

BEFORE THE FACT FINDING TASK FORCE  
OF THE NUCLEAR REGULATORY COMMISSION

RE: :  
Davis Besse event :  
of June 3, 1985 :

P R O C E E D I N G S

Proceedings before the Nuclear Regulatory  
Commission Fact Finding Task Force in regard to  
the aforementioned event, held at the Davis-Besse  
Nuclear Plant, Oak Harbor, Ohio, commencing on  
Wednesday, June 12, 1985, at 12:30 o'clock p.m.

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## 1   PRESENT:

2       Ernie Rossi (NRC)

3       J. T. Beard (NRC)

4       T. Larry Bell (NRC)

5       Wayne Lanning (NRC)

6       Stephen Burns (NRC OELD)

7       Wayne Shater (NRC-III)

8       I. Nick Jackiw (NRC RI II)

9       Steve Wideman (TED-Senior Licensing

10       Specialist)

11       Ted J. Myers (TED-Nuclear Safety and

12       Licensing Director)

13       Ben Burton (TED-Outage Management Supervisor)

14       John K. Wood (TED-Pac. Engrg. Gen. Supr.)

15       Don Lee (TED-Maintenance Superintendent)

16       Terry Murray (TED-Assistant Vice President

17       of Nuclear Operations)

18       Jay E. Silberg (TED-Attorney)

1                   - - - - -  
2                   PROCEEDINGS  
3                   - - - - -

4                   MR. ROSSI:  What we'll do is go around the  
5 room and everybody can introduce themselves, say who  
6 they are, and I'll start.  Why don't we go just  
7 around this way and end over here.

8                   So I'm Ernie Rossi, and I'm from the NRC  
9 and a member of the fact finding team.

10                  MR. BEARD:  Any name is J. T. Beard.  I'm  
11 with the NRC, and I'm on the fact finding team for  
12 this event.

13                  MR. BURNS:  My name is Steve Burns.  I'm  
14 legal counsel with the NRC.

15                  MR. BELL:  Larry Bell with the fact  
16 finding team for the NRC.

17                  MR. LANNING:  Wayne Lanning with the NRC  
18 fact finding team.

19                  MR. WIDEMAN:  Steve Wideman, Toledo Edison  
20 licensing.

21                  MR. MYERS:  Ted Myers, Toledo Edison,  
22 nuclear safety and licensing director.

23                  MR. JACKIW:  Nick Jackiw, NRC, Region 3.

24                  MR. SHAFER:  Wayne Shafer, NRC, Region 3.

1 MR. BURTON: Ben Burton, Toledo Edison,  
2 outage management supervisor.

3 MR. WOOD: John Wood, Toledo Edison,  
4 engineering.

5 MR. LEE: Don Lee, Toledo Edison,  
6 maintenance superintendent.

7 MR. MURRAY: Terry Murray, Toledo Edison,  
8 assistant vice president of nuclear operations.

9 MR. ROSSI: Okay. The purpose of this  
10 meeting is to talk about the equipment freeze, and  
11 what we're going to do is to listen to the  
12 licensees' proposals on how they intend to go about  
13 the equipment troubleshooting and maintenance in  
14 such a way that we have very careful complete  
15 records on the as-found condition of the equipment  
16 and the causes of equipment malfunctions.

17 What we intend to do is to listen to your  
18 proposal on how you intend to do that. And then we  
19 will caucus, I guess, amongst the NRC people for a  
20 short period of time. And then we can reconvene the  
21 meeting and try to come to some decision about  
22 releasing the equipment so that you can begin to  
23 troubleshoot it, find the causes of the equipment  
24 malfunctions, and eventually repair anything that



1 needs to be repaired.

2 Now, our interest in this equipment is to  
3 make sure that we know the status of it at this  
4 point in time and we know the reasons for any  
5 malfunctions so that we can come to conclusions on  
6 our team as to the root cause of the failure of the  
7 pieces of equipment that you had problems with  
8 during the event. Do any of the other team members  
9 want to add anything to that?

