our discussions were, you know, had he -- anybody else been notified? The response was no, so we proceeded up to the control room. We didn't spend a lot of time there at the -- at the leak site, went back to the control room, and initiated a call to the plant manager at that time, who was Carl Fricker, and wound up having a conference call with Carl Fricker, Lon Waldinger -- I know Ken Cutler was on the conference call. He was at that time -- I don't think

he was on the initial call, but I think we may have 1 2 beeped him while we were on the conference call, and 3 then he joined in. But the initial call was to 4 discuss the fact that we had the leak. There was some discussion about could we 5 6 fix the leak on-line. We have a company that we use, 7 which is Team, Incorporated, which comes in, and they 8 do leak repair on an active steam leak, and we've used 9 them. We used them several times before here, before this event, and numerous times following the event. 10 11 They're every effective, and usually can get to the 12 site in a short amount of time. They're -- I think 13 they're within forty-five minutes of the site. 14 MR. KEENAN: They're a specialty outfit 15 that does just this kind of thing? 16 Yeah. 17 MR. KEENAN: Okay. 18 SR. SPECIAL AGENT TEATOR: And what was 19 the name? T-Nuke? 20 Team. 21 SR. SPECIAL AGENT TEATOR: Team. 22 T-e-a-m, Inc. 23 SPECIAL AGENT NEFF: You lost me a little 24 bit on that.

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I'm sorry.

HC,

SPECIAL AGENT NEFF: It sounded like there were two phone calls. Was there one phone call and then another phone call?

another one. I think in this one there was one phone call, and we either paged -- while we were on this conference call paged Ken Cutler; somehow, Ken Cutler was in on the conference call. And I can't remember if -- I know he wasn't part of the initial conference call when he was beeped by Carl Fricker or Lon, but we may have linked him from another phone into that phone, and he joined the conference call.

SPECIAL AGENT NEFF: Joined in. And his position is what?

Works with the company, but at that time he was, for lack of better terms, our leak supervisor. He owned our leak program, so that was identification and repair of any leaks, both steam, water, air, whatever leaks were out there.

SPECIAL AGENT NEFF: Okay, so that's yourself and these three individuals, Carl Fricker, Lon Waldinger, Ken Cutler.

SR. SPECIAL AGENT TEATOR: Van Ford?

SPECIAL AGENT NEFF: Van Ford on that call

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too?



Right, Van. Well, Van was

sitting in the office with me, yes.

SPECIAL AGENT NEFF: And yourself.



Correct.

SPECIAL AGENT NEFF: So you had five. All right.

So what's the result from these conversations, then, bringing Team in?

The conversation -- what we're leaving the conversation with was that Ken was going to pursue Team, Inc., to see what time frame we could bring them to the island to effect repairs. And that's kind of how that conference call was left, is that we would hold where we were and get an evaluation back from Team, Inc., on how long it would take them to respond. And if it looked like it would be a short time frame, that that's the path we'd pursue, would be Team, Inc., to repair the leak.

SPECIAL AGENT NEFF: Okay. And when you're holding where you were, at what -- at what power level are you now?

If you don't mind, can I take a look in there, because --

MR. KEENAN: Sure.

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I know our goal; we were

heading to 47 percent. I'm just not sure where --like the time line on the conference call.

MR. KEENAN: Yeah. For the record, we have the Salem operating logs for that evening. That would be September 22nd, 2002 for Unit 2, starting with the 1900 shift.

there the best recollection, we were at 47 percent, which is our target, which was our target power for the night. So like I said, it was about 11:00 o'clock when Van came down and notified me of the leak. We proceeded back to the control room. Obviously, while we were waiting for the conference call, for people to call back in that we had paged, we had some discussions which led into the entry into the abnormal operating procedure for AB steam. And that's why I can see the entry time for the AB steam is 2318. And if you look, two minutes prior to that was when we were — we had reached 47 percent. So during this conference call we were already holding at 47 percent.

SR. SPECIAL AGENT TEATOR: When you'd entered this abnormal procedure?



SR. SPECIAL AGENT TEATOR: AB steam, you

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So the control room supervisor -- now I'm not involved in the actual use of the procedure. The control room supervisor would be directing the procedure. While we were on the conference call having our discussion, they would be addressing the control -- the AB steam.

So the first thing is, you go to the Attachment 1, which is to initiate that. If you -basically, requirements for that's your requirements for a trip, right? Those are your guardrails for the procedures, so if anytime these things happen, you take the actions, requirements. In most cases they're going to be reactor-trip, confirm the reactor-trip, isolate -- isolate the main steam So they review that, then you go through and line. basically just answer a series of questions. If you want, I can walk right through the procedure.

SPECIAL AGENT NEFF: Yeah, let's go through -- yeah, let's go through --



Okay, so --

SPECIAL AGENT NEFF: Let's go through what they had, what you were going to do.

The CRS is going to -- and the way we do this at Salem is, the CRS has a procedure, he reads it, and then the reactor operator

2 and they go to that path, right? Is the main turbine latched? 3 In this case, yes, we were on line. 4 5 Is emergency hydraulic system properly controlling main turbine load? Yes, it was; we didn't 6 7 see any load perturbations at that time. As you can see, they reached that step. 8 Whenever you kick to 9 bypass a step, you always log the time. So that was 10 approximately four minutes after entry. 11 And you're transitioning to step 3.7: 12 reduce turbine load in accordance with SO Turb 2 to 13 lower power to less than 100 percent, as indicated on 14 power range nuclear instrumentation. So that step is 15 there, with the thoughts that the plant is operating 16 100 power, you have a steam leak which causes the 17 reactor power to go above 100 percent, so this is the step that would have you reduce power back down so 18 19 you're not in an over-power condition. 20 SPECIAL AGENT NEFF: Okay. 21 Right. If any MS-10 valve 22 is malfunctioning, replace it. That wasn't the case. 23 If any steam-dump valve is malfunctioning, 24 they're to press 17 Alpha-Bravo; steam valves weren't 25 malfunctioning.

responds to the questions, either a Yes or No answer,

1	Is a steam generator or safety valve
2	partially open or leaking? Answer to there that
3	was No.
4	Then transition to step 3.21.
5	SR. SPECIAL AGENT TEATOR: What are all
6	those Ws there?
7	That's Bill White's
8	initials.
9	SR. SPECIAL AGENT TEATOR: All right.
10	That's the control room
11	supervisor.
12	SR. SPECIAL AGENT TEATOR: Okay.
13	MR. KEENAN: That's consistent with the
14	completed sign-off sheet in the back, which is on page
15	12 of 12 of the procedure, indicates who was signed
16	off on this procedure.
17	SR. SPECIAL AGENT TEATOR: Okay. That's
18	helpful.
19	Okay, so it's 2330; they're
20	going to step 3.21. 3.21, is reactor power and RCS
21	temperature stable? We hadn't seen any effects from
22	steam-flow indications or reactor power, reactor
23	temperature, of the steam leak, so the answer is Yes.
24	3.23, is the cause of the excessive steam
25	flow stopped? Obviously, no, it had not been.

1 Transition to step 3.27. there 2 indication of a steam leak in the containment? 3 was a known steam leak, they knew exactly what -where it was, and there was no indications that it was 4 5 in the containment. 6 Transition to step 3.34: continue with 7 this procedure to 3.35. And they do that specifically 8 -- when you see a step in a procedure like that, they 9 do that specifically to heighten the attention to the 10 caution box there. So the caution is, extreme caution 11 is necessary when locating steam leaks. Leakage from high-temperature, high-pressure systems may not be 12 13 visible. Superheated steam and steam leaks concurrent 14 with steam generate tube leaks will require release 15 calculations by written protection. In this case we had no tube leaks, identified or actual. 16 17 3.35, send operators to locate source of 18 steam outside containment. So you can see there, 19 that's just showing that he knew where it was, and 20 identified that in the procedure. 21 Is there any indication -- is there 22 indication of a steam leak in the inner or outer 23 containment penetration areas? No; we knew where it

Is the steam leak isolable or reparable in

was at that time, 23- -- I think that's 2335.

24

initially Bill holds while we're getting the information, can we get Team, Inc., in here to fix the leak. All right. So so he's got 3.39 circled, standing here waiting for a determination, can it be isolated or not, with the isolation being method being Team, Incorporated, coming in and, I'll say, shooting the valve. And that's where they inject the Furmanite or whatever else they put in the box for the sealant. And as you can see, 2333, 35 from the previous step to 0016, where it's determined that we can isolate it, right, so during that time frame SR. SPECIAL AGENT TEATOR: We can? Well, if you look, that 0016 designates that he answered No to step and go to step 3.42 at that time. SR. SPECIAL AGENT TEATOR: Right. SR. SPECIAL AGENT TEATOR: Right.	1	the present plant condition? So this is where	
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20 SR. SPECIAL AGENT TEATOR: All right, with	17	step 3.42 at that time.	
SR. SPECIAL AGENT TEATOR: All right, with	18	SR. SPECIAL AGENT TEATOR: Right.	
	19	At 0016.	
a line drawn on it here?	20	SR. SPECIAL AGENT TEATOR: All right, with	7
1	21	a line drawn on it here?	
22 Correct.	22	: Correct.	
SR. SPECIAL AGENT TEATOR: All right.	23	SR. SPECIAL AGENT TEATOR: All right.	
We're referencing the	24	We're referencing the	179
25 narrative again. So at 0016 we had already completed	25	narrative again. So at 0016 we had already completed	

our second call back with Lon, Carl, and Ken Cutler, and determined that we could not get Team, Incorporated in here within a reasonable time frame to support repairing this steam leak. And I think, if I remember, during that, during the conference call, it was estimated to be several hours before they'd be able to get to the site. So based on that information, the end result of the conference call was that we would shut the plant down.

And there was some discussion as far as what that meant, as far as "Hey, to isolate this leak we're going to have to do a main steam isolation on the VMS-10s," and et cetera. But our intent was -- at the end of that conference call, was to shut the plant down and isolate --

SPECIAL AGENT NEFF: This is the second conference call, then?



Correct.

people on this conference call, or are there others?

It's at least those same people. There may have been others, I don't recall.

But I know all those individuals were on the second

SPECIAL AGENT NEFF: What about anybody

conference call.

along with Lon Waldinger from senior management? Mr. 1 Garchow, Mr. O'Connor, were they on that phone call? 2 I don't -- I don't recall. 3 SPECIAL AGENT TEATOR: 4 5 recall them being on it or you don't know if they were on it or not? 6 I don't recall them being on 7 8 it. 9 SPECIAL AGENT NEFF: How long -- how long 10 does this call last, this decision that you're going 11 to shut down? Is it a lengthy call? I mean, what's 12 your time frame here? I would say it was probably -- 13 ten minutes or less, the second call. I mean, it was 14 15 pretty much clear that we didn't have a mechanism to 16 stop the steam leak at that time, right, because our 17 -- the only reason we held up earlier was, we thought 18 we could get Team, Incorporated in here to do it. 19 SPECIAL AGENT NEFF: Okay. Once it became apparent that 20 21 they weren't going to be here for several hours, we talked about the leak not improving, right? 22 And 23 obviously, as we reduced power, steam generator 24 pressure rises, which causes the leak to worsen also. 25 So we were sitting -- actually, sitting at 47 percent

1	was causing the steam leak to be worse than what it
2	would have been at, say, 100 percent. But to get off
3	line, it's going to obviously, the steam pressure
4	is going to increase and it's going to worsen the
5	leak, too. So the longer we sat here and potentially
6	cut the leak path that was coming out, was just going
7	to make it worse when we when we shut down. So we
8	didn't we didn't waste a lot of time during this
9	discussion.
10	SR. SPECIAL AGENT TEATOR: Were you under
11	a time constraint at that point to shut the plant
12	down? Was there an action statement that you were
13	approaching or had entered already where it gave you
14	a certain amount of time to shut the plant down?
15	No, not that I can I'll
16	reference the narrative again, but
17	MR. KEENAN: would LCOs be entered
18	into the control room narrative log?
19	Yes, they would.
20	MR. KEENAN: Under any conditions for
21	operations?
22	Yes, they would be.
23	SR. SPECIAL AGENT TEATOR: Do you see one
24	in there after looking at it again?
25	No.

All

SR. SPECIAL AGENT TEATOR: Okay. right. And I don't -- I mean, there was no -- I just want to clarify, there was no -- that night there was no sense of time pressure, other than the fact that we had a major steam leak in the secondary line. SPECIAL AGENT NEFF: Okay. So we left the -- we left the conference call with everybody aligned, in that the course of action would be to commence a unit shutdown, and which would involve isolation of the MS-167s, which are the main steam isolation valves, and that was the only mechanism that we had to isolate the steam leak. SR. SPECIAL AGENT TEATOR: Were you in alignment with that decision also? Oh, yeah.

then we went from that conference Van went in to talk to his control room crew about brief -- starting to brief for the down-power in the plan. I think I went back out to the turbine building to look, to once again look at the steam leak, see what the condition was, and started looking at it and, you know, identified where the steam leak

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The first time I had looked at it with Van, I was. didn't take a lot of time to actually identify where the leakage was coming from.

SPECIAL AGENT NEFF:

So the second time, when I went back out, I took a little more time to identify exactly where it was coming from, the body, the bonnet leak. And it was kind of odd in the characteristics, that it was all on the downstream side of the valve. So I think at that time, sometime during that period of time I went out and had a discussion with a maintenance superintendent or supervisor, to one of our maintenance supervisors, and asked him, based on those characteristics, would closing the valve isolate the leak, since it's on the downstream side of the valve. And he believed -- he told me that he believed it would, that --

> SR. SPECIAL AGENT TEATOR: Who?

I believe his -- there were All the shifts had two maintenance supervisors on, and I believe I talked to Dan Franklin. And Tony Wescott may have also been involved in part of the discussion. He may have been on the conference calls earlier too, or in the control room with Van and I.

SR. SPECIAL AGENT TEATOR: Okay. So you

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were out there and you meet up with this maintenance supervisor. And you ask him what?

Asked him, based on where the leak is and his knowledge of, right, the internals of what that valve looks like and how the valve functions, closing the valve, would that isolate the steam leak, because of the characteristics and where it was on -- just on half the valve, on the downstream side. And the said, "Hey, it's a valve; you close it, and there'll be no pressure on that side of the -- of the valve assembly."

SPECIAL AGENT NEFF: And this is -- by name, do we know who this is?



Dan Franklin.

SPECIAL AGENT NEFF: Dan Franklin. And the other one was Tony Wescott, who was --

He was involved earlier. He may -- he may have been the individual that went and beeped Ken Cutler to get him involved with Team, Inc., or Tony may have called Team, Inc., himself. But somehow, he was involved with getting ahold of the contractor that we used for the leak repair.

SPECIAL AGENT NEFF: So the people from -who were involved with maintenance with Cutler -- is
Franklin's position different than Cutler's position,

and this is isolable? 1 2 Yeah. I had -- Kenny wasn't there to visualize it, and I had not posed that 3 4 question to Ken. 5 SPECIAL AGENT NEFF: Okay, so he --Because from Kenny's 6 7 perspective, right, isolable in the previous context was based on just the availability of Team, Inc., to 8 report to the island --9 10 SPECIAL AGENT NEFF: Okay. -- and be able to build a 11 box around this leak and shoot it with --12 SPECIAL AGENT NEFF: 13 Okay. -- Furmanite material. 14 15 SPECIAL AGENT NEFF: But in Franklin --16 with Franklin, he has a little more information, in 17 that the leak is on the body, on the bonnet, in this location downstream from --18 19 Right. Right. 20 the SPECIAL AGENT NEFF: from 21 particular valve. 22 Right. 23 SPECIAL AGENT NEFF: Okay, so he has more information there. 24 Okay. 25 SR. SPECIAL AGENT TEATOR: Because you

describe it for him. 1 Is that right? 2 Correct. 3 SR. SPECIAL AGENT TEATOR: All right. 4 Correct. And I mean, I 5 wasn't -- in no way was I asking Danny about making a 6 decision, I just asked him about the characteristics 7 of that, of any valve, right, of that design: "If I 8 close it, what's the pressure downstream of the 9 valve?" 10 SPECIAL AGENT NEFF: Okay. So what 11 happens then? 12 So I come back to the 13 control room. 14 SPECIAL AGENT NEFF: What's going on in 15 the control room at this point? 16 They're briefing for the 17 down-power and -- they're briefing for the down-power. 18 Van and I start to have a discussion, and 19 I -- you know, I informed Van that I believed that 20 closing the valve, closing the 22-MS-42 will isolate 21 the steam link -- steam leak, and kind of briefly 22 informed Van what we would need to do -- to support 23 closing the valve. One would be to swap over both. 24 Right now you have both steam generator feed-pumps 25 operating. Well, if I'm going to isolate steam to one

1	of the feed-pumps, we have to take reduce the speed
2	on that and take all the load and put it on the other
3	feed-pump, so you don't affect feedwater pressure,
4	supply flows, anything. So we had that discussion.
5	I think we I think I asked Van to hold
6	the brief, hold up the brief that's going on for the
7	down-power, to swap over the feed-pumps and make that
8	the priority now, to swap the feed-pumps over, which
9	you would have to do eventually, anyway. You'd have
10	to take one of the feed-pumps out on the down-power,
11	about 40 percent power, by procedure.
12	SR. SPECIAL AGENT TEATOR: Was that done?
13	Had it been done yet?
14	SR. SPECIAL AGENT TEATOR: No; when you
15	suggested that to Van, was that done?
16	Yes, it
17	SR. SPECIAL AGENT TEATOR: Is it in the
18	log?
19	Yes, it's well, it's not
20	in the log that they swapped it over. It's in the log
21	that they tripped it later on, after where did I
22	see it?
23	MR. KEENAN: Take your time.
24	That's right. I know I read

it. At 0139.

1 SR. SPECIAL AGENT TEATOR: 0139 a.m.? 2 Correct. 3 SR. SPECIAL AGENT TEATOR: And what does 4 it say? 5 That's "Tripped 22 steam 6 generator feed-pump in accordance with SOCN2 steam 7 generator feed pump operation." 8 SR. SPECIAL AGENT TEATOR: What does that 9 mean to people somewhat like me? 10 You hit the trip button. 11 It's -- so before then -- I mean, the trip on the 12 feed-pump, right? Before then, the way the procedure 13 is laid out, you take all the load off the pump and 14 you take it down to minimum speed, so it's sitting 15 there basically at idle, 1100 rpm, not providing any 16 flow, not doing anything but sitting there idling. 17 These steam generator feed pumps, if you 18 don't -- you can't leave them in that condition. 19 you do, after a period of time they build up exhaust 20 hood temperatures, and it would -- could result in a 21 trip on a high exhaust hood temperature. 22 procedurally, we don't let them idle for a long period 23 of time. 24 SR. SPECIAL AGENT TEATOR: So was that 25 pump brought down to an idle point?

begin?



Yes. Yeah.

SR. SPECIAL AGENT TEATOR: When did that

room, I had the discussion with Van about what we needed to do to support attempts to close the MS-42. And I can't remember if I asked him or suggested that they hold off on the brief for the down-power and focus on swapping the feed-pumps over. And shortly thereafter, that occurred, where the one feed-pump was -- speed was reduced, and the load transferred over to the 22 -- or excuse me; the 21 steam generator feed-pump.

SR. SPECIAL AGENT TEATOR: Looking at the log then, when do you think that load was starting to be reduced? Because it was tripped at 1:39, right?

Yeah. I'm sure we would have logged it.

MR. WINGFIELD: Would there be a procedure, that would have been signed that night by the shift, or was that within the realm of operator action?

No, there wasn't a procedure, but record retentions, you would probably only retain the last, on page -- the sign-off page, so

Okay.

Right.

it would be in the --

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And

2 of the steam on the buses located right down in the 3 same area. 4 If you look at the steam leak, it's about 5 twelve feet off the floor, and within two feet on a --6 on a horizontal plane from the group buses I'm talking 7 about. So the distance between the first bus and the 8 steam leak is within -- physically within five feet. 9 And then the buses are aligned in horizontal rows, and 10 all four of them are -- could potentially be affected 11 by the steam path. 12 SR. SPECIAL AGENT TEATOR: I want to get 13 back to this issue here; you brought it up. Okay? 14 Yeah. SR. SPECIAL AGENT TEATOR: 15 16 Van, told him that by isolating the valve, it would 17 stop the steam leak. You had discussions about that. 18 Right. 19 SR. SPECIAL AGENT TEATOR: But then you 20 went into this thing about switching over power from 21 one pump to the other. 22 Right. And I kind of jumped 23 ahead of myself, in that Van and I were having that 24 discussion, right, but the decision wasn't made that 25 that's the path we were going to go, right?

same bus. So then we were starting to see the effects

1 talking to "Hey, believe Van, saying, I it's 2 isolable." 3 SR. SPECIAL AGENT TEATOR: Right. Decision had not been made 4 5 that that's the path that was going to be taken. Now, 6 I was kind of bouncing it off Van to get his 7 perspective, what he thought. You know, he brought up 8 the --9 SR. SPECIAL AGENT TEATOR: Said, "I don't 10 think it's safe." 11 Right, he brought up the --12 you know, "Hey, how are you going to get there?" 13 Because the way this is -- this is designed, is that 14 there's an installed stanchion right below the valve 15 for an operator to get there and operate the valve. 16 Well, unfortunately, that's the direct path of the 17 steam plume. So from that perspective, I agree it 18 wouldn't be safe to climb up that stanchion and stand 19 there in the steam path. SPECIAL AGENT NEFF: 20 That's what he was 21 raising to you? 22 Correct. 23 SR. SPECIAL AGENT TEATOR: And you agreed 24 with that? 25 Correct, that -- to take

that path. But I suggested that "Hey, you can use a ladder." Because as part -- when I went down there and looked at it, right, I looked at -- okay, let me survey this: if I had to have somebody close this, how would they do that? And there's an opening between the bus and the stanchion that you could put a ladder in and operate the valve out away from the steam plume -- the steam plume is in the opposite direction -- and still have clear access to the valve handle there. So I kind of explained that, and -- SPECIAL AGENT NEFF: To Van Ford?

To Van.

SR. SPECIAL AGENT TEATOR: Did you give him that detail which you just described?

I don't know if it was --

no, I'll say no, I did not give him that. I told him I thought it could be done safely. Because I don't think that -- I don't remember at that time. I know when I went down there earlier, I had looked and saw that there was an opening there and that you could use a ladder. So I don't recall. I don't believe that I told Van at that time that "Hey, you know, I can do it

this way and it will be safe." I may have later, but

I don't -- I don't believe it was that early on in the

discussion, because they were still -- the control

room was still briefing the down-power.

And then we started getting these alarms, which caused a -- basically, an interruption of the brief. So we got the first one, started talking about the first overhead alarm, which was like about five minutes after midnight, and started talking about the effects of the steam leak on the plant equipment and how that could potentially affect the continued down-power. And at that time it wasn't as big as it will be later in the discussion. Kind of rushing here, I know.

SR. SPECIAL AGENT TEATOR: Don't rush.



SR. SPECIAL AGENT TEATOR: This is -- we need to get all this out. Don't rush it.

And I know there -- I don't remember having a lot more conversation with Van about closing the valve. Because I can remember standing to the side of the control room watching the brief occur, and then we get the second overhead alarm indicative that the steam in the turbine building is having a bigger impact than we originally thought. And that was approximately thirty minutes later.

SPECIAL AGENT NEFF: So from 12:05 to

12:35?



Correct.

SPECIAL AGENT NEFF: So did you have that discussion about closing the valve with anybody else? You don't recall having it with Van Ford. What about with anybody else?

The specifics, later. As far as why I thought it could be safe?

SPECIAL AGENT NEFF: Yes.



I may have had --

SPECIAL AGENT NEFF: At this point in time before it happens.

Not yet. I know I discussed it with Bob Cordry, who was the work control supervisor who -- I had told Van that I was going to have him go down and be my safety man, and also asked Bob to come down and be my safety man. And on the way down there, I explained to him how I was going to do it with the ladder.

And I don't remember if I specifically told Van -- I mean, I remember telling him that I thought it could be done safely, that obviously it wasn't going to be that, you know, I was going to charge into this plume of steam and close the valve. But I'm sure that I would have told him that it was a -- that I had looked at it and put a ladder beside it;

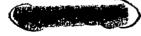
7	otherwise, I wouldn't have been able to tell him why
2	I thought it was safe and why he didn't. Now, later
3	on in my discussion the reason I questioned that is
4	because later on in my discussion, you know, I'll tell
5	you an interaction between Van and I after I'd closed
6	the valves.
7	SPECIAL AGENT NEFF: Okay. So we'll go
8	back to that 12:35
9	SR. SPECIAL AGENT TEATOR: Yeah, we don't
10	want to go to the after
11	Right.
12	SR. SPECIAL AGENT TEATOR: We want to get
13	before.
14	Right.
15	SPECIAL AGENT NEFF: Let's do the 12:35
16	time frame. I mean, this is now you're having
17	second alarms, more
18	Yeah, this is now 0035, we
19	get Juliet 39, which is the 4-kV group bus transfer
20	failure alarm. And this came in in conjunction with
21	another Alpha 17, which is indicating that we had a
22	ground on the overhead alarm system. This that
23	alarm coming in, the group bus transfer failure,
24	really concerned me. What that alarm tells me as an

operator is that there's -- basically, when I go to

transfer from the unit ops power transformer supplying power to the reactor coolant pumps and the group buses, that typically at 20 percent, or if I just took the turbine off, that would automatically transfer over to the site providing power, right? What this alarm tells me is that that's probably not going to happen.

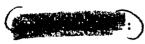
So from standing in the control room seeing these alarms, now I'm thinking if we continue to shut the plant down, I don't think that's the safest thing to do, because when I go to transfer those buses, they're most likely not going to transfer, I'm going to lose my reactor coolant pumps, won't have natural circulation, and I'm not sure what other effects it will have if I lose all my other group buses. I mean, I know what other effects will be out there. I'll basically have, you know, minimal oil supply to my bearings on my turbine, et cetera. But my main concern is from an RCS perspective and losing the reactor coolant pumps.

SR. SPECIAL AGENT TEATOR: What's RCS?



Reactor coolant system.

SR. SPECIAL AGENT TEATOR: All right.



Now, granted, we have

procedures and have been trained to address natural





Т	circulation conditions. But that is not something
2	that I don't want to walk into, knowing that I'm
3	heading down that path, if I can avoid avoid it,
4	right, by taking some other prudent actions.
5	SR. SPECIAL AGENT TEATOR: All right, stop
6	for a minute.
7	Okay.
8	SR. SPECIAL AGENT TEATOR: These alarms go
9	off. You're thinking this, what you just told us,
10	right?
11	Right.
12	SR. SPECIAL AGENT TEATOR: Did you
13	communicate that with Van?
14	Yeah. I mean, I remember
15	specifically having that discussion about what those
16	alarms could mean to us, right, about "Hey, that alarm
17	is telling me that I may not have my group buses
18	transfer when we get down" I mean, because to come
19	off line, I have to transfer my group buses. And I've
20	got an alarm that tells me I have no reliability that
21	that function is going to happen if I continue down,
22	when I can transfer.
23	SR. SPECIAL AGENT TEATOR: Did he agree
24	with your opinion on that issue?
25	He I think,

realistically, he didn't know what that meant. 1 mean, we knew that in ultimate, if it was the worst 2 3 case, is that that's what it meant. SR. SPECIAL AGENT TEATOR: 4 Okay. But he wasn't sure if the --5 6 we were getting the alarm because the relay was wet, 7 or if the capability for the bus to transfer was really affected. 8 9 SR. SPECIAL AGENT TEATOR: Right. So 10 where are we at on the time line? 11 So that's probably at 0040 12 We discussed the effect in the control room, 13 right, and now you have pretty much the entire operating crew discussing what this means to us, as 14 15 far as potential for loss of group buses, loss of reactor coolant pumps, natural circulation, and just, 16 17 you know, an uglier day than it's already been. the real focus is on the loss of the reactor coolant 18 19 pumps and natural circulation. 20 SPECIAL AGENT NEFF: The possibility of 21 that? 22 Correct. 23 SPECIAL AGENT NEFF: Okay, so how does that affect their plans at this point? 24 25 And I think this is where

that -- I go to Van and we have the discussion about -- you know, I tell Van that, hey, the solution here is to close the 22-MS-42. Van once again says he doesn't think it's safe. And I say I can do it, right? He says -- he said to me "Who's going to close it?" And I said, "I'm going to close it." And he said, "You're going to close it?" I said, "Yes, I'm going to close it." There wasn't a lot more discussion on that about why I was going to, or if somebody else -- from my perspective, the reason I wanted to close it was -- is that I could see that there was a potential safety issue there, right? Although I could see myself closing it and not being in the steam path, not being subjected to steam flow or even heat, but if the leak were to get worse while you were up there, it could create, you know, an injury, right? Worst case, I didn't want to subject somebody else -- to put them into that position. couldn't live with myself if I'd have asked somebody else to do it and they would've got hurt. And that's why I said that I would go do it; I didn't want to jeopardize or put somebody else in harm's way.

SR. SPECIAL AGENT TEATOR: Break down that conversation again --





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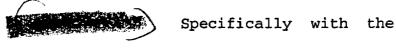
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SR. SPECIAL AGENT TEATOR: -- if you could, bit by bit.



SR. SPECIAL AGENT TEATOR: All right, go ahead. And we'll ask you some questions about it.



interaction between Van and I?

SR. SPECIAL AGENT TEATOR: Yeah.

Van. I said that the success path, success path here to prevent being challenged from a loss of reactor coolant pumps, is to isolate the steam leak.

SR. SPECIAL AGENT TEATOR: Okay.

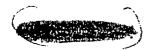
Right. All the information we have tells us that closing the MS-42 will isolate the steam leak. Van's perspective is "It's not safe to do; who's going to do it?" I said, "I'll do it." Now, honestly, if Van wouldn't have challenged how -- the safety of doing it or not doing it, that probably may have resulted in a different outcome of who closed the valve. But I felt that if Van's saying it's not safe to do, then I don't really have a right to say, "Well, I want one of your equipment operators to close it," also.

SR. SPECIAL AGENT TEATOR: All right.

That

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SR. SPECIAL AGENT TEATOR:



Bill Wallace.

SR. SPECIAL AGENT TEATOR: Bill Wallace?

Yeah.

SR. SPECIAL AGENT TEATOR: So, then, for that action to have occurred, someone must have been in agreement with that course of action. Is that correct?



To transfer over?

SR. SPECIAL AGENT TEATOR: Right.



Yes.

SR. SPECIAL AGENT TEATOR: Can you tell me if Van Ford was in agreement with that?



That -- to swap them over?

SR. SPECIAL AGENT TEATOR: Right.

I want to say that Van gave the direction, but I just can't recall. I know Van didn't think it was safe to close the valve.

SR. SPECIAL AGENT TEATOR: You're talking where the steam is coming out now?



Yeah, right.

SR. SPECIAL AGENT TEATOR: I'm talking about up in the control room.

Yeah. I can't -- I can't remember the specifics to that, that guidance, and whether or not Van agreed with swapping over. I mean,

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*	a doir t remember a rot of rearred about bwapping
2	the steam generator feed-pumps, or a lot of discussion
3	about doing that.
4	SR. SPECIAL AGENT TEATOR: How about Bill
5	White? You know if he do you remember if you if
6	he was in agreement with that course of action?
7	Specifically, no, I don't
8	remember.
9	SR. SPECIAL AGENT TEATOR: Had you taken
10	over the actual management of the shift at that point?
11	Were you directing the control room on the actions
12	that were going to be taken?
13	I say no, in that the reason
14	I don't remember Bill's involvement is because all my
15	discussions were going through Van, trying to maintain
16	the chain of command.
17	SR. SPECIAL AGENT TEATOR: Right.
18	And that's why I can't
19	remember like specifically Bill's thoughts, 'cause
20	I mean, there was some group discussion-type
21	interactions. But my intent was not to take over the
22	
23	SR. SPECIAL AGENT TEATOR: Okay. Could we
24	take a break off the record for a minute? It's about
25	5:34.
	•

1 (Whereupon, at 5:34 p.m. off the record 2 until 5:51 p.m.) 3 SPECIAL AGENT NEFF: This is just about to run out, so what we're going to do is just end it, go 4 5 It's approximately 5:51 p.m., after a to side B. 6 break; we'll flip. 7 (Audiotape switched.) 8 SPECIAL AGENT NEFF: Okay, we're on side 9 В. It's 5:51 p.m. 10 We just want to go back a little bit and 11 cover some issues on the conversations that were 12 taking place. We'll start with you and with Van Ford. 13 How many different conversations did you have at this 14 I mean, is it all one long one, is -- are 15 there two conversations here? At what point in time 16 does he ask you who would close the valve? Is this 17 coming up earlier or is this coming up later? 18 Well, I want to say it was 19 after we received the overhead alarm indicating that 20 our group bus may not transfer. To me, that was kind 21 of the point that it was -- became critical in the 22 decision, that, hey, we had the capability to isolate 23 this steam leak, and we needed to take actions before 24 further degradation occurred, or loss of group buses,

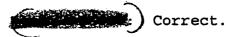
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et cetera, as a result of the steam leak. And I think

1	that's where the major conversation was between Van
2	and I about going and closing this valve.
3	SR. SPECIAL AGENT TEATOR: Does the log
4	show that, what time it is that that alarm
5	It says 0035. In
6	approximately fifteen minutes, at 0050, is when I had
7	notified the control room that the valve was closed.
8	SR. SPECIAL AGENT TEATOR: All right.
9	SPECIAL AGENT NEFF: Was this the last
10	conversation that you had with him before the valve
11	gets closed?
12	As part of that conversation
13	when he said, you know, from his perspective it wasn't
14	safe, and I don't remember the exact conversation, but
15	my answer to his safety was that I was going to close
16	the valve, and I would take Bob Cordry, who happened
17	to be standing in the doorway of the control room,
18	with me as a safety man, right? So not necessarily to
19	steady the ladder ladder, but to stay over and
20	notify the control room if something went awry.
21	SPECIAL AGENT NEFF: What did he say to
22	that?
23	I don't I don't remember
24	a response. He may not have had a response. Because
,	T think that I think the "Hey I'm going to take

Bob Cordry with me" was kind of upon exiting, leaving the control room.

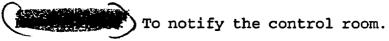
SPECIAL AGENT NEFF: You were walking away from the conversation?



SPECIAL AGENT NEFF: Okay. And again, specifically your statement to Van Ford was what?

That we needed to close the valve to isolate the steam leak, 'cause the future consequences of this, the steam on the buses -- and I'm paraphrasing -- Van's reply was something to the effect of "Who's going to close the valve?" And my response was "I will close the valve." And then there was a discussion about safety, and whether Van brought that up again or if that was the first time -- I think that was not the first time that he had brought up that it wasn't safe to close the valve. And then my response was that I would take Bob Cordry with me as a safety guy, as a safety person.

SPECIAL AGENT NEFF: To do what?



I mean, I don't think we discussed there what specifically -- at Salem, if I tell you I need a safety man, it goes without saying what he's doing, right? He's either -- he's providing a backup. And

in this case was someone to stand by the phone and 1 2 notify the control room if conditions changed as a 3 result of operating the valve, or if I'd fall off the 4 ladder or, you know, something were to happen to me, that he would notify the control room. 5 SPECIAL AGENT NEFF: In that conversation 6 7 did Van Ford say anything further about "We're 8 briefing for a down-power in this abnormal condition"? 9 I don't remember if it was 10 that specific conversation. I know that briefing was 11 in progress for the down-power. 12 SR. SPECIAL AGENT TEATOR: When you had this last conversation with Van before going to close 13 14 the valve? Yeah, this -- the control 15 room supervisor, I believe, was reading -- was leading 16 17 the brief, and then Van and I had our conversation 18 away from the center in the control room area. 19 SR. SPECIAL AGENT TEATOR: How positive 20 are you that you told Van that you were going to go 21 close the valve? 22 I'm positive that I said 23 I'll -- I was asked, "Who is going to close the 24 valve?" And I said, "I am closing; I am going to 25 close the valve." I'm absolutely positive of that,

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that interaction.

conflict?

SR. SPECIAL AGENT TEATOR: And the CRS is briefing the shift the way the shift still thinks the plant is going to, though, correct?



That's correct.

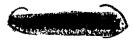
SR. SPECIAL AGENT TEATOR: Is that a

right, in AB steam -- don't forget we're in that abnormal operating procedure which is giving the direction, right? We're still following the path. We're under the belief that the steam cannot be isolated, and the path is to shut the plant down.

SR. SPECIAL AGENT TEATOR: Right.

the shut-down to determine whether or not closing the MS-42 isolates the leak, because that's also more time that you're inducing the group buses to a steam environment, and also delaying the actions which are ultimately going to isolate the steam leak, which is to close the main steam isolation valves.

SR. SPECIAL AGENT TEATOR: All right. But the shift is proceeding towards shut-down. You're going down a different path.



And that's --

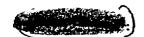
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1	about the same power level is where you do that, about
2	45 percent, and the IOP would drive you to do to
3	transfer over.
4	SR. SPECIAL AGENT TEATOR: Was that pump
5	shut down for for which reason, to for to get
6	it ready for plant shut-down or to allow for you to go
7	close the valve? Which one was it?
8	Honestly, I can't remember.
9	I would say that most likely for me to allow me to
10	shut the valve.
11	SR. SPECIAL AGENT TEATOR: What makes you
12	say that?
13	Oh, because of the time
14	frame that it occurred. I mean
15	SR. SPECIAL AGENT TEATOR: Make me
16	understand why the time frame is important.
17	Well, they were don't
18	forget, they're still in the brief for the down-power,
19	right?
20	SR. SPECIAL AGENT TEATOR: Okay.
21	So it would be unlikely that
22	you would be performing actions in the procedure for
23	the down-power if you're still briefing it.
24	SR. SPECIAL AGENT TEATOR: Okay. All
25	right.
11	10



All right.

SR. SPECIAL AGENT TEATOR: So to your knowledge, had the shift started to take actions to -- for the down-power at that point? Or are they still briefing for it? I mean, we're --



Yeah.

SR. SPECIAL AGENT TEATOR: We're really slicing this pretty tight, but it's important.

Yeah, and I -- and unfortunately, those aren't the -- unfortunately, right, they're not the high points of what sticks out in my memory, either, but --

SR. SPECIAL AGENT TEATOR: But they are now?

Right. I can't remember if they had started orations dilutions (phonetic), or if they were ongoing just to offset the effects of xenon from the previous down-power, but I know that there were orations taking effect, right, or reactivity management taking effect. And I can't remember if they were specific. Because don't forget, you've already done a greater than 50 percent load reduction in the shift, right? So in the first -- in the last several hours you've already done a greater than 50 percent load reduction. So you're in the procedure

2 do the load reduction --3 SR. SPECIAL AGENT TEATOR: Okay. 4 -- in that procedure. I'm not -- I'm not sure which ones were being taken as 5 a result of pre- -- of the previous down-power, or in 6 7 touch with this coming down-power, only because I 8 wasn't privy to, you know, that -- the IOP procedure 9 or the AB-steam, exactly where they were in the 10 procedure. 11 SR. SPECIAL AGENT TEATOR: So is it your position that the pump swap occurred for you to go 12 13 shut the valve, to allow you to do that? 14 I believe so. 15 SR. SPECIAL AGENT TEATOR: And why, again? 16 Just make me understand why, again. You mentioned 17 timing. Well, timing, if you look at 18 -- I can remember having a discussion with the PO, who 19 20 was Bill Wallace, about swapping the pumps. 21 can't remember if that was -- I don't -- I'm pretty 22 sure that was before he had started doing it, about 23 that's one action we would have to take to allow 24 isolation of the valves. Trying to piece it together, 25 looking at the time line from when he was doing that,

driving the load reduction, you're taking actions to

knowing that the control room was still in brief -and I know they were in brief because we hadn't taken
any actions, by the narrative log, to start the load
reduction. So based on that, you would -- I wouldn't
expect an operator to be performing procedural steps
in the down-power procedure while the brief was going
on to do the down-power. I mean, you could use that
guidance in the procedure to support, like, my attempt
to go out and isolate the MS-42, right? You have the
procedure guides to swap them. And that may have been
the path that was utilized. But if it was, it was
utilized for the purpose, not solely for the intent of
reducing power.

SR. SPECIAL AGENT TEATOR: All right.

SPECIAL AGENT NEFF: Is Bill Wallace part of the brief for the down-power?

Yeah, the brief was -- the brief was being held in the control room proper, right? I mean, you couldn't take the individuals out of the control room to go in a conference room, which we typically do for briefs, due largely, in part, because of the ongoing evolution of the steam leak, the effects thereof, the 53 percent power reduction that had already occurred, and the reactivity management required for that.

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SPECIAL AGENT NEFF: Okay.

SR. SPECIAL AGENT TEATOR: So how far did the RO have to go to go swap the pumps?



Nowhere; it's right there.

Remember the horseshoe I drew before?

SR. SPECIAL AGENT TEATOR: Right.

MR. KEENAN: It's right over here.



If you look, the steam

generator feed-pump -- when we're in an abnormal operating procedure or emergency operating procedure, the guy that is the plant operator, who I told you typically sits here, his function, his role changes. And he comes over and now he is basically stationed here inside the horseshoe, standing up, right, monitoring his equipment, and basically what you do is, you draw an invisible line right down the center of the horseshoe. So the reactor operator is responsible for everything on this side, so you have service water, component cooling, safety injection, RHR, all your -- and instrumentation. primary plant stuff is over here, more to the reactor,

The plant operator, who was also your desk operator prior to the event, now comes over and he assumes responsibility for the balance of the plant,

and as such, the reactor operator owns that.

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so all your secondary circ-water, switchyards all over in here, ox-feedwater is right up here, and steam generator -- main steam generator feed-pumps are right in here. So he's there, so he doesn't -- it's not a -- and typically, when we're in that situation, you have your desk in this area. All the procedures for the NCOs are right here on this rack, so it's just -- and the distance between here and here is about the same distance.

SR. SPECIAL AGENT TEATOR: So when he swaps that pump, what happens to the board? Does a light go on? Does a light come off?

Alarms -- you could, I mean, depending on -- I don't think you would get any alarms, especially with an operator of Bill's experience level swapping over, because I think he would be smooth enough to swap it, that you wouldn't have any perturbations in digital feed or anything else. You would get an alarm once you tripped it, but like I said, just to swap it, you just take it to an idle speed, so your other feed-pump picks up the demand.

SR. SPECIAL AGENT TEATOR: So it's not just like pushing a button, then, it's -- you got to do it --

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1	Well, it's just pushing a
2	button. I mean, you put the let's say I have 21,
3	22 feed-pumps. So I want to I want to take 22 to
4	idle, so I just put them in manual and reduce speed on
5	it, and this pump is going to automatically pick up
6	the load.
7	MR. WINGFIELD: Is there a like a low
8	flow for them or anything?
9	No, because your other pump
10	is picking up the speed to maintain the flow.
11	MR. WINGFIELD: So flow is not measured?
12	Pump independence?
13	MR. WINGFIELD: Pump independently; no.
14	SR. SPECIAL AGENT TEATOR: Were you there
15	when he did that? Were you physically there
16	Yes.
17	SR. SPECIAL AGENT TEATOR: when he did
18	that?
19	Yeah.
20	SR. SPECIAL AGENT TEATOR: Do you recall
21	the CRS or any of the other people recognizing what he
22	was doing and knowing what he was doing?
23	Not specifically, no. I
24	remember turning around, I remember standing in this
25	area, maybe having a discussion with Van or something,

and turning around and seeing Bill over there taking 1 2 those actions, but I -- and I don't remember, and 3 that's why I said when you asked -- you asked earlier 4 who --5 SR. SPECIAL AGENT TEATOR: All right, who provided direction. 6 7 Specifically provided 8 direction. I mean, I remember having discussion with 9 Bill before that about "Hey, we're going to have to do 10 this to support closing that valve so if it is closed, 11 if it gets closed, we don't isolate the steam flow to 12 the pump. But I don't remember a specific -- Van or 13 Bill, you know, making a clear "Hey, Bill, I want you 14 to swap those steam generator feed-pumps." 15 SR. SPECIAL AGENT TEATOR: Do you have any 16 reason to believe that Van Ford did not know that that 17 was happening, that that direction was provided, and 18 that that RO did that? 19 No, because he was in the 20 control room. 21 SR. SPECIAL AGENT TEATOR: Do you believe 22 that he knew that that action had been directed to the 23 RO, and the RO had done that? Do you believe that Van 24 knew that?

I honestly don't know if he

1	knew that or not.
2	SR. SPECIAL AGENT TEATOR: I'm asking your
3	opinion.
4	My opinion is, I can see
5	where you wouldn't know, as the shift manager. I
6	mean, he may be in a he may have been in a
7	discussion with me.
8	SR. SPECIAL AGENT TEATOR: All right.
9	Let's go to the CRS then. Do you believe that Bill
10	White knew that that direction was given, and that
11	that occurred?
12	I would believe he should
13	have know. I don't know whether he knew or not. I
14	would hope that the direction came from him, and he
15	directed Bill to do it, and as such, he knew it.
16	SR. SPECIAL AGENT TEATOR: All right.
17	My fear is, after talking
18	through this, that the discussion I had with Bill
19	about needing to take those actions was what
20	instigated Bill to actually do it without discussing
21	it with the CRS.
22	SR. SPECIAL AGENT TEATOR: You're just
23	thinking that now, that that may have occurred?
24	Yeah. I mean, based on the
25	questioning rates on
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We're just

SR. SPECIAL AGENT TEATOR: 1 Well, we're 2 just trying to --3 Right. SR. SPECIAL AGENT TEATOR: We're trying to 4 5 find out who knew what, when they knew it, and who 6 approved what was going on. Right. SR. SPECIAL AGENT TEATOR: 8 asking questions. Okay. I mean, I would have 11 expected that how that feed pump got swapped over was that the shift man at the CRS gave that direction. And like I said, I can't remember. I know I discussed it with Bill that we were going to have to do that, and I guess when I turned around later, Bill --SR. SPECIAL AGENT TEATOR: Bill White? Bill -- Bill --SPECIAL AGENT NEFF: Wallace? Wallace. SR. SPECIAL AGENT TEATOR: Wallace. Thank you. And I turned around later, sawing it -- saw it happen, it wasn't much 'later, made the assumption that communicated with Bill the need to do that, and --

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SR. SPECIAL AGENT TEATOR:

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Bill White.

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Bill White. Thank you. And

-- right. And between Bill Wallace and Bill White, and the discussion, when I was look- -- you know, when I turned around and saw it was happening, was that Bill took the action to discuss it with Bill White and got agreement to do it.

SR. SPECIAL AGENT TEATOR: Right. Okay.

SPECIAL AGENT NEFF: In your conversation with Van Ford shortly before you went out to the valve, is it possible that you didn't tell Van Ford that you were going to shut the valve, that you were thinking that you could get to the valve?

that discussion earlier. The -- and this is a point of contention, is -- you know, I know what I said to Van before I left the control room was that I was going to close the valve. And I said later on, I would get to the point after I closed the valve where that communication obviously wasn't clear in that -- I think I also said something to Van to the effect of, when I was leaving, that I wanted him to stay in the control room, because we had previous lessons learned from -- over in a plant event that the shift manager leaves the control room isn't -- control room, and took actions outside the control room. So while I was

up on the ladder, initially the individual that I took with me, Bob Cordry, stayed over by the phone by the door, you know, a good fifty, sixty feet away from the valve, outside the safe area.

SR. SPECIAL AGENT TEATOR: Still in sight of each other, though?

Yes. He could see me directly.

SR. SPECIAL AGENT TEATOR: Was he on the phone with the control room --



SR. SPECIAL AGENT TEATOR: -- while you were doing this?

was right there, within his reach, and the plant page was also directly below the valve, not -- not in the steam path, but you know, easy access for myself or Mr. Cordry if he came that way, which I bring up because he does. But my intent was for him to stay by the door, which I instructed him when I went up the ladder and closed the valve. As I'm closing the valve, I look and I see Cordry at the bottom of the valve and the ladder, but I don't stop. I continue to close the valve, because at that point where I was in the valve closure I could see the steam plume

reducing, so I know that closing the valve was having an effect.

Continued to close the valve, get the valve fully closed, and I turned around to come back down the ladder, which was maybe a ten-foot extension ladder, you know, maybe eight foot off the floor. I see Van Ford at the bottom of the ladder, and right away I'm like, why is Van here? Because, you know, I thought it was clear that I expected him to stay in the control room. I didn't want him to come out of the control room.

And I think I asked him -- I know I asked him, "Why are you here?" And he said something to the effect of, "I wanted to see how this was being done safe," or "I wanted to see" -- I'm trying to think of exactly what he said. "I wanted to" -- something to the effect of "I wanted to make sure this wasn't being -- this wasn't unsafe," or something to that regard, questioning, you know, that he -- obviously, I did not -- before I left the control room, did not give him a good picture of how I was going to do that safely. And that's why I said I thought I'd given him a good picture of how I was going to do it safely, but obviously after the fact, with the first thing that responded to me with that, when I asked him why he was

here -- I mean, obvi- -- I immediately felt that, you know, I hadn't done an effective job of relaying to him why it was -- why I felt it was safe. Because that was his first comment, is, "Well, I wanted to come see how this was being performed safely," or something to that effect. And I knew the words in my head earlier, but I just can't think what they were exactly, but that was basic- -- the basic message that I got.

SPECIAL AGENT NEFF: Did he indicate to you at that point in time that he was unsure what you were doing with the valve? Is that why he followed you? Did he give you any indication --



He --

SPECIAL AGENT NEFF: -- that he was unsure what you were doing?

The message I got was, he was unsure how I was doing it safely. And as far as following me to the valve, he -- he was not there. I mean, it took a few minutes to close this valve. The valve from the control room is about a thirty-second walk. He was -- when I looked down, Bob Cordry was there, and Van was not. And that was, you know, a minute and a half or, you know, half way through the cycle of this valve. So I would say he did not

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immediately follow me down there, or make any attempts to stop me from leaving the control room with questions on how it was going to be done safely, or what my intent was.

SR. SPECIAL AGENT TEATOR: So when you finished turning the knob -- is that --



The hand-wheel.

SR. SPECIAL AGENT TEATOR: The hand-wheel.

Is that when you -- knob, hand-wheel -- when you finished doing that and you looked down, was Van Ford there already?

through, when I started seeing the effect, I looked, because I didn't see Bob Cordry over there anymore.

SR. SPECIAL AGENT TEATOR: Right.

like, well, you're not providing me very good -- I didn't say this to him, but I'm thinking, you're not providing me a very good safety function by being right here. But I also saw an effect on the valve, so I knew that to continue closing it was the right thing to do, because it was isolating the steam leak.

SR. SPECIAL AGENT TEATOR: Was Bob in contact with the control room while you were shutting the valve? Do you know? You said the page was right

down there at the bottom of the ladder somewheres. 1 2 I don't believe he was. 3 SR. SPECIAL AGENT TEATOR: All right. 4 SPECIAL AGENT NEFF: Why did he move? 5 I honestly don't know. 6 never got to that point, because by the time I got 7 down from the ladder Van was there, and I was more 8 focused on why Van was there than why Bob had come 9 over to the ladder. I think Bob may have come over 10 because he saw it have and effect, that the steam 11 plume was reducing. 12 SPECIAL AGENT NEFF: Okay. Going back 13 again to the conversation that you had before you 14 leave the control room to go to the valve, your 15 statement, you recall, is, "I'm going to go and check 16 the valve, and I'm taking Bob Cordry as my safety 17 man, " to -- directly to Van Ford. 18 ·Correct. 19 SPECIAL AGENT NEFF: His response to that 20 was? 21 I don't remember a response. 22 There may not have been a response. No -- there were 23 two separate -- it wasn't one communication. 24 two separate communications, the "I'm going to shut 25 the valve, " and I'm sure there was a response to that,

and I just don't remember what it was. It wasn't,
"No, you're not." You know, it wasn't anything that
led me to believe that Van was adamant against me
closing it for any reason. He addressed -- he -- I
knew that he obviously had some safety concerns with
me closing the valve, from a personal safety
standpoint, but I did not get the sense that I was
going against any wishes, demands, desires that he had
by closing the valve.

SPECIAL AGENT NEFF: You didn't get the sense that you did that.



Correct.

SPECIAL AGENT NEFF: Did -- in doing that, in that particular communication before you left to close the valve, did you follow normal control room communication procedures?

I'm trying to think if we made any communications. See, from my -- from my perspective, was that I -- I assumed the control room knew, right, where I was going to close -- when I was going to close the valve, that was going to be communicated through Van to the control room crew. I'll say no, in that my expectation for the operating crew is that if somebody's going out in the field to take actions, that they would call the control room

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prior to taking those actions, from the field location, right?

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In this case we probably could have -you're looking at from the control room to the valve, thirty seconds. The phone down there, I wouldn't have been able to communicate with the control room because of the noise from the steam leak. So you know, I think that's why I didn't call the control room when I was down there. And I'm trying to -- and I don't remember, but you know, justify why I would have thought this process there, is that thirty seconds later. We have a lot of instances where operators in the control room, they discuss what they're going to go do, actions in the field, and they go do it, because it's immediately following the discussion with the control room. So you don't call the control room and tell them, "Hey, I'm doing this." Of course you are. You just told me you're doing it, and you left. And that's where I was, is that I had just discussed this with Van. He knew what I was going to do. And after -- after it was closed, and the conditions were prior, notify the control room. And that's exactly what -- after it was closed, and the leak stopped, immediately went back to the control room and informed them that the leak had stopped.

73 1 SPECIAL AGENT NEFF: But in going back to 2 your conversation with him, in terms of normal 3 communication, I understand "normal" would be a 4 three-way. Stated, repeated, stated again by the 5 parties involved that this was going to happen. That 6 would be typical normal communications in the control 7 room, as I understand it. 8 For an order, that is 9 correct. 10 SR. SPECIAL AGENT TEATOR: What do you 11 mean by that, for an order? 12 SPECIAL What's AGENT NEFF: the 13 distinction? 14 For an order. Well, I'll 15 say Van did not order me to go close the valve, okay? 16 So for an order would be if I was reading this step, 17 "Is there an indication of a steam leak in -- in the 18 -- inner or outer pen -- penetration areas?" That's

For an order. Well, I'll say Van did not order me to go close the valve, okay? So for an order would be if I was reading this step, "Is there an indication of a steam leak in -- in the -- inner or outer pen -- penetration areas?" That's not an order, that's a question, so the answer would be yes or no. If it was "Isolate MS-42," for example, if our procedure said that, the RO would repeat back, "Understand. Isolate MS-42," and then that would be followed by the CR saying, "Correct." So that's an order or a direction, not asking for information or sharing information.

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1	So from my perspective, for me to go down,
2	no, there was not three-point communication in any
3	part of the conversation that Van and I were having,
4	no more sir no more so than did we have three-point
5	communication when we were on the conference call with
6	senior management earlier that night to determine that
7	we were going to do a shutdown. Right? At that point
8	we didn't have three-point communication either,
9	right? It was clear at the end of the conversation
10	that we were going to shut the plant down. But that
11	wasn't we didn't have three-point communication
12	with that. And I mean, this discussion was along
13	those same lines.
14	SPECIAL AGENT NEFF: Okay.
15	SR. SPECIAL AGENT TEATOR: Can I ask a
16	question?
17	SPECIAL AGENT NEFF: Yeah, go ahead.
18	SR. SPECIAL AGENT TEATOR: When you're
19	closing the valve, however you're doing it, is the
20	control room able to see that by a
21	No.
22	SR. SPECIAL AGENT TEATOR: by an
23	indicator or anything?
24	No. They they were

oblivious, from an indication standpoint, to the steam

1 leak. 2 SR. SPECIAL AGENT TEATOR: Okay. Same as 3 you closing it. 4 Correct. 5 SPECIAL AGENT TEATOR: They'd be oblivious to that. 6 7 Correct. 8 SPECIAL AGENT TEATOR: Nothing in 9 there would show the fact that --10 It was closed. SR. SPECIAL AGENT TEATOR: -- he's closing 11 12 the valve now. 13 Correct. SR. SPECIAL AGENT TEATOR: All right. I'm 14 15 I just wanted to get that in there. SPECIAL AGENT NEFF: Okay. My question 16 17 was more going toward the distinction that you made. You're saying in that it wasn't an order to you, you 18 19 just stated what you were going to do to Van Ford. It 20 wasn't a three-point communication issue. 21 Yeah. But at the same time, 22 it wasn't me ordering Van that I was going to do it, 23 either. It was a discussion that I would say, based 24 on, you know, learnings after the fact, that the loop wasn't closed. I knew that Van had some issues with 25

me closing the valve from a safety perspective, and I knew that I had addressed those in my mind to make it safe, and I tried to -- I believe I tried to relay that to Van, but obviously, after the fact, it was that I didn't, because he showed up down there to see how -- how, in effect, I was doing it safely.

SPECIAL AGENT NEFF: Did you learn of issues after the fact in regard to how you communicated what you were going to do?



Oh, yeah.

SPECIAL AGENT NEFF: That there were concerns there too?



Um --

SPECIAL AGENT NEFF: Not just from the safety perspective, but from how you communicated it to the control room.

Yeah, we -- I knew immediately after closing this valve that there were going to be issues associated with my closing the valve. But unfortunately I didn't realize at the time it would be from this perspective, right? I had had up until that time, in my position as had had a lot of interaction between union personnel and management personnel, and unfortunately in my position as I wound up representing all of the

So

unfortunately the position -- and you take on the same role, right, and you become the hated person because you're making all the decisions.

So I knew within a couple minutes of closing this valve, based on some discussion that I'd heard -- overheard people saying, that the union -- in my opinion, I thought the union was going to make a rather significant issue that I closed the valve. Right? From a union standpoint is -- you know, there's an article in the contract that says, you know, shall not operate equipment. Don't take union jobs away. And I thought that that's the path that this would take.

So when we called -- "we," I say, Van and I called Carl and Dave Garchow and Lon back to tell them that we'd isolated the steam leak, or that I had isolated the steam leak, I also emphasized that to Carl that, you know, I think there's going to be an issue here from union personnel because I closed the valve.

So we -- we took several courses of action as a result of that when we had employees concerns, doing a separate investigation on the actions taken, interactions thereof, and then all those lessons

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learned. That was rolled up into a roll-out that I had to go to each shift and discuss each shift my -the actions that I took, and the lessons that I learned as a result of that event. And it's all more the communications between shift managers, CRS, NCOs and myself, and how those interactions occur. yeah, there was a lot of lessons learned. And the other thing that came out of that

was, you know, there were equipment operators that said, "Hey, had you asked me," you know, "I would have closed it. So I think that's some of the biggest learnings, is that, you know, don't take for granted that just because you don't want to put somebody else in jeopardy, that the necessary action is that you're the only recourse left.

And then whole communication piece. I mean, to me, did I communicate clearly and live up to my own expectations? I would say no, because obviously after the fact I've learned lessons that everybody was not aware of what was going on, had full communications, or felt that they were involved with the decisions. But it wasn't intentional. Definitely not.

SPECIAL AGENT NEFF: Did it go a little further than that in the effect that the communication

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had, in that it was seen as control of the control room? In particular, the shift

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manager and the control room supervisor?

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5 don't remember if that was part of the roll-out from

I think that was a -- I

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the lessons learned, but I think that was brought up

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as part of the -- the subsequent investigation.

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Unfortunately, I didn't have the opportunity or -- to read the investigation, so -- but I did have the

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lessons learned package that was prepared to roll out,

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and you know, I agreed with everything that was in

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And as a matter of fact, it's probably here

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somewhere. But -- and that was part of it, is that

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the communications are vital to avoid having that appearance, right, to make sure that everybody is in

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the -- in the discussion, and the proper chain of

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command is utilized.

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MR. KEENAN: Take a quick break from the

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SPECIAL AGENT NEFF: We can do that. It's

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(Whereupon, at 6:23 p.m. off the record

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until 6:41 p.m.)

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SPECIAL AGENT NEFF: 6:41 p.m., after a

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brief break.

record?

6:23 p.m.

Going back to that point where you're up on the ladder, you've notice Cordry's moved, he's underneath you on the ladder, and you've successfully closed the valve. At this point in time Van Ford's arrived on the scene. What does he say to you first?

I first spoke to Van and asked him why he was there.

And I believe his response was something to the effect of, "I wanted to see how this was being done safely," you know, "I wanted to see how you were doing this, and it was safe," or, "I was worried about your safety," or something to that effect.

SPECIAL AGENT NEFF: Did he give you any indication that he did not know what you were doing? He came to see what you were doing, and didn't know what you were doing, in terms of actually manipulating the valve?

whole discussion was -- I mean, it was short and quick, and then right up to the control room we went. But it was -- his terminology may have been, "I wanted to see how you were doing this safely," but it was, from my perspective, that he wanted to see what mechanism I was using to get to the valve, i.e., the ladder, versus the installed stanchion, and how I

thought it could be performed safely. And I mean, I 1 2 would question that if he didn't know I was closing 3 the valve, why would he go there? 4 SPECIAL AGENT NEFF: I'm sorry; can you 5 explain that? If he didn't know you were closing the 6 valve? 7 Yeah. The whole time frame 8 to closing the valve was a couple of minutes, right? 9 And that's from the time I left the control room to 10 the valve was closed. He did not follow me directly 11 there. He showed up a short time period later. So if the question is -- or if it's in question whether or 12 13 not Van knew I was closing the valve, then how would 14 he show up at the valve within two minutes of me 15 leaving the control room? 16 SR. SPECIAL AGENT TEATOR: Well, you've 17 already said, though, that you're positive you told 18 him --19 Oh, yeah. Right. 20 SR. SPECIAL AGENT TEATOR: -- that you 21 were going to do it. 22 Right. And I'm just --23 SR. SPECIAL AGENT TEATOR: And are you 24 still --

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just supporting --

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SR. SPECIAL AGENT TEATOR: Are you still

positive about that?

Correct. I know that I said

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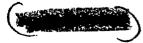
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to Van that we had to shut the valve, who was going to shut the valve, and I said, "I'm going to shut the valve. Now, that was a little bit earlier than the next discussion about can it be done safely. I told him I was going to take Bob Cordry with me, and we left the control room. And Bob was standing by the door. You know, when you look at the horseshoe that I had -- sorry -- put on here -- so I put it this way for Unit 2, so that the CRS is here, Van and I are approximately in this area, and then the door out of the control room's over here, and that's where Bob Cordry was standing. And from here to the door is maybe fifteen feet.

So at the end of that discussion, walked right to the door and asked Bob to come with me to be a safety man, and we had a small discussion on the way down there about, you know, what I was going to do, what I needed from him, and then proceeded to close the valve.

SR. SPECIAL AGENT TEATOR: Was Bob on standby there waiting for you --



No, I think Bob -

SR. SPECIAL AGENT TEATOR: to take him
as your safety man?
No. I think Bob was
standing there observing the activities in the control
room.
SR. SPECIAL AGENT TEATOR: All right.
SPECIAL AGENT NEFF: So at the point that
you left the control room Van Ford was still of the
opinion that it would be unsafe, but you're telling
him what you're going to do, and then you go with
Cordry and go do it.
Correct.
SPECIAL AGENT NEFF: And then he follows
you down, not immediately, but a couple minutes later.
Correct.
SPECIAL AGENT NEFF: Is it possible to you
that he followed you down not immediately because he
expected you to return after you took a look at the
valve and made an assessment of what was going on down
there, and when you didn't return, he needed to follow
you?
From my perspective I
wouldn't think that was possible because that wasn't
the discussion. I mean, the discussion we had wasn't,
"Hey, I'm going to go look at it, and I'll come back

1	or whether the discussion was he heard the
2	discussion or not. I mean, he was within fifteen
3	feet. I'm not sure when he arrived there. I'm not
4	sure if he was there the whole discussion. I just
5	know that was that wasn't part of like a preplanned
6	evolution from my perspective, to utilize Bob as a
7	safety man. It was almost the end of the discussion,
8	and I turn around and see Bob standing there, and say
9	I'll take I'm taking Bob down as a safety man.
10	SPECIAL AGENT NEFF: Did he and Van Ford
11	have any conversation?
12	Not that I can recall. I
13	don't think they did, because I think I grabbed Bob as
14	I walked by the door when he was standing there.
15	MR. WINGFIELD: What's Bob's position?
16	Work Control Center
17	supervisor.
18	MR. WINGFIELD: All right.
19	SR. SPECIAL AGENT TEATOR: When you and
20	Van are having that last conversation where he asked
21	who, you say, "Me; I'll close it," was there anyone
22	who else who heard that?
23	I would think that Bill
24	Wallace would have heard it, because I'm trying to
25	remember that discussion was and I can kind of

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1	remember, same as before, standing over here I'm
2	trying to piece together if this is the exact time
3	and walking toward Van, who was over in this area, and
4	him asking that question, and me and I didn't say
5	"me." I said, "I'm going to close it," and that was
6	my that was my answer. "I'm going to close it."
7	So I think if anybody had the potential for
8	overhearing it, it may have been Bill Wallace in this
9	area.
10	SPECIAL AGENT NEFF: That was in your
11	earlier discussion.
12	Correct.
13	SPECIAL AGENT NEFF: Not the one
14	immediately
15	Correct.
16	SPECIAL AGENT NEFF: before you went to
17	the valve.
18	Correct.
19	SPECIAL AGENT NEFF: How much time apart
20	were those two discussions, did you say?
21	That's I would guess
22	I would say ten minutes or less. I'm trying to put
23	piece those with the alarms coming in.
24	SR. SPECIAL AGENT TEATOR: So what might
25	Bill Wallace have heard you tell Van Ford?

that conversation, because that was right in this 1 area, and -- you know, this one, so he -- between Van 2 and I, we were, you know, within a foot of each other. 3 SR. SPECIAL AGENT TEATOR: All right. 4 5 SPECIAL AGENT NEFF: And when you said that to Van Ford, that you would be the one to close 6 7 the valve, did he respond to that? Do you remember a 8 direct response to that? 9 He may have. I don't remember what his response was. 10 remember. 11 SPECIAL AGENT NEFF: It seems like it's -just the fact that it would be you manipulating the 12 13 equipment, as you said, from lessons learned later on, this became a big issue with the union, just the 14 15 hands-on fact that you were manipulating 16 equipment. Was that something that was thrown out at that time, that was even considered between you and 17 Van Ford, or anybody else --18 19 It may have been. 20 SPECIAL AGENT NEFF: -- if you did that? It may have been. I don't 21 22 I honestly don't think that was part of our 23 discussion, that, you know, "Hey, you're going to five-oh'd," or anything to that effect. 24 matter of fact --25

SPECIAL AGENT NEFF: Five-oh'd?

Five-oh'd is the section of the contract, section 5.0, which says a shall not perform the work of a union person, or represented personnel.

SPECIAL AGENT NEFF: I suspected that, but I needed to --

Yes. For clarification, like I said, I have vivid recollections of certain actions taken because of immediately following the closure of the valve, all indications that I had from hearsay and discussions I heard between other union guys was that was going to be a major bone of contention, that I operated the valve. That never was a bone of contention. That was never grieved.

The union personnel, subsequent investigation, their concern was for my safety also, that I was performing an unsafe act, a personal unsafe act, right? And not only was that bad in the light that I acted unsafely from their perspective, that also, from a leader perspective, that I have expectations that they work safely, and then I go against those same expectations and do something unsafe, from their perspective. And that's -- that's where the bone of contention really came from, not --

1 not that I operated the valve. 2 SPECIAL AGENT NEFF: And when you briefed 3 the crews on that afterward --4 Yeah. 5 SPECIAL AGENT NEFF: -- how did you 6 address that particular concern? 7 And I'm going to -- I'm 8 going to reference the 22-MS-42 lessons learned that 9 was rolled out to each of the shifts. The reason --10 SPECIAL AGENT NEFF: Okay. Do you know 11 who prepared that document? It's just for the record. It's -- I don't see a date or anything on there. 12 13 you have --14 No, there's no date on here. 15 SPECIAL AGENT NEFF: There's no name? 16 No. 17 SPECIAL AGENT NEFF: Who prepared it? Do 18 you know? Do you know anything more about who 19 prepared that? 20 It was given to me by Carl 21 Fricker, so I believe he prepared it. Right? 22 SPECIAL AGENT NEFF: Okay. And the information given in 23 including 24 here, the comments and improvement

opportunities, were also provided in -- I was -- the

discussion between Carl and I, when he basically, you know, said that I needed to go talk to all the shifts. And I agreed, right -- I knew that some action had to take -- be taken to explain both my side of the story and, you know, share with the crews the lessons learned out of this event. So all these improvements were Carl's wording, and they came from Employee Concerns' investigation that was completed.

The Employee Concerns interviews that occurred were initiated by myself at the -- after discussion with Carl and I, I think the following day, or maybe a couple days later when, you know, you saw that this issue was not going away. It was -- you know, I mean there was still concerns about it, and you know, other talks about the actions being taken inappropriately, unsafe. So Carl and I wanted a independent investigation done, and so we utilized the resources of Tom Lake, who is our Employee Concerns department lead.

And I was kind of disappointed, and I expressed that to Carl, when -- when we started discussing this, is that I was not involved or questioned as part of that interview process. So what you see here, and basically what I rolled out to the shifts was not necessarily any input provided from me,

based on from an interviewing standpoint, or from preparations of the document. I'm not saying that it's not correct. I mean, I agreed with it, and I rolled it out. And that's why I rolled it out, because I agreed with what was in here. But what -- and this is all I'm privy to as far as that investigation, so I can only make conclusions based on some of the comments that are in here as far as what other people felt, or what -- the appearance it gave to other people.

And specifically, earlier you had asked a question about did I believe -- or, one of the lessons learned out of this event was that I had basically and I'm -- that wasn't your words exactly, but I think that was question basically you were trying to get to.

So in this roll-out part of what I read to shifts and I talked about is, "The OS is in charge of the plant, it has the full authority of the CNO. He must be cognizant of actions in the plant, and he must in a position to maintain command and control. In this case, the and OS should have agreed on the decision regarding the 22-MS-42 and the OS should have stayed in the control room."

So from my perspective, right, that night,

1	and even to this day, I thought we both agreed on the
2	fact that the valve had to be closed. There was some
3	contention on whether or not that was safe to do, but
4	I did not feel at that time that I was going against
5	his wishes, or against his orders to go to not
6	close the valve.
7	SR. SPECIAL AGENT TEATOR: How about
8	against procedure? Did you think you were operating
9	within procedures in doing what you
10	By closing it off?
11	SR. SPECIAL AGENT TEATOR: in doing
12	what you did? Yeah.
13	Yes.
14	SR. SPECIAL AGENT TEATOR: Basis for that?
15	What's your basis for saying that?
16	AB Steam. As a licensed
17	SRO, right, we frequently train on abnormal operating
18	procedures to the point where you know them from
19	memory pretty much.
20	SR. SPECIAL AGENT TEATOR: All right.
21	At least
22	SR. SPECIAL AGENT TEATOR: All right. Go
23	to AB Steam and show me where in there it allowed you
24	to do that.
25	Step 340 is basically

1	this step says, "Isolate or repair the steam leak."
2	So the question prior to that is, "Is the steam leak
3	isolable or repairable in the present plant
4	condition?"
5	SR. SPECIAL AGENT TEATOR: It says, "No."
6	Correct.
7	SR. SPECIAL AGENT TEATOR: Because you
8	don't know?
9	Right.
10	SR. SPECIAL AGENT TEATOR: Right?
11	Right.
12	SR. SPECIAL AGENT TEATOR: Line drawn down
13	to 3.42.
14	Correct.
15	SR. SPECIAL AGENT TEATOR: Right?
16	Reduce
17	SR. SPECIAL AGENT TEATOR: Reduce reactor
18	power.
19	Correct.
20	SR. SPECIAL AGENT TEATOR: But that's done
21	at 150.
22	0150. No, that's when they
23	went to section 4.
24	SR. SPECIAL AGENT TEATOR: Oh.
25	0050 is when the MS-42 was
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1 closed. 2 SR. SPECIAL AGENT TEATOR: All right, but 3 before closing it do you have to reduce reactor power? 4 No. The reduce reactor 5 power was based on the earlier discussion that we 6 Inc. couldn't get here in a couldn't --Team, 7 reasonable time to isolate it. So that -- at that --8 (Audiotape changed.) 9 SPECIAL AGENT NEFF: 6:56 p.m. 10 What you were saying was what your 11 thoughts were at 0016. 12 0016. Correct. So at 16 13 after, by answering that question No, the only success path that we thought about at that time was Team, Inc. 14 15 coming in and doing a leak repair. We've already 16 discussed the thought process after that about closing 17 the valve, and that'd be a potential path for 18 isolation. 19 SR. SPECIAL AGENT TEATOR: Right. 20 And so that's -- that's why 21 this arrow goes down to 3.42 at 0016. At that time we did not believe the leak was isolable. 22 23 SR. SPECIAL AGENT TEATOR: Right. 24 And then later on after 25 discussions with the maintenance supervisor and

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swap the pump if they didn't know you were going to go

try and close the valve, if that's true --



Well, our earlier --

SR. SPECIAL AGENT TEATOR: -- what you

just said?



Well, our earlier

conversation was that, hey, if that was a path, we had to swap the pump, right? Plus you'd have to swap the pump anyway in the subsequent down-power, right? But you wouldn't want -- I mean, there was some discussion -- and like I said, I remember discussing it with Bill about that we would have to do that. We'd have to take the load off that pump if we were going to --

SR. SPECIAL AGENT TEATOR: Which Bill?



Bill Wallace.

SR. SPECIAL AGENT TEATOR: All right.



Have to isolate that pump.

We'd have to swap the load off that pump if we were going to isolate it, and then proceeded into a conversation with Van about the -- having to isolate the valve. And unfortunately I can't put those times -- you know, was that a minute, was it five minutes?

But I --

SPECIAL AGENT NEFF: It would --



Go ahead.

SPECIAL AGENT NEFF: Go ahead. You can

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finish your thought.

I don't recall having a

room that that was my -- that at that time, I was leaving the control room to go close the valve. I mean, there was some discussions before, and -- about

specific discussion with anybody else in the control

that that was a success path, especially after we received the first set of alarms, or -- yeah, the

first alarms, and the second one, is, hey, we can close the valve.

SPECIAL AGENT NEFF: It would seem that if you communicated to the control room that the leak is isolable, that would have been documented with the time noted, right?

until you closed it and isolated it, you didn't know that it was isolable. That's why I say the procedure -- you have to use think-in-compliance with the

you actually isolate it, right? So the key is there,

procedure. You don't know any leak is isolable until

is you -- I mean, better phrasing on the question may

be, "Is the steam leak potentially isolable? If yes,

then attempt to close it. * And then the next question

would be, "Did it isolate?" But the way the procedure

is written, you have to use think-in-compliance to get

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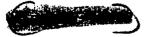
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to the ultimate step which is going to isolate it, because if I don't know, I can't say Yes, because then I would never shut the plant down. I would just be at the step that would say, "Isolate and repair the leak."

So let's say in this case, the MS-42, we take the path, we have clairvoyancy, and we know that -- or at least we all agree, right, in that we're going to close MS-42, and that's going to isolate the leak. We take that path, "Is the steam leak isolable? Yes." We take the path, we go down there and close MS-42 and the steam leak doesn't isolate. Next step is go to section 4, which is closing out the procedure, so you'd never get the steam leak addressed. You'd never shut the plant down, you'd never do anything. And that's where think-in-compliance comes into play with the procedure, that you've got to attempt -- you've got to close the valve to see if it is isolable.

SPECIAL AGENT NEFF: Okay

SR. SPECIAL AGENT TEATOR: Was the paperwork, to your knowledge, being filled out as the night went along, or was it all filled out after the fact?



No, this was -- you don't

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1	fill these out that's why they have time across.
2	You fill them out as this is the actual time that
3	he was at these steps. And the key when Van
4	after Van had come down and got me at approximately
5	11:00 o'clock and we looked at the steam leak and went
6	back to the control room, part of the discussion
7	between Van and I were the entry requirements of this
8	procedure. And that's why you see the procedure was
9	entered at 23:18. They had identified the steam leak
10	earlier in whatever the narrative is, but they had not
11	entered AB Steam until Van came and talked to me, and
12	I asked if there were any abnormal operating
13	procedures. So if you look, the steam leak was
14	notified the control room of the leak at 22:55, and it
15	was actually twenty-three minutes later when they
16	entered the AB.
17	SR. SPECIAL AGENT TEATOR: At 23:18?
18	Correct.
19	MR. WINGFIELD: Do you have a copy of the
20	control room log that night?
21	No, I think we
22	MR. KEENAN: Yeah.
23	We do have a copy of it?
24	Okay.
25	MR. WINGFIELD: Very good.

SPECIAL AGENT NEFF: Did you have anything
further on that?
SR. SPECIAL AGENT TEATOR: No.
SPECIAL AGENT NEFF: What about in terms
of any other procedures?
That supports what I said.
SPECIAL AGENT NEFF: Isolation's fully
covered?
SR. SPECIAL AGENT TEATOR: I guess
generally, but
I think it I mean, just
if you look at the comments, right, that the CRS, who
was Bill White, wrote in the back of the procedure,
what you write when you're closing them out
SR. SPECIAL AGENT TEATOR: Right.
to kind of explain the
process you took through the procedure "Procedure
entered due to a leak on 22-MS-42, and was isolated by
closing 22-MS-42, so obviously this is filled out
after the event.
SR. SPECIAL AGENT TEATOR: That part.
Yeah.
The leak the whole thing
is, 'cause it starts you always fill these out with
the top line. You don't leave like two blank lines

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and then start writing.

SR. SPECIAL AGENT TEATOR: You mean the whole comment section is?



Right.

SR. SPECIAL AGENT TEATOR: All right.

It's filled out at the same time. It's post -- in this case, it's post-event. Some guys write notes in there as we're going along, depending on the time frames. And if it's a short-duration event, as this was the case, you do it after the fact.

The leak was on the bonnet. Step 3.39. Leak was initially evaluated as no isolable the first time in this step. And that's when we said, hey, Team, Inc. can't get there. And while briefing the controlled shutdown, the leak was isolated and the step was reevaluated. So that's where that think-in-compliance comes in, is that you don't know. You can't answer it yes, it isolable, until you actually attempt to isolate it. So once it's isolated, then you say yeah, it is isolable, and the step's reevaluated.

SPECIAL AGENT NEFF: Okay. At this point I don't have any further questions. I don't think you do, Jeff.

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SR. SPECIAL AGENT TEATOR: No, I don't.

SPECIAL AGENT NEFF: Anything further?

Would you like to add anything further on

that,

I mean, there's a lot of lessons learned out of this, right? It's unfortunate that -- that this even had to happen in the first place. It's unfortunate that there had to be lessons learned coming out of it. As I stated earlier, my position and my thought processes in this were not as, I guess, how they appeared to be, which is the cause of this investigation, which was, you know, to run reckless into the control room and take) and do everything as I deemed fit. that night I was -- I thought I was communicating properly with the proper people, being Van Ford. You know, I wouldn't go to Bill White and do the communications with him, because Van's the shift manager. So maybe the communications were not We didn't repeat -- you know, three-point clear. communications and everything, which probably would have eliminated a lot of the discussion. But in no means was this, or any of that, any of that, total disregard for procedures or command and control function of the shift manager.

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1 SPECIAL AGENT NEFF: Okav. I'11 qo 2 through my closing questions for you, okay? 3 Okay. 4 SPECIAL AGENT NEFF: Have I or any other 5 NRC representative offered you any promises of reward 6 or threatened you in any manner in exchange for your 7 information today? 8 9 SPECIAL AGENT NEFF: And have you appeared here freely and voluntarily? 10 11 Yes, I have. 12 SPECIAL AGENT NEFF: Okay. It is 7:06 13 p.m. We will go off the record. 14 MR. KEENAN: Let me just add one thing. 15 SPECIAL AGENT NEFF: I'm sorry.1 16 MR. KEENAN: One, we appreciate your time. 17 We would like to review the transcript. We understand 18 the seriousness of the issues. We did volunteer, and 19 we'll be glad to support your review process in any 20 manner, whether that's additional documentation or, 21 you know, additional discussion. So again, we 22 appreciate your -- appreciate your time. 23 SPECIAL AGENT NEFF: Thank you. 24 appreciate the time both of you have devoted to this 25 today, and we've -- we you here on another matter, and

it was a large portion of your time today, and we thank you for that. You're welcome. SPECIAL AGENT NEFF: Okay. We'll go off the record. It is 7:06 p.m. (Whereupon, at 7:06 p.m. the interview was concluded.)