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PRESIDENT'S COMMISSION ON THE :
 ACCIDENT AT THREE MILE ISLAND :

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CONTINUED DEPOSITION of METROPOLITAN
 EDISON COMPANY by CRAIG C. FAUST, held at the Three
 Mile Island Nuclear Generating Station, Harrisburg,
 Pennsylvania, on the 23rd day of July 1979, commencing
 at 4:35 p.m. before Stanley Rudbarg, Certified Shorthand
 Reporter and Notary Public of the State of New York.

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A P P E A R A N C E S :

METROPOLITAN EDISON COMPANY:

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PRESIDENT'S COMMISSION ON THREE MILE ISLAND:

WINTHROP ROCKWELL, ESQ.
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JOAN GOLDFRANK, ESQ.
Associate Counsel

ALSO PRESENT:

LEE TEW
CLAUDIA A. VELLETRI

oOo

(Documents described below were marked
Faust Deposition Exhibits 10 through 13,
respectively, for identification, this date.)

C R A I G C. F A U S T , having been previously
duly sworn, was recalled as a witness and
testified further as follows:

2 DIRECT EXAMINATION (Continued)

3 BY MS. GOLDFRANK:

4 Q You are still under oath.

5 A Yes.

6 Q To make it easier for us to get through
7 with this deposition and for the court reporter to take
8 it down, I should wait until you have finished making a
9 statement, and you should wait until I have finished
10 asking a question, okay?

11 A Okay.

12 Q You brought with you certain daily logs
13 that are completed on your routine shift as a control
14 room operator. We have marked these as Faust Deposition
15 Exhibit 10, which is the Unit 2 Surveillance Procedure
16 2301-S1, called "Shift and Daily Checks," correct?

17 A Correct.

18 Q This is the shift and daily checks that
19 are contained in the tech specs, is that correct?

20 A This is what is required of tech specs, put in a
21 procedure form, so that we can perform it easily, so
22 that we meet the tech specs.

23 Q These are operating procedures that have
24 been drafted and reviewed and approved and written
25 pursuant to the tech specs?

2 A Correct.

3 Q And who would have drafted these procedures?

4 A I am not sure I can answer the specific person
5 or group of people. This is just a form that is made
6 through the Engineering. In other words, it is
7 through our PORC and what not, to allow us to perform
8 our job easier, instead of going -- it is hard to try
9 to memorize tech specs, a total book, so this is what
10 this is doing, the things that are required on a
11 routine basis, like every 12 hours or 24 hours, or
12 whatever the case may be, the work that needs to be
13 done with that frequency is in this set of procedure.
14 That will keep us within the tech spec requirement.

15 There are longer ones, but they are scheduled
16 through our maintenance and regular surveillance
17 procedures we perform. This is per the tech spec,
18 again, the ones that are monthly, quarterly, semiannually
19 or annually that are done. These are just the ones
20 that are required daily, more for a daily period of
21 time or hourly, depending on what it is.

22 Q You indicated that a group would have
23 drafted these procedures. Is that a formal committee
24 that would have drafted these?

25 A Yes, I would call it formal.

2 Q And what would that committee be called?

3 A Procedure Operational Review Committee, I be-
4 lieve, is what it is called PORC.

5 Q Is that Plant Operations Review Committee?

6 A Probably.

7 Q And would they have initially drafted the
8 procedures or is their function really to review the
9 procedures?

10 A They review. One of their functions is to review
11 the procedures. I don't know for sure if they got in
12 on some of the initial putting together of the pro-
13 cedures. Operations, I know, did get involved in
14 operating procedures, but it would get to the committee
15 to be reviewed, to make sure that it covers what it was
16 supposed to do and performed the function it was meant
17 to do.

18 Q When you say "Operations" --

19 A Just like I, myself, might start putting together
20 a procedure on a system, and I would use whatever data
21 I have available to me, text manuals and just operating
22 experience at Unit 1. I might reference this to see
23 how far it goes along, to give me an outline on it.

24 I would put this together and submit it to the
25 shift supervisor, the foreman and shift supervisor,

2 who would also go through the PORC Review Committee to
3 make sure that it covered everything that it was sup-
4 posed to cover.

5 Q Did you specifically have any input into
6 the Shift and Daily Check procedures?

7 A I myself, just in order -- for the most part just
8 to make it easier to through it -- but as far as what
9 was in it, it was already stated as tech spec require-
10 ments are. In other words, whatever is in the tech
11 spec that needs to be covered tells us what was going
12 to be in there.

13 Q So you did not have any input into the
14 actual substance of the Shift and Daily Checks?

15 A No.

16 Q But merely the order in which they were
17 taken, is that correct?

18 A Yes, just to make it easier in doing them.

19 Q This Shift and Daily Check procedure that
20 you provided us is Revision 15, dated March 14, 1979,
21 correct?

22 A Correct.

23 Q Would that be the last date that a revision
24 was made to these?

25 A Up to this point, that is. In other words,

2 there are still revisions coming out. You have one of
3 the most recent ones right now. The changes that are
4 implemented into the procedures, depending on the
5 conditions of the plant.

6 Q And that means that since March 28, 1979,
7 there have been revisions made to these Shift and
8 Daily Checks, correct?

9 A Since March 28, I would have to look and find
10 out if there is one since that time. In other words,
11 after that time -- that is what you are asking?

12 Q Well, this is dated March 14, 1979.

13 A Yes.

14 Q So that March 14, 1979 would be the last
15 date that you know of that there would be a change
16 made to this?

17 A YOU would have to look on the specific page to
18 determine what the last revision for that page was.

19 Q So that this cover sheet does not mean that
20 this is the last date that a revision was made?

21 A The cover sheet will have on it the revision
22 dates that were made and pages, and the most updated
23 ones you could look through here, really. The last
24 one is here, Page 14, Revision 15. That would indicate
25 to go to that page. It looks like that. You go to

2 the page, and it will give you the most recent
3 revision made in the procedure on that particular page.
4 I guess maybe 14 is the most recent one.

5 Q So that the most recent revision to this
6 would have been on March 14, 1979?

7 A Correct. That is the way it looks, yes.

8 Q Do you know if there have been procedure
9 changes since March?

10 A No, I don't know offhand on this. They are
11 being changed to fit the status of the plant, but I
12 don't know that that has been implemented. It doesn't
13 seem to have been, as far as I can see right now.

14 Q And as you stated, these are procedures
15 that you would undertake at the time you were on shift
16 in the control room, correct?

17 A Correct.

18 Q And did they contain a log that you would
19 check off that you had performed each check?

20 A This whole procedure is the log.

21 Q So you are provided with forms that you
22 go through and you check when you have completed each
23 check?

24 A We will take the master copy and Xerox off a form
25 for that shift and perform it and send it in to our

2 surveillance organization that checks it over for
3 accuracy to make sure everything is done. They will
4 then file it.

5 Q And do you perform that?

6 A You will find the most recent copies of this
7 affidavit. It goes through this chain, back up in
8 the control room, in the cabinet for tech spec
9 surveillance because it has the most recent copies
10 that would be on hand because they are the ones that
11 tell the conditions of the plant.

12 Q And is Enclosure 1 the form that you
13 complete?

14 A That is just one section. There are four
15 enclosures that go in this one.

16 Q And you would complete all four enclosures?

17 A Right.

18 Q Each shift?

19 A Right.

20 Q And would you yourself do that, or would
21 you supervise people doing it?

22 A I myself would do most of it. Some of the data
23 is out in the plant, which I might have an auxiliary
24 operator relay the information, in other words, go
25 look at it and tell me the information on his log sheet;

2 in other words, things that I couldn't get in the
3 control room are put down on a separate log, for the
4 auxiliary operator to go down and write the values in
5 that he sees and bring them back to me.

6 Q And once you have completed this, you
7 initial it that you have performed this check and the
8 time on the form?

9 A Yes.

10 Q And who approves it?

11 A The shift foreman approves it.

12 Q And does he review the forms?

13 A Yes.

14 Q Do you know what his review consists of?

15 A Just to look over and make sure that we have
16 done each step required and to make sure it has been
17 done.

18 Q Then what happens to the form?

19 A From that point, it is sent to the surveillance
20 personnel.

21 Q Which is who?

22 A I don't know who it is right now. The structure
23 has changed a little bit.

24 Q Who would it have been prior to March 28?

25 A The person I can think of would be Marshall.

2 Q What is the relation of that organization
3 with these forms?

4 A I think you had better ask them. They review
5 them. I know they review them. That is their job
6 to go through to see they are completed properly.

7 Q Do you ever get feedback from them?

8 A Yes.

9 Q What kind of feedback do you get?

10 A Depending on if one of the major things -- if
11 something wasn't applicable on the form, we might write
12 in and just eliminate the form. They don't want
13 us to do that because it didn't fit the mode we were
14 in. Each of them talks about modes you have to be in.
15 This is just a minor point.

16 They wanted to have us fill in "NA'S" far as
17 just writing anything on the form and completing the
18 form like that, instead of leaving it blank.

19 (Continued on Page 92.)

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2 Q What does Applicable Modes 1, 2, 3, 4, 5,
3 and 6 mean?

4 A These are modes of the plant. In other words,
5 Mode 1 would be that we are critical in that power.
6 Mode 2 would be startup mode in the plant. Mode 3 is
7 a hot shutdown. No. 4 is hot standby. No. 5 is cold
8 shutdown and No. 6 is refueling.

9 Q And did the surveillance group or did
10 Mr. Marshall ever send these forms back to you for any
11 reason besides indicating to you what you should fill
12 in where the referred to spec was not applicable, "NA,"
13 where it was not applicable to the mode it was in?

14 A Not to me personally, no. I have had one sent
15 back where I had forgotten to send back the data sheet.
16 I forgot to attach it to the procedure. I filled it in
17 and laid it down on the desk, and the foreman just
18 missed it when he sent it out, and he requested that
19 data sheet. It came back to me and I sent it out.

20 Q So you cannot recall another instance where
21 he sent it back except where you had inadvertently
22 forgotten to attach a sheet?

23 A Not personally. Usually anything sent back was
24 just a clarification on how they wanted it filled out.

25 Q Do you remember any other specific

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2 clarification aside completing this blank, whether it
3 be with "NA" or otherwise?

4 A Not right off, no.

5 Q It appears after the enclosures?

6 A That is part of the enclosure.

7 Q This graph is part of an enclosure?

8 A Yes. What that is doing is setting rod index
9 limits. We operate with the rod in a certain area of
10 the core, due to safety considerations, available shut-
11 down margin and flux considerations and flux patterns
12 throughout the core.

13 What these graphs are showing you here are rod
14 bands that we would be required to stay within at
15 certain powers. The power levels in the core are going
16 up and down.

17 Q Are all the rest of these appendices?

18 A The appendices are just when something isn't as
19 it is supposed to be in the tech specs. These are
20 additional things that we have to monitor to insure that
21 you use the requirement of the tech specs.

22 In other words, that is what I was saying, is they
23 would be referenced. If you were outside tech specs --
24 the specific area that would really be into them would
25 be on the event, describe an event, and the event exists.

2.3

2 It might reference you to the tech spec, itself, or a
3 procedure number that they would perform until the
4 condition was corrected.

5 If you look at each of these, they reference you
6 to a tech spec. If you are out, it talks about tech
7 spec action number. Then you would refer to this page
8 in the tech specs to find out more about it and what
9 was required if you weren't within the range that you
10 were supposed to be. Over here it gives you limits
11 that you are supposed to be within.

12 Q So that in each item you would daily check
13 on the actual checklist, there is a space in which you
14 mark the actual measurements, but next to it, to the
15 right, there is the tech spec requirement?

16 A The range of which you are supposed to be in for
17 tech specs.

18 Q If in your check you were not in that range,
19 it would key you in?

20 A This would key me into the tech spec. I would go
21 to the tech spec, that specific one, and find out what
22 the follow-up action is that was required.

23 Q And would you then complete a form for that
24 follow-up action?

25 A I would have to go and look at that. I might

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2 just, I mean, get it back in the range within a given
3 period of time.

4 Q For which particular items that you check
5 are you supposed to then fill out a subsequent form in
6 these appendices?

7 A Well, to give you an example here. It says boron
8 reduction in RCS after completely cooling system.
9 Out here, I would come out here and say, "Yes, there is
10 a boron reduction in RCS."

11 If I went to this procedure, Appendix H, I slip
12 back to Appendix H back here and perform whatever it
13 tells me to do.

14 In this case Appendix H tells me that you have
15 logged the time that you began reduction in boron, and
16 you log it on your graph. The usual thing.

17 If you are less than 28 GPM, you are checking for
18 flow in the RCS during this reduction, that is what you
19 are mainly checking for.

20 There is a tech spec requirement that indicates
21 if there is any boron reduction being done in the core,
22 you will be greater than 28 GPM, once you are mixing
23 boron in the system, and that is what you are checking
24 for in this case.

25 Q There are certain items that you check daily

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2 that you have indicated that you merely, if they do not
3 fall within the range, you merely go back to the tech
4 spec and determine what corrective action you should
5 take. Other items that are not within that range you
6 then must complete a further form attached, as appendix
7 to this operating procedure. What is the distinction
8 made as to the kind of things that you must go back and
9 fill a further log on?

10 A What this is that these attachments are actually
11 requirements. If you went to the tech spec, it would
12 tell you to do what you are doing right here.

13 It is just that these are convenient on the data
14 sheet. We will do deborating in the plant, and when-
15 ever we do deborate, one of the things you have to do
16 is make sure that we are above the required flow rate,
17 and that shows us how to do this.

18 So that is convenient to the data sheet or our
19 shifts and dailies. There are other things that
20 wouldn't be so readily apparent because I would have to
21 go to the tech specs.

22 In other words, if it didn't reference right
23 here -- some of these things would reference you to
24 where you would have to go back to tech specs and look
25 at the tech spec item.

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2 It says right there, "Related to tech spec item."
3 Down here it doesn't have one for RPS channel inopera-
4 tive. You don't have a reference on the back, so what
5 you will end up doing is to go to the tech spec. That
6 tells you, depending on how many channels are inopera-
7 tive, that you have so much time to restore it, or you
8 will have to shut down. The reactor protective system
9 is what that represents.

10 Q Who would make the decision as to whether
11 or not you should go directly to the tech spec and do
12 that?

13 A Well, the operator would be able to make a deci-
14 sion because it is labelled right there.

15 Q I understand that, except who would make
16 the decision as to whether or not you go?

17 A Whether to use the procedure in the back?

18 Q No. Let me finish my question.

19 Who would make the decision that in the use
20 of shifts and daily techs in these operating procedures
21 that a reference to a tech spec number was sufficient,
22 it was sufficient to send the operator back to the tech
23 spec and perform the procedures under that or in
24 certain instances attach an appendix?

25 A I might be giving you the impression that this is

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2 something from the tech spec. It is not. This is a
3 requirement of the tech spec, if you are outside of a
4 given range, and the data sheets are just provided, in
5 other words, where appropriate.

6 In this case, which I was showing you here, all
7 the operator needs to do is, it refers you to what is
8 a tech spec requirement, a surveillance requirement,
9 and the data in this appendix is required whenever boron
10 reduction in the RCS system is being made.

11 Q Therefore, every time there is an appendix
12 would be required by a tech spec?

13 A Right.

14 Q Is that correct?

15 A Yes, it is.

16 Q So the tech spec provides whether or not a
17 specific appendix should be attached?

18 A Right.

19 Q We have marked as Faust Deposition Exhibit 11
20 the control room operator's log sheet, which is logged
21 daily and the shift foreman reviews and returns to the
22 OPS engineer. Can you look at this, please?

23 A Yes.

24 Q This is also a log sheet that a control
25 room operator would fill out daily on a shift, is that

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2 correct?

3 A Right.

4 Q And the shift foreman would review this

5 upon completion?

6 A Yes.

7 Q And it then is returned to OPS engineer?

8 A Yes.

9 Q What does "OPS" represent?

10 A Operations engineer.

11 Q Who would that be? Is that one particular

12 individual?

13 A It would have been. I think it is George Kunder

14 or was.

15 Q This is prior to March 28?

16 A Unit 2 OPS engineer, I believe.

17 Q That would be George Kunder?

18 A I believe.

19 Q And you complete one of these for each shift?

20 A Yes. Well, this is the three shifts. In other

21 words, I just fill out on the 11:00 to 7:00, under that

22 column.

23 Q And then what do you do with it after you

24 have completed it?

25 A I will return it to the foreman at the end of the

3.9

- 1 shift so he can review it.
- 2
- 3 Q Do you sign off on this?
- 4 A Yes, in the back.
- 5 Q You would put the CRO signature for the
- 6 shift that you have performed?
- 7 A Yes.
- 8 Q And then the shift foreman would approve,
- 9 review your surveillance?
- 10 A Yes.
- 11 Q Has he ever gotten back to you as to your
- 12 completion of this log?
- 13 A Yes.
- 14 Q What kind of feedback?
- 15 A I might have missed a reading.
- 16 Q Would there be any reason why he would get
- 17 back to you?
- 18 A I might not have signed it off.
- 19 Q Any other reason?
- 20 A If something was higher in pressure and tempera-
- 21 ture than he thought it should have been, he might ask
- 22 about it, to find out why it is like that.
- 23 Q And would he come to you while you were
- 24 still on shift?
- 25 A Yes, he reviews it right there on shift.

2 Q What period of time are we talking about
3 that he would get back to you?

4 A He would be looking at it and look up and ask me
5 about it.

6 Q He would be physically in the control room?

7 A Right.

8 Q And if there were indications of temperature
9 or pressure that he thought were abnormal, he would come
10 to you and ask you to pursue or continue to survey
11 those temperatures and pressures?

12 A He would usually get an answer to why it was that
13 way or correct it.

14 Q So he wouldn't specifically come to inquire
15 and maybe direct you to do something with respect to a
16 particular reading?

17 A Yes. Is this control room operator's log sheet,
18 Deposition Exhibit 11, also required by tech specs?

19 A Not that I know of. It is not required by tech
20 specs.

21 Q Do you know who drafted this log sheet?

22 A It is a combination of operations effort more than
23 anything to put together parameters that should be
24 looked at or we felt should be looked at on the plant.

25 In other words, Unit 2 has this experience

2 on things that would be obtained, like Unit 1, and
3 there is a reference just to things that they were
4 looking at on this. The same people were involved in
5 making that one too. It is something that the operators
6 are required to go around to make sure that the proper
7 operation of running equipment or just systems is
8 where it is supposed to be pressure and temperature-
9 wise, as well as flow.

10 Q When you refer to operations having drafted
11 it, you mean the control room operators?

12 A The control room operators have an input into it,
13 yes. As far as usually, once again order an ease
14 emergency final determination on what is going to be on
15 the log, usually it is the foreman.

16 Q Do you know who would have reviewed this
17 log sheet?

18 A The operator OPS engineer, I believe. You mean
19 other than a foreman?

20 Q I do not mean for each time you would
21 have completed it that the foreman and OPS engineer
22 review it, but as to the form itself.

23 A I believe -- no, I don't. That I don't know.

24 Q Did you have any input into drafting this?

25 A As far as the order of it. Sometimes depending

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2 on what readings were, the readings that would apply
3 due to stages of the plant that we were in, in construc-
4 tion, certain readings applied at that time, and at
5 other times they didn't. As it progressed, we would
6 request for them to be eliminated or we would say that
7 we should be looking at this and we would then get that
8 put on.

9 Q Who would you initiate this action to?

10 A Through the foreman.

11 Q And had there been any time when you
12 thought suggestions should be made that were not
13 accepted?

14 A Yes. I can't remember offhand. I just remember
15 that we might have. It usually was to reduce the number
16 of things from an operational point of view that we
17 were logging that was being taken on a strip chart
18 recorder or some form like that, and we just didn't
19 think it was necessary to monitor because it was
20 already being logged down.

21 Q Do you remember a specific example?

22 A This one here (indicating), we are trying to get
23 rid of that.

24 Q The witness is referred to Faust Deposition
25 Exhibit 13. Is this log part of this, No. 11?

2 A You could think of it the same as that because it
3 is the secondary parameters, so to speak that we were
4 monitoring.

5 Q So that this Exhibit 13 is in more specific
6 detail than factors contained in 11?

7 A This is on generators.

8 Q The control room operator's log sheet?

9 A Yes.

10 Q And this Exhibit 13?

11 A This is main turbine generator in the plant.

12 Q Deposition 13 is on the generator?

13 A Right. These temperatures are recorded on the
14 strip chart recorder, as well as they can be read out
15 on the computer. That is why we just didn't feel it
16 was needed to write them down.

17 Q So you were writing down data for each shift
18 that was information also contained on the computer?

19 A Right.

20 Q And you felt your performing that task was
21 duplicative of the information contained on the computer?

22 A Right, on the strip chart recorder -- two
23 sources. Part of that was on the computer and the other
24 part was on the strip chart recorder.

25 Q What is a strip chart recorder?

2 A It is just that in this case there is a tempera-
3 ture monitoring readout device that just prints it on
4 paper, a roll of paper at various points, and it is a
5 multiple point recorder.

6 Q And did the foremen explain to you why
7 they rejected your suggestion as to no longer making
8 this recording on this log sheet?

9 A The best answer I can give to that is they wanted
10 this on the log sheet.

11 Q Did they explain it to you?

12 A Yes, but I can't remember the words that he used.
13 It came across to me that they wanted us to take it.

14 Q Do you remember generally the reason why?

15 A I believe, my own personal feeling it was a
16 convenience to them.

17 Q It was more convenient for them to have you
18 log it in my hand?

19 A Right, than to go over and look at it, have a
20 computer printout and also take it off the strip chart
21 to determine what was going on, as far as temperature
22 variations on the generator, the turbine generator.

23 Q What has been marked as Faust Deposition
24 Exhibit 12 is a daily log sheet. Would you explain to
25 me what this is?

2 A All this date sheet is is a record of how much
3 generation we produced, is what it amounts to. This
4 is for the dispatchers mainly. It is a record of what
5 we are putting out, and we just megawatt readings over
6 the main generator and off our auxilliary transformers,
7 rather, main transformer, as to what is being taken out
8 and what are our in-house usage. At midnight this is
9 totalled up, and the information is given to the
10 dispatcher for his use.

11 Q Who is the dispatcher here, how would you
12 describe him?

13 MR. YUSPEH: You mean who is the individual
14 who is the dispatcher?

15 Q The position.

16 A The position -- I don't know if I can give you a
17 definition of the job.

18 Q Do you know what his responsibilities are?

19 A Not totally, no.

20 Q Some of them?

21 A Just regulating the output of the unit, of the
22 grid.

23 Q And why would he be provided with this sheet?

24 A I believe it has to do with figuring up how much
25 Met Ed is going to get paid for the electricity it is

2 generating. You see, they have a readout here. What
3 this actually is is like a double check. They have
4 their readout what they keep track of, and we always
5 read it out. It is like a dual check on what is being
6 generated and used in the system.

7 Q Off of what instruments would you get this
8 information?

9 A Kilowatt hour meters behind the panels. These
10 are -- if I took you up by the panel and you faced the
11 panel, those would be off to your right, behind all the
12 panels.

13 Q Are these calculations required for you to
14 perform on this log sheet?

15 A Just summing up, addition, subtraction. It is a
16 matter of just going behind and reading off the meter,
17 and then every six hours you do a check on it to make
18 sure that it balances out the PD meter with the kilo-
19 watt meter readings.

20 Q On the back of this station daily log sheet
21 there are listed causes and cause codes. Can you
22 explain to me what those are for?

23 A I never really used them myself. I never had to
24 use a cause code on this data sheet.

25 Q Do you know why they are there?

2 A It is an indication of a problem in the system.

3 Q And where would you utilize those if you
4 needed to?

5 A I believe it would be a number we would give the
6 dispatcher, so he would be able to put down reasons why
7 generation was either down, due to a problem with the
8 transformer, itself, or otherwise. I just never had to
9 give him one. I imagine he has a copy of this, and it
10 might be he never just asked us for one.

11 Q So you have never utilized those codes on
12 the front part of this?

13 A No. We would write it over here, but I never got
14 involved in using one of the codes. I had not seen the
15 codes used.

16 Q But there have been times you completed this
17 log sheet with some of these causes, as identified
18 on the back of the sheet, were in existence?

19 A Correct, yes.

20 Q But you never completed the front part of
21 the log sheet that indicates "cause codes"?

22 A Right. I am not sure how much it applies to the
23 situation. I mean, up there, as far as the dispatcher
24 is concerned, when we are not generating -- he is not
25 getting the generation he needs for his job.

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2 Q When you say you are not sure how much it
3 applies in the situation, you mean you are not sure
4 how it applies to the dispatcher's concerns, correct?

5 A Right, as far as the dispatcher's concerns. We
6 are not getting anything in, he is not receiving
7 anything.

8 Q You don't feel he is concerned why he is
9 not getting anything?

10 A It doesn't mean anything to him, really.

11 Q With respect to the logs and the shift
12 and daily checks that you perform, are all the forms
13 completed by you daily as contained in Deposition
14 Exhibits 10, 11, 12 and 13?

15 A With the exception of surveillance items.

16 Q But those would be items that would not
17 necessarily be done daily but would be done weekly,
18 monthly?

19 A Weekly, monthly, yes. On those surveillance items.
20 The only other thing I haven't brought down is, like
21 I said, the operator who is performing these tasks is
22 also the switching and tagging operator, and if you
23 want to go over -- I didn't bring any of those things
24 down -- just to give you an idea of it, but it is just
25 another part of his duties which can sometimes tie

A-2

2 you up quite a bit.

3 Just as a safety-related type thing, if you
4 are working on equipment that for some reason you
5 don't want to be operated, you would red-tag out -- for
6 instance, it is just a red tag, some forms in the
7 industry, that people aren't supposed to operate it.
8 We don't operate it. Or blue tags. You can go into
9 our tagging, which is available if you want it.

10 Q And there is a whole separate set of logs
11 with respect to information that you go through during
12 each shift concerning instruments that are checked?

13 A Wait a minute. I don't want to give you the
14 wrong impression. This is -- somebody would come in
15 and request it -- that is on our tagging request -- to
16 tag out a piece of equipment that maybe he was going
17 to work on or the form would say, "We want to tag that
18 out for one reason or another." Either it is mal-
19 functioning or whatever his reasons might be, okay,
20 that would lead me, once I am given a tagging appli-
21 cation, to write up a set of tags to isolate the
22 component in a safe manner.

23 In other words, if they were working on elec-
24 tricity, nobody would get hurt from it, from that end.
25 You would isolate it electrically as well as if it was

Faust

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2 a pump, it would isolate the water end of it, steam,
3 whatever it might be, hydraulics.

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4 Q So each shift that you would come on, you
5 would be given a log as to which instruments or which
6 systems would not be operating on that shift for
7 whatever reason?

8 A There is a log, switching and tagging log of
9 equipment that is tagged out, yes.

10 Q And you would go through that prior to each
11 shift?

12 A Not necessarily. If something affected the plant
13 operation, which it would be noted to the control room
14 operator that has the panel as to how it affects him
15 in the plant. That would be either written down in
16 his log, or he reads it over the log from when he has
17 it last, okay, to the point of the operator relieving
18 him would tell him, "Okay, the service air compressor
19 is seized, out of service, don't operate it."

20 Q So you would not go to the switching and
21 tagging log each shift?

22 A No.

23 MR. YUSPEH: When you say something is
24 tagged out, do you mean literally a tag is com-
25 pleted on the item, and it is physically placed

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on the panel identifying the problem?

THE WITNESS: It is placed on any of the remote controls that might be in the control room, as well as additional tags -- in other words, this could amount to tagging out a whole system. You would go out into the plant, and you would find tags hanging on individual valves, controllers, electrical switchgear that is supplying it, tagging out of that portion, so that whatever happened, that piece of equipment is not to be disturbed.

MR. YUSPEH: So if something is tagged out, a physical inspection of the system or the remote control will readily reveal it is tagged out; is that correct?

THE WITNESS: If it has a control in the control room. There are things that aren't in the control room that we can't see from the control. That is why I am saying if it affected plant operation where it would inhibit us from a mode or something like that, it would be noted to the CRO as well as the form would also note it.

Q But there is no check done on each shift of the switching and tagging log to be assured that the system or instrument that is out of operation for

Faust

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2 that shift has been tagged?

3 A There is no check done in the switching and tagging
4 book. There is a check in the sense that I was telling
5 you before.

6 Q In each shift, there is a check?

7 A I am saying there is a check between the way the
8 turnover is conducted, what is written in the log --
9 in other words, if a piece of equipment is taken out,
10 it is logged down in the CRO's log. The operator coming
11 on has essentially three sources of information on the
12 plant status. One, he reads the log from the last
13 time he had the shift. The other would be his verbal
14 turnover from his relief or the man he is relieving,
15 and another one would be that man relieving him writes
16 down a turnover sheet of things that happened or were
17 performed either during his shift or shifts prior that
18 we feel should be noted to the CRO, you know, something
19 that he should know about right away or is required
20 of him to do.

21 Q Which CRO reviews that log?

22 A Each CRO who takes the shift reviews it. I am
23 talking about reviewing it from the last time he had it.
24 He doesn't go through the whole log because it gets
25 rather lengthy. He reviews it from the last time he

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2 had the shift to see if any changes occurred that were
3 major in the shifts.

4 Q But there are two CROs on shift each time,
5 correct?

6 A Right.

7 Q And I think, as you explained it to me
8 yesterday, one is on the panel, and one is on the
9 switching and tagging, correct?

10 A Yes.

11 Q Which CRO would review that line?

12 A The CRO on the panel. He is the one, the CRO
13 on the panel is the one that is involved with the
14 immediate plant. A CRO on the switching and tagging
15 takes care of the paperwork. He does the paperwork.

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16 Q Are you a CRO on the panel one night and
17 on switching and tagging the next night?

18 A Yes.

19 Q You would alternate?

20 A Yes.

21 Q How frequently is the switching and tagging
22 log reviewed?

23 A It is reviewed -- I would have to look up the
24 requirements on it. There is a requirement for it to
25 be reviewed by the, I believe, the shift foreman to

2 actually go the round and audit the tags. That is a
3 surveillance, too, that calls it to his attention.

4 Q Is there a requirement how frequently the
5 CRO must review the switching and tagging log?

6 A No.

7 Q How frequently do you review it when you
8 are a switching and tagging CRO?

9 A I don't review it. I don't see a need to review
10 the switching and tagging log itself.

11 Q So the only individual who would review
12 that is the shift foreman?

13 A At this time, I don't know. I can't remember if
14 the supervisor gets in on it, too. I don't believe so.
15 I think it is the shift foreman who actually audits the
16 book.

17 Q And it is not within the responsibilities
18 of the CRO to review that log?

19 A No.

20 Q Do you have any responsibilities as a
21 control room operator outside of controlling the plant?

22 A What do you mean? State that again.

23 MR. YUSPEH: Do you have any responsibilities
24 other than being physically present in the control
25 room, or outside of your job, takes you outside

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2 in the operation of the plant?

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THE WITNESS: I am not sure I fully understand your question.

5

Q Let me see if I can rephrase it.

6

When you are in the control room as the control room operator, and your responsibilities would be the switching and tagging control room operator, other than the surveillance procedure and the other control room operator log sheets that you fill out, and responsibilities of controlling the plant from the control room, if the control room operator gave you instructions, would you have any other responsibilities?

14

A If I understand you right, I would say that depends.

16

Q What would it depend on?

17

A It depends on whether-- in other words, would I leave the control room for some reason to do some other job outside the control room; is that what you are asking?

21

Q Or would you have any other responsibilities in the control room?

23

A Not as far as I have already mentioned, surveillance. I am finding it hard to distinguish what you are saying because we are there to operate the

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2 whole plant, not just the control room. That involves
3 what is out there. The auxiliary operators normally
4 perform the functions outside the control room, under
5 the direction of either the foreman or the foreman
6 relaying the information to a CRO to tell the auxiliary
7 operator what is to be done, "We want this done."

8 If a condition comes up, and it has, CROs have left
9 the control room to do functions in the plant.

10 Q Does an auxiliary operator only take instruc-
11 tions from a control room operator?

12 A No. He takes instructions from either the
13 control room operator or the shift foreman or the
14 supervisor, depending on who happens to be right there.
15 Normally we like it to go through the CROs. That is
16 the standard rule so the CRO knows what is going on
17 with his operator.

18 Q But there have been certain times --

19 A Sometimes it doesn't.

20 Q -- that directions would come directly from
21 the shift foreman or shift supervisor?

22 A Depending on the condition, yes.

23 Q What conditions would they not go through
24 the control room operator?

25 A The foreman might be standing out in the plant

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with the auxiliary operator or tell him he wants him to do something.

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Q Would he then report back to the control room operator?

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6

A Not all the time.

7

8

Q Under what circumstances wouldn't he?

A That depends on the operator.

9

10

Q Which operator?

A The auxiliary operator. It depends on the person because it hasn't been made a requirement, I mean a mandatory requirement, that he report back and tell the CRO after the foreman has told him to go do something. That is not a specific thing that has to be done all the time. It is more than anything convenience, so that the CRO knows where his men are at.

11

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Q So when you say it depends on the person,

18

if the auxiliary operator felt like he wanted to --

19

A Maybe he didn't like me.

20

Q -- report that to the CRO, whether it was

21

a personal liking --

22

A Or just he didn't feel it was necessary.

23

Q So it is left to the auxiliary operator

24

whether he wants to report back to the CRO?

25

A I don't know if I would like to state it that way.

2 It is up to the situation at hand. There is a set
3 pattern that we like to go by, but it is not absolute,
4 is what I am trying to say.

5 Q There is no requirement that the auxiliary
6 operator report back to the control room operator?

7 A The CRO is not the auxiliary operator's boss.
8 Actually, I direct him on things I know have to be
9 done. I am union. I am not the auxiliary operator's
10 boss. The foreman is his boss, but it makes things
11 easier is what I am saying, and it is easily run that
12 way. Usually it is run that the auxiliary operator
13 runs t the CRO to get things done. It makes it easier
14 on the foreman and it makes it easier for the CRO to
15 know what is going on in the plant.

16 Q And there is no operating procedure that
17 requires the auxiliary operator to report back to the
18 control room operator?

19 A If he was given directions -- I am citing a case,
20 just one type -- if, say, the foreman went out and
21 happened to tell the auxiliary operator -- there are
22 a lot of times where the CRO doesn't know what is going
23 on as far as what he told the auxiliary operator to do.
24 It wasn't necessarily detrimental to anything; it is
25 just something that the CRO didn't know at the time

2 that something might have been going on and he wasn't
3 aware of it.

4 The foreman, on the other hand, has come in and
5 said, "I sent this guy to do that."

6 Q Would the foreman report back to you if he
7 suggested that an auxiliary operator do something?

8 A It is more like he would inform you.

9 Q Would he always inform you?

10 A No.

11 Q It would be up to the foreman whether or
12 not he informed the control room operator?

13 A It amounts to that, yes.

14 Q Is there a requirement that the control
15 room operator stay in the control room while he is on
16 shift?

17 A There is a requirement that licensed operators, a
18 given amount, stay in the control room depending on
19 the plant conditions.

20 (Continued on Page 121.)

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2 Q A given amount?

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3 A In other words, licensed -- I am saying SRO license
4 and CRO license is required in the control room at all
5 times depending on what the plant conditions are. When
6 we are up at power, we are required to have two, an SRO
7 license and a CRO license in the control room. In
8 other words, two licenses in the control room at all
9 times.

10 Now, the SRO license might -- the requirement is
11 not necessarily that he be in the control room -- in
12 other words, there are situations where as long as we
13 have two CRO licenses in the plant or in the control -
14 room -- this, to me, by the way, I believe is just
15 administrative type ruling. I would have to go back
16 to the tech specs and see what the requirements are for
17 hot functionals and refueling and whatnot as far as
18 licenses in the control room. That is why I am saying
19 the CRO can go out.

20 We run with two licenses in the control room.
21 It is usually at least two RO licenses or one SPO and a
22 CRO. I am getting terms mixed around here, but it is
23 SRO, senior operating license, and an RO license.

24 Q An SRO is senior reactor what, operator?

25 A Yes.

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2 Q And an RO is reactor operator license?

3 A Yes.

4 Q And control room operator would have a
5 reactor operator license?

6 A Right.

7 Q And for what reason would a control room
8 operator leave the control room?

9 A I am switching the tagging CRO, I am going to tag
10 out a piece of equipment I am not familiar with. I
11 haven't been out to look at it, say, in six months,
12 and I want to make sure I know which valves and switches
13 I want to tag out, so I go back out and I look it over
14 before I tag it out. That takes me out of the control
15 room.

16 The SRO doesn't leave, will not leave the control
17 room now until I return.

18 Q Can you think out any other reason that you
19 would be called out of the control room?

20 A Probably in the plant I, myself, have gone out of
21 the control room to help out in the problem in the plant.
22 In other words, we lost compensate pumps one time and I
23 went down and assisted the auxilliary operators when they
24 were down there getting it back on line. At the time I
25 left there was a foreman and a CRO still in the control

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2 room.

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4 Right now, another example if you want one,
5 even right now, although the requirements for manning
6 now are less in the condition we are at right now as
7 far as the licensed operators go in the control room,
8 I have a fire brigade that I make up. It is in here
9 (indicating) -- and because of the manning we have,
10 sometimes I will put my name down on a fire brigade
11 which means that if there was a fire, I would report
12 to the scene of the fire.

13

14 Q Have you been present at Unit 2 when there
15 have been NRC inspections?

16

17 A Yes.

18

19 Q Would you know in advance that you were
20 going to have an NRC inspection?

21

22 A I didn't, no.

23

24 Q Did other people in the plant know in
25 advance?

26

27 A Sometimes we knew and sometimes we didn't is what
28 it amounted to. In other words, as he is walking in the
29 front gate, we might listen on the radio and say, "Such
30 and such is entering the plant." It is hard not to
31 know at times; at other times you might miss the
32 transmission.

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2 Q Every time that an NRC inspector would enter
3 the plant, would they make an announcement that he was
4 entering the gate?

5 A No, not specifically him. They wouldn't make an
6 announcement like that.

7 MR. YUSPEH: This isn't a public address
8 announcement you are talking about?

9 THE WITNESS: This is our radios.

10 MR. YUSPEH: Two-way radios?

11 THE WITNESS: Right. We have a monitor in
12 the control room which we are required to have.

13 Q So if you were in the control room you would
14 overhear --

15 A It is possible. You might be in there and not
16 hear it; you might not catch what was said if you
17 weren't specifically listening to it.

18 Q Otherwise, in most instances, you did not
19 know in advance?

20 A I, myself, no.

21 Q And in some instances were you told in
22 advance?

23 A Somebody might have heard it and said, "Yes, there
24 is an NRC on the Island."

25 Q Would you just find out that day or would you

c.5

1 sometimes know a couple of days or a week in advance?

2 A What are you after? I mean --

3 Q Just answer the question.

4 MR. YUSPEH: It is a very straightforward
5 question. He wants to know did you have advanced
6 notice of the people --

7 THE WITNESS: I didn't, no. The advanced
8 notice I might have gotten -- nobody came up and
9 specifically said, "Craig Faust, there is an NRC
10 person entering the Island," no.

11 MR. YUSPEH: Did anybody ever say, "Craig,
12 there is going to be an NRC inspector coming in
13 two days or three days or a week"?

14 THE WITNESS: I can't specifically say that
15 I have heard there is going to be NRC people here.
16 I can't even remember exactly what they were
17 coming for sometimes. I believe it was just an
18 audit of the books. I have heard that and there
19 have been times when I haven't heard and they
20 walked in the door.

21 Q Would you be involved with the NRC inspectors
22 came concerning an audit of the books?

23 A No, I would not be involved normally. I might just
24 see them and say, "This is the files. They are over
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2 here," show them where they are at.

3 Q Which files would you assist them in?

4 A Usually the ones I am thinking about are tech
5 specs or surveillance procedures, operational procedure.

6 Q You would just show them?

7 A Where they were at, so he could go through them
8 because that is what he wanted to do occasionally.

9 Q And with respect to your responsibilities
10 as control room operator, what would an NRC inspection
11 involve?

12 A For me? Nothing. I am not involved in their
13 inspections.

14 Q So you would have contact with an NRC
15 inspector when he came on the Island?

16 A As far as talking to them, I might, yes. They
17 might ask me a question. I have been asked questions by
18 them before as far as, you know, where things are.

19 Q Have you been asked any other kinds of
20 questions besides where things are?

21 A No, not normally, no. No, I haven't.

22 Q Would the NRC inspectors come into the
23 control room while you were there?

24 A Yes.

25 Q And would they ask you questions in the

2 control room?

3 A I have talked to NRC inspectors before, but whether
4 it was in an official capacity, I didn't realize it,
5 if that is what you are getting at.

6 MR. YUSPEH: The question, again, is a
7 very simple question. The question was if an
8 NRC inspector comes into the control room would
9 they talk to you in the control room? It
10 requires a yes or no.

11 THE WITNESS: Yes.

12 Q What kind of questions would they ask you?

13 A What the mode of the plant might be, in other
14 words, the operating conditions of the plant.

15 Q Would they ask you to run through certain
16 procedures?

17 A No.

18 Q Would they ask you about certain procedures?

19 A Not that I remember, no.

20 Q Do you remember any other questions that
21 they would ask you aside from the mode of the plant?

22 A Other than just saying hello, no.

23 Q Would it always be the same inspectors that
24 would come?

25 A No, not that I know of. I don't remember them.

2 Q Was there one that would come more
3 frequently than others?

4 A That is what I am saying, I just don't remember
5 them. I have had very little to do with NRC inspectors
6 actually on the plant, just noting that they come in
7 and they might ask me a question about the plant
8 operating-wise, and just say hello to them.

9 Q Have you had less contact with them than
10 other control room operators?

11 A Probably.

12 Q Do you know why that is?

13 A I just don't talk to people too much.

14 Q So that most of the contact that the other
15 control room operators had with the NRC inspectors
16 were just because they initiated the contact?

17 A That would be a guess to say yes, I guess that is
18 the way it would be.

19 Q Are you saying that you had less contact
20 with the NRC inspectors because you were not as friendly
21 to them?

22 MR. YUSPEH: Do you know if you had less
23 contact with them?

24 THE WITNESS: No, I don't know if I had
25 less contact than somebody else. I am just

2 assuming that I did.

3 Q Do you have anything to base that assumption
4 on?

5 A I normally don't talk to them, that's all.

6 Q Is there a formal procedure at TMI 2 for
7 handling safety concerns that you, as an operator, would
8 raise?

9 A Yes. The main way I would do that -- I haven't
10 seen one right off lately, but I would get in touch
11 with a man like Earl Gee if I had anything like a
12 safety related item. You are talking about personnel-
13 wise?

14 MR. YUSPEH: Why don't you ask a question,
15 Joan?

16 Q You are thinking of a specific example?

17 A No, I am just saying when I think of safety
18 related, I think two people.

19 Q Why don't you give me an example of what you
20 are thinking of?

21 A Like maybe a pipe sticking out and it is not
22 marked, somebody could walk into it easily. They
23 should have tape around it or something like that that
24 marks it. Are you talking like that?

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Q I was thinking more as an example of safety concerns with respect to the plant, not personnel.

A Yes, we have forms for that.

Q What would that procedure be?

A It would be in the form of a discrepancy, for one thing. In other words, the way I would find something like that normally would be from doing surveillance on a safety-related item. If it did not meet the surveillance, I would write up a deficiency on it, which just involves describing the item, the problem with it, what it didn't meet, and then the next step would be it would go to the foreman.

Q You would fill out a form called the deficiency form?

A It is referred to as an E&D sheet, which is an exception or deficiency or both, depending on the conditions involved around it. That form would key us -- in other words, or key other people to the problem that we are having with a safety-related item. The surveillance would determine just how fast we had to do something about it. In other words, some systems, we will allow days before we have to worry about, in other words, a shutdown of the plant. Others are a matter of 15 minutes' time, in which we probably

2 wouldn't be writing one of those up at that point;
3 you will either correct the problem in a case like
4 that right away, or you are going to be shutting down.
5 That would be -- in other words, the form would be
6 right there with you, as well as the supervisor reasoning
7 out what is going on to that piece of equipment.

8 Q If something came up that you needed to
9 correct right away, you would immediately contact the
10 foreman and the supervisor?

11 A It would be brought to the foreman's attention,
12 as far as I am concerned, right away. It would also be
13 brought to the supervisor's attention, especially if
14 it involved a short time on the plant staying up. In
15 other words, a shutdown was the direction it was going
16 to go to if we didn't correct it within the allotted time.
17 The supervisor would definitely know about that.

18 Q Has that ever arisen?

19 A Yes.

20 Q Can you give me an example?

21 A One was on -- that I can think of -- was we had
22 a problem with our normal cooling system in the
23 reactor building, okay, in which temperature in the
24 reactor building was going up, increasing, and this
25 involved a tech spec-related item, which it wouldn't

2 have really forced us down, but it was considering
3 enough that it would have forced us onto one of our
4 safety-related systems to cool the reactor building.
5 If it was something that the foreman as well as the
6 supervisor were in on to know about, they make decisions
7 about which way to go.

8 Q And they would make the decision right at
9 that instant?

10 A Yes. We would talk about it, make a decision on
11 it, depending on the case. They might call -- I don't
12 think he called anybody in this case, but he might call
13 the supervisor of Operations or something.

14 Q And in the instance where it was not a
15 problem that needed to be attended to at that instant,
16 where would you send this E&D form to?

17 A I would give it to the foreman, and there you
18 can ask him. It is just the way I would do it.
19 I would give it to the foreman, and it is up to him
20 to determine what he is going to do with it.

21 Q And have there been instances where you
22 have sent an E&D to the foreman and have you received
23 feedback as to what happened?

24 A Feedback, I would receive --

25 MR. YUSPEH: Have there been instances

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when you sent them to the foreman --

THE WITNESS: Yes.

MR. YUSPEH: -- and got feedback?

THE WITNESS: The feedback I would get would be just followup action that I would be required to perform, which would be usually fairly immediate. In other words, it would either force me to a tech spec, or we would correct the problem so that we didn't have to go into a tech spec item, follow up on it.

Q Is that the only standard form that you would complete when a safety concern arose?

A It seemed to be the only one you need to key the situation. I would make a log entry on it just to note the situation in my logbook. The foreman would make one in his, so it would be written down in other places, in other words. It might require a tag-out if there was going to be data generated in the form of a work request. If it can't be fixed immediately, and we have to go to the instrument shop or maintenance or otherwise, there is going to be a work request written up on it.

Q After the foreman sent this to whoever?

A Well, the supervisor would get involved in that.

Q After it was directed to an appropriate

2 individual above the foreman, how would you be informed
3 as to the resolution?

4 A Usually in the form -- in other words, you are
5 talking about a tech spec item right now. I would be
6 informed of resolution of it if I was told, "We are
7 shutting down the plant because we can't get it back."
8 That is one way.

9 The other way, if I say nothing was done on my
10 shift, and I come back the next day and we are still up,
11 that tells me something. Nobody would pat me on the
12 shoulder and say that "We corrected this." I would find
13 out just in the operation of the plant itself. In other
14 words, if I came back on shift, or so long as I was on
15 shift, any changes in the plant I would know and the
16 reasons why. If I came back on shift, it would be
17 noted that this condition still exists.

18 Q With respect to operating procedures for
19 Unit 2, do you know who initially drafted those?

20 A Operating procedures?

21 Q Yes.

22 A I don't know everybody that was involved in
23 it, but I know I reviewed some operating procedures
24 myself to see how effective they were in actually
25 operating the plant. My word was not the final say

2 on it. Every operating procedure we have goes to a
3 PORC.

4 Q Why would you have reviewed some of them?

5 A Just because I am an operator. I am the one that
6 is going to be operating by those procedures and applying
7 them to the system. I would be one of the better people
8 to tell if something was going to work as far as this
9 procedure goes, than if I just sent it out to a committee
10 outside and said, "How about looking this over for me."

11 Q Would every operating procedure that was
12 drafted be reviewed by a control room operator?

13 A I would have a tendency on that to say that they
14 were reviewed by a licensed or not even a licensed, but
15 depending on the time conditions, a CRO and SRO. In
16 other words, it could have been a shift supervisor,
17 or it could have been the foreman. It could have been
18 a CRO depending on the conditions and their workload as
19 well as ours at the time.

20 Q So every operating procedure would be
21 reviewed by somebody who had an NRC license?

22 A Or was going to get an NRC license. In other
23 words, at the time that we were reviewing these, we
24 reviewed these before we had our license. The license
25 came, the need for the license came with getting these

2 procedures reviewed and was also getting part of the
3 license for the plant, anyway allowing it to go up.

4 Q Since December 30, 1978, any revisions
5 to operating procedures, would they have to be reviewed
6 by an NRC-licensed operator?

7 A They would have to be reviewed by PORC, this
8 committee I am talking about.

9 Q So since December 30, 1978, an operating
10 procedure that has been revised, that revision does
11 not have to be reviewed by a licensed operator?

12 A It gets reviewed by the licensed operator in
13 the sense that any revisions that are made to the
14 procedures, a licensed operator is required to look
15 at and read over. In other words, there is a check-
16 list on procedures when changes are made that the
17 operator goes through and looks through to see what
18 the changes to that procedure are that might have been
19 made. If he has any questions about it, he can make
20 comments on it.

21 Q So any revision that has been made since
22 December 30, 1978 has received review by an operator?

23 A All of them have. At one time or another, every
24 operator will review all the revisions made to the
25 procedure, if just to note there was a revision made.

2 In other words, if it is something like a sur-
3 veillance procedure, which is something that you pick
4 up and you will follow procedure, he might go through
5 and it is keyed in there, the change that was made, and
6 he might just look at the change and say, "I have got
7 to be aware of that next time I do it," but he will
8 have that procedure in front of him when he is doing
9 it. But the idea is to make the operator aware that
10 there has been a change made to the procedure.

11 Q Does he have input into that change?

12 A If he thought something was wrong, he would have
13 input. He has the availability to say something
14 about it. It has to go -- he would not change it
15 himself; it has to go before the committee to
16 change it.

17 Q But an operator would see it prior to
18 PORC review and approval?

19 A Not necessarily. PORC would review it, and it
20 would be instituted into a revision review book, just
21 a looseleaf book that contained procedure changes,
22 and we go through and review and initial that we
23 have looked at it. So this would have already been
24 back from PORC at this time, I believe, but that still
25 does not stop you from putting in a TCN on the

2 procedure through the foreman and the shift supervisor
3 if we feel there is a problem. In other words, we
4 would take our complaints, what we thought was wrong
5 on it, to the foreman or supervisor, and if they agreed
6 with us, we would write up a change to that which would
7 then go back to PORC.

8 Q So there are instances where PORC would
9 approve an operating procedure or surveillance pro-
10 cedure prior to having operator input on that?

11 A Yes.

12 MR. YUSPEH: Is the unit superintendent
13 licensed to operate the unit?

14 THE WITNESS: He carries an SRO license,
15 yes.

16 MR. YUSPEH: Then at the minimum, since
17 the unit superintendent has to approve any
18 changes that are recommended by PORC, then it
19 would mean that you have at least that level
20 of licensed reactor operator review, and I
21 also -- I don't know what the present membership
22 of PORC is in Unit 2, but I would imagine it is
23 conceivable that perhaps one or more PORC members
24 are licensed operators also.

25 THE WITNESS: It is a combination. PORC

2 usually consists of a combination of licensed
3 and unlicensed people, and as far as I know at
4 this time, in fact, they might all -- the last
5 statement was the way I believe it is.

6 Q Are control room operators members of PORC?

7 A No.

8 Q How would you initiate a change in an
9 operating procedure or a surveillance procedure?

10 A I get what is called a TCN. What it amounts to
11 is -- well, a TCN and a PCR -- I believe it is
12 procedural change request -- so that I would initiate
13 the TCN if it was agreed. The TCN is to notify imme-
14 diately of the change. That would go on top of the
15 procedure, all right? The PCR is a longer-range
16 thing that would go in to PORC, in other words, to
17 initiate the change in the procedure itself.

18 TCN is just a temporary. It is like a 90-day
19 thing, that if it doesn't show up after 90 days, it
20 is cancelled. The PCR is the actual paperwork to
21 the system to get a change in the procedure.

22 Q Are you --

23 A And review by PORC.

24 Q Have you ever initiated either a TCN or
25 a PCR?

2 A I have initiated both.

3 Q Would you then be asked to come before
4 PORC and explain why you felt that you were recom-
5 mending that change?

6 A No, because personnel -- if that were the case,
7 it would go promptly to the supervisor, because I
8 wouldn't initiate a TCN or PCR without his approval
9 on it.

10 Q So you would send a TCN or PCR to your
11 shift supervisor?

12 A That is about it, yes. That is what it would
13 amount to if he approved of it, agreed with me; then
14 it would go through.

15 Q If he agreed and approved that change,
16 he would then send it to PORC for review?

17 A I believe that is the direction it would go
18 then, yes.

19 Q And if PORC had any questions, they would
20 direct any questions to the shift supervisor?

21 A Yes.

22 Q Has the shift supervisor ever, then,
23 come back to you and discussed the requested change
24 with you?

25 A We usually talk about the change right then

2 when I am bringing it up. I might bring it up --
3 that is where any discussion comes in on it. He
4 would let me know if PORC disagreed with it.

5 Q Have there been instances where you have
6 recommended changes that PORC has not approved?

7 A I can't say right off. I don't remember exactly.
8 There probably have been, but I just couldn't cite one.

9 Q With respect to emergency procedures,
10 would these procedures also be reviewed and approved by
11 PORC?

12 A Yes.

13 Q How would you initiate a change with
14 respect to emergency procedures?

15 A It would be the same way. I go through the same
16 channels.

17 Q Do you know who initially drafted the
18 emergency procedures?

19 A No. I mean, I don't know who, overall, did initial
20 drafting of emergency procedures. I myself have been
21 involved in working with the structure of emergency
22 procedures, in other words, things that apply and
23 don't apply.

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2 Q Were you consulted as to the drafting?

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3 A I was asked to look over emergency procedures and
4 see, just review them for their accuracy as they may
5 apply to the plant.

6 Q Who asked you to review that?

7 A Usually my supervisor or my foreman might have
8 given me a couple of them to look over.

9 Q And then would you orally tell them what
10 you thought of these procedures?

11 A I might write down the list, depending if I saw
12 things wrong with it, I would write down on a sheet of
13 paper so he could look at it right away easy enough,
14 and then he could determine if what I thought was wrong
15 or right, depending on the case, I might have added
16 something or I might have wanted to eliminate something
17 I was worried about or put it in the follow-up action.

18 Q And were all control room operators involved
19 in that at TMI at the time, involved with the same type
20 of review?

21 A I believe so.

22 Q Were you aware that there was an investiga-
23 tion of the emergency feedwater valve No. 12 after
24 March 28, 1979?

25 A Yes, I knew they were investigating it. Who, I

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2 wasn't sure who was investigating it. I know our own
3 people were looking at why they would have given trouble
4 during that day.

5 Q Were you ever consulted by anyone in the
6 course of that investigation?

7 A I have been asked what I had seen, why I had
8 taken certain actions on them.

9 Q Who asked you those questions?

10 A NRC, GPU, Joe Logan. I don't think I can name
11 them all, you know, the people that have asked me about
12 them.

13 Q And who at GPU asked you about them?

14 A I don't know his name. I had an interview by GPU
15 one time and we talked about it a little bit.

16 Q Did John Miller ask you about the emergency
17 feedwater valves?

18 A I would have to see him again to recognize him.

19 Q You don't know who he is?

20 A The people introduced themselves to me, but I have
21 been introduced to a lot of people and I might recognize
22 him if I see him again, but I just don't remember the
23 names.

24 Q Did a Mr. O'Connor interview you concerning
25 No. 12 valves?

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MR. YUSPEH: Would you recognize any name?

THE WITNESS: I would probably recognize him. The "O'Connor" sounds familiar to me, but I don't know if I was introduced to him or I just heard it, overheard it from somewhere else. That should be easy enough, that should be on record somewhere.

Q Do you remember being questioned by a Mr. O'Connor concerning the emergency feedwater No. 12 valves?

MR. YUSPEH: He said several times he doesn't remember who interviewed him.

A I just don't remember the names of the people. I might recognize them if I see them, like I will never forget you, but I just don't associate the name with the person. I might be introduced to somebody and I just don't catch the name right.

Q So you don't remember if a Mr. O'Connor consulted you concerning an investigation into the No. 12 valves?

A It might have been him; I am not sure. I don't want to say it was. I just know I talked to people about the valves, certain people.

Q Do you have any direct contact with anybody

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2 at GPU prior to March 28?

3 A No.

4 Q Did you have any direct contact with anybody
5 from B&W?

6 A You mean just as to -- I believe the answer to
7 that is no if I understand it right. I didn't have
8 personal contacts with people that they came to me
9 specifically, no.

10 Q Can you restate that?

11 A I have talked to B&W people, but not before
12 March 28th. Like I have gone down to the simulator down
13 there and know a lot of them as far as talking with them.

14 Q Outside of your simulator training, would
15 you have any contact with anybody from B&W?

16 A I guess what I am looking for is what manner are
17 you looking for? Just to say hello, again.

18 MR. YUSPEH: In the course of your work
19 with the company, do you have occasion to have
20 some kind of interface in an official way with
21 employees of Babcock & Wilcox?

22 THE WITNESS: I would say no.

23 Q Do you have any contact with people from
24 Burns & Roe?

25 A Just from the point of view of the control room

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2 where they might come in and want to do something and
3 I will say "Go ahead and do this; you have permission
4 to go ahead and do this in the plant," that kind of
5 contact, yes.

6 Q Other than people from Burns & Roe coming
7 into the control room for the specific purpose to
8 perform specific operations in the control room, would
9 you have contact with anybody from Burns & Roe?

10 A No. Maybe I should state that also applies to
11 B&W persons in the same manner, but they usually don't
12 get involved in it that way, at least prior to the
13 accident.

14 Q On March 28, at the time of the reactor
15 trip, you were in the control room, correct?

16 A Yes.

17 Q And at that particular point in time, who
18 were you receiving instructions from?

19 A Right on the trip?

20 Q Right.

21 A Nobody.

22 Q Immediately after that who would you have
23 received instructions from?

24 A Who would I have?

25 Q Who did you.

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2 A Immediately after the trip you are talking seconds
3 now -- in other words, there was a period of time where
4 I was receiving no instructions from anybody. I operated
5 on procedures and what I saw in the alarms.

6 Q And your first set of instructions came
7 from whom?

8 A Bill Zewe, I guess would be the first one.

9 Q And was he the individual that continued to
10 give you instructions?

11 A At all times during that morning and into the
12 afternoon I was not totally aware because I was facing
13 the panel of who was behind me giving me instructions
14 as to things that I might have been doing. A lot of
15 the time it was actually watching on my own part plant
16 parameters. The actions I took initially did not need
17 to be telling me what to do.

18 There were things that I knew I had to do or tried
19 to do to correct the problems that were facing me during
20 this period. When I started -- the point I would say
21 that I started taking direction would be when I left
22 the steam generators -- in other words, the control
23 point on the steam generators, and went over into the
24 makeup system at which I followed the direction, the
25 indicated direction of the foreman at that time which

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2 would be Fred Simon and a combination of him and, I
3 think, Mike Ross was the other one, that I believe
4 gave me the instruction how to stagger flow that he
5 wanted to stagger flow with the makeup system, okay.

6 These are at different time points now, not all
7 at one time, but up until that point I actually didn't
8 receive instruction from anybody. I was doing it per
9 E&D or my own experience with the plant to handle the
10 situation I saw in front of me.

11 Q So there was a period of time there where
12 you were not receiving instructions from anybody?

13 A If I were doing something wrong in there -- in
14 other words, in my supervisor's point of view from
15 what he was hearing me relay to him, he would have
16 corrected me.

17 Q Your supervisor being whom?

18 A Bill Zewe.

19 MR. YUSPEH: But you did state, didn't you,
20 that there was a time when you weren't receiving
21 any instructions or direction from anyone after
22 the accident began?

23 THE WITNESS: Yes.

24 Q And at the time of the site emergency, who
25 were you receiving instructions from?

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2 A If I would have received any instructions at that
3 point, it would have been from Bill Zewe. When the
4 site emergency was declared, I was still on the panel.
5 I remained on the panel the whole time and did not get
6 involved with the actions taking place for the site
7 emergency.

8 Q Did you continue to take instructions from
9 Bill Zewe for the rest of the morning?

10 A Whenever Bill would give me
11 instructions, I would take his instructions and follow
12 them.

13 Q When a general emergency was declared, did
14 you continue to take instructions from Bill Zewe?

15 A The best way I can answer that is that there was
16 a period, a definite period of time in there where I
17 didn't realize who was actually behind me telling me
18 what they wanted to do. The person I took direction
19 from -- this is jumping out of sequence here -- would
20 actually be from Fred Sheimann in just the form that he
21 was telling me either to back off or feed more on high
22 pressure injection, in that sense, because he was the
23 one monitoring pressurizer level and the system pressure
24 at that point.

25 Q So you were taking instructions from

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2 Mr. Sheimann and not Mr. Zewe at that point?

3 A Mr. Sheimann was appointed by Mr. Zewe early in
4 the accident when he came into the control room to
5 monitor pressurizer level and pressure. That is what
6 he was doing. When I came over into that area, I then
7 just picked up on a control station as far as the
8 makeup pumps go to regulate, as he called out for me
9 to regulate them.

10 Q So that once your responsibilities switched
11 to the pressurizer level, you then took your instruc-
12 tions from Mr. Sheimann?

13 A Makeup system. What I did was fill in a space at
14 that time that was open. In other words, I was being
15 relieved from the secondary side on the plant and I
16 moved over into the primary side of the panel. In other
17 words, we are talking about the panel and I saw an
18 opening in there that I filled.

19 Q Did anybody direct you to do that?

20 A No. I came over on my own.

21 Q At that point you began taking directions
22 directly from Mr. Sheimann?

23 A In relation to what he was controlling, yes.

24 Q You indicated that you were facing the panel
25 and at times you did not know who was giving you

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2 instructions; is that correct?

3 A Yes.

4 Q Is that because your back was to the
5 particular individual that was giving you instructions?

6 A Yes.

7 Q Would you know that the instruction was
8 directed to you because that individual would specifi-
9 cally call your name?

10 A I wasn't given -- the thing you have to under-
11 stand is I was not given instructions continually.

12 Q Right.

13 A I can only remember receiving instructions for
14 staggering the feedwater flow. I believe it was from
15 Mike Ross. That is not even an absolute in my mind.

16 Fred Harriman, as far as when I was throttling
17 on the 16 valves, I was throttling back on them in
18 relation to what Fred was telling me pressure was doing --
19 well, I don't even know if I can say it that way. In
20 other words, I was backing off as he told me to back
21 off on makeup on the primary.

22 Q At the time of the general emergency who
23 was then in control in the control room?

24 A The initial part of it was Bill Zewe was in
25 control.

f.11

- 1
- 2 Q After the general emergency had been declared?
- 3 A I mean the initial part of it. There was a shift
- 4 in who took charge of the general emergency part of it
- 5 later on. I can't specifically state at what point I
- 6 remember him announcing that he was in charge of the
- 7 emergency from that point.
- 8 Q When would there have been a shift?
- 9 A When?
- 10 Q Didn't you just state that there was a
- 11 shift?
- 12 A I believe. I am telling you what I think
- 13 happened as far as that end of it. I was not paying a
- 14 great deal of attention to what was going on behind me
- 15 at that time and I would say that Bill was in charge
- 16 initially because he was the one that made the announce-
- 17 ment initially and made the initial -- as far as I
- 18 know, started to make the initial calls required, the
- 19 notifications, I believe.
- 20 Q And then who did the control shift to?
- 21 A I believe it was Jim Seelinger that took control
- 22 of it. He is part of the -- or the general emergency.
- 23 Q And how do you know that?
- 24 A He yelled it, I believe. He yelled out in the
- 25 control room that -- somebody yelled out, and I thought

2 it was him.

3 Q Did he announce his name or did you just
4 recognize his voice?

5 A I think -- I hope I am right. I think it was his
6 name. He just yelled out, "Jim Seelinger. I have
7 control of it," something like that. I can't even
8 remember now exactly what was said. I can't actually
9 state it as a fact. I just believe it was him.

10 Q And did he remain in control for the
11 remainder of the time that you were there?

12 A I don't know.

13 Q Are you aware of any other shifts in terms
14 of who was in control in the control room after that
15 point?

16 A I think Gary Miller came in there.

17 Q Do you know at what point?

18 A No, I don't.

19 Q How did you know that control shifted to
20 Gary Miller?

21 A I think that is more after the fact than then.

22 Q Were you aware of it that morning?

23 A I can't really say, no. I am not sure anymore.

24 (A brief recess was held.)

25 Q You mentioned that you did not have any

2 direct contact with anybody from B&W. Do you receive
3 any instruction from B&W in writing form?

4 A If it relates to information about the primary
5 system, I would have received the information, not from
6 B&W as much as from just in the form of review material,
7 in other words.

8 Q Review material in a training sense, do you
9 mean?

10 A Yes, or it might have been a notification note.
11 In other words, I am trying to remember the name of it,
12 just in the form of recommendations or something about
13 a particular way of operation.

14 Q B&W would send you directly?

15 A Not me personally, no. They would send it to the
16 plant.

17 Q Who would give it to you?

18 A It would be routed to us in the form of a memo
19 or just a note that we would review.

20 Q From whom would you receive that at Met Ed?

21 A It might be sent to the supervisor of operation,
22 it might be sent -- usually the station superintendent,
23 maybe something like that, where it would be a note to
24 them and they would just -- so we had the benefit of
25 the information -- relay it through their entire chain.

2 It would end up in our mailbox and we would read it over.

3 Q So it would not come in from the Training
4 Department?

5 A It might. We might receive it from the Training
6 Department too. In other words, what I am trying to
7 say is what you are saying now, information in the form
8 of training, yes, when we have been down there, and we
9 review information received about operations of the
10 plant, but I might also receive it in the control room
11 in the form of -- I call it a memo -- that would be
12 sent to one of the unit superintendents of the station,
13 operations engineer or whatever, and we would read over
14 it and sign it off.

15 Q Would this be kept in a log book in the
16 control room for you to review or would you individually
17 get something sent from the supervisor of operations?

18 A Usually it would come with a checkoff on the front
19 of it, in that form, that we would -- we would just
20 initial that we saw it, we read it over.

21 Q And what type of information would they
22 send you?

23 A It would be on a technical form, some sort of a
24 technical information maybe relating to flow in the
25 RCS, we are having a problem with that. That we received

2 memos on. I don't even know if it is from B&W for sure.

3 Q Do you remember one specific example that
4 you received information from B&W?

5 A No.

6 Q Would you retain these memos?

7 A If I wanted a copy of them I might. I would have
8 to look through my notes and see if I have it.

9 MR. YUSPEH: You indicated before that you
10 weren't sent a personal copy of the memo, that
11 you received a circulating copy.

12 THE WITNESS: Right. If I wanted a copy
13 of it, I would take it back and xerox it off.

14 Q There were certain instances where you would
15 make xerox copies and keep it?

16 A I have done that. I don't know if I could find
17 it anymore. I usually keep them in my training notes
18 that I keep for myself.

19 Q Do you remember particular instances where
20 you xeroxed one of these memos?

21 A You want me to look in my notes? I will go find
22 out. I will look through them and see if I can come up
23 with them.

24 MS. GOLDFRANK: I will request that you
25 produce the notes that you have retained from

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information that has been forwarded to you and
you make xerox copies of for your own personal
retention.

Off the record.

(Discussion was held off the record.)

(Continued on following page.)

SM G

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2 Q On March 28, you indicated that you were
3 receiving instructions from various individuals. What
4 would happen if you disagreed with an instruction that
5 you were given?

6 A It is hard to say. When I disagreed with some-
7 thing that was said, I might not be able to give a reason
8 why I disagreed, and it is hard to argue something like
9 that under conditions, especially if you are talking
10 about the 28th of March, to justify not doing something
11 you disagreed with.

12 Q Do you remember specific examples where
13 you did disagree with certain instructions?

14 A One of the first ones I disagreed with was -- I
15 want to state this; you are going to have to listen to
16 it the way I want to state it -- I didn't like the idea
17 of cutting off the RC pumps, the reactor coolant pumps.
18 I couldn't at the time -- I just didn't want to turn
19 those pumps off, but yet in the same instance, I was
20 listening to the reasons they wanted to turn them off;
21 my supervisor and George Kunder, I believe, were the
22 ones that were discussing it. In other words, I didn't
23 really want to take them off, but yet I even threw in
24 there, I said, "Yes, we are seeing all the vibration
25 limits on the pumps, and we have every reason to take

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2 them off, but I don't like taking them off." I couldn't
3 pinpoint my reasoning at that time. I couldn't come
4 out and argue why we shouldn't take them off.

5 Q Who directed you to turn them off?

6 A Bill Zewe told me. I took over the first set of
7 pumps.

8 Q But you discussed this decision with
9 Mr. Kunder?

10 A We talked about it. I actually did my discussing
11 more with Bill Zewe. He was talking with George Kunder.
12 And once I was -- my attentions were divided in several
13 areas right here. I was watching my generators, yet I
14 had several stations in manual, and I couldn't just
15 walk away from them for an extended period of time
16 and leave them alone.

17 Q Did you give them any reasons aside from
18 just your feeling that you didn't want to take these
19 pumps off?

20 A That is what I am saying. I didn't even indi-
21 cate a feeling to them. I am just saying all I stated
22 was I didn't like the idea of taking them off, and just
23 before I took them off, I stated it again, but it
24 happened too fast for me to reason out exactly what
25 my feelings were about.

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2 Q Did they ask you your opinion?

3 A They got my opinion. At the time, I couldn't give
4 them a reason.

5 Q Did they ask you the basis for your opinion?

6 A I don't remember whether they did or not. They
7 may have. I am just remembering the part that keyed
8 to my mind.

9 Q Was there another instance that you did
10 not agree with the instructions that you were given?

11 A I couldn't understand, didn't understand why
12 we weren't -- I don't know how to say that -- I dis-
13 agreed another time when I asked why we were stag-
14 gering flow as I was told to do. We had attempted to
15 high-pressure inject, and we were told to back off
16 several times, or two times I can think of.

17 In other words, we high-pressure injected, and
18 I believe one of the times was when it looked like we
19 were trying to maintain pressure back up in the
20 pressurizer. The word was to back off, but we had
21 our own feeling amongst ourselves about it, but at
22 this stage it seemed like, you know, the decision-
23 making seemed to shift behind me, is the way I put it.

24 Q Did you articulate your objection to this
25 instruction?

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2 A The way I articulated it was I said, "I don't
3 understand what we are doing, why are we doing this?
4 Could somebody explain it to me?" And they didn't
5 have the time to explain it to me, and I didn't get
6 an answer. That is the way I reasoned.

7 Q Did you explain to them the reasons why
8 you didn't agree with the actions they were taking?

9 A I was having a hard time getting them together
10 to be able to explain it to them at that point.

11 Q Did you explain it to anybody at that time?

12 A No.

13 Q Did Mr. Kunder explain to you the reason
14 why he was turning off the RC pumps?

15 A He said we were approaching 1200 pounds,
16 minimum suction head pressure on the pumps for
17 operating the pumps. In other words, we have in our
18 procedure, it states when you get to 1200 pounds, shut
19 the pumps off, take the pumps out of service.

20 The point on something like that now, though,
21 as far as my belief in it, is we did not have a
22 procedure to cover what was going on for us right now,
23 and we were having a hard time determining which
24 procedure to go to, to try to follow like that, so we
25 picked up on that procedure, and we went according to

2 what that procedure was initially indicating, from
3 that point of view, as far as protecting the RC pumps,
4 with the thought in mind that we were still solid in
5 the primary plant.

6 Q Which emergency procedures were used in
7 the first four hours on the morning of March 28?

8 A As far as ones gotten out, or as far as what
9 we were into, without getting a procedure out?

10 Q First, which ones to get out?

11 A The first ones that were gotten out were the
12 reactor trip and turbine trip. The other procedure
13 that I came in contact with was steam generator or
14 break steam generator rupture that I actually got
15 my hands on for a period of time where I verified
16 the initial steps I was taking to make sure I covered
17 them all. I looked over the reactor trip procedure,
18 too, in the same manner. This was some time later.

19 Q So the reactor trip and the turbine trip
20 and the steam generator break emergency procedures
21 were the only three actual emergency procedures that
22 you referred to?

23 A That I remember referring to?

24 Q Correct.

25 A Right.

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2 Q Do you remember referring in your mind to
3 any other emergency procedures?

4 A I was referring to a steam generator tube leak
5 in my mind. I was referring to -- before I saw the
6 steam break, major steam rupture, I was thinking of
7 that one along those lines. I was thinking along the
8 lines of loss of steam generator feed, which we did
9 not have a procedure to cover a total loss of feed,
10 including emergency feed, which is basing then as to
11 what you are doing exactly; in the case like that, you
12 want to know exactly what you are doing when you are
13 trying to follow a procedure.

14 I was thinking along the lines of loss of
15 vacuum in the condenser, which we don't have a pro-
16 cedure for that, but I was thinking from an operational
17 point of view how to correct that.

18 Q But there is no emergency procedure for
19 a vacuum in the condenser?

20 A Loss of vacuum in the condenser, no, but what I
21 am saying on that is that was another problem I was
22 having at that time. I was thinking along the lines
23 from the secondary part of the panel. These are the
24 procedures I was involved with in my own mind, trying
25 to rationalize which ones to try to go by. I was

2 actually doing parts of them because no one seemed
3 to apply at the time fully to me.

4 Q Which parts or which emergency procedures
5 that you were referring to parts of came to your mind?

6 A Another one that came to my mind was restart
7 accident.

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(Continued on Page 163.)

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2 Q A restart accident?

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3 A Right. I don't know if you will see it labelled
4 as that. I think it is labelled as unanticipated
5 criticality or something like that. What it amounts to
6 is you are increasing power level and you don't want to
7 be.

8 Q And what part of that were you referring to?

9 A At what part?

10 Q What part, what section of that emergency
11 procedure?

12 A I would have been trying to cover immediate
13 actions and symptoms to try to determine which one to
14 use.

15 Q And what symptom in the restart accident
16 emergency procedure were you referring to?

17 A The increase in count rate with the possibility
18 of diluting the primary symptom.

19 Q Any other emergency procedures that you
20 were referring to sections of?

21 A I think I covered them.

22 Q Do you remember who closed the PORV?

23 A Fred Scheimann closed it. Now, that is after the
24 fact information, okay. At the time, I wasn't aware at
25 the time. I assumed Fred closed it because he was

2 over it. He was standing in that part of the panel,
3 in other words manipulating the controls in that area
4 of the panel.

5 Q But you don't know for a fact that on that
6 morning he closed it?

7 A You could safely assume that he did close it,
8 yes.

9 Q Was he the only one over that part of the
10 panel at that time?

11 A That is hard to answer. There were a lot of
12 people right around in that area. To say who was
13 exactly standing -- Fred was standing right in that
14 corner. He was definitely right in that part of the
15 panel. That is not to say that somebody wasn't standing
16 right behind him a ttle bit like off to the side.

17 Q Is there any time prior to March 28 that
18 anybody was in the control room with any kind of
19 alcoholic beverage?

20 A No, not that I am aware of anyway.

21 Q Are you aware of any time prior to March 28
22 that alcoholic beverages would be immediately outside
23 the control area?

24 A You mean anytime prior to it?

25 Q Yes.

2 A Way back in the construction days, yes.

3 Q Yes?

4 A Yes, I was aware of it from the fact that when I
5 was looking around components, I might have come across
6 a beer can or, I think I saw a fifth once of Four Roses,
7 empty fifth bottle laying around, from that point of
8 view. This was before -- that was during construction
9 or before field or any thought of any testing programs
10 going on.

11 Q Was that your own recollection?

12 A Yes.

13 Q Do you recall anybody having alcoholic
14 beverages in the control room on March 28?

15 A No.

16 Q Immediately outside of the area of the
17 control room on March 28?

18 A No.

19 Q Do you remember anybody coming to work
20 intoxicated on March 28?

21 A No.

22 Q Do you remember anybody coming to work
23 intoxicated prior to March 28?

24 A An instance?

25 Q Yes.

2 A Yes. The man himself stated -- he was called
3 down, in other words against -- he said he was under
4 the influence at the time, but he was still called down.

5 Q Who was this individual?

6 MR. YUSPEH: Let's hold on a minute. I
7 know that you all have a very broad scope of
8 investigation and I don't know that I would want
9 to preserve any objection to getting into that,
10 but I also don't know if it is an appropriate
11 question or not. Can we hold it till tomorrow,
12 hold that one question until tomorrow?

13 Q You indicate that this person was called
14 down?

15 A He was called out, yes, to replace a man that
16 wasn't there.

17 Q And who called him down?

18 A I don't know if I can answer that. In other
19 words, I don't remember the foreman that was on that
20 night.

21 Q It would have been a foreman that was on
22 duty?

23 A Who called the man down, yes.

24 Q Would he have called him from his home?

25 A Yes.

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2 MS. GOLDFRANK: We reserve the right to ask
3 the question concerning who this individual is
4 another time.

5 MR. YUSPEH: Sure, and I would state for
6 the record that I would be glad to consult with
7 others in the company. I am not stating a
8 company position, it just seems to me that it is
9 the kind of question which you can at least wait,
10 as an issue as to appropriateness, and rather
11 than getting the answer on the record now, I
12 would like to have the opportunity to consult
13 with others and to consult with you, as attorneys
14 for the Commission, to discuss the necessity.
15 I am not objecting on a continuing basis that it
16 is inappropriate, but just so we don't have it
17 on the record now where it can't be expunged,
18 but I would just ask you to wait until later to
19 ask it.

20 MR. ROCKWELL: Off the record.

21 (Discussion was held off the record.)

22 Q Could you explain to me the role that the
23 union has in your training?

24 A I don't think they have any role in it.

25 Q As far as you know they have --

2 A You mean as far as what is taught?

3 Q Right.

4 A I don't think they have any influence in this at
5 all.

6 Q Do you know if the union has any control in
7 the safety of the plant?

8 A It is not up to them, once again, I don't believe.
9 It is not up to them to make decisions for the safety
10 of the plant. I believe you are talking about from an
11 AES point of view?

12 Q Yes.

13 A No, that doesn't come under their influence.

14 Q Has the union played any role in helping you
15 analyze your role in the accident on March 28, 1979?

16 A No.

17 Q Are you familiar with an accident that
18 occurred at the Davis-Besse 1 plant on September 24,
19 1977?

20 A When?

21 Q Are you familiar with it now?

22 A Yes.

23 Q Were you familiar with it prior to March 28,
24 1979?

25 A No.

2 Q Do you know a John Flint of B&W?

3 A Yes.

4 Q Did you discuss with him prior to March 28,
5 1979, the September 24 incident at Davis-Besse?

6 A No, I don't remember discussing anything like
7 that with anybody.

8 Q When did you learn of the incident at
9 Davis-Besse?

10 A I saw the letter, the memo on Davis-Besse on the
11 7th of June.

12 Q And how was that?

13 A I heard about the memo sometime in, I believe it
14 was sometime in April when I heard about it that some-
15 body said there was a similar occurrence at Davis-
16 Besse, and that is about all I heard.

17 Q And who would you have heard that from in
18 April?

19 A I think it was one of the people that were in
20 helping support the plant. They were just talking that
21 somebody said like there was something similar happened
22 at Davis-Besse, but I didn't know the details. I
23 don't remember him either.

24 Q Do you remember where he was from?

25 A No, I don't.

2 Q Do you remember if he was from the NRC?

3 A No.

4 Q Was he from GPU?

5 A No, I don't believe so. He was from -- there were
6 a couple of different outfits in here from different
7 sites where people were sent just to assist. I don't
8 remember which one he was from.

9 Q And just during the course of conversation
10 he raised with you this incident?

11 A I don't think I was even in on it. I was just
12 standing in the control room. I heard him say it to
13 somebody else.

14 Q You mentioned that on June 7 you heard of --

15 A That is when I received the first memo on it.
16 Actually it was just a fac memo briefly describing it.
17 It was the first time I came in contact with it.

18 Q Who was that memo from?

19 A I think it was -- I believe that was passed on
20 from Ross. It was his copy, I believe. It might have
21 been Gary Miller's too.

22 Q Do you know if anybody, prior to March 28,
23 at TMI 2 knew of the incident at Davis-Besse?

24 A As far as I know, no.

25 Q Do you know if any other control room

2 operators knew of the incident at Davis-Besse?

3 A Not that I know of, no.

4 Q The memo that Mike Ross or Gary Miller sent
5 to you, who was that written by?

6 A I don't know. I believe it was put out by B&W.
7 I am not really sure of that. I just read the body of
8 the letter on what it referred to.

9 Q Do you remember what they said in that
10 memo?

11 A Just stated that they had a stuck open relief
12 valve and that pressurizer level might not always be,
13 I guess, something about being representative of what
14 is going on in the pressurizer or indicative of what
15 is going on in the pressurizer.

16 Q Do you have a copy of that memo?

17 A Yes, I have one at home somewhere. I know that.

18 MS. GOLDFRANK: We would like to request
19 that we be provided a copy of that.

20 Q Would you be able to allow the President's
21 Commission to get a copy of your personnel file with
22 the United States Navy?

23 A Get me one too. Yes, provide me with a copy of it.

24 Q We would have you sign a form that would
25 allow us access to that file.

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A I hate to be hasty on this, but yes, I would sign a form for that. I would also request that I get a copy of it while you are at it.

MR. ROCKWELL: Yes.

THE WITNESS: It is a convenient way to get it.

MR. ROCKWELL: For the record, we will provide you with a full set of everything that was provided to us. We can forward it to you at whatever address you request.

MS. GOLDFRANK: We can recess this deposition now.

(Whereupon, the deposition was recessed at 7:25 p.m.)

Craig C. Faust

Subscribed and sworn to before me this _____ day of _____ 1979

Notary Public

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I N D E X

<u>WITNESS</u>	<u>DIRECT</u>
Craig C. Faust	83

E X H I B I T S

<u>FAUST DEPOSITION</u>		<u>PAGE</u>
<u>FOR IDENTIFICATION</u>		
10	Unit 2 Surveillance Procedure 2301-S1, called "Shifts and Daily Checks," Revision 15, dated March 14, 1979	82
11	Control room operator's log sheet	82
12	Daily log sheet	82
13	Details of Exhibit 11 pertaining to generator.	82

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C-E-R-T-I-F-I-C-A-T-E

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3 STATE OF NEW YORK)
4) ss:
5 COUNTY OF NEW YORK)

6 We, STEPHEN McCRYSTAL, Notary Public of
7 the State of New York and STANLEY RUDBARG, Certified
8 Shorthand Reporter and Notary Public of the State of
9 New York, do hereby certify that the foregoing deposition
10 of CRAIG C. FAUST was taken before us on the 23rd day
11 of July, 1979.

12 The said witness was duly sworn before the
13 commencement of his testimony; that the said testimony
14 was taken stenographically by ourselves and then
15 transcribed.

16 The within transcript is a true record of
17 the said deposition.

18 We are not related by blood or marriage to
19 any of the said parties, nor interested directly or
20 indirectly in the outcome of this matter, nor are we
21 in the employ of any of the counsel.

22 IN WITNESS WHEREOF, we have hereunto set
23 our hands this 24th day of July, 1979.

24 Stephen McCrystal
STEPHEN McCRYSTAL

25 Stanley Rudbarg
STANLEY RUDBARG, CSR