10 MR. BEARD: I'd like to add it's my  
11 understanding that Toledo Edison is going to have a  
12 list of all the equipment that they've put on  
13 quarantine. That will be the subject of the meeting  
14 as well as some discussion as to why it was put on  
15 quarantine and followed by some discussions maybe  
16 why it should be released from quarantine.

17 MR. ROSSI: And there was one other thing  
18 that we needed from Toledo Edison. That is any work  
19 that has already -- had already been done on the  
20 equipment before you were told to essentially freeze  
21 it and do no more. So we need that information also.  
22 And I believe that Region 3 had asked for a written  
23 list at one point in time, had you not?

24 MR. SHAPER: That's correct.

1 MR. ROSSI: Why don't you state what you  
2 had asked for because we discussed that at one point  
3 in time and that sounds like a good starting point  
4 for this meeting.

5 MR. SHAFER: When the licensee was  
6 notified at 10 a.m. on Monday to stop all work  
7 activities, I also requested from Mr. Steve Quannoz  
8 a list of all work activities that had been  
9 conducted prior to the notification to cease work  
10 activities.

11 MR. ROSSI: And have you received that  
12 list as yet?

13 MR. SHAFER: No, I have not.

14 MR. ROSSI: Do you have that list?

15 MR. MYERS: That is in preparation. I do  
16 not know the status of the whole package. John?

17 MR. WOOD: We have a listing or we have  
18 items that have been worked on that we have some  
19 reports on. We do not have a complete list at this  
20 time.

21 MR. BEARD: This is a list of equipment  
22 that's -- for which work was done or a list of  
23 equipment for -- that was under quarantine? I'm  
24 confused.

1 MR. SHAFER: A list of any work that was  
2 accomplished on those items that were quarantined.

3 MR. BEARD: Okay. And we're saying that  
4 at about 4:30 on Wednesday, you know, two and a half  
5 days later, the list is not complete yet?

6 MR. MYERS: Well, let's rephrase that.  
7 Okay. As a result of the discussion yesterday in  
8 which you questioned our not having the turbine  
9 turning gear on the items that we would have  
10 initially quarantined, we suspended all work  
11 activity inside the fence except what required tech  
12 spec surveillance testing.

13 Now, our understanding of what equipment  
14 was placed under quarantine was essentially what we  
15 described to you yesterday, and did not seem to be  
16 acceptable. As a result of that, we've gone back,  
17 and what we have here today is a list of all work,  
18 current work requests -- or work orders in which  
19 maintenance is pending to start on, that we felt for  
20 the initial activity of going through, we would  
21 review in total.

22 So that we have a proposal of that list,  
23 and I don't know how many items are totally on the  
24 list. There are approximately eight that we would

1 have placed under the quarantine list, but --  
2 there's 136 items. But we feel it's important to  
3 understand a little better your criteria for  
4 quarantining the equipment because we may not have  
5 totally complied with the intent of the original  
6 quarantine.

7 MR. BEARD: Okay. I see where you're  
8 coming from, Ted. Let me back up a bit. Wayne,  
9 help me a little bit. When the confirmatory action  
10 letter was issued, did the letter specify in general  
11 or specific terms what equipment was not to be  
12 worked on any further?

13 MR. SHAFER: No, it did not. That was a  
14 subject of our discussion at the last meeting that  
15 we had. In fact, that was their concern, that it  
16 was not specific. And I believe the team made a  
17 decision that you would go with it the way it was  
18 written; that is, essentially all work activities.

19 MR. BEARD: My personal understanding was  
20 that the CAL would apply to all equipment which  
21 malfunctioned as a part of the event that we're  
22 looking into and were not applied to other  
23 maintenance items previously scheduled or items  
24 which were not associated with the event. I guess

1 I'm saying that, Ted, because I'm a bit surprised by  
2 the statement you've stopped all maintenance  
3 activities within the fence.

4 MR. MYERS: The confusion is exactly how  
5 long did the event occur, and as we were going to  
6 cold shutdown, was that post event, was not shutdown  
7 the end of the event.

8 MR. BEARD: I see.

9 MR. MYERS: For simplicity reasons and  
10 compliance, we felt that more appropriate to make  
11 sure we did not proceed outside of the intent of  
12 what was going on.

13 MR. WOOD: There was also concern on our  
14 part whether the intent was to cover equipment that  
15 may have been out of service or had deficiencies  
16 noted prior to the event.

17 MR. ROSSI: Well, one of the things we  
18 talked about yesterday with respect to the equipment  
19 that probably doesn't need to be on the quarantine  
20 list at all was that you'd come prepared today to  
21 tell us why you didn't think certain pieces of  
22 equipment needed to be frozen, and we could at least  
23 go through that list and proceed from there.

24 Now, are you ready with the list of

1 equipment that you feel is unrelated to the event  
2 sufficiently that you ought to be allowed to just  
3 proceed on your way with that?

4 MR. BEARD: Let me ask, maybe for me,  
5 it would be easier to start with a list of the  
6 equipment that's presently under quarantine and then  
7 go to the subset of that, which is the list of  
8 subset which would be the equipment you think  
9 sufficiently remote from the event you want more or  
10 less immediate release for.

11 MR. WOOD: Okay. The list of equipment we  
12 have under quarantine right now is the entire list  
13 of equipment at Davis-Besse. Now, we had --

14 MR. BEARD: The entire plant?

15 MR. WOOD: We had proposed yesterday a  
16 listing of eleven items that we felt was appropriate  
17 in the quarantine. What we have prepared here is a  
18 listing of all ready-to-work maintenance work orders,  
19 which is the 136-number, that we have made a review  
20 of and feel that only eight of those 136 should be  
21 further talked about as being either under  
22 quarantine or not under quarantine.

23 We feel that the rest of these we would  
24 like your concurrence that the review indicates that

1 those could be released to the field to continue  
2 work on. We then at a later point would like to  
3 then bring to you those items that require the full  
4 traceability control, review the action plans, and  
5 then get your concurrence on those action plans  
6 before we get into those systems accountable.

7 MR. ROSSI: So what you're really prepared  
8 to talk about today is I think it's 128 items that  
9 you want release on to go and work on independent of  
10 the event and so forth.

11 MR. WOOD: With our normal control systems.

12 MR. ROSSI: And not talk about the ones  
13 that should remain frozen?

14 MR. WOOD: That's correct.

15 MR. ROSSI: You're not prepared to talk  
16 about those yet. All right. Fine. Now --

17 MR. BEARD: We're going to leave the I  
18 think it's eight you're proposing to remain under  
19 quarantine.

20 MR. MURRAY: There are eight which we  
21 agree there is probably some interest in as being  
22 associated with the event.

23 MR. BEARD: Okay. Before we dispose of  
24 that and go on to the ones you would like to have



1 release on, could you just tell us what those eight  
2 items are?

3 MR. WOOD: Let me hand to you the list of  
4 maintenance work orders. There's four copies there.

5 MR. BURNS: Do you have a copy for the  
6 reporter? She'll just include it with the  
7 transcript?

8 MR. WOOD: There are ten pages to this  
9 report. And you'll find an "OK" in the left hand  
10 margin of those that we believe could be released.  
11 There will be a blank on those that we feel need  
12 further discussion.

13 MR. MYERS: John, why don't you explain  
14 what this report is?

15 MR. WOOD: Let me have Ben Burton join in.  
16 These are from your Davis-Besse maintenance work  
17 order, which is our computerized maintenance request,  
18 maintenance work order system.

19 MR. BURTON: The work that's laid out in  
20 front of you with a status of P work approved is now  
21 on hold. It was and could be working. It's  
22 approved by the shift supervisors to work placed  
23 into the shops and then institute work on that  
24 specific item. That's one of a number of statuses



1 that we give to maintenance work orders as they  
2 proceed from creation to close out.

3 MR. ROSSI: Now, are you -- you haven't  
4 prepared anