

BEFORE THE FACT FINDING TASK FORCE
OF THE NUCLEAR REGULATORY COMMISSION

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Re:

Davis-Besse event :
of June 9, 1985 :

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INTERVIEW OF
CHRIS BURNS, JEFF MELEG, MARK KLEIN, BOB MORRISON

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Interview of CHRIS BURNS, JEFF MELEG,
MARK KLEIN and BOB MORRISON by the Nuclear
Regulatory Commission Fact Finding Task Force,
taken before me, Nicholas A. Marrone, a Registered
Professional Reporter and Notary Public in and for
the State of Ohio, at Conference Room 210,
Davis-Besse Nuclear Plant, Oak Harbor, Ohio, on
Monday, June 17, 1985, commencing at 9:10 o'clock
a.m.

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1 APPEARANCES:

2
3 U. S. Nuclear Regulatory Commission
4 4340 East West Highway
5 Bethesda, Maryland 20814
6 By Mr. Stephen Burns,

7
8 On behalf of the Commission.
9

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11 MEMBERS OF THE TEAM:

12
13 Wayne Lanning
14 Larry Bell
15 J. T. Beard
16 Ernie Rossi
17

18
19 ALSO PRESENT:

20
21 Ken Mauer (TED/Legal Services)
22

23 - - - - -
24

Monday Morning Session

June 17, 1985

9:10 o'clock a.m.

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MR. ROSSI: Why don't we start with each of you, and each of you tell us what your position is now with Toledo Edison and give us a little bit of background on how long have you been with the company and so forth. And we will start with you, Chris Burns.

CHRIS BURNS: Okay. I started here in October of '82, and I am now an equipment operator, EO1.

MR. BEARD: Is EO1 is top of the ranks of EOs?

CHRIS BURNS: It's in the middle. It's AO, EO1, EO2 and EO3.

MR. ROSSI: Off the record.

(Discussion held off the record.)

MR. ROSSI: Back on the record.

While we were off the record, the question was raised as whether any of you wanted Louis Simon particularly to sit in on the interview, and the record should show that the answer was

1 basically that you didn't care one way or the other,
2 so he is not sitting in.

3 The other question we need to ask is have
4 you asked Ken Mauer to be here?

5 BOB MORRISON: Yes, sir.

6 MR. ROSSI: Okay. You have asked him to
7 be here.

8 MR. BEARD: Could I ask a question?

9 STEPHEN BURNS: That was affirmative.
10 Mr. Klein, you want Mr. Mauer to be here?

11 MARK KLEIN: Yes.

12 STEPHEN BURNS: And Mr. Meleg, you want
13 him to be and here?

14 JEFF MELEG: Yes.

15 STEPHEN BURNS: Chris, you want him to
16 be here?

17 CHRIS BURNS: Yes.

18 MR. BEARD: I want to know what kind of
19 position he holds with the company. Is he an
20 engineer or licensing fellow or attorney? What is
21 his position?

22 MR. MAUER: I am currently working
23 between two areas, the environment department and
24 the legal services department. And I am not a

1 licensed attorney; however I am representing the
2 legal services department today since J. Silberg is
3 in Toledo as yet.

4 MR. BEARD: I see. Are you here to
5 represent the company or here to represent these
6 individuals?

7 MR. MAUER: I am representing Toledo
8 Edison and these individuals, if they so choose.

9 MR. BEARD: Have they indicated they
10 would like for you to represent them?

11 MR. MAUER: I think they just did that,
12 yes, sir.

13 MR. BEARD: Is my understanding --

14 MR. ROSSI: They just answered that
15 question, I believe. Are you satisfied with the
16 answer to that question, Steve.

17 STEPHEN BURNS: I think the record will
18 show they each indicated yes.

19 MR. ROSSI: Okay. So we were to the
20 point where Chris Burns had indicated that he was
21 now an EO1, equipment operator, and that you had
22 joined Toledo Edison in October of 1982. Do you
23 have any more to add to your background?

24 CHRIS BURNS: Before that, I was in the

1 Navy for not quite seven years.

2 MR. ROSSI: Okay. Jeff Meleg?

3 JEFF MELEG: Yes.

4 MR. ROSSI: Why don't you go through the
5 same thing. When did you join Toledo Edison and
6 what is your position with the company now?

7 JEFF MELEG: May 18th, 1982, is when I
8 first joined Toledo Edison, and I am also an
9 equipment operator one. And I also was in the Navy
10 for six years as an operator, nuclear operator, and
11 I have worked extensively with Babcock and Wilcox
12 in inservice inspection, and I have been a QAQC
13 weld inspector at the WPPS plant and an operator
14 for Carolina Power and Light.

15 MR. ROSSI: Were you actually employed by
16 Babcock and Wilcox at one time?

17 JEFF MELEG: Yes.

18 MR. BEARD: You say Carolina Power and
19 Light you were an operator. You mean licensed --

20 JEFF MELEG: An auxiliaries operator
21 there also.

22 MR. BEARD: Okay.

23 MR. ROSSI: Mark Klein, could you tell us
24 the same information.

1 MARK KLEIN: I started work October 20th,
2 1980, for Toledo Edison. I had six years Navy
3 experience. Equipment operator three.

4 MR. ROSSI: That is a higher seniority
5 position?

6 MARK KLEIN: Right. It's called a fully
7 qualified equipment operator, safety operator.

8 BOB MORRISON: Bob Morrison, and I work,
9 I have been here nine years and I'm a senior
10 equipment operator.

11 MR. ROSSI: Senior equipment operator.

12 MR. BEARD: Is that EO3?

13 BOB MORRISON: It's one step ahead of
14 that.

15 MR. BEARD: EO4?

16 BOB MORRISON: They don't call it that.

17 MR. BEARD: A senior EO.

18 Can I ask a question Chris brought up.
19 Can you run through the way these go in ascending
20 order? You start out as an AO I believe you said.

21 CHRIS BURNS: Right.

22 MR. BEARD: And then you become an EO1.

23 CHRIS BURNS: Uh-huh.

24 MR. BEARD: And then you go on up to EO3.

1 CHRIS BURNS: Well, there is an OE2.

2 MR. BEARD: I mean you go through 2 and
3 then 3?

4 CHRIS BURNS: Yeah.

5 MR. BEARD: And is the next step a senior
6 EO?

7 BOB MORRISON: Yeah.

8 MR. BEARD: Okay.

9 MR. ROSSI: Let us know if you can't hear
10 anybody. Everybody should be reminded to speak up
11 fairly loudly so that he can hear.

12 MR. BEARD: Yes, sir.

13 BOB MORRISON: Could I say something off
14 the record?

15 MR. ROSSI: Let's go off the record.

16 (Discussion held off the record.)

17 MR. ROSSI: Let's go back on the record.

18 While we were off the record, there was a
19 general discussion of the fact that the
20 classifications of equipment operators have changed
21 over the years and some of these positions, people
22 would not be promoted into them any longer, but the
23 ones that were already holding them remained. Is
24 that a fair characterization --

1 BOB MORRISON: Yes, sir.

2 MR. ROSSI: -- of what was said, Bob
3 Morrison?

4 BOB MORRISON: Yes, sir.

5 MR. BEARD: Were you exNavy also?

6 BOB MORRISON: No, sir.

7 MR. ROSSI: Go ahead, Larry.

8 MR. BELL: Do equipment operators work in
9 the auxiliary building and the turbine building?

10 BOB MORRISON: Depends on what level
11 equipment operator you are.

12 CHRIS BURNS: AO to EO1 works in the
13 turbine building, EO2 and EO3 and senior equipment
14 operator work in the auxiliary --

15 MR. BELL: So Mr. Burns, you worked
16 primarily in the turbine building?

17 CHRIS BURNS: Correct.

18 MR. BELL: And you other three gentlemen --

19 JEFF MELEG: Chris and I work in the
20 turbine building, and these two work in the
21 auxiliary building.

22 MR. BELL: That's simpler for me. I can
23 keep it straight.

24 BOB MORRISON: I also work in the turbine

1 building on a rotation.

2 MR. BELL: Okay.

3 MR. BEARD: But at least during this --

4 BOB MORRISON: But they work there
5 exclusively.

6 MR. ROSSI: So it's Mark Klein and Bob
7 Morrison that work in the aux building plus the
8 turbine building?

9 BOB MORRISON: Right.

10 MR. BEARD: Maybe we can go through a
11 little bit further in terms of just a brief skim
12 off the top with what activities were done in the
13 turbine building that related to the event, and it
14 may be that we can reduce the burden on these
15 gentlemen.

16 MR. ROSSI: Okay. What activities during
17 the event were done in the turbine building?

18 MR. BEARD: Just in general.

19 JEFF MELEG: Related to me?

20 MR. BEARD: Just related to each of you
21 related to this event that Sunday morning?

22 JEFF MELEG: Okay. Well, I was on top of
23 the turbine taking my turbine readings whenever the
24 trip occurred. And just prior to the intermediate

1 stop valves going shut, I heard a loud like squealing
2 noise, and I thought it was like a turbine blade or
3 something.

4 So I went over to investigate. Before I
5 got two steps, all four valves slammed shut and I
6 went, Okay, we tripped.

7 So then that's when I proceeded to the
8 control room.

9 MR. ROSSI: And after you got to the
10 control room, were you then discharged to do other
11 things associated with the event?

12 JEFF MELEG: Yes. After -- you know,
13 they were trying to figure out what happened
14 initially, so normally on a trip, the equipment
15 operators just go to the control room in the standby
16 mode waiting for them to say go out and check this,
17 go out and do that, go out and do this.

18 That's what I was doing up there, I was
19 waiting for them to determine what they wanted me
20 to do or what they wanted me to check.

21 MR. ROSSI: And what was the general
22 nature of the things that you did during the event?

23 JEFF MELEG: Okay. Basically I was
24 observing them trying to get the aux feedpumps

1 started. Brian --

2 MR. ROSSI: From what, did you go to the
3 auxiliary feedwater pump?

4 JEFF MELEG: Not yet. Because he was
5 supposed to be able to start those from the control
6 room. So he was saying, Wow, I can't get any steam
7 I can't get them running, so Rick Walleman came
8 around and said, Go down to the aux feedpump room
9 and see what the problem is.

10 So at this time I didn't know why we
11 weren't getting steam, so 50 million things were
12 going through my head. What can I check, what can
13 I see, what can I remember to go down and get those
14 pumps started.

15 And that's when you came in?

16 CHRIS BURNS: I was already there.

17 JEFF MELEG: You were already there. And
18 he's the only one that had a set of keys checked
19 out to him because the aux feedpump room is locked.
20 So Chris and I started going down to unlock the aux
21 feed pump room.

22 MR. ROSSI: Were you the first to be
23 dispatched from the control room? So Chris Burns
24 and Jeff Meleg were the first of the four of you to

1 leave the control room to go to the aux feedwater
2 pump rooms?

3 JEFF MELEG: That's right.

4 MR. BEARD: Maybe it would be worthwhile
5 to get the general flavor of where the other two
6 gentlemen were assigned or sent. Not all the
7 background, but where was the paramount part of
8 what your assignment was during the event. Do you
9 want to do that, Ernie?

10 MR. ROSSI: Yeah. Please.

11 MARK KLEIN: Well, I was in the kitchen
12 at the time. I came into the control room to watch
13 what was happening, and the first thing that was
14 done, I was sent down to the aux building to unisolate
15 MU 23.

16 MR. BEARD: MU 23 is a makeup valve?

17 MARK KLEIN: Yes. And then after I had
18 done that, I went back up to the control room and
19 almost immediately I was called over to the
20 supervisor's office, given a lock valve key, sent
21 down to aux feed to unisolate to AFW 599 and 608.

22 MR. BEARD: Okay.

23 MR. ROSSI: Was anybody else involved in
24 opening the AP-599 and 608?

1 MARK KLEIN: Well, I was down there opening
2 the first valve --

3 MR. ROSSI: I mean at the valves.

4 MARK KLEIN: Right. Bob Morrison showed
5 up as I was opening them, working on the valves.

6 MR. ROSSI: So the two of you together
7 were involved in that --

8 MARK KLEIN: More or less.

9 MR. ROSSI: -- exercise?

10 MR. LANNING: How would you describe the
11 mood in the control room before you were dispatched?

12 MR. BEARD: Wait a minute, Wayne. Let me
13 finish with this last gentleman as to what his
14 primary -- was your involvement, Bob, primarily
15 with AF 599 and 608, or did you have other
16 assignments during the event?

17 BOB MORRISON: I was in the aux building
18 at the time of the trip at the rad waste panel, and
19 I stayed there until directed by the assistant
20 shift supervisor to go to the aux boiler to start
21 that.

22 I went over there, began the procedure to
23 starting the aux boiler, and Mr. Patton came in; I
24 turned it over to him.

1 I was redirected to go to AF 599 and 608
2 until Mr. Klein opened those. From there I was
3 directed to go to the aux feedpumps to get those
4 operating.

5 MR. BEARD: So you were involved with the
6 aux boiler, the feed valves 599 and 608, and also
7 on the aux feed pumps and pump turbines?

8 BOB MORRISON: Among other things, yes.

9 MR. BEARD: Thank you. Excuse me for
10 interrupting.

11 MR. ROSSI: I wonder with AF 599 and AF
12 608, and let -- that's just you two gentlemen there
13 were involved in those operations. And let them
14 tell us what they did to get those valves open.

15 MR. BEARD: Do you want to hit Wayne's
16 question first?

17 MR. LANNING: Could I get a --

18 MR. ROSSI: Why don't you go ahead with
19 your question.

20 MR. LANNING: Before you were dispatched
21 to the various parts of the plant, you were
22 observing what was going on in the control room for
23 some period of time. How would you describe what
24 was going on and what urgency or what the tone of

1 voice was, or just how would you explain to me what
2 was happening in the control room?

3 JEFF MELEG: Well, generally there would
4 be a standard high level of awareness among
5 everybody. It wasn't, you know, losing it or
6 getting upset, but it was a high level of intensity
7 for wanting to find out why things were happening.

8 And everybody was looking at everything
9 trying to figure it out and talk to each other and
10 say, you know, I'm not getting any steam here. Why
11 not? Check this, check that. What's wrong with
12 this, what happened there? You know. So it was --
13 it went generally the way a regular trip would go.

14 MR. LANNING: You have been involved in
15 prior trips then?

16 JEFF MELEG: Yeah. Not only here at
17 Davis-Besse but other places too. It's just about
18 the same, you know, where everyone has stepped up
19 their level of anxiety somewhat.

20 CHRIS BURNS: I had just finished my
21 readings and went in the kitchen to get a cup of
22 coffee, and I heard, you know, the trip commencing
23 and some of the things that were going on.

24 So I went out into the control room to

1 tell them I was available if they needed, you know,
2 to dispatch somebody anywhere in the plant. And I
3 stood by until they told me where to go.

4 And it seemed to me that the way they
5 were conversing with each other, they would repeat
6 back things that they did, and it was similar to
7 like when I was on the submarine in the military,
8 it was, you know, they tried to keep things in
9 order and tried to keep the assistant shift
10 supervisor well informed of everything they did so
11 he would know. That's what it looked like to me,
12 because I had been in that position before in the
13 military.

14 MR. ROSSI: Okay. Do you two then, each
15 of you, could you just describe briefly the
16 atmosphere in the control room and what you
17 observed? I guess a couple of you may not have --
18 some of you weren't even in the control room at the
19 time, but describe, you know, what you know about
20 the general atmosphere.

21 MARK KLEIN: Well, when I was standing
22 there --

23 MR. ROSSI: There being?

24 MARK KLEIN: I was standing in front of

1 the PSat/TSat panel, right by that. And I was
2 watching the reactor operators. Brian Young was
3 over with the feedwater, Rick Walleman was over on
4 the primary side of the panel, and Steve Feasel was
5 behind the desk reading the procedure. And they
6 were calling out different statuses, conditions of
7 the plant and things they were trying to do or what
8 they were doing or not doing.

9 And everybody seemed a little bit excited
10 because things were going on, but seemed to know
11 what they were doing, as far as I could tell. And
12 they sent me -- then they sent me out to do the
13 jobs they needed done.

14 MR. ROSSI: Okay. Bob?

15 BOB MORRISON: I wasn't in the control
16 room.

17 MR. ROSSI: You weren't in the control
18 room.

19 MR. BEARD: May I ask another general
20 question?

21 MR. ROSSI: Sure.

22 MR. BEARD: I'm trying to understand
23 better your background; okay? When you come in as
24 an auxiliary operator and then growing through the

1 ranks of various grades of equipment operator, do
2 you go through a training or check-out process
3 where you checked out on certain systems and you
4 get your card signed off for that one, so to speak?

5 CHRIS BURNS: Yes, sir.

6 JEFF MELEG: Uh-huh.

7 MR. BEARD: Could you tell me, each of
8 you, whether or not you are signed off, so to speak,
9 on the aux feedwater system?

10 CHRIS BURNS: Yes, sir. I am.

11 JEFF MELEG: Yes.

12 MARK KLEIN: Yes.

13 BOB MORRISON: Yes.

14 MR. BEARD: Everybody is signed off on
15 aux feed water. Thank you.

16 MR. ROSSI: Why don't we return to Mark
17 Klein and Bob Morrison, you were the ones that went
18 to AF 599 and AF 608. And why don't you just start
19 and tell us -- start back with where you were at
20 the time you were dispatched to there and what you
21 did when you got there.

22 And for that, why don't we start with Bob
23 Morrison. Why don't you start and tell us where
24 you were and what you had to do to get to the

1 valves, and we are particularly interested in what
2 you can remember about the need for keys, the need
3 to go through key lock doors, and where you needed
4 keys, who had the keys. So just tell us what you
5 remember.

6 BOB MORRISON: Okay. I started at the
7 boiler. And I was paged by -- I don't remember now,
8 I think it was the assistant shift supervisor to go
9 to 599 and 608 and open them.

10 And as I moved toward them through the
11 turbine building and the auxiliary building, I knew
12 that they were locked valves, they could not be
13 operated manually without a key, and that concerned
14 me.

15 I wasn't sure what I was going to find
16 when I got down there. I was hoping that with this
17 call, that he would meet me there with the keys,
18 because the keys are administratively controlled so
19 only a Davis-Besse TBS supervisor can handle those
20 keys. They can not be issued to anybody else.

21 There are numerous locked doors between
22 where I was and the valves themselves that I had to
23 get through. That concerned me also, because I did
24 not have a set of keys with me. They are not

1 issued normally. They are only issued on an as you
2 need them basis.

3 I had a plastic card to get through the
4 card readers, but those have been known to snap and
5 fail.

6 MR. ROSSI: What do you mean by snap and
7 fail?

8 BOB MORRISON: Break.

9 MR. ROSSI: Thank you.

10 BOB MORRISON: If they were to break, I
11 would not be allowed access into that area then.
12 Those would remain locked.

13 MR. BEARD: Excuse me. I'm confused on a
14 point, Bob. Are you saying there were numerous
15 locked doors, and you are talking about keys. Are
16 there some doors you have to go through that you
17 would need the key for as a backup to your card
18 possibly failing?

19 BOB MORRISON: Yes.

20 MR. BEARD: Or are there doors you need a
21 key regardless of the card or independent of the
22 card?

23 BOB MORRISON: In this particular case
24 there were no doors that did not have a card reader

1 on them. There were two doors I had to go through
2 that had card readers on. Either one of those
3 doors, if my card had failed, I would not have
4 access to them.

5 MR. ROSSI: And you did not have the key
6 to go through the door had that occurred?

7 BOB MORRISON: No. So trusting
8 Providence, I headed for the room hoping that I
9 would meet him there with a key to the valve. If
10 not, I would have had to go back to the control
11 room and sign out one of these keys, one of the
12 keys for the doors. I still wouldn't have been
13 able to get a lock valve key.

14 I went straight there, I didn't have any
15 trouble with the doors that time. When I got there,
16 Mr. Klein was there with a lock valve key. He had
17 been issued a lock valve key.

18 MR. ROSSI: Okay. So he was already
19 there when you got to the valves, and you got to
20 one of the valves first, I guess?

21 BOB MORRISON: Yes. No. 4 penetration
22 was AF 599. We went to that valve first because
23 that was the closest from where I was, so logic
24 dictated I head for that one first.

1 MR. ROSSI: Okay. Why don't we switch
2 over to Mr. Klein there. And why don't you
3 describe where you were and describe the sequence
4 that you took up to the point where you met Mr.
5 Morrison.

6 MARK KLEIN: Okay. The supervisor told
7 me to come up with him over to his office. He
8 opened the lock valve cabinet and/or the cabinet
9 with the keys in it, handed me a lock valve key and
10 said, I authorize you to take this key, go down and
11 manually open AF 599 and AF 608.

12 So I repeated that back to him. And I
13 went through the doors down to No. 4 mechanical
14 penetration room and unlocked AF 599. And then he
15 showed up.

16 MR. ROSSI: Did you also have to go
17 through doors that were controlled by key cards to
18 get there?

19 MARK KLEIN: Right. I had to leave the
20 control room, I had to go into the RACA and I had
21 to go to No. 4.

22 MR. ROSSI: Did you have keys to go
23 through those doors had your card reader failed?

24 MARK KLEIN: No, I didn't.

1 MR. ROSSI: So if your card reader card
2 had failed, one of you would have had to go back to
3 the control room to get a key or you couldn't have
4 proceeded to the valves; is that correct?

5 MARK KLEIN: Correct. Except I wouldn't
6 have been able to get back into the control room
7 either, not if my card was broke.

8 BOB MORRISON: Neither one of us could.

9 MARK KLEIN: I would have to call to have
10 somebody let us in so I could have a key.

11 MR. ROSSI: Okay.

12 MR. BEARD: Along this line of getting
13 access, yesterday when we had a plant tour, it
14 seemed as though we went through a rad control
15 point. Is that -- am I remembering right? You
16 would go through a rad control point to get to
17 these penetration rooms?

18 BOB MORRISON: Yes, sir.

19 MR. BEARD: Okay. You folks, as an EO,
20 you were traveling in a different situation than we
21 were as visitors, but could you give me some feel
22 for what your obligations or responsibilities on a
23 normal basis or during this emergency were with
24 respect to this rad control point?

1 BOB MORRISON: We would have to do all
2 the same things you did.

3 MR. BEARD: Does that mean sign in, get
4 badges?

5 BOB MORRISON: We already have the
6 permanent badges issued at the gatehouse. You
7 picked up a batch --

8 MR. BEARD: Had a TLD?

9 BOB MORRISON: Those are issued at the
10 gatehouse to us.

11 MR. ROSSI: Rather than leading him, why
12 don't you just tell us what you had to do on the
13 day of the event to get past there.

14 MR. BEARD: Thank you.

15 BOB MORRISON: The first thing we do at
16 turnover before we take the duty is to meet in that
17 area and sign into that area, so we are already
18 logged into that area so we can move through that
19 area without delay.

20 MR. BEARD: I see.

21 BOB MORRISON: But I mean, we still have
22 to meet the same requirements and we had to go
23 through the same procedure you did.

24 MR. ROSSI: But not on your way down
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1 there. At the time you were headed there --

2 BOB MORRISON: Exactly.

3 MR. ROSSI: -- you were previously
4 authorized and had done whatever was required to go
5 past that control point?

6 BOB MORRISON: Right.

7 MR. ROSSI: Okay. Fine.

8 MR. BEARD: The point I was trying to get
9 to, there was no delay at that point either?

10 BOB MORRISON: No.

11 MR. BEARD: Okay.

12 MR. ROSSI: Okay. Now -- I'm sorry,
13 Larry.

14 MR. BELL: Can you call the guards if
15 your card was to fail and could they not open the
16 door for you?

17 BOB MORRISON: Yes, sir. You could call
18 the guards. It's easier to go get the key.

19 MR. BELL: It takes longer to call a
20 guard and have him open that door from the CAS than
21 it is to go back up and get a key?

22 MR. ROSSI: Somebody wants to speak. Go
23 ahead.

24 CHRIS BURNS: We are not sure where the

1 guards come from. So I'm not sure if they come
2 from PPF or --

3 MR. BELL: They can't open this door
4 remotely?

5 CHRIS BURNS: No, not that I know of.

6 BOB MORRISON: If that's in safeguards
7 information, we are not aware of it. We have never
8 seen it before.

9 CHRIS BURNS: They have never done it for
10 me.

11 MR. BEARD: So the guard has got to find
12 the door and then use his key.

13 CHRIS BURNS: As far as I know.

14 BOB MORRISON: If you want to go that
15 route, if you wanted to secure the guard.

16 MR. BELL: Okay. That's fine. I found
17 out what I need to know.

18 MR. ROSSI: So I think that Bob Morrison
19 and Mark Klein have now met at AF 599, and Mark, I
20 think you said that by the time Bob arrived, you
21 had unlocked the valve.

22 MARK KLEIN: Right.

23 MR. ROSSI: Why don't you just proceed
24 and tell us what the two of you did. Did the two

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1 of you stay at 599 together or did you split up?

2 MARK KLEIN: We stayed together.

3 MR. ROSSI: Fine.

4 MARK KLEIN: Just as he got there, the
5 valve -- I am pretty sure it was already coming
6 open. I turned it about a half a turn or so in the
7 open direction. I felt the pressure and I started
8 to open it. Then I heard the motor pick up and it
9 started opening. So I sat back, and the motor
0 opened the valve the rest of the way.

1 MR. ROSSI: Okay. Now, could you
2 describe what you remember about what you had to do
3 to open the valve? I believe there is a lever that
4 controls the clutch and there is a hand wheel.
5 Tell us what you had to do, and include things like
6 whether the lever is spring-returned to its normal
7 position or not. Just tell us what you remember.

8 MARK KLEIN: Okay. I had to pull down
9 the lever to engage the hand wheel, and then I
0 turned the hand wheel maybe a quarter of a turn.
1 Then I let go of the lever, and it was standing in
2 the way; I couldn't get good leverage. So I turned
3 the hand wheel back a little bit to give me room,
4 then I opened it another quarter of turn.

1 Then when I turned the hand wheel back in,
2 I heard the motor start. It went open; all I had
3 to do was lock the hand wheel back up and proceeded
4 to the other valve.

5 MR. ROSSI: So the lever returns to its
6 normal position when you let up on it?

7 MARK KLEIN: No. No, it didn't, not when
8 I let up on it. But when the motor took over, it
9 apparently picked that up. The hand wheel didn't
10 turn or anything when the motor was opening the
11 valve.

12 MR. ROSSI: The hand wheel did not turn
13 when the motor was opening the valve?

14 MARK KLEIN: No, it didn't.

15 MR. ROSSI: But you heard it --

16 MARK KLEIN: I heard it moving, then I
17 saw the stem rising.

18 And at that point then, both of you
19 proceeded to the other valve?

20 MARK KLEIN: Right.

21 MR. BEARD: I would like to understand a
22 little more about this clutch lever, and I
23 understand that when the lever is down, is there
24 then at that point both manual control and it can

1 respond to say automatic external signals? Or
2 what's the situation on that?

3 MARK KLEIN: I'm not exactly sure how it
4 works inside.

5 MR. BEARD: I'm just thinking from an
6 operator's point of view, if you have got that
7 lever pulled down, have you got the only control of
8 that valve with the hand wheel or are there other
9 things that control that valve?

10 MARK KLEIN: I'm pretty sure I was the
11 only one that had control of it. Because it wasn't
12 until I was releasing it that I heard the motor --
13 that I heard the motor turn the valve.

14 MR. BEARD: You released the clutch?

15 MARK KLEIN: I did not release the clutch.
16 I was not holding on to the hand wheel to open it.
17 I don't know whether I had control or not. The
18 hand wheel wasn't turning, so I assume it wasn't
19 engaged with the valve at the time.

20 MR. BEARD: Did you hear noises?

21 MARK KLEIN: I heard a little bit of a
22 rattling noise inside. I think it was just the
23 motor starting up and engaging with the valve at
24 the point where it engages with the valve.

1 MR. BEARD: Do you have any idea or do
2 you remember any reason or do you have any
3 explanation as to why the valve should start
4 turning on its own?

5 MARK KLEIN: From what I was thinking at
6 the time was that there was -- I was under the
7 impression they had torqued out trying to open.
8 And I was under the impression that the switch
9 reengaged once I opened the valve to a certain
10 point and took over.

11 MR. BEARD: So are you saying that there
12 was some previous automatic or manual signal from
13 the control room --

14 MARK KLEIN: Right. There was an open
15 signal to the valve.

16 MR. BEARD: Thank you.

17 MR. ROSSI: Okay. So now --

18 MR. LANNING: Bob wanted to add something
19 to this.

20 BOB MORRISON: The valve operated
21 normally. The noise we heard was the fingers from
22 the hand wheel disengaging when the motor turns on,
23 it -- if you have got it in manual, it will kick it
24 out. That's what disengages the clutch.

1 I'm sure they can show you an example
2 over there. You can put them into manual, but you
3 can't override the motor. And then you take the
4 hand wheel and take up any slack and put pressure
5 on it.

6 In this case, once you broke it free from
7 the seat a little bit, I'm sure what happened was
8 the torque switch mated again and the motor started
9 and it kicked the fingers, the manual fingers out,
10 and it will override the clutch and it will push
11 the clutch back up.

12 And without some kind of a -- you can't
13 hold it down. You don't have enough strength to
14 hold down on the handle. You don't have enough
15 leverage to hold it into manual to override the
16 motor. The motor will kick it out.

17 MR. BEARD: So if you wanted to do
18 something on the valve, on that valve as an
19 operator, you would have to find -- for your own
20 safety, you would have to find some way to disable
21 that motor action that could come from some other
22 signal, wouldn't you? How would you do that if you
23 went down there to do something in a repair action
24 so somebody at a different place in the plant

1 didn't cause that motor to take off while you got
2 your fingers in it?

3 BOB MORRISON: I don't know the situation.
4 If you are going to work on a valve, they open a
5 breaker and safety tag it out.

6 MR. BEARD: Okay.

7 BOB MORRISON: And if you were operating
8 at the time and somebody sent a signal and got an
9 automatic signal to change directions on your takeover,
10 all it does is disengage the clutch and it doesn't
11 turn, so you couldn't get your fingers caught, or
12 if you are into a position with a wrench on it, it
13 wouldn't turn against the wrench.

14 MR. ROSSI: So the two of you now have
15 599 or it's primarily Mark Klein, I guess, had 599
16 essentially working by the time you got there; is
17 that correct, Bob?

18 BOB MORRISON: I got down there in time
19 to see it put pressure against the hand wheel, then
20 I heard the motor start. You can't really hear the
21 motor start; you could hear it start because of the
22 clutch disengaging. The fingers were interfering --
23 the fingers were becoming disengaged.

24 So I stayed there with him; you know,

1 watched it open, it only took a second, to make
2 sure if it had stalled out again and he needed help
3 opening it manually, because the thing is 177 turns
4 from shut to open. It's a long-winded valve and
5 it's really tough to get to. It's really difficult
6 to operate in manual. I stayed with him. Besides
7 he had the key.

8 MR. ROSSI: Did you stay and watch it
9 until it was all the way open?

10 BOB MORRISON: Yes, sir.

11 MR. ROSSI: Until it was all the way
12 opened you stood and watched it. How hard was it
13 to turn the hand wheel when you first had to turn
14 it? Just describe as best you can in your own
15 words and compare it to other things you have done,
16 if you like?

17 MARK KLEIN: It was about as hard as any
18 valve that's shut against some kind of pressure.
19 It wasn't -- it didn't act like it was stuck or
20 anything. It was just tight.

21 MR. ROSSI: Okay. So now you then
22 proceeded to the other valve, AF 608?

23 MARK KLEIN: Right.

24 MR. ROSSI: The two of you together went

1 to AF 608?

2 BOB MORRISON: Yes.

3 MR. ROSSI: Could you as best you can
4 describe how far away 608 is from 599 and whether
5 it's on the same level or not?

6 MARK KLEIN: It's on the same level.
7 It's just down the hallway a good forty or fifty
8 feet I would say down to the next door, to number
9 three mechanical penetration room. You have to go
10 through a card reader to get into there.

11 MR. ROSSI: You needed another card
12 reader at this point to get to the other valve?

13 MARK KLEIN: Then when we were in transit
14 there, they paged me over the phone. Since I had
15 the lock key, he answer it for me. Then the guard
16 came and said we alarmed a door.

17 Sometimes if you don't hold the door shut
18 or if you don't shut it in time or you don't push
19 the bypass button on leaving the rooms so you don't
20 have to use the card, you can use the bypass button
21 and it just releases the alarm, and if you don't
22 push that before you open the door, if you are in a
23 hurry and do it at the same time and you are not
24 close enough, you get an alarm. And the guard was

1 trying to question us.

2 MR. ROSSI: Where was the guard? Was he
3 there at the door at this time?

4 MARK KLEIN: Right.

5 MR. ROSSI: He was there, and he
6 questioned you. Go ahead and describe that?

7 MARK KLEIN: Well, he told us that we got
8 the alarm. We said, Yes, we know. We are doing
9 something important now.

10 And so he didn't detain us any more.
11 Just took down -- he knew who we were and just took
12 down information. He told us later he wrote a
13 report on it.

14 MR. ROSSI: Okay. Fine. So continue.
15 You both --

16 MARK KLEIN: He answered the phone for
17 the page for me. He answered the phone, and we
18 went into the room. He answered the phone and I
19 went right to the valve and unlocked it and started
20 opening -- it reacted the exact same way as 599.

21 MR. ROSSI: You stood there and watched
22 it open all the way?

23 MARK KLEIN: Right. And then after it
24 was opened all the way, I watched the stem rise all

1 the way and I watched the open lights come on.

2 MR. ROSSI: Are there local open lights
3 there to tell you that the valve is all the way
4 open?

5 MARK KLEIN: Yes.

6 BOB MORRISON: There is also open push
7 buttons, but they are also locked up.

8 MR. ROSSI: Did you have the keys for
9 those?

10 BOB MORRISON: They would have been the
11 same key that you take the chain off.

12 MR. BEARD: What was the nature of the
13 page you answered?

14 BOB MORRISON: That was the one they
15 directed me to the aux feedpump room.

16 MR. ROSSI: So you were called and asked
17 to go to the aux feedpump room at this point in
18 time?

19 BOB MORRISON: Yes.

20 MR. ROSSI: After you had finished with
21 608?

22 BOB MORRISON: Right.

23 MR. ROSSI: They said after you are done
24 with 608, go to the aux feedwater pump room, or did

1 they tell you to go right then?

2 BOB MORRISON: I don't recall. I don't
3 recall.

4 MR. ROSSI: Okay.

5 BOB MORRISON: I remember I wouldn't have
6 left 608 until I knew it was open.

7 MR. ROSSI: Fine. But both of you were
8 there, you watched 608 open, and then tell us where
9 you went after that?

10 BOB MORRISON: Came out of the room, and
11 that's when we met the guard. He was responding to
12 the door alarm. He just mentioned we had failed
13 one of the doors. And then the next night he told
14 me he wrote a SIR, a security incident report.

15 MR. ROSSI: Okay. Let me clarify one
16 thing. You did not meet the guard on the way to
17 valve 608, you met the guard from 608?

18 BOB MORRISON: I am pretty sure --

19 MARK KLEIN: That was when we were
20 leaving No. 4.

21 BOB MORRISON: I think No. 4 is when we
22 violated the alarm and he was --

23 MARK KLEIN: And he was in the hallway.

24 BOB MORRISON: I recollect it on the way

1 out.

2 MR. ROSSI: And you recollect it on the
3 way in?

4 MARK KLEIN: I recollect it between the
5 two valves.

6 MR. ROSSI: Okay. I'm sure that is
7 something that can be sorted out from the guard if
8 we really need to know.

9 BOB MORRISON: I would like to make a
10 point. He didn't detain us.

11 MARK KLEIN: He didn't.

12 BOB MORRISON: There wasn't any delay
13 there.

14 MR. BEARD: Could I ask a question at
15 this point? It seemed like at this point, you
16 fellows have both been dispatched from your
17 respective areas and you have gone to these two
18 valves that were important to the event, and you
19 got them open. You were beginning to leave and,
20 like you said, Bob, you were being sent on to the
21 aux feed room?

22 BOB MORRISON: Uh-huh.

23 MR. BEARD: Could you give us some feel
24 for the total time involved from the time you were

1 dispatched to the point both valves were open and
2 to what extent you were, say, running or really
3 hustling or were you walking? Can you give us some
4 feel for that part of it?

5 BOB MORRISON: There was no delay. I was
6 moving as quickly as I could with the idea that I
7 didn't want to snap that badge because that was my
8 only ticket through that plant. As a senior
9 equipment operator, if I snap that badge, I might
10 as well have gone home.

11 I was moving as quickly as I could, with
12 the knowledge if I run into one of those seismic
13 restraints they have all over the building, I would
14 have laid there until day shift, until they could
15 have assembled the First Aid team.

16 I was moving as quickly as I could, with
17 all due knowledge of what could happen with the
18 consequences. We were on a dead run when we could
19 down the hallways where there is some room and
20 through the areas, the openings we ran as fast as
21 we could. But it was with -- you know, we tried to
22 use as much prudence as we can.

23 MR. BEARD: Could you give me a sort of
24 feel for time? I realize if you are running, it's

1 hard to judge it. But do you have any feel for
2 what time was involved? One minute, ten minutes,
3 anything like that?

4 BOB MORRISON: From my first card at the
5 rad waste panel, I moved to the boiler, and from
6 there I moved to both valves and down the aux
7 feedpump room, and I did that all in eight minutes.

8 MR. BEARD: You did that all in eight
9 minutes?

10 MR. ROSSI: Do you have some way of
11 knowing it was eight minutes?

12 BOB MORRISON: I requested I see the door
13 alarms, because I had to check in. When the
14 incident started, when it tripped, I was in No. 1
15 ECCS room, and I would have been logged into that
16 area. From there I went directly to the rad waste
17 panel which is on that same elevation, and we a few
18 months ago, gees, actually it's been out a couple
19 of years, but they clarified a special order that
20 says we are not supposed to be in the control room
21 normally and we are not supposed to report to the
22 control room unless you are called to the control
23 room. So we are supposed to stay at our station.

24 Well, that's where I went for two reasons.

1 Well, one, because of the special order; another
2 was that at that rad waste panel, that was my area
3 that night, that was my area or zone of
4 responsibility.

5 I also had communications down there,
6 telephone and Gaitronics. Anywhere else in the
7 plant, there is places in the plant where it gets
8 noisy enough it's difficult to hear, so there was
9 no sense in leaving that area. And because that
10 was my zone, I felt if they were going to need me,
11 it would be down in that area.

12 So when I heard the first page to go to
13 the aux boiler, that was rather an odd request. We
14 don't normally need the aux boiler. I believe it
15 was about six minutes into the transient. We don't
16 normally need the aux boiler that soon after a trip.
17 Usually it's -- if you get it up a couple hours
18 after the trip, you are doing good. So all the way
19 to the -- and besides, I didn't understand why I
20 was being sent to the aux boiler. I didn't
21 question it; I just headed for the aux boiler, but
22 I was in the opposite building.

23 But it was -- it took me a while to get
24 to the aux boiler. And on the way over there, I

1 realized that something had to be out of normal. I
2 didn't know what yet, but then when I got the call
3 from the -- when I was at the aux boiler and I got
4 the call to open 599 and 508, I knew this wasn't a
5 normal transient. So at that time I was on a dead
6 run then for the rest of the evening.

7 MR. BEARD: Could I follow that one point?

8 BOB MORRISON: Sure.

9 MR. BEARD: This is a question I already
10 planned to ask. What was it that gave you the
11 perception that this was not a routine situation?
12 Was it because horns and bells were going off in
13 the plant, or was it because of the tone of voice
14 or did the operator that phoned you say the plant
15 and turned itself into soft brown peanut butter and
16 we are in trouble? How is it you became aware that
17 this is not a routine situation?

18 BOB MORRISON: There is no indications
19 through the plant of anything that's happening in
20 the control room other than noises, and that far
21 down in the building we couldn't hear the Main
22 Steam Isolation Valves go closed, I couldn't hear
23 the safeties lifting, but I could hear a trip.
24 There is a definite thud when it turned around.

1 And for the first six minutes, I sat down
2 at the rad waste panel, I didn't think anything was
3 abnormal, although I had no communication with the
4 control room. I didn't expect any. Normally you
5 don't really need anybody except just to clean up
6 some of the, you know, maybe you start blanketing
7 steam or the aux boiler later on or some of the
8 things later on in the transient, a normal
9 transient.

10 Like I said the first indication I had
11 when something wasn't normal was the request I
12 start the boiler. There wasn't a great deal of
13 urgency, but it was -- I didn't question it; I just
14 headed for it.

15 And on the way over there, I realized
16 they must have lost main steam. I realized it
17 wasn't a normal transient, but I still didn't -- I
18 had no idea there was going to be anything real
19 serious. It was just an odd request.

20 So I got to the aux boiler, and then when
21 I got the call to open 599 and 608, I knew things
22 weren't going real well, but I didn't know -- I
23 didn't know any further than that. I just knew it
24 wasn't a normal transient. The safety systems

1 don't fall like that in parallel.

2 MR. ROSSI: At one point in time we were

3 talking about the time it took you to go from one

4 place to another place, and I believe you said it

5 took eight minutes to go from one place to the

6 other, and then you indicated that later you had

7 looked at the security information -- door

8 information?

9 BOB MORRISON: I requested it and I never

10 got it. I was hoping to have that before we met.

11 MR. ROSSI: So that's one thing I wanted

12 to clarify. The about eight minutes --

13 BOB MORRISON: Is about eight minutes.

14 MR. ROSSI: That's your estimate of the

15 eight minutes and it's not based on what you found

16 out from door computer door information?

17 BOB MORRISON: Exactly.

18 MR. ROSSI: It's just your estimate of

19 the best you remember. And that was to go from

20 where to where?

21 BOB MORRISON: I went over the alarm

22 summary sheet and I just took the time from when

23 the aux boiler was reset, and it shows in here that

24 it was reset, and that tells me that's when I

1 pushed the button at the aux boiler, and to get
2 there probably didn't take a minute and a half,
3 maybe a minute from where I was at the rad waste
4 panel, and then to get back to 599 and 608, like I
5 said, I didn't have any trouble with the card
6 readers and the guards didn't detain me. But there
7 was always that potential I can be delayed easily
8 with a broken badge or whatever.

9 So I was able to move through the
10 building fairly easy that night, but there was
11 always a potential of getting stoped somewhere.

12 MR. ROSSI: Is the eight minutes from the
13 aux boiler to 599, is that the eight minutes --

14 BOB MORRISON: No. It would probably be
15 a minute from the rad waste panel to the aux boiler,
16 probably another minute back to 599, and then
17 thirty seconds down to 608, and then another minute
18 back to the aux feedpump room. Some delay in
19 between as we watched the valves open.

20 MR. BEARD: So the times, you would have
21 given the travel times, not the times you would
22 stay at the valve hoping it -- just roughly --

23 BOB MORRISON: Yeah.

24 MR. BEARD: -- that's travel time?

1 MR. ROSSI: Do you now know why you were
2 sent to the aux boiler? What was the reason you
3 were sent there?

4 BOB MORRISON: As it turned out, I don't
5 believe we used it, but the main steam isolations
6 going shut, which I understand they shouldn't have,
7 we lost our main steam to auxiliary steam, and
8 that's how we maintain our vacuum, and that's how
9 we maintain our steam seals.

10 And I felt that it was just a prudent --
11 they wanted to maintain the vacuum. I don't
12 believe they were looking ahead to shutting down or
13 going to Mode 5 or anything. I think they felt,
14 maybe somebody felt they could get the MSIVs open
15 again, get some kind of control with main steam. I
16 don't know. I didn't really look at that. It was
17 just a request.

18 MR. ROSSI: Let's go back to where you
19 were both at auxiliary feedwater valve 608, and
20 start there and then tell us where you went from
21 there?

22 MARK KLEIN: I went back up to the 15139
23 control room in case they needed me for anything
24 else. And while I was up there, I noticed they

1 were having problems getting the aux feedpumps to
2 run. So I went down to the aux feedpump room to
3 see if they needed any help there.

4 MR. BEARD: Were you directed down there
5 by an individual?

6 MARK KLEIN: I just went down there on my
7 own.

8 MR. ROSSI: And again to go back to the
9 control room and down to the auxiliary feed water
10 pump room, you had another series of key cards?

11 MARK KLEIN: Just the control room doors.

12 MR. ROSSI: Just the control room doors?

13 MARK KLEIN: Right. The aux feedpump
14 room has a lock on it. It was unlocked at the time
15 they were down there.

16 MR. ROSSI: There were already people in
17 the aux feedwater pump room when you got there?

18 MARK KLEIN: Right.

19 MR. ROSSI: Who was there when you got
20 there?

21 MARK KLEIN: Jeff Patton -- or Jeff Meleg,
22 Chris Burns was there, and I believe Bob Morrison
23 was there.

24 MR. ROSSI: Okay. Bob, why don't you

1 tell us what you did after you left valve 608?

2 BOB MORRISON: I went straight to the aux
3 feedpump room again knowing I needed a key to get
4 in there, but hopefully these people in that part
5 of the plant would have keys if they had the keys
6 assigned to them that night.

7 When I got there, they were already
8 there. The hatch was open and I went downstairs,
9 and they already had the one water tight door open
10 to No. 1 feedpump. That is the furthest one. So
11 it was already opened up, but --

12 MR. ROSSI: Who do you remember being
13 there when you got there?

14 BOB MORRISON: Just these two, Mr. Meleg
15 and Mr. Burns.

16 MR. ROSSI: Okay. So first we had the
17 three of you in the auxiliary feedwater pump rooms,
18 and then eventually all four of you got there?

19 BOB MORRISON: Mr. Feasel showed up then
20 also.

21 MR. ROSSI: And Mr. Feasel showed up?

22 BOB MORRISON: Yes. He come down to
23 start up the start feedpump.

24 MR. ROSSI: Okay. Now maybe is a good

1 time to go back to these two and let them tell us
2 where they start and what they did to get the
3 auxiliary feedwater pump room -- is that -- why
4 don't you start and tell us where you were at the
5 start and what you did to get there and tell us
6 about keys and key card doors and problems you had
7 in getting there?

8 CHRIS BURNS: I was in the kitchen right
9 behind the control room getting a cup of coffee,
10 and I heard the trip. So I made myself available
11 to them to send me wherever they wanted.

12 So we wasn't in there very long, the
13 lights come on for the aux feedpump turbines,
14 overspeed trip. I saw that and I knew then that
15 since that was part -- that was in my zone area,
16 that I would probably be sent there.

17 And Mr. Wallemann dispatched me to the aux
18 feedpump room. He was standing right next to me,
19 so we took off for the aux feedpump room.

20 STEPHEN BURNS: By he, you are referring
21 to Jeff Meleg?

22 CHRIS BURNS: Yeah. From the control
23 room to the aux feedpump room, you only need one
24 key because there is a breaker door. If you are in

1 the control room you can get out without a key card,
2 but the aux feedpump room does have a sliding
3 grating door and there is a lock attached to it.

4 MR. ROSSI: It's a padlock?

5 CHRIS BURNS: It's a padlock, and the
6 only way in there is with a key.

7 MR. ROSSI: Did you have that key with
8 you at the time?

9 CHRIS BURNS: Yes, I had the key with me,
10 because normally on my readings -- I have to take
11 readings -- several readings are behind locked
12 doors with just locks on them. So I usually, if I
13 have this part of the zone, I check out a set of
14 keys at the beginning of the shift.

15 MR. ROSSI: So the two of you proceeded
16 more or less together to the auxiliary feedwater
17 pump room.

18 CHRIS BURNS: We were maybe ten feet
19 apart at the most, and that was going down the
20 stairs.

21 MR. ROSSI: And could you give us sort of
22 a description of like how many stairways you have
23 to go down? I mean, what you can remember and the
24 process of getting to the auxiliary feedwater pump

1 rooms?

2 CHRIS BURNS: We were on the 623 level.
3 That's the control room.

4 MR. BELL: Which is how many floors above
5 ground level?

6 CHRIS BURNS: Three floors. So we went
7 down three flights of stairs to get down to the 535
8 level. We ran to the aux feedpump room.

9 By this time I had tossed him the keys
10 because he was way in front, ten feet in front of
11 me. I figured by the time he got the door unlocked,
12 because you have to slide it open, he could have it
13 opened by the time I got there.

14 MR. ROSSI: So you tossed the keys to him?

15 CHRIS BURNS: Yes. And he had the door
16 open and was in the process of sliding it back when
17 I jumped on top of it and helped him push it back.
18 That left me in front, and I walked down the stairs
19 into the aux feedpump room. And he was at arm's
20 length behind me.

21 MR. BELL: Did you walk or did you use
22 the handrails to jump and slide?

23 CHRIS BURNS: I used the handrails, and
24 those steps were kind of short there. I didn't

1 want to slide because there are things that will
2 catch your hands on the way, and I have got them
3 caught before.

4 So I went down quickly, but there is a
5 place where it turns and you have to take your hand
6 off the rail because there is no rail there.

7 STEPHEN BURNS: Those steps are almost
8 the incline of a stepladder, aren't they?

9 CHRIS BURNS: Pretty close.

10 MR. ROSSI: But you can go down them
11 frontwards; you didn't have to turn around? You
12 went down frontwards?

13 CHRIS BURNS: Yes, sir.

14 MR. ROSSI: Describe however you want to
15 give a flavor of what the steps were like. Go
16 ahead and tell us what you think of the steps.

17 CHRIS BURNS: I think that --

18 STEPHEN BURNS: The other Mr. Burns?

19 CHRIS BURNS: -- the other Mr. Burns
20 described it properly. If you don't get on a step,
21 you can slip very easily.

22 So I got down to the bottom of the
23 stairway, and No. 1 aux feedpump is behind a door
24 with a big hand wheel on it; it's an alarm door. I

1 went to it and opened it, because Mr. Meleg was
2 right behind me. He could go to No. 2, which he
3 would not have to open a door. We would have to
4 open a door anyway to get to No. 1. So I opened
5 the door.

6 MR. ROSSI: Okay. Now, did each of you
7 go to a different pump then at this point?

8 CHRIS BURNS: Yes, sir.

9 MR. ROSSI: Okay. And Mr. Burns, you
10 went to --

11 CHRIS BURNS: No. 1.

12 MR. ROSSI: No. 1 pump. And Mr. Meleg,
13 you went to No. 2 pump?

14 JEFF MELEG: No. 2.

15 MR. ROSSI: Maybe we ought to switch over
16 to Mr. Meleg. Do you have anything you want to add
17 to the description of the two of you going to the
18 auxiliary feedpump rooms, difficulties you had or
19 details you remember or any of that kind of thing?

20 JEFF MELEG: Okay. I remember when Chris
21 and I was first dispatched from the control room
22 that I didn't know what I was going to find in the
23 aux feedpump room. I just didn't know. And like I
24 said earlier, that the print of the aux feed system

1 came to my head, and I was trying to figure out why
2 we weren't getting steam down there or what was the
3 problem.

4 So as we are making haste getting out of
5 the control room, while I was taking the steps
6 three or four at a time -- I guess I'm a little
7 thinner than Chris so I can move faster. He had
8 the keys at the time, so as I was going down the
9 steps, he said, here, take these, and he threw me
10 the keys. And then I hauled ass and got down there
11 and unlocked it.

12 Like he said, he was just a foot ahead of
13 me as we were going down there. Instantly you
14 could tell whether the aux feedpump tripped
15 throttle valve is tripped or not.

16 MR. ROSSI: You were the one who actually
17 opened the door to the auxiliary feedwater pump
18 room, weren't you, Mr. Meleg?

19 JEFF MELEG: Right, with his keys. So
20 that was the first thing.

21 Now, when I left the control room, I was
22 under the impression they didn't know why we were
23 not getting steam. So in order to keep the control
24 room informed -- and this is something that me and

1 Rick Walleman and Brian Young just do. Whenever I
2 go out and I see something, I always call back
3 immediately. That way they know, because I didn't
4 know if they were dispatching people all over the
5 place looking for gremlins. I didn't know.

6 So since I saw the trip throttle valve
7 was tripped, right off the bat I said, It's not
8 getting any steam because of this. So I undid the
9 little lock wire.

10 MR. ROSSI: This is aux feedpump now --

11 JEFF MELEG: No. 2. There is a lock wire
12 on the hand wheel -- not a lock, but a lock wire --
13 and I undid the little latch on it and latched it
14 back up while Chris was getting the water-tight
15 door open.

16 MR. BEARD: Were you not aware of when
17 you left the control room that the pump had tripped?
18 You thought it was a loss of steam situation?

19 JEFF MELEG: It was a loss of steam other
20 than a trip. I didn't know that, and I didn't know
21 if the control room knew it tripped. So I wanted
22 to go call them immediately as soon as I got it
23 relatched to tell them right off the bat, Hey, it's
24 the tripped throttle valve, so if you want to send

1 some people down here or do whatever, this is the
2 problem.

3 MR. ROSSI: But before you did that, you
4 latched the trip throttle valve.

5 JEFF MELEG: Okay. I undid the lock wire
6 and you have to move the hand wheel in the
7 counter-clockwise direction -- or the clockwise
8 direction and your latching mechanism will come up
9 and it will relatch with the barchan from the trip
10 mechanism. So when I did that, I still wasn't
11 getting any steam. It still wasn't open yet.

12 So then I stopped for some reason or
13 other and Chris had already gotten the No. 1
14 feedpump rotating about fifteen hundred, two
15 thousand rpm?

16 CHRIS BURNS: No.

17 JEFF MELEG: It wasn't that fast yet?

18 CHRIS BURNS: It wasn't rotating at all
19 at that time.

20 JEFF MELEG: That must have been a little
21 bit later.

22 But I tried calling on the phone to tell
23 the control room. That was my first concern; that
24 way they would know what's going on down here.

1 Well, the phone wasn't working. It was
2 cutting in and out, and as I was trying to strain --
3 the cord is only this long, and I was pulling it --

4 MR. ROSSI: Did you use the phone that's
5 like a normal phone or did you use a headset?
6 Which did you use?

7 JEFF MELEG: No, a regular phone. The
8 phone that was attached --

9 MR. ROSSI: The regular handphome?

10 JEFF MELEG: And it was cutting in and
11 out and I was -- they were saying, Say again, go
12 again, say again, what are you doing, what are you
13 doing? They were cutting in and out and the
14 communications was real bad. And I wanted them to
15 know that the trip throttle valve was tripped.

16 Well, by this time, Bob Morrison was
17 there, and him and Steve Feasel were looking at the
18 trip throttle valve. And Steve said, Well, the
19 valve isn't open yet. So then they took it back
20 the other way, and it opened the stem of the valve.

21 So I was on the phone while they were
22 physically opening the valve.

23 MR. BEARD: Can you explain something to
24 me. When you -- after you had broken this seal

1 wire and then you cranked down on it and reengaged
2 the long shaft rod you are talking about, at that
3 point, should the trip valve have reopened?

4 JEFF MELEG: No. That was just relatching
5 the mechanism. Then you have to take the hand
6 wheel in the other direction.

7 MR. BEARD: And then open the valve?

8 JEFF MELEG: To open the stem, to open
9 the seat.

10 MR. BEARD: Then you should have flow?

11 JEFF MELEG: You should have steam then
12 up to the governor.

13 MR. BEARD: Had you reopened it?

14 JEFF MELEG: Not much.

15 MR. BEARD: What I'm trying to understand
16 is was the reason that you couldn't get it to work
17 because of some malfunction in the trip mechanism
18 or because it hadn't been reopened yet, or what was
19 it that Steve Feasel seemed to be conveying to you?

20 JEFF MELEG: That the valve position on
21 the stem, you can only see about maybe an inch or
22 about three inches on the stem and the lighting is
23 very poor. And it's hard to, you know, with all
24 the things going on, to notice a movement of two

1 inches down in the dark section of the valve. So
2 Steve was the one that picked that up.

3 CHRIS BURNS: I don't even think it moves
4 two inches. I'm not sure, but it doesn't move very
5 much.

6 JEFF MELEG: It doesn't move very far.

7 CHRIS BURNS: The valve itself.

8 MR. BEARD: Was that because of some
9 malfunction or because you hadn't turned it open
10 enough? What was the cause of that, as far as you
11 are aware?

12 JEFF MELEG: As far as I know, I really
13 don't remember whether the valve tripped again or
14 whether I didn't open it far enough, because I know
15 those aux feedpumps rotate at a very high speed and
16 it was going in the back of my mind that we were
17 having problems with things pulling hangers out of
18 the wall, and I knew we had a lot of pressure in
19 the steam generators and I was really kind of leary
20 about blasting that turbine with a big chunk of
21 steam.

22 So I really am not that familiar with
23 operating the valve manually under this type of
24 condition.

1 MR. BEARD: I understand.

2 JEFF MELEG: So I was leary.

3 CHRIS BURNS: We don't normally operate
4 the turbine with the trip throttle valve.

5 JEFF MELEG: Yeah, with the trip throttle
6 valve. So I was trying to be safe about it,
7 because if there was something I did not know about
8 the valve, I didn't want to go ahead and blast it
9 with nine hundred pounds of steam.

10 So this all occurred in a very short
11 period of time by the time Steve and Bob got back
12 down there and I was still trying to communicate
13 with the control room. It was cutting in and out
14 and it was a very frustrating thing to try to do.

15 MR. BEARD: So at this point then, Steve
16 Feasel and maybe some others indicated, Bob
17 Morrison here indicated the valve hadn't reopened.
18 Then what did you do? You say you twisted it by
19 hand?

20 JEFF MELEG: They did. And now I guess
21 Mark came down and he was just like standing by
22 looking around and seeing if he could notice
23 anything to where he could help.

24 MR. BEARD: Thank you.

1 MR. ROSSI: Now, why don't we go back to
2 you, and describe what you did with auxiliary
3 feedwater pump one. I think we left you at the
4 door to the room?

5 CHRIS BURNS: I opened the door and went
6 in the room, and I noticed that the trip throttle
7 valve had tripped. So I took the lock wire off,
8 the same thing he did, and reset it. When it went
9 to the open position on the trip throttle valve, it
10 took it until it stopped. And I figured the trip
11 throttle valve was open. I looked at the rpm
12 indication, and it indicated zero and I heard no
13 steam noise.

14 MR. ROSSI: Let me go back a minute. The
15 first thing you did was you had to crank the valve
16 all the way closed; is that correct?

17 CHRIS BURNS: Right.

18 MR. ROSSI: The hand wheel to the closed
19 position, and then it is supposed to latch. And
20 then you turn it back again?

21 CHRIS BURNS: I had trouble with the
22 latch staying latched.

23 MR. ROSSI: So you were at the closed
24 position and tried to latch it, and you had trouble

1 getting it latched. Go ahead and describe it.

2 CHRIS BURNS: I had to manually hold the
3 latch while opening the valve. I held the latch to
4 make sure it would connect because the latch is
5 only -- it's got a very small surface space for it
6 to latch.

7 JEFF MELEG: Quarter inch.

8 CHRIS BURNS: Quarter inch or less. And
9 you know, I wanted to make sure it was going to be
10 latched. And when I first reset it, it just didn't
11 catch on it.

12 So I held it, and then I opened it up as
13 far as it would go, and nothing happened to the
14 turbine, and no rpms, no steam noises, no anything.

15 So I looked at the turbine, looked at the
16 governor, it had oil in it, so I proceeded to go to
17 No. 2 with him, because I didn't really suspect
18 what else to do at that point. The turbine
19 throttle valve had been relatched, and I had no
20 control over the governor system. The control room
21 has control over it.

22 MR. ROSSI: Now, there is a speed
23 indicator there, and that's what you looked at?

24 CHRIS BURNS: Yes. And it indicated zero

1 rpms at the time.

2 MR. ROSSI: But when you left it, the
3 valve was opened, it was latched and no speed.

4 CHRIS BURNS: I think the valve was open.
5 When you open those trip throttle valves, it's got
6 some turns on it before it actually raises the
7 valve up off the seat. And I took it up until it
8 stopped.

9 MR. ROSSI: At what point or if you know,
10 does that revert to being capable of being
11 controlled from the control room?

12 CHRIS BURNS: That trip throttle valve
13 isn't controlled from the control room.

14 MR. ROSSI: It isn't?

15 CHRIS BURNS: No.

16 MR. ROSSI: So you have to open it -- it
17 would normally sit open?

18 CHRIS BURNS: Correct, and latched.

19 MR. ROSSI: It does not move to control
20 the speed. That's done with something else?

21 CHRIS BURNS: Right. That's done with
22 the governor valve.

23 MR. ROSSI: Okay.

24 MR. BELL: Have either of you two

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reset / latched

1 gentlemen had to perform this evolution or was this
2 the first time you had ever reset and opened that
3 trip throttle valve?

4 CHRIS BURNS: No. I can remember I have
5 done it once before, but I was assisting another
6 operator when he performed the ST.

7 MR. BELL: Mr. Meleg, is that true for
8 you?

9 JEFF MELEG: I have reset it and latched
10 it, but not under these type of conditions, full
11 live steam conditions.

12 MR. BELL: So part of the surveillance
13 test involves manual operation of this trip
14 throttle valve?

15 CHRIS BURNS: Correct.

16 MR. BELL: And from what you two
17 gentlemen are telling me, you performed this
18 surveillance test before you and --

19 JEFF MELEG: With no DP across the valve.

20 MR. BELL: I understand.

21 CHRIS BURNS: I have assisted another
22 operator that was performing the ST.

23 MR. ROSSI: Okay. So Mr. Burns then, you
24 proceeded from auxiliary feedpump one to aux

1 feedpump two. And go ahead and describe what you
2 did there?

3 CHRIS BURNS: I went to No. 2, and Mr.
4 Meleg had just finished resetting it. We looked
5 and we had no steam pressure or there was no rpm
6 indications. I heard no sound of any steam. You
7 can tell if there is any steam, and we had no
8 indication of this.

9 He went to the phone. I was looking at
10 the turbine itself and oil levels. And just
11 seconds later, Bob Morrison come running down the
12 stairs, and right behind him was Mr. Feasel.

13 And Mr. Feasel proceeded to start up the
14 startup feedpump. I'm not clear on what he did
15 exactly or what was going on. But I do remember
16 him coming over to us or to Jeff, I think, to tell
17 him to tell the control room they had flow from the
18 startup feedpump.

19 And then Mr. Morrison was checking out
20 the No. 2, and you can ask him what he did from
21 then on.

22 MR. ROSSI: Okay.

23 CHRIS BURNS: And then I assisted him and
24 Mr. Feasel on the aux feedpumps.

1 MR. BEARD: Can I get a point of
2 clarification here? It seemed like that what you
3 are saying, Chris, is that when you went down the
4 room, you and Jeff were the first two guys there,
5 and he was on the phone. You were working on aux
6 feedpump two, and I believe you had it up and
7 running?

8 CHRIS BURNS: No. It was not running
9 while just us two were in there as far as, you know,
10 as far as I could see.

11 MR. BEARD: Okay. But at some point Mr.
12 Feasel arrived.

13 CHRIS BURNS: Right.

14 MR. BEARD: And at some point later he
15 informed the control room that I guess that startup
16 pump was available or running or something of that
17 effect?

18 CHRIS BURNS: Yes.

19 MR. BEARD: So I guess they would start
20 it up in the control room. But at any rate, I'm
21 trying to get in perspective time wise whether his
22 call back to the control room with regard to the
23 startup pump was before or about the same time or
24 after your efforts on No. 2 seemed to get it up?

1 Can you tell me, before or after or about the same?

2 MR. BELL: Excuse me. I thought you were
3 working on No. 1 feedpump?

4 CHRIS BURNS: I was. And when I reset
5 the trip throttle valve on No. 1, I didn't get any
6 rpm indication, I went over to No. 2.

7 MR. BEARD: I see. All right.

8 CHRIS BURNS: He had already reset that.

9 MR. LANNING: Let me ask the question
10 simply: Was the startup feedwater pump the first
11 pump to be running in comparison to the two
12 auxiliary feedwater pumps?

13 CHRIS BURNS: I think so.

14 MR. LANNING: You don't know for sure? I
15 mean, if the pump is running in that room --

16 CHRIS BURNS: You know, you can hear it.
17 I heard it start.

18 MR. ROSSI: You did hear it start?

19 CHRIS BURNS: I heard it start. I think --
20 let me think for a minute. I think at that time I
21 heard it start, and I was concerned about No. 2
22 auxiliary feedwater pump because Mr. Feasel right
23 next to me said, No, that's the startup feedpump,
24 because it may have been up on low rpm, we may have

1 just been starting up No. 2 at the time. Because,
2 you know, I was concerned that something was going
3 on that wasn't supposed to be.

4 He said that's No. 2 -- he said, That's
5 the electric fire pump starting or the electric
6 feedpump starting, the startup feedpump.

7 MR. ROSSI: But when you left the
8 auxiliary feedwater pump No. 1, there was no rpm on
9 it when you went to 2?

10 CHRIS BURNS: No. It wasn't running.

11 MR. ROSSI: I would like to hear now
12 somebody else -- does anybody else have a question?

13 Why don't we hear from Bob Morrison on
14 what you did with auxiliary feedwater pump two.
15 That's the first pump that you became involved with
16 when you went into the auxiliary feedwater pump
17 room; is that correct?

18 BOB MORRISON: Yes, sir.

19 MR. ROSSI: Okay. Tell us what you did
20 when you got there.

21 BOB MORRISON: They weren't running.

22 MR. ROSSI: They weren't running.
23 Neither of them were running?

24 BOB MORRISON: No, sir.
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1 MR. ROSSI: How do you know that one
2 wasn't running? Did you look yourself or --

3 BOB MORRISON: I believe you just had
4 come back from that room. You turned around and
5 said No. 1 hadn't been running and No. 2, you could
6 see the speed was zero.

7 MR. ROSSI: So your knowledge from No. 1
8 was based on what he told you.

9 STEPHEN BURNS: What Mr. Burns just told
10 us?

11 MR. ROSSI: What Mr. Burns just told us?

12 CHRIS BURNS: Also if you are down there
13 and they start one of the pumps, you can tell
14 pretty much when it is running.

15 BOB MORRISON: It will have steam coming
16 out the drains, and if it just started out, you
17 will have moisture out of the sentinel valves and
18 there would be noise through the steamlines.

19 MR. ROSSI: So you had independent
20 knowledge of noise and that kind of thing to make a
21 judgment that neither pump was running?

22 BOB MORRISON: It was too quiet in there
23 to be comfortable.

24 MR. BELL: None of the three were running?

1 BOB MORRISON: None of the three were
2 running.

3 MR. ROSSI: Go ahead and describe what
4 you did when you got to pump two?

5 BOB MORRISON: That was the closest pump,
6 so I went to that pump. And it was relatched, but
7 the valve, the trip throttle valve wasn't open, as
8 I remember it. And I think Mr. Feasel pointed that
9 out.

10 I moved around the back of the pump to
11 verify that -- to get a better view of the valve to
12 make sure that was the problem. And then we went
13 to open on the valve, and because of the DP, the
14 governor valve was wide open, so the DP was all
15 across the trip throttle valve and it was very
16 difficult to open. As a matter of fact, I used a
17 valve wrench on it. And we brought the speed up
18 with that.

19 MR. ROSSI: Okay. So you used a valve
20 wrench on the auxiliary feedwater pump two, trip
21 throttle valve, and it was --

22 BOB MORRISON: Right.

23 MR. ROSSI: Tell us as much as you can
24 how hard it was to open. I mean, you had to use a

1 valve wrench. Can one person open it or with a lot
2 of force --

3 BOB MORRISON: Just one. There was more
4 force than -- I might have been able to open it by
5 hand, but you wouldn't have been able to control it;
6 it would have been uncomfortable. And the valve
7 wrench was right there, so I used that.

8 MR. ROSSI: The valve wrench was in the
9 room?

10 BOB MORRISON: Yes, sir.

11 MR. ROSSI: So you opened it up, and what
12 did you observe from then on? Did you look at the
13 speed?

14 BOB MORRISON: We could bring the speed
15 up. Then it came up rapidly in speed, and I didn't
16 need to open the valve very far to get it up to
17 full speed.

18 I went to the Gaitronics. They had
19 trouble with the Gaitronics communicating with the
20 control room. I was talking to Brian Young in the
21 control room. The Gaitronics began cutting out.

22 MR. ROSSI: This was the phone you would
23 use like a telephone, not like a headset?

24 BOB MORRISON: Exactly. We don't have

1 headsets down there. We have very few in the plant.
2 As a matter of fact, when they run a surveillance
3 and they require a headset, we have to find one,
4 and then you have to find one that operates and you
5 have to get it down there.

6 So it's not available in the room, and I
7 don't advocate it being available in the room.
8 It's a pain in the ass.

9 MR. ROSSI: So it wasn't there. There
10 was no headset?

11 BOB MORRISON: Exactly. They don't
12 believe in having them lay out in the plant.

13 MR. ROSSI: So you went to the phone, the
14 Gaitronics, and you had trouble communicating. Go
15 ahead.

16 BOB MORRISON: From my position at the
17 Gaitronics, I could see the speed indicator. By
18 this time, I don't remember whether it was Mr.
19 Meleg or Mr. Burns at the trip throttle valve at
20 the wrench, then they could control the speed.

21 MR. ROSSI: What were they controlling
22 the speed using?

23 BOB MORRISON: The trip throttle valve.

24 MR. ROSSI: The trip throttle valve, the
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1 same one you had to latch and open --

2 BOB MORRISON: The same one I had to open
3 it, yes, sir.

4 MR. ROSSI: Okay.

5 BOB MORRISON: The turbine was running,
6 and I knew from the sounds in the room that we were
7 pushing water somewhere, but I didn't know how much
8 and I didn't want to overfill the generators.

9 So I got -- I did get through to Brian,
10 asked him how we were doing. He indicated that we
11 were putting water in the generator, but he
12 couldn't get control with the governor at this time.

13 I could see the governor from where I was
14 standing at the Gaitronics, and I could see that
15 the governor was winding back, that it was on high
16 speed stop. It takes a number of seconds, I
17 believe sixty or seventy seconds, to go from high
18 speed stop to low speed stop, and it was all the
19 way cranked out to the high speed stop.

20 So I told Mr. Young to continue
21 decreasing the speed and see if we could take over
22 control with an auto essential. So he did, and we
23 let it wind down and wind down, and finally I seen
24 the rpms in the pump drop off. So I knew the

1 control valve then had control of the steam flow
2 through the turbine.

3 So I asked whichever person was on the
4 trip throttle valve at the time to see if they
5 could open the valve. You could spin it open then
6 because it has got no DP across it. It spins open
7 to the full open, it takes a limit switch and they
8 get an indication in the control room it is full.

9 But at that time, Mr. Young had control
10 of it in manual in the control room, and he run the
11 speed up and down a little bit to verify that the
12 governor appeared to be working, had control of the
13 turbine. So he took it up to its normal rpm, and I
14 believe he put it in auto essential.

15 And from what I understand, then the rest
16 of the evening, that pump worked okay.

17 MR. ROSSI: So once you got auxiliary
18 feedwater pump two reset and you actually opened
19 the trip throttle valve with the pipe wrench and
20 you went through the communications with the
21 control room, it didn't subsequently trip again or
22 any of that sort of thing, there was some problems
23 in getting control of it, but you don't remember it
24 tripping again?

1 BOB MORRISON: Not that one.

2 MR. BEARD: Could I follow up on that
3 point? From the time that you got flow from No. 2
4 aux feedwater pump, do you remember roughly how
5 long you were in the area such that if it were to
6 have tripped, you would have been there, or would
7 you have already left?

8 BOB MORRISON: I stayed there for another
9 I would guess ten minutes more.

10 MR. BEARD: I was just trying to get a
11 feel, if the pump tripped say seven or eight
12 minutes after you got it running, were you in the
13 area or were you finished up and gone?

14 CHRIS BURNS: I was there the whole time,
15 as was there the whole time. Mr. Feasel left when
16 they started. I'm not sure when he left.

17 BOB MORRISON: I believe I left after the
18 starter feedpump.

19 CHRIS BURNS: I was there.

20 MR. BEARD: Do any of you remember the
21 No. 2 feedpump tripping?

22 MR. ROSSI: No. 2, after you got it
23 running and you opened the trip throttle valve with
24 the wrench, do you remember it tripping again?

1 MR. BEARD: Maybe triping is a poor word.
2 Just the thing shutting down, for whatever reason?

3 CHRIS BURNS: Okay.

4 JEFF MELEG: I don't remember No. 2 doing
5 it.

6 CHRIS BURNS: I don't either. But when
7 they do trip or after it's running and it trips,
8 there is a long coast down time for the turbine to
9 slow down, and you got plenty of time to reset the
10 trip throttle valve and take the governor control
11 and take it back up.

12 MR. BEARD: But you don't -- I presume
13 from what you are saying, correct me if I'm wrong,
14 you don't remember having that occur or your having
15 done that?

16 CHRIS BURNS: No, I don't.

17 MR. BEARD: Go ahead, Larry.

18 MR. BELL: If it had tripped, you would
19 have had to repeat your actions of spinning the
20 trip throttle valve closed and relatching it?

21 CHRIS BURNS: Right.

22 MR. BELL: So that spinning the trip
23 throttle valve closed and relatching it was only
24 performed initially when you got down to the room?

1 CHRIS BURNS: Right.

2 JEFF MELEG: I did that, yeah.

3 CHRIS BURNS: I never touched No. 2's.

4 MR. ROSSI: So after No. 2 got through
5 its initial, initial phase of getting started, from
6 your knowledge, and you were there for some period
7 of time, at least some of you, you don't recall
8 them having any more trouble with pump two?

9 CHRIS BURNS: No.

10 JEFF MELEG: No.

11 MR. ROSSI: Why don't we go back now, and
12 what happened with pump one now? We left pump one
13 with I think Mr. Burns. You left pump one after
14 having latched it and looking at the speed, and it
15 wasn't running and you went to pump two.

16 Now, what next occurred with pump one
17 after two was --

18 JEFF MELEG: As far as I can remember,
19 Bob and Steve were on No. 2 and I was trying to get
20 in touch with the control room. So after I did,
21 after a period of time, then I went over to No. 1
22 pump, and I noticed it was zero rpm and I noticed
23 that the little governor motor was spinning, but
24 there was nothing -- it wasn't moving.

1 So I knew from past experience that that
2 particular governor is different than the one on
3 No. 2 and they were having troubles with the slip
4 disk, the clutch, and that has plagued that
5 particular pump for a while.

6 So I said, wow, it's spinning on its
7 clutch. So I called the control room again and I
8 said, well, the clutch must be slipping again
9 because you are not getting any control over it and
10 it was just spinning on its own, which has happened
11 before.

12 MR. ROSSI: Okay.

13 JEFF MELEG: So that's what I did.

14 MR. ROSSI: Keep going.

15 JEFF MELEG: That's what I noticed. And
16 then I went back and called the control room. Well,
17 in the meantime, they had gotten that wrench over
18 to No. 1 aux feedpump trip throttle valve.

19 MR. ROSSI: They being.

20 JEFF MELEG: They being Chris --

21 CHRIS BURNS: No.

22 JEFF MELEG: Who was the first one?

23 CHRIS BURNS: I stayed with No. 2.

24 JEFF MELEG: Bob did, Bob Morrison put

1 the wrench on the No. 1 trip throttle valve.

2 MR. ROSSI: Is that correct, Bob? You
3 went to No. 1 with the wrench?

4 BOB MORRISON: As soon as he got done
5 with No. 2, I proceeded over to No. 1.

6 JEFF MELEG: And I tried to manually
7 without a wrench just to touch it, and it felt like
8 it was already open to me. And here again, I don't
9 like to put an overamount of torque on any valve,
10 either shutting it or opening it, because it's just
11 not a good thing to do. You could wreck the valve
12 or it could pop or there is a lot of things that
13 can happen.

14 So then he put a little bit more umph on
15 it than I would do, and then it came open with a
16 little bit of speed on it.

17 MR. ROSSI: Maybe you ought to be the one,
18 Bob, to tell us what you did with pump one and
19 describe what you observed and what you did?

20 BOB MORRISON: I remember having -- I
21 recollect the first time I seen it it was tripped,
22 it was not latched. And I don't understand that
23 from what Mr. Burns says. I don't know what
24 happened in between, but anyway I remember having

1 to reset it and having trouble with it latching.

2 I believe you have gone down and looked
3 at it.

4 MR. BEARD: We have seen it.

5 MR. ROSSI: We have seen it.

6 BOB MORRISON: Normally when it trips and
7 you run the valve hand wheel down, it automatically
8 latches. Well, that evening, it didn't. I have
9 seen that before and I have seen where we have had
10 to hold it in the reset position and then open the
11 valve, and that puts pressure on that contact point
12 and it will stay there then.

13 I'm not sure in retrospect, I never did
14 look at the tappet, but it may have been out of
15 position. I wasn't concerned about that. I was
16 just concerned about getting the valve open again.

17 I remember opening it up and I did have
18 to use the wrench on that one. It was very
19 difficult. After it took up the slack, it was very
20 difficult to open it. And I remember there was a
21 problem trying to hold that thing.

22 MR. ROSSI: So it was unlatched when you
23 got over there, and you had trouble getting it
24 relatched and keeping it latched?

1 BOB MORRISON: Exactly, because there is
2 a spring that pulls it back out into the trip
3 position, and I had to overcome the spring and hold
4 it in the reset position and then open the valve.
5 And the valve is hard to open because there is a DP
6 across the valve.

7 I remember bringing up the turbine speed
8 and not getting very far. From my position on the
9 valve, the front panel of the speed indicator is
10 parallel to me so I couldn't see what the speed was,
11 but it seemed rather low and it tripped on me.

12 And the valve went shut again. It goes
13 shut with quite a bit of force and it scares you
14 because it could slap down. If you caught your
15 finger or something, it could take the end of your
16 finger off if you got in between any of these pinch
17 points.

18 So I remember I had to reset it again a
19 second time and relatch it and bring it back up.
20 And we brought it up to the normal speed, and we
21 were getting flow into the generator.

22 And I'm sorry I don't remember more
23 clearly what happened, but I don't remember why we
24 didn't try harder to put it on governor control.

1 We just brought it up and held it in manual at the
2 speed we wanted.

3 MR. ROSSI: This is with the trip
4 throttle valve you are using?

5 BOB MORRISON: Trip throttle valve.

6 MR. ROSSI: You brought it up and
7 controlled the speed with it?

8 BOB MORRISON: It was very simple, once
9 we got it in the area where they were getting the
10 flow they wanted and once it got settled out, it
11 was very easy to change the flow, because you only
12 had to move the valve a little bit. You did have
13 to use the wrench by bumping it an eighth of an
14 inch or so, you could move it adequately.

15 MR ROSSI: Did you use a meter in doing
16 that control or instructions from the control room?

17 BOB MORRISON: From the control room, by
18 listening to it and by looking at the speed. And
19 then the control room said that was enough, they
20 were getting adequate amount of water, and then
21 they took over. And from the rest of the morning
22 then we controlled it manually.

23 MR. ROSSI: From there?

24 BOB MORRISON: From there at the valve.

1 JEFF MELEG: Chris and I did that.

2 MR. ROSSI: In controlling it manually,
3 somebody was communicating I assume, you with the
4 control room, and giving you instructions from the
5 phone; is that correct?

6 JEFF MELEG: Yeah.

7 BOB MORRISON: Right.

8 JEFF MELEG: I was on the phone and Chris
9 was on the valve, and then he said, Well, turn it
10 up a little bit, give me a little more, slow it up,
11 speed it up. I would say, Up a little bit, a
12 little bit more, up. It was between me on the
13 phone and the person that was on the valve.

14 BOB MORRISON: The person on the valve
15 was initially me.

16 MR. ROSSI: Initially it was --

17 BOB MORRISON: Initially it was me, Bob
18 Morrison, and after we made sure it was settled out
19 and they were -- they had water level indication in
20 the generator or whatever, they were satisfied in
21 the control room that everything looked good, then
22 we could set it at the flow rate we had established
23 on the pump, then I felt that it was best for me to
24 return or go back to the control room and find out

1 if I was needed somewhere else in the plant.
2 Everything seemed to be settled out in that room,
3 at least semi-normal.

4 So I turned over the control of it to Mr.
5 Burns, and Mr. Meleg remained on the phone then for,
6 I don't know --

7 JEFF MELEG: Two hours.

8 MR. BEARD: Two hours?

9 JEFF MELEG: Yeah, Chris and I.

10 MR. ROSSI: So the two of you together
11 for a period of two hours controlled the speed of
12 that pump locally with instructions from the
13 control room?

14 JEFF MELEG: That's correct.

15 CHRIS BURNS: Correct.

16 MR. BEARD: And could you, Mr. Meleg,
17 just kind of give us some details about problems
18 you had with the phone and so forth, if any?

19 JEFF MELEG: Yeah. It was cutting on and
20 off. And you would wiggle the little wire going
21 into the box, and I was trying to find the place
22 where I could hold it that way and could hear them
23 without breaking up the conversation.

24 And it was also difficult because the

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1 cord was only about this long and it's not long
2 enough to --

3 STEPHEN BURNS: About how long?

4 JEFF MELEG: It was about --

5 STEPHEN BURNS: Three feet?

6 JEFF MELEG: -- three or four feet and it
7 wasn't long enough for me to stick my head around
8 to look at the No. 1 auxiliary feedpump and tell
9 Chris where I could actually look at him with his
10 hands on the valve. I would have to like go like
11 this and say up a little bit or down a little bit
12 or whatever like that. And it kept cutting on and
13 off really badly.

14 MR. BEARD: Would you say that -- I'm
15 asking you for a judgment and you may choose not to
16 answer. Would you say that the cutting in and out
17 hampered your efforts or impeded them to any
18 significant degree?

19 JEFF MELEG: It --

20 MR. BEARD: Or was it just a pain?

21 JEFF MELEG: It definitely raised the
22 amount of frustration since we didn't have a lot to
23 go on in the first place, and communication between
24 the aux feedpump and control room was absolutely

1 paramount. And when this wasn't happening, I
2 didn't know if he was telling me something during
3 the cutout periods that I would need to know.

4 MR. BEARD: Okay. I have a second
5 question. You mentioned that the two of you folks
6 stayed down there for the rest of the event, and I
7 think you said something like two hours.

8 JEFF MELEG: Yeah.

9 CHRIS BURNS: It was maybe a little
10 longer.

11 MR. BEARD: But roughly two hours; okay?
12 Do you remember any or did you have any experience
13 with that pump either tripping or being shut down
14 in the neighborhood of three to five minutes after
15 you got flow established or after maybe Mr.
16 Morrison actually got it established, but do you
17 remember anything tripping or significant speed
18 reduction in the time frame of three to five
19 minutes after that?

20 JEFF MELEG: For some reason, I do
21 remember only being able to get fifteen hundred or
22 two thousand rpm out of it.

23 CHRIS BURNS: Which one?

24 JEFF MELEG: No. 1 aux feedpump, and it

1 had something to do with like we thought the valve
2 was already opened because it was so hard to move.
3 And here again, not wanting to put an extra human
4 amount of strength on it for fear of damaging or,
5 you know, having it break apart just due to
6 something we were doing with a valve wrench.

7 MR. BEARD: If you have a hard time turning
8 the valve, does that indicate that there is a
9 strong DP across the valve?

10 JEFF MELEG: It could indicate there is a
11 strong DP, could have been a scorched shaft,
12 something stuck under the seat. There could be a
13 myriad of problems, what makes a valve hard to
14 operate.

15 MR. BEARD: I'm trying to understand
16 better why you think the valve is in some open
17 position.

18 JEFF MELEG: Because of the resistance it
19 gave after we had gotten steam flow.

20 MR. BEARD: How did you know?

21 JEFF MELEG: Because it was indicating
22 about fifteen hundred, two thousand rpm.

23 STEPHEN BURNS: About how far away from
24 Mr. Burns were you when you were on the phone?

1 JEFF MELEG: Eight feet.

2 STEPHEN BURNS: Was it easy to understand
3 each other?

4 JEFF MELEG: Yeah. We used hand signals.

5 MR. ROSSI: Was there a lot -- you used
6 hand signals?

7 CHRIS BURNS: Yes. I positioned myself --
8 this is after both pumps were running and everybody
9 had left but me and him were in the room. I
10 positioned myself near the No. 1 trip throttle
11 valve and had the wrench and leaned so I could see
12 him in the No. 2 room, and he would go like this if
13 he wanted it raised.

14 MR. BEARD: That's a thumbs up signal?

15 CHRIS BURNS: Or down, raised or like
16 this to stop.

17 MR. BEARD: Is that customary practice
18 for an environment where the pumps are running and
19 making some noise I presume to use the thumbs up or
20 down signal, or is this unusual?

21 JEFF MELEG: Standard hand signals.

22 CHRIS BURNS: He's right, it's standard.
23 It's kind of standard. I knew what he meant. We
24 don't normally do this for any of our pumps.

1 MR. BEARD: That's what I'm saying.

2 CHRIS BURNS: We don't have them in
3 manual control.

4 MR. BEARD: Under normal conditions, the
5 noise level in the room wouldn't be such that it
6 would require you to use hand signals?

7 CHRIS BURNS: Well, normally they should
8 be under the governor control from the control room
9 and we would be just down there watching, you know,
10 checking bearing level, oil levels and stuff like
11 that, and confirm that the governor would take it
12 up and down.

13 MR. BEARD: Larry, you had a question, I
14 think? Why don't you ask your question.

15 MR. BELL: If I understand you correctly,
16 the phone is in the No. 2 turbine room and he had
17 to use his hand signals because the cord wouldn't
18 reach the No. 1 turbine room to you. He was in the
19 No. 2 turbine room giving you hand signals in the
20 No. 1 turbine room?

21 JEFF MELEG: Correct.

22 MR. BEARD: I have one short question to
23 Mr. Morrison. As you are bringing this speed up on
24 No. 2 auxiliary feedwater pump turbine, did you

1 notice that the startup feedpump started or was
2 that pump already running as you were bringing the
3 speed up?

4 BOB MORRISON: It shows that it started
5 while I was doing it, but I have no awareness of
6 that. I never even heard that.

7 MR. BEARD: It's acceptable not to
8 remember.

9 BOB MORRISON: Yeah.

10 CHRIS BURNS: We were kind of --

11 BOB MORRISON: I understand.

12 CHRIS BURNS: We were kind of concerned
13 that the aux feedpumps themselves -- and Mr. Feasel
14 was handling the startup feedpump trying to get it
15 up, and I do remember him coming over and Jeff
16 happened to be on the phone at the time and him
17 telling them that they have flow, and I can't
18 remember exactly how much flow it was, but it was
19 that they did have flow. And I can't remember if
20 No. 2 was running at the time or if he was resetting
21 it or what was happening to No. 2.

22 MR. ROSSI: Was there a moderate amount
23 of noise down there? I mean, could you have
24 communicated verbally or was there so much noise

1 that that was almost --

2 JEFF MELEG: The start feedpump makes
3 quite a bit of noise and vibration and racket.

4 MR. ROSSI: The two of you were working
5 together to control the speed of No. 1 pump. To
6 what extent did you have or communicate verbally --

7 CHRIS BURNS: I know those rooms with all
8 three pumps running, there is quite a bit of noise
9 and you normally wear earplugs in that area. And I
10 didn't have a chance to, you know, get them. There
11 is some down there, so afterwards I had put them in.
12 After we got the pumps running, the flow
13 established and everything settled out, I did put
14 earplugs in because the noise was too loud.

15 MR. ROSSI: So you were essentially
16 almost totally limited to communicating by hand
17 signals rather than verbally because of the noise
18 levels in the room?

19 CHRIS BURNS: Correct.

20 MR. ROSSI: It would not have really been
21 feasible for you to communicate verbally.

22 JEFF MELEG: Correct. Screaming and
23 shouting, you couldn't do that.

24 MR. BEARD: Let me make sure, I asked a

1 question a little while ago and I'm not sure I
2 understood what the answer was, even though you may
3 have given it. I asked if you remember anything
4 about the No. 1 aux feedpump when you are
5 controlling manually with the hand signals and
6 whatnot. Do you remember anything of it tripping
7 or shutting down in the time frame of three to five
8 minutes after Mr. Morrison here got it up?

9 CHRIS BURNS: No. I didn't reset it
10 again.

11 JEFF MELEG: And all I noticed was the
12 limited rpm level.

13 MR. BEARD: As far as you are aware, the
14 pump pretty much ran straight and normal with the
15 adjustments you made as a result of the control
16 room directions?

17 JEFF MELEG: From what I can recall, yes.

18 MR. ROSSI: I wonder if this is a good
19 time for us to take a break to just rest for a
20 little bit.

21 STEPHEN BURNS: I would like to ask a
22 couple questions, but I want to back up before you
23 got into that room. I'm back up on top of the
24 grate before you moved it open.

1 As I recall, you say you had to open that
2 grate with a key. Correct?

3 CHRIS BURNS: Correct.

4 JEFF MELEG: On a padlock

5 STEPHEN BURNS: On a padlock. And that
6 grate, that hatch, as you call it, is an open grate.
7 You could see on through down to the ladder that
8 you are going to go down.

9 CHRIS BURNS: Correct.

10 STEPHEN BURNS: Is that correct?

11 JEFF MELEG: There is louvers and stuff
12 like that. It's not just like looking through an
13 open grating, but you can see through. Light will
14 come through it.

15 STEPHEN BURNS: My question is if for
16 some reason, could you have possibly dropped the
17 key down there? I understand you didn't drop it,
18 but is it possible to have dropped the key down
19 through the grate?

20 JEFF MELEG: It's attached to a ring, and
21 the ring more than likely would not have slid into
22 the grating.

23 STEPHEN BURNS: About how big is the ring
24 in diameter?

1 JEFF MELEG: Inch and a half, inch and a
2 half in diameter.

3 STEPHEN BURNS: Have you ever dropped a
4 key down through there?

5 CHRIS BURNS: No.

6 STEPHEN BURNS: Do you know of anyone
7 else who has dropped a key down there?

8 JEFF MELEG: No.

9 CHRIS BURNS: No

10 STEPHEN BURNS: But you think it is
11 possible a key could fall through that grate?

12 JEFF MELEG: Anything is possible.

13 MR. ROSSI: We can do a test of that,
14 take the key and test it.

15 CHRIS BURNS: You know, there are places
16 where, you know, if you drop something in there,
17 you can just reach down between the grates and pull
18 it out. But there might be open places in there
19 too. I don't know offhand.

20 MR. ROSSI: But in any event, if you had
21 fallen or dropped the key or lost the key or
22 whatever on the way, there would have been another
23 series of delays while somebody came with another
24 key?

1 JEFF MELEG: Yeah.

2 CHRIS BURNS: Correct.

3 JEFF MELEG: Definitely.

4 CHRIS BURNS: There is no way to get that
5 padlock open. It's one of those safety padlocks.

6 JEFF MELEG: Super big ones.

7 MR. BEARD: Ernie, were you suggesting we
8 take a five or ten minute break and come back?

9 MR. ROSSI: Yes.

10 MR. BEARD: I wonder if we are basically
11 at the end anyway?

12 MR. ROSSI: We can determine that at the
13 break.

14 Why don't we take a break and we can
15 discuss where we go from here, whether we are done
16 or not.

17 (Thereupon, a recess was taken.)

18 - - - - -

19 MR. ROSSI: We are back on the record.

20 Let's see. We had gotten to the point
21 where the auxiliary feedwater pump one was being
22 essentially manually controlled by Mr. Burns and
23 Mr. Meleg working together with instructions from
24 the control room, and you were there for a couple

1 of hours or more --

2 CHRIS BURNS: Right.

3 MR. ROSSI: -- controlling that pump
4 manually with the trip throttle valve. Is that the
5 same one that you used in relatching the overspeed
6 trip?

7 JEFF MELEG: Correct.

8 MR. ROSSI: Okay. Why don't we turn it
9 over to others who may have additional questions.

10 Go ahead, Larry, do you have any?

11 MR. BELL: Yeah. I was confused about
12 your statement, Mr. Meleg. You said that you were
13 on the turbine taking readings and as soon as you
14 heard the plant trip, you were dispatched to the
15 control room. You dispatched yourself to the
16 control room?

17 JEFF MELEG: Right.

18 MR. BELL: To provide assistance.

19 JEFF MELEG: Stand by.

20 MR. BELL: But Mr. Morrison, you said
21 that there are memos telling you not to do that?

22 BOB MORRISON: Yes. I have it --

23 MR. BELL: I'm not so sure I want to see
24 the memo because then it will have to --

1 MR. ROSSI: I think enough has been said
2 we need to have the memo in the record now. So
3 let's mark the memo and put it in the record.

4 BOB MORRISON: I happened to make you a
5 copy.

6 MR. BEARD: This would be marked as
7 Exhibit 1.

8 STEPHEN BURNS: And what is it?

9 BOB MORRISON: It's a Generic Guidance
10 Memorandum POL-20 dated April 2nd, 1985. It used
11 to be known as Standing Order 27 and it's been out
12 for a couple of years, and then just recently they
13 combined all the standing orders and special orders
14 and a couple other superfluous orders under this
15 generic guidance program. That's when they redated
16 it.

17 MR. BELL: Was the purpose of this to
18 minimize bull sessions that take place in the
19 control room and to insure that the EOs are out in
20 the plant making their tours?

21 BOB MORRISON: Came out of the lessons
22 learned in Three Mile Island. That's what it was
23 based on.

24 MR. ROSSI: My understanding from you was,

1 Mr. Meleg, your normal instructions were on a trip
2 you went to the control room.

3 JEFF MELEG: Uh-huh.

4 MR. ROSSI: Does this order here apply to
5 you or just to --

6 JEFF MELEG: As far as I am concerned
7 about this order, it was for like minimizing the EOs
8 and everybody from congregating in the control
9 room and possibly distracting the ROs due to
10 bullshit sessions or whatever so we would be out in
11 the plant or in the study room or somewhere else
12 other than congregating in the control room.

13 But during the time of a trip, I am going
14 to go to the control room to see what's going on
15 and be dispatched, because I know the phones and
16 everything, sometimes they work, sometimes they
17 don't. You could get misdirected through the
18 phones. So I want to be there and look at the
19 guy's face and have him tell me face to face.

20 MR. BEARD: Had your supervisor directed
21 you to do this or is this something you feel you
22 need to do?

23 JEFF MELEG: That is what we always did
24 and I didn't think this order was referable in the

1 trip condition.

2 MR. BEARD: To clarify for my own
3 understanding, I'm not sure you understand, we are
4 not here to investigate any possible wrongdoing
5 with regard to this guidance. That's not the thing
6 we were looking for.

7 JEFF MELEG: I understand.

8 MR. BEARD: Someone else may later; I
9 don't know. But I don't even want to talk
10 personally about it.

11 MR. BELL: I think I have my questions
12 answered.

13 MR. ROSSI: Does anybody else have
14 anything else to say about the standing order? You
15 understood the standing order to mean in your case
16 that you should just wait there?

17 BOB MORRISON: Yes.

18 MR. ROSSI: And you understood you should
19 return to the control room, or at least you had
20 that option of returning to the control room for
21 instructions?

22 JEFF MELEG: Uh-huh.

23 MR. ROSSI: Each of you believe you were
24 replying to the intent of this standing order with

1 what you did. We have the standing order.

2 Does anybody want to ask any more
3 questions on that? JT, do you have anything?

4 MR. BEARD: On the standing order or
5 anything?

6 MR. ROSSI: Yes.

7 MR. BEARD: I don't think.

8 MR. ROSSI: Any additional questions you
9 want to ask?

10 MR. BEARD: I only have the general
11 question I asked everybody we interviewed. That's
12 the end of the show as far as I know.

13 MR. ROSSI: Do you have anything more on
14 actions that were taken during the event?

15 MR. LANNING: No.

16 MR. BEARD: Do you want me to go with
17 that general one I always ask?

18 MR. ROSSI: Go ahead.

19 MR. BEARD: Everybody we interviewed, we
20 always sort of wrapped it up by saying we asked you
21 folks to tell us things and we asked you a lot of
22 questions. And I would like to personally, I would
23 like to give you folks an opportunity -- and you
24 can ask your legal representative to leave or stay

1 as you choose.

2 But is there anything that you think we
3 ought to know in terms of reviewing facts of this
4 event or indirectly about the plant, maybe morale
5 conditions or anything else that you think would be
6 useful for us to know or you would like to unload
7 or whatever? But I would like to give you an
8 opportunity to speak at will, whatever "will" is.

9 JEFF MELEG: Yeah, I would probably like
10 to add a little bit to this. I am in no way a
11 disgruntled employee, but I have been at other
12 power plants before and I am very observant when it
13 comes to taking care of equipment because that's
14 where I work.

15 I have chosen to freeze myself at EO1,
16 whereas Bob has chosen not to go on RO. I'm
17 staying at EO1, and it seems like whenever you
18 write a work request or you see a valve that's leaking
19 or an indication that isn't correct or if you have
20 a high vibration trip in for weeks and weeks at a
21 time -- not trip, but a high vibration indication
22 like on a main feedpump, it just doesn't seem to
23 get taken care of in a timely manner. I think
24 three or four weeks is more than enough to take

1 care of things like that.

2 And prior to this trip, I was working
3 with the No. 1 main feedpump, the one that tripped
4 initially, and I had started it and stopped it and
5 started it and stopped it for different testing and
6 different probes they would hook up to the machine
7 and everything that they would start it and run it
8 up, and they would come up with a different reason
9 why it tripped.

10 The first time it was an orifice was
11 causing some sort of a hydraulic surge and that was
12 giving you the thrust bearing water tread, and then
13 we started it up again and it tripped again and he
14 said, Now it's one of the standby oil pumps you
15 have to keep it on or else it will trip, and that
16 didn't work. Then the last time we exorcised the
17 problem out of the pump.

18 MR. BEARD: These "they's" are -- who are
19 you talking about, your engineering people?

20 JEFF MELEG: Yeah, whoever communicates
21 between us and engineering, whoever is doing the
22 test. We really aren't involved with it that much.
23 It's from what I overhear. I was just the operator.

24 And prior to the feedpump being placed in

1 standby, the next day is when they put it on the
2 line. I went up and talked to Steve Feasel and I
3 said, Steve, man, this feedpump, it's going to trip
4 again, you know that. I said, Hey -- I went and
5 told him that. He was satisfied with their reasoning
6 of putting it back on the line, and I couldn't
7 understand it. But then I'm only an EO1 and I do
8 what I'm told. I really don't have to understand
9 it.

10 MR. BEARD: Let me make sure I understand
11 what you are telling us here, Jeff. Are you saying
12 that based on your experience at other nuclear
13 plants and other places, that it's your perception
14 that the maintenance is slower here than other
15 places you have been?

16 JEFF MELEG: It's the degradation of the
17 maintenance. If you let little sump pumps go bad
18 and then you let little bigger things go bad for a
19 time, by the time you look at it, the whole plant
20 is in a state of decay that just gets worse and
21 worse and worse.

22 And that's what I have noticed is you
23 could start out taking care of everything, but then
24 when a big thing comes up, you let the little

1 things slide, and the little things tend to pile up
2 behind you and you never do get them fixed.

3 MR. BEARD: Do you find there is a
4 difference between the equipment that is not safety
5 required for tech specifications and those pieces
6 of equipment that are required?

7 JEFF MELEG: As far as maintenance upkeep
8 on them?

9 MR. BEARD: Do you perceive any obvious
10 distinctions?

11 JEFF MELEG: They do take more care with
12 getting the safety related systems acceptable and
13 operable.

14 MR. ROSSI: What involvement do you have
15 like when you find a problem with a piece of
16 equipment, what do you do in telling people about
17 that problem so that it eventually gets taken care
18 of?

19 JEFF MELEG: Generate a work request.

20 MR. ROSSI: You personally can generate a
21 work request?

22 JEFF MELEG: Yes. And once it gets added
23 to the DBMMS system, it goes on from there. And I
24 don't know where it goes on from there, the time

1 frame or what's important, how they consider it to
2 fix this and not this. I don't understand how they
3 make that decision.

4 MR. BEARD: What was the system? You
5 said when it gets --

6 MARK KLEIN: DBMMS system, Davis-Besse
7 maintenance management system.

8 MR. BEARD: Davis-Besse maintenance
9 management system. Okay, thank you.

10 MR. ROSSI: Wayne, did you have a
11 question, or was it the same question?

12 MR. LANNING: Same question.

13 MR. ROSSI: Do others of you have
14 comments on your general perceptions of maintenance
15 of the equipment and repairing equipment that you
16 would like to make? I gather not.

17 Okay. In any event, no one is making any
18 more statements.

19 Go ahead, JT, do you have further
20 questions?

21 MR. BEARD: No. I just wanted to throw
22 it open to you fellows in the sense of if you had
23 anything you would like for us to know, I wanted
24 you to have that opportunity.

1 And I guess I hear the one comment that
2 Jeff provided us, and I guess I see that no one is
3 wanting to make another comment at this time; is
4 that the way it is?

5 BOB MORRISON: Well, I would like to say
6 that during that trip, as a senior equipment
7 operator, I felt that I was -- there is a potential
8 for me to be held up at getting to any of these
9 areas by all the locked doors and alarm points
10 where I had to use a card reader.

11 The potential for breaking that card, the
12 fact that I'm not issued keys, that I don't have a
13 full set of keys to do anything that's potential on
14 my job, that if I do need keys I have to go up and
15 sign them out, that I don't really understand.

16 I can agree with the intent of our
17 administrative controls of our locked valves, but
18 the effect of that is that it disallows me from
19 operating those valves. If they strictly adhered
20 to those procedures, I don't think that key should
21 have be issued for AF 599 and 608. That would have
22 required the TBSSs, Mr. Feasel or Mr. Layman, to
23 leave the control room and meet one of us down
24 there at the valve, which I think would have been

1 terribly time consuming and wasteful.

2 It worked out best the way it did I think
3 only because in effect we violated our procedure.
4 I see that a lot of the regulations you people come
5 up with get between me and my job, doing my job as
6 a safety equipment operator. I see that a lot of
7 pumps like this essential equipment, they are
8 locked up, they are locked into a position and they
9 are locked into a room that disallows me options
10 for operating it normally.

11 MR. BEARD: Do you have any particular
12 system in mind?

13 BOB MORRISON: The aux feedpump, I can't
14 get into that room because I'm not issued a key. I
15 wouldn't have had that key normally. That's a
16 special key to a padlock, and I wouldn't have had
17 it other than go up and get it.

18 Once I got to it, they had seal wired the
19 valve shut, and there was other valves in that line
20 that are locked that we didn't happen to need that
21 night.

22 The startup feedpump which became
23 important, that was the first source of water that
24 we had, that valve is administratively locked up

1 and the suctions and discharges of it are locked.
2 Mr. Feasel took over that, and he was able to bring
3 that back into service. If I had had to do it, I
4 wouldn't have had the key, and I wasn't allowed the
5 key.

6 MR. ROSSI: Which key would you need?

7 BOB MORRISON: The lock valve key.

8 MR. ROSSI: Okay. You would have needed
9 that for the startup pump also?

10 BOB MORRISON: Along with the key to get
11 into the room of the startup feedpump. And I
12 wouldn't have either one of them. And the one I'm
13 not administratively allowed to have, and I'm a
14 senior equipment operator. I can't get through my
15 plant and I can't get to my equipment and I can't
16 operate it when I do get to it. And I see that all
17 coming from the NRC.

18 MR. BEARD: Bob, let me ask you something
19 so I'm clear I'm understanding what you are telling
20 me; okay? Are you telling me if you had had more
21 keys issued to you, that then as a senior equipment
22 operator you could have been more useful in the
23 plant during routine everyday situations, and hence
24 things like not wasting time, but particularly

1 during this event, are you telling me that you
2 could have been provided some assistance which
3 would have kept people from having to leave the
4 control room? Is that the thrust of what you are
5 saying to me? I'm trying to get to what's the
6 bottom line.

7 BOB MORRISON: I certainly don't want any
8 more keys issued to me. I don't want keys issued
9 to me. I don't want to stop at the door to unlock
10 it.

11 I think a lot of these doors that are
12 opened with a card reader, I think they can be
13 unlocked; leave the card there for accountability
14 and put in an audio alarm over the door.

15 I'm not in security. I figure if they
16 can't stop them at the gate, they are not going to
17 stop them at the valve, as far as I am concerned.

18 But from an operator's standpoint, I see
19 I am locked out of a lot of areas, and I can see in
20 an emergency my options are very limited. You know,
21 I don't want all these keys to drag around; they
22 just become a burden of dragging these keys around.

23 JEFF MELEG: There is a high level of
24 failure on these cards.

1 MR. BEARD: There is a high level of
2 failure on these cards?

3 JEFF MELEG: High level.

4 MR. ROSSI: They break?

5 JEFF MELEG: They break.

6 CHRIS BURNS: Mine is broke right now, or
7 it's cracked.

8 MR. BEARD: Yesterday we took a plant
9 tour and we were given visitor cards.

10 CHRIS BURNS: They are similar to those.

11 MR. BEARD: And I personally experienced
12 a lot of difficulty in getting it in and out of
13 there.

14 JEFF MELEG: They bend.

15 MARK KLEIN: Sometimes they snap.

16 MR. BEARD: It was very tight. But what
17 I did not appreciate or understand or know was
18 whether or not my particular card happened to be
19 tight because maybe it's a visitor's badge or
20 something. And are you saying -- what are you
21 saying about them?

22 CHRIS BURNS: I would say that is typical
23 of all cards, the ones I have had.

24 JEFF MELEG: Different card readers are

1 either easy to put in or they are hard. It just
2 depends, and you can't remember which is which, and
3 you use the same amount of force and you say,
4 Oh-oh, and it snaps.

5 MARK KLEIN: Sometimes it doesn't read
6 the card and you have to wiggle it around, or you
7 might have one door your card doesn't work on, it
8 works on all the rest of the doors, and they can't
9 explain it until you get a new card.

10 MR. BEARD: Is it your perception that
11 it's the particular card readers devices that are
12 involved that maybe need to be adjusted or opened a
13 little wider or card readers in general?

14 I mean, obviously as an operator I would
15 imagine that every operator or EO or any other kind
16 of operator in the plant would like to have no card
17 keys in the building and no locked doors so you can
18 do the job easier. But I'm trying to understand if
19 your comment is related to that general situation
20 or whether it's these particular card readers?

21 JEFF MELEG: It's hard to tell, because
22 it changes from like day to day, different cards,
23 different people. My card may not be able to work,
24 but his would in one particular door. So I don't

1 know what the problem is with them.

2 All I know is that the security system
3 computer goes down quite a bit, and they do snap
4 off the cards quite a bit. And I haven't been able
5 to determine why it's like that, whether it's the
6 system, whether it needs an adjustment inside.
7 Like you said, I don't know enough about it to
8 determine the problem, but the symptom is it's
9 difficult to get around, at best.

10 MR. BEARD: Jeff, you are the person -- I
11 believe in effect the only person here that has
12 worked specifically at another commercial nuclear
13 power plant. Did they have card readers at the
14 plants you were at?

15 JEFF MELEG: Not the kind we have here.
16 We had the kind where you hold your badge up
17 against an infrared scanner, you hold it up to the
18 outside of it and it would scan it and it would
19 unlock door.

20 MR. BEARD: It wasn't a physical
21 insertion?

22 JEFF MELEG: No.

23 MR. ROSSI: Were those more reliable or
24 did you have problems with those also?

1 JEFF MELEG: Those seemed to be quite
2 reliable.

3 MR. ROSSI: Could each of you tell us
4 anything in the area of NRC regulations, NRC
5 procedures or plant procedures that you feel
6 interfered with what you had to do for the safety
7 of the plant during this event?

8 You, I think, Mr. Morrison, had started
9 with a number of those items, but I would like to
10 hear from each of you anything you have in that
11 area, regulations, procedures, things that you even
12 perceive as being NRC requirements even if you
13 don't know whether they are or aren't, that may
14 have in your opinion interfered with keeping the
15 plant safe during this event?

16 Does somebody want to start? You can go
17 through in series.

18 CHRIS BURNS: I will start. I agree with
19 Mr. Morrison about the locked valves and lock valve
20 key. There is nobody in this room that is allowed
21 to have it in their possession and we are the ones
22 that actually have to open the valves and shut them.

23 I mean, it's kind of, you know, you get
24 to them and if they are locked up, there is nothing

1 you can do. I mean, it's got a chain and padlock
2 on it.

3 MR. LANNING: But has there been any
4 event where you needed to get to the equipment but
5 could not and had to go to the control room to get
6 the key?

7 CHRIS BURNS: In an emergency situation
8 like we just had or normal situation?

9 MR. LANNING: A normal situation in the
10 sense if you could have gotten to the piece of
11 equipment sooner, you may have been able to protect
12 the equipment better or insure that it didn't
13 suffer some sort of damage.

14 JEFF MELEG: Not in this particular
15 incident.

16 CHRIS BURNS: This is the first situation
17 with 599 and 608 I have experience with. Other
18 times it's --

19 MR. ROSSI: Do you believe if you hadn't
20 had the locks and card readers, it would have made
21 a significant difference in the amount of time that
22 it took to get to the valves and make them work? I
23 mean, did that delay you a significant amount or
24 was it just the potential that it could have

1 delayed you?

2 BOB MORRISON: I think in this case it
3 did not delay us, but it was because Mr. Klein was
4 issued a lock valve key. That's not normal. The
5 card readers did work.

6 JEFF MELEG: That's not normal either.

7 MR. ROSSI: Say that louder, because I
8 think that's -- these are all important issues.
9 You know, we want to learn what we can from you
10 people that were involved in the event and where
11 you think there are NRC regulations, procedures or
12 even perceptions of things required by the NRC that
13 interfered with keeping the plant safe during this
14 event, I would like to hear them.

15 JEFF MELEG: Like what Bob was saying, in
16 this particular incident and the way things went, I
17 don't think that we were hampered by the locks or
18 the keys. Not in this particular incident.

19 But on other pieces of equipment and
20 other doors and rooms, I have run across it where I
21 would need to get in to a particular place -- a
22 good one is the battery room, the low voltage
23 switch gear room. That door is locked to the
24 batteries, and if there was anything going wrong

1 inside the room, the key doesn't work on the lock.
2 I have written it on work requests; it still sticks
3 and jams and you have to jimmy it, which isn't
4 right.

5 Which doesn't have anything to do with
6 the incident we have, but if there would have been
7 a fire in the battery room, that could have been
8 another incident that we couldn't get in the room.

9 MR. ROSSI: And had one of your key cards
10 broken during this event, depending on which of you
11 and when it occurred, it would have been a key
12 problem; I mean, it could have been a significant
13 problem?

14 CHRIS BURNS: Not in my case it wouldn't
15 have been. I only had to go through one door, the
16 control room door.

17 MR. ROSSI: Okay.

18 CHRIS BURNS: And that has a crash bar
19 and you can crash it from the inside.

20 MR. LANNING: Somebody had a key to the
21 doors.

22 MARK KLEIN: He had a key to the aux
23 feedpump room.

24 CHRIS BURNS: And that went smoothly.

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1 MARK KLEIN: He doesn't necessarily have
2 that. That's a set of keys we sign out. Some of
3 us need on our rounds to open certain doors that
4 are locked to take readings. There is no real
5 guidance; you have to sign it out in the front of
6 the -- in fact, I don't sign the keys out until I
7 need to use them.

8 He may have been a long ways from the
9 control room. According to that memorandum, he
10 might have been a long ways and had to go up
11 through the control room doors, get the key from
12 the shift supervisor to unlock the cabinet, then
13 take the keys out, and then go down to the aux
14 feedpump room. Luckily he was in the control room
15 and he had the keys on his person.

16 MR. BEARD: Are you saying if you were
17 issued some adequate provision so you could get
18 anyplace in the plant you needed to for unusual
19 situations, be it card keys, door keys, valve keys,
20 et cetera, that you think that would have made a
21 significant improvement to the safety of the plant?
22 Is that what you are saying?

23 BOB MORRISON: Yeah.

24 CHRIS BURNS: Yeah. Absolutely.

1 BOB MORRISON: I don't think it would
2 have changed this particular incident. It wouldn't
3 have changed this particular incident.

4 MR. BEARD: But you are faced with the
5 possibility it could go sour?

6 BOB MORRISON: Yes, all the time.

7 CHRIS BURNS: Yes. But if Jeff would
8 have broke the key off in that lock or dropped it
9 or broken the key for the aux feedpump room --

10 BOB MORRISON: Nobody would have got in
11 there.

12 CHRIS BURNS: -- we wouldn't have gotten
13 in until we would go up to the control room and got
14 another set of keys.

15 MR. ROSSI: Breaking the key off, then
16 even another key wouldn't have worked. You would
17 have had to cut the lock. Dropping the key, that
18 is going back to the control room and getting
19 another one and coming back?

20 CHRIS BURNS: Correct.

21 MR. BEARD: Let me pursue that a step
22 further. If you got to some card reader and
23 snapped a card off, would it be the most
24 expeditious thing for you to go to the control room,

1 or can you get to a plant intercom phone someplace
2 and have them send somebody down with another card,
3 or what would be the best thing to do? What would
4 be the appropriate follow up action for that event?

5 CHRIS BURNS: Under normal conditions, I
6 would call one of the guards or call the CAS and
7 tell them my card is broken. They would send the
8 guard, and they would try to get me a card as soon
9 as possible and I would just have to tag along with
10 somebody else that had one.

11 MR. BEARD: What about abnormal events
12 like say a plant trip? Would that still be the
13 course of action you think would be appropriate?

14 CHRIS BURNS: No. It would be the fact
15 that I would have to find a way to get into the
16 control room to get a set of keys in order for me
17 to get through the door.

18 MR. BEARD: What I'm trying to get to on
19 the thing is would you either go to the control
20 room or phone up, say, Hey, I got a problem here,
21 send somebody to help me?

22 JEFF MELEG: You physically have to go up.

23 CHRIS BURNS: You have to go up and get
24 the keys. And those keys --

1 BOB MORRISON: I think it would depend
2 where you are at.

3 CHRIS BURNS: Yeah. If you are already --

4 BOB MORRISON: If he's in the turbine
5 building and has to get to the control room lock
6 door, then there is a Gaitronics outside the
7 control room and you can have somebody open the
8 door and let him in.

9 If you were in another area of the plant
10 where you are locked into it, you have to violate
11 all the card readers going out. You know, it would
12 all depend on the situation.

13 MR. BEARD: There is another point that I
14 want to follow right along this same line, I hope.
15 When we had our tour yesterday, I have forgotten
16 the gentleman's name that was our guide, he suggested
17 at one time there was a crash bar and that it would
18 have been possible and it is likely whoever the
19 equipment operator was exiting that area could very
20 well have used the crash bar, taken the hit on the
21 computer alarm for security and gone on, because
22 you were in a, quote, quasi-emergency situation.

23 CHRIS BURNS: Correct.

24 MR. BEARD: Did that ever take place

1 during this event?

2 BOB MORRISON: There is some areas -- no,
3 not in my experience.

4 JEFF MELEG: There is only one crash bar
5 and that's leaving the control room; I mean, the
6 one we were involved with.

7 MARK KLEIN: Leaving the area is the
8 crash bar. Getting into them, there is no crash
9 bar.

10 MR. BEARD: I was thinking -- it may not
11 have been a good example. Let me make up one
12 hypothetically. Suppose you had made it to AF 599
13 and you were going to exit the area and hotfoot it
14 over to 608, maybe that's a situation where because
15 you have got a next action that's important, that
16 you would hit the crash bar.

17 But I'm really leading up to -- the whole
18 issue is that are you aware of any plant provisions
19 or procedures where during a plant emergency that
20 some notification can be given to security that
21 they sort of basically unlock the plant for you?

22 BOB MORRISON: No.

23 CHRIS BURNS: No.

24 BOB MORRISON: I'm not aware of it.

1 MR. BEARD: Is there capability of that
2 sort of emergency response?

3 JEFF MELEG: Not that I'm aware of.

4 MARK KLEIN: The guard said the reason he
5 didn't stop us and talk about it was because he
6 could see things were going on and that we were
7 busy, but we weren't aware of any provision for
8 that or anything.

9 BOB MORRISON: Along the same line, to
10 get into RACA, you card into the RACA.

11 MR. BEARD: That's radiation control area
12 point?

13 MARK KLEIN: Where you sign in and card
14 in, I had to card in that night. To go into those
15 rooms, I had to card in to each one of the rooms.
16 On the ones with the crash bars on the way out, I'm
17 not quite sure -- I could have crashed them to get
18 out of the room and I could have got into the next
19 room. However if I had crashed that door coming
20 out of RACA where there is a card reader or if I
21 violated any of the doors with a key where there is
22 a card reader, then for accountability for the
23 security computer, it puts me in a different area
24 than I actually am in, and then from there on the

1 computer is confused and my card will not work in
2 any subsequent areas.

3 JEFF MELEG: That's correct.

4 MARK KLEIN: If you crash it, it still
5 has you on being on the other side of the door and
6 it won't let you out.

7 MR. BEARD: That sets you up for the kill.

8 MR. ROSSI: So if you had to use the
9 crash bar, once you use the first crash bar, that
10 would have been perhaps -- and perhaps you don't
11 know for sure, but perhaps that would have kept you
12 from going through any other door even with your
13 card reader working?

14 BOB MORRISON: No. You remember when you
15 went down to penetration rooms, you went to AF 599
16 and 608, and on the way out there was a crash bar
17 and a black button? Those doors aren't like that.
18 You can crash that door and it wouldn't affect the
19 computer. You can get in the next one.

20 MR. BEARD: Is that if you hit the black
21 button?

22 BOB MORRISON: Hit the button or not.
23 The computer knows when you went in the room. They
24 use those rooms for accountability. Those are the

1 ones I contend should be open. They can leave it
2 there for accountability, but in an emergency, I
3 should be able to get through that door.

4 However, when I was leaving RACA where
5 there is a crash bar there, but there is also a
6 card reader. If I had not used that card reader
7 and crashed that door, I won't have been able to
8 get back into RACA coming back.

9 MARK KLEIN: Or the control room.

10 MR. BEARD: So it sounds as though what
11 you are saying, there is some variability on these
12 doors.

13 JEFF MELEG: They can set up the doors in
14 different ways.

15 MR. BEARD: And you have got to know your
16 plant and which doors you can treat certain ways
17 and other ways.

18 BOB MORRISON: It becomes automatic.
19 Like the control room doors have card readers on
20 both sides. You have to use both of them. On the
21 penetration room, you have card readers on one side,
22 and on the way out you use the black button to
23 unlock the door or bypass the alarm.

24 But the control room door, if you

1 tailgate, they use that term, if you went in with
2 someone else, Mr. Klein opened the door and I run
3 in behind him and not use a card reader, then I
4 wouldn't be logged into that area and if there was
5 a card reader come along, it would have failed.

6 JEFF MELEG: Give an error.

7 BOB MORRISON: If I crashed it, I would
8 have to stop, call security, tell them where I was,
9 wait for them to reinitialize the computer and put
10 me in the right area before my card would have
11 worked again.

12 MR. BEARD: What sort of time would that
13 involve?

14 BOB MORRISON: In an emergency, I don't
15 know. Normally it takes minutes, five minutes.

16 JEFF MELEG: Five minutes, depending on
17 how busy CAS is.

18 MR. ROSSI: Let me ask you this. The
19 card reader computers or computer, I'm not sure
20 which it is, what happens when it just has a
21 malfunction in it?

22 BOB MORRISON: Then they send out all the
23 guards and they go to all the different areas and
24 they set there with a note pad and take your name

1 down, your serial number -- your employee number
2 and the time you entered the area and log you out.

3 MR. BEARD: Then you have a guard there.
4 How do you get through the door?

5 BOB MORRISON: They unlock it, just prop
6 it open.

7 MR. ROSSI: What would have happened that
8 night if that had happened? Suppose as part of the
9 event you had another malfunction in the card reading
10 computer?

11 BOB MORRISON: You could have just thrown
12 your card away.

13 MARK KLEIN: We would all have to get
14 keys.

15 BOB MORRISON: We would have all had to
16 make our way back to the control room and get a set
17 of keys. And not everybody gets the same set of
18 keys. And the keys I was assigned to that night in
19 zone four wouldn't have worked on the turbine building
20 side. I couldn't have got into the aux feedpump
21 room anyway.

22 I believe when you go up the shift
23 supervisor's office, there is a key cabinet, and
24 when you open it up, there is a metal band and I

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1 think there is six rings of keys. I think ring six
2 is the NRC inspector's keys, and I believe they
3 give him a master set. The shift supervisor, admin
4 assistants get a master set.

5 Everybody else gets a fistful of keys of
6 which better than half of them you don't even use,
7 but you get this fistful of keys and they work in
8 selective doors around the plant, depending on what
9 zone you are assigned to.

10 MR. ROSSI: How do you know which key
11 works in which door?

12 BOB MORRISON: You try them all.

13 CHRIS BURNS: Until you get used to them.

14 JEFF MELEG: Memorize the numbers on keys
15 for the door.

16 MR. BEARD: I guess I'm -- let me ask you
17 if I am getting the right feel here. I am getting
18 the perception this key business is impeding you in
19 doing your job maybe on an everyday basis, but more
20 importantly it has a strong potential for impeding
21 your jobs which may affect safety?

22 JEFF MELEG: I think it could be a weak
23 point.

24 BOB MORRISON: I feel that.

1 MR. BEARD: Let me go back to, if my
2 understanding is clear on that, Ernie's question
3 earlier: Do you have any other areas you would
4 like to speak to us about of where your perception
5 even of an NRC regulation or requirement is
6 interfering with safety, as you know it?

7 MR. ROSSI: Do you have any comments on
8 the effects on morale or teamwork or anything like
9 that that you perceive are affected by NRC
10 regulations, requirements or, you know, that you
11 even perceive are affected by those things?

12 JEFF MELEG: I think there is a
13 skiddiness, like whenever an NRC inspector is
14 around. Like, get out of the control room, NRC is
15 coming in here. Get out of the control room. Go
16 make yourself scarce, do your readings, but don't
17 interface. Don't let him see me because they might
18 think I don't look professional enough to be in the
19 control room or operating something. They are
20 really concerned with how we look.

21 STEPHEN BURNS: Who is they?

22 JEFF MELEG: Anybody from management all
23 the way down. They come in, like if we are sitting
24 in the control room after turnover, they say NRC is

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1 on their way up, get out of there. Only the ROs
2 are supposed to be in there.

3 MR. BEARD: Let me understand your
4 comment. It's your perception someone would like
5 you to appear more professional or is it the fact
6 that possibly you can be taking a break and having
7 coffee up there after working yourself to death for
8 four hours and that happens to be when NRC comes
9 along and it appears you are loitering? Which are
10 you trying to convey to me?

11 JEFF MELEG: Just your general
12 appearance. If you are up and on the line and
13 producing, there isn't a lot to do but watch what
14 you are doing, take your readings and keep your
15 eyes and ears open. Other than that, you go up to
16 the control room, find out what's going on, do STs
17 and PTs.

18 MR. BEARD: Your physical appearance is
19 what you are trying to convey?

20 JEFF MELEG: In my personal case.

21 MR. ROSSI: Anything else along these
22 same lines?

23 MR. BEARD: Had there been any labor
24 problems that are worth mentioning?

1 JEFF MELEG: Not as far as the plant
2 activity goes. I'm fully confident of the
3 operators we have out there. I have a lot of
4 respect for all the people we work with. We worked
5 a lot of years in nuclear power, so everybody is
6 really competent. I feel very comfortable being
7 with our group of operators.

8 MR. BEARD: Are you telling me that while
9 there may be some labor or contract questions in
10 the air, that that in your opinion would have no
11 effect on plant operations?

12 JEFF MELEG: Not as far as I am concerned.
13 I haven't noticed it.

14 MR. ROSSI: Anybody have any other
15 questions?

16 MR. BEARD: Yeah, there is one minor one.
17 Are you aware of any situations where equipment has
18 been damaged that may appear to have been done
19 deliberately which would be important to discuss?
20 Any of you?

21 CHRIS BURNS: No, not at all.

22 BOB MORRISON: I don't know of any
23 personally. There was some rumor a couple of weeks
24 ago, they called the FBI or something. But I don't

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1 have any firsthand knowledge of any of that.

2 STEPHEN BURNS: Has anyone from the
3 company told you to say anything particularly to us
4 during this interview?

5 BOB MORRISON: Only to be discrete, to be --
6 I don't mean discrete. To be straightforward and
7 honest about the whole thing.

8 JEFF MELEG: To tell the truth

9 STEPHEN BURNS: Did any operators, Mr.
10 Young, Mr. Walleman, Mr. Feasel, Mr. Lehman, tell
11 you to say anything?

12 BOB MORRISON: No.

13 JEFF MELEG: Not at all.

14 CHRIS BURNS: Told us to tell you about
15 everything, whatever you want to know.

16 MR. BEARD: What about legal counsel?

17 CHRIS BURNS: That's exactly what legal
18 counsel told us.

19 MR. BEARD: What about the union?

20 CHRIS BURNS: The labor union hasn't
21 talked to us. I don't even know what's going on
22 myself.

23 MR. BEARD: I'm trying to --

24 BOB MORRISON: Mr. Young, he's our union

1 representative, and even he hasn't said anything.

2 MR. ROSSI: Okay.

3 MR. BEARD: Anything else you wanted to
4 say to us or is that it? Have we covered the
5 waterfront? Was there anything else you wanted to
6 say, or are we finished?

7 BOB MORRISON: I think you did bring up
8 the point about the how does the NRC affect plant
9 operations, whether it's safe or not. The way I
10 perceive it is you are all-powerful, you all have
11 the hammers; you tell us where we go. When you say
12 shit, we don't say how much; we squat.

13 CHRIS BURNS: Or what color.

14 BOB MORRISON: I don't know if you people
15 dictated that letter, but the effect --

16 MR. BEARD: The letter, you are referring
17 to --

18 BOB MORRISON: The generic guidance
19 procedure or any other item, guidance or operating
20 procedure. I mean, as an equipment operator, all I
21 see is as it comes down to me. I don't know where
22 it originates, but I'm sure that it must all -- the
23 ball must get started either in Bethesda or Region
24 III, and I see the company make tremendous efforts

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1 to meet any guidelines or anything --

2 JEFF MELEG: To comply to the letter.

3 BOB MORRISON: Yeah, to comply to the
4 letter. I have never seen them try to move around
5 any issue or, Well, we will do this instead and
6 that will satisfy them, or we won't tell them that;
7 they will never know about it.

8 But I seen them running scared and I see
9 myself running scared. I am more uncomfortable in
10 this room this morning than I was in the aux
11 feedpump room Sunday morning, and I had the whole
12 plant on top of me Sunday morning.

13 MR. BEARD: Why are you uncomfortable?
14 What's the worse thing that can happen as a result
15 of this interview? Could you lose your job?

16 BOB MORRISON: No, not for this interview.

17 MR. BEARD: Why are you so uncomfortable?

18 BOB MORRISON: Well, maybe I could lose
19 my job. Maybe I could because of what the Blade
20 says, because of what the paper says, because of
21 what comes out of the hearings and it gets out to
22 the general public. And public opinion is so
23 against nuclear, we may end up shutting it down, we
24 end up shooting ourselves in our foot. Rather than

1 helping the plant with a commission like this, it
2 might go against us.

3 I'm not sure in what vein, but you had to
4 follow the publicity on Three Mile Island. But it
5 wouldn't be because of anything I said here today.
6 It would just be that Mr. Williams says, That's it,
7 no more nuclear power. This is not cost effective.

8 MR. BEARD: You are referring to a
9 general cutback of people, is that what you are
10 talking about, that could result from some general
11 situation --

12 BOB MORRISON: Yeah. The commission, you
13 might make a recommendation that said, This place
14 should never go back on the line again, and that's
15 it. Where am I as an equipment operator? That's
16 about the last thing you are going to need in a
17 cold iron situation. We are all out there on the
18 road then. I see that.

19 And I see -- my brother-in-law called me
20 from San Francisco the other night and asked my
21 wife was I okay, they heard it on the news, the
22 plant, there was a big thing at Davis-Besse, what's
23 going on out there, and I think we all had that.
24 Your parents talked to you; they call up, this is a

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1 big deal.

2 And here we are, by turnover Sunday
3 morning, there the plant was going to cold iron,
4 stable with no equipment damage, really haven't I
5 don't believe destroyed anything, we tested some
6 theorums, but -- you know, we had our problems, but
7 it wasn't anything really significant. But gees,
8 look how the public is all aware of it, or maybe
9 it's my perception, because they see it in the
10 paper.

11 But we get a lot of negative press
12 releases. We hear about our Congressperson Marcy
13 Kaptur going to push for a congressional committee
14 to investigate this. I can see this being the
15 first step -- maybe I'm being paranoid. You must
16 live with this all the time?

17 JEFF MELEG: It could snowball.

18 CHRIS BURNS: I was home watching the
19 news Friday night or Saturday night, and they said
20 that the whole incident was due to operator error.

21 JEFF MELEG: Pushed the wrong buttons.

22 CHRIS BURNS: And this is what the NRC
23 said. And I believe it was you that they interviewed
24 or one of you they inviewed, and you never said

1 anything like that at all. And I don't know -- I
2 know how TV gets their news; you know, they cut
3 things up and they print what they want. They
4 don't print exactly what was said or anything else.

5 JEFF MELEG: I still don't feel
6 comfortable around NRC inspectors at the plant,
7 because you never know what's going on in their
8 mind. They might see you do something, you think,
9 Was I here, did I do right? You're real skiddish.

10 They don't come to you; they talk to your
11 supervisor. He wasn't even there and he don't know,
12 and then all of the sudden a directive comes down
13 from the NRC.

14 MR. BEARD: Was anything explained to you
15 before this interview this morning with regard to --
16 let's say, a hypothetical situation -- where it
17 turned out in the interview that maybe you had done
18 something contrary to the requirements someplace,
19 was anything discussed about that?

20 BOB MORRISON: No.

21 CHRIS BURNS: No.

22 MR. BEARD: Was anything explained to you
23 about the purpose of this meeting?

24 JEFF MELEG: It's fact-finding.

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1 CHRIS BURNS: Fact-finding. The company
2 lawyer and Bill O'Connor explained to us what all
3 this was and that you are just here --

4 BOB MORRISON: They encouraged us to tell
5 you everything we knew because that was the fastest
6 way we could get everything cleared up and get back
7 on line.

8 MR. BEARD: Let me go back to something
9 you said earlier, if I can. The impact of NRC
10 requirements and the company's response to that, is
11 it your perception that basically everything that
12 your company does is pretty much a direct result of
13 mandates from NRC or is it possible that the
14 company has a general mandate and then the company
15 overreacts and therefore the directives that come
16 to you as individuals are stronger than the NRC
17 really needs, or whatever?

18 JEFF MELEG: That's a possibility. I
19 don't know how the machinery works upstairs.

20 CHRIS BURNS: This is what -- we don't
21 know really which ones come from NRC.

22 MR. BEARD: I guess I'm trying to ask for
23 your impression. Do you believe that everything
24 that you get that you don't like as a directive or

1 it may appear to be unnecessary or ridiculous is an
2 NRC mandate, or do you perceive it as some of this
3 is your company's reaction to NRC requirements?

4 BOB MORRISON: Well, I certainly don't
5 see any of it being ridiculous, but a lot of it is
6 frustrating in my job.

7 And I also know from reading some of the
8 memos that come through, like on required reading
9 to the foremen and that, that you don't
10 specifically issue a directive unless something
11 like the other night happened and you say go to
12 Mode 5 and stay there. Basically it's guidelines
13 and the company puts it into their own words.

14 MARK KLEIN: I've had the impression it
15 was more or less like commitments. The way I
16 understood it, it was like something would be wrong
17 or something wouldn't be working right and the
18 company will say, well, we will do this to fix it,
19 and then NRC says, That's good, and then you make
20 that requirement and then the company has to do it.

21 JEFF MELEG: From then on.

22 MARK KLEIN: From then on. It seems to
23 me like you can't take away the requirements.

24 JEFF MELEG: Like there is no feedback.

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1 Like, after a directive or a commitment is made,
2 there is no feedback generated to see whether this
3 really does, in fact, make things better. Once it
4 is in the law or the rules, that's it forever,
5 whether it's good, bad or indifferent.

6 MARK KLEIN: Everything seems to keep adding
7 up and adding up, more paperwork.

8 MR. BEARD: Would it be more appropriate
9 for the NRC to come back and suggest relaxation
10 from prior commitments or would it be appropriate
11 that the company go to the government and say, We
12 have been doing this for a period of time. Here is
13 our present situation and we think it's appropriate
14 to quash --

15 JEFF MELEG: However it works.

16 MARK KLEIN: You ought to definitely get
17 together.

18 JEFF MELEG: I'm under the impression
19 there is not a whole lot of communication between
20 the NRC and what's actually going down out here.

21 MR. BEARD: At the plant?

22 JEFF MELEG: Yeah.

23 MARK KLEIN: It seems like -- I got the
24 impression at first the NRC is supposed to be helping

1 the company, and then I start to get the impression
2 they are like a policing agency trying to find
3 errors and trying to find things wrong instead of
4 guidance. So it makes us kind of nervous about the
5 NRC.

6 JEFF MELEG: It seems like they like to
7 attack symptoms instead of the actual root of the
8 problems. They take care of symptoms, but you
9 should take care of the problem. I don't think a
10 lot of that occurs.

11 MR. BEARD: There is one last question I
12 would like to pursue and then I will stop. I will
13 try again to stop. Is it your perception these
14 requirements or commitments or whatnot come out of
15 high level discussions between the NRC headquarters
16 or the regional administrator to your high level
17 corporate people or come out of your plant
18 management through the region, or is it the
19 residents that work here?

20 JEFF MELEG: I don't know how the
21 machinery works.

22 MR. BEARD: Okay.

23 CHRIS BURNS: I don't have any idea. I
24 know what my shift supervisor and the assistant

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1 that works with us say, but you know, they are
2 saying here is what is handed down.

3 MR. BEARD: Okay.

4 CHRIS BURNS: There is usually somebody's
5 signature -- like on that one, most of them have
6 signatures like J. P. Williams, Chairman of the
7 Board, and stuff like that, people I don't even see,
8 only when they come in the plant. And when they do,
9 I make myself scarce.

10 MR. ROSSI: Larry, you had some questions.

11 MR. BELL: No, sir.

12 MR. ROSSI: Anybody else have any
13 questions?

14 BOB MORRISON: I would like to elaborate
15 on one thing. When we were down in the aux
16 feedpump and using the hand signals, we use them
17 real often, like in STs. We don't use them in that
18 particular room. We use them really often. That
19 wasn't invented that morning.

20 When you are running a pump room with STs,
21 you might be stationed at the flow gauge and the
22 other guy is at the throttle valve, and you tell
23 him to bump it up or bump it down a little bit.
24 Everybody is familiar with it.

1 Other than that, I can't think of
2 anything.

3 MR. ROSSI: Let me ask you a general
4 question about the interview. Do you think that
5 this was a good interview from the standpoint of
6 fact finding, or how did you -- what is your
7 comment on just the way the interview went?

8 JEFF MELEG: I think at this point there
9 is practically nothing we could add to what has
10 already been taken down in data and interviews.

11 MR. BEARD: I think Ernie is asking more
12 about the conduct of the interview. Have we been
13 too hard on you or too lax? How did the interview
14 go?

15 CHRIS BURNS: I think it went very well.

16 JEFF MELEG: I think it was okay.

17 CHRIS BURNS: I'm not as nervous as when
18 I first came in. I thought that the conduct was
19 very good. I don't have any problems with talking
20 to you.

21 MR. BEARD: If someone said that we had
22 been brutal on you during this interview, would you
23 have agreed with that?

24 CHRIS BURNS: No.

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1 BOB MORRISON: I would mention they did
2 have a Washington attorney with them and a guy
3 taking a deposition down over here.

4 MR. BEARD: That makes even me nervous.

5 BOB MORRISON: This guy doesn't even grin.

6 MR. ROSSI: Unless somebody has something
7 else to say, why don't we end the interview then.
8 So the interview is ended.

9 - - - - -

10 Thereupon, the interview was
11 concluded at 11:48 o'clock a.m.

12 - - - - -

1
2 CERTIFICATE

3 I, Nicholas Marrone, a Registered
4 Professional Reporter and Notary Public in and for
5 the State of Ohio, do hereby certify that I took
6 the aforementioned interview, and that the
7 foregoing transcript of such proceedings is a full,
8 true and correct transcript of my stenotypy notes
9 as so taken.

10 I do further certify that I was called
11 there in the capacity of a Registered Professional
12 Reporter, and am not otherwise interested in this
13 proceeding.

14 IN WITNESS WHEREOF, I have hereunto set
15 my hand and affixed my seal of office at Columbus,
16 Ohio, on this 17th day of June, 1985.

17
18 Nicholas A. Marrone
19 NICHOLAS A. MARRONE, Registered
20 Professional Reporter, Notary Public
in and for the State of Ohio.

21 My Commission expires November 1, 1987.
22
23
24

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April 2, 1985

All Davis-Besse Station Personnel

FRL

Steve Quennoz *Steve Quennoz*

SUBJECT

Control Room Access

GENERIC GUIDANCE MEMORANDUM POL-20

One of the lessons learned from the Three Mile Island incident in March, 1979, was on the subject of Control Room Access. Any time a number of people gather in one area, a person's ability to concentrate is reduced. A particular example of this is the Control Room Area which is subject to very quick overcrowding due to its small size. In the same vane, the Shift Supervisor's office and other rooms in the Control Room Area are also small. The total area being addressed is the area inside the double doors opened by the card reader.

In the past, the Control Room Reactor Operators have experienced distractions which can interfere with their ability to fully carry out the job responsibilities. Mainly, these distractions come in the form of visits to the Control Room by Station personnel who have no job-related reasons for being there, and by unnecessary phone calls made by Station personnel. In the interest of safe plant operations and public safety, it is absolutely necessary that the Reactor Operators be as free of outside distractions as possible so they can fully concentrate on performing their duties. This is especially critical when the plant is going through unplanned transients, such as unit trips or partial load runbacks. With this in mind, the following guidelines are established concerning visits and phone calls to the Control Room:

1. Enter the Control Room ONLY if you have SPECIFIC JOB-RELATED business there. After entering the Control Room, state your business to the Reactor Operator and carry out your function as timely as possible. When you have finished what you set out to do, promptly leave the Control Room. It is not necessary to notify the Reactor Operator when entering the Cabinet Room, Computer Room, or Shift Supervisor's Office. The Reactor Operator must give permission for entry into the restricted zoned in the Control Room. This zone is clearly marked by a stripe in the carpeting. Minimize the time spent in this zone as much as possible and leave immediately upon request from the Reactor Operator.
2. Call the Control Room only when direct communication with the Reactor Operator is necessary to the performance of one's job. Performing a Surveillance Test which involves the RO is a good example. An unnecessary call would be one in which direct communication is not necessary to the performance of one's job. Calling and asking for plant status information is a good example of this. Plant status information can be obtained from other sources, such as the status board in the PPF and the PM Notes.

EXHIBIT

6-17-85

3. In the event of an unexpected unit trip or transient, only personnel necessary to analyze and gain control of the event should enter the Control Room. All other personnel shall leave immediately and not return unless requested. In general, a few individuals who hold key positions should gather initial details and then leave the Control Room to put into motion whatever actions are necessary.
4. Training and Testing Shift personnel should not congregate in the Control Room and as much as possible, non-licensed personnel should turnover at their work stations.
5. The Shift Supervisor's office should be entered ONLY BY SINGLE INDIVIDUALS necessary to gain permission to start work or to obtain safety tags. This individual must be knowledgeable on the work that is to be performed.

The licensed operators on shift must help police personnel in the Control Room. Any deviations from these guidelines should have the on-duty Shift Supervisor's concurrence. Everyone has to exercise some judgement in complying with these guidelines.

Obvious violations of these guidelines have occurred in the past. As a result, the Shift Supervisors, Assistant Shift Supervisors, and Reactor Operators have been told to enforce these guidelines to the best of their ability and with the proper discretion and tact. Therefore, all Station personnel should cooperate and work with these individuals to make the guidelines work. We wish very much NOT to enact a stricter policy. Please help the entire Station by adhering to these guidelines.

By following these guidelines, Station personnel will be helping to assure that the Reactor Operators do their jobs better and that the Station is operated in the safest manner possible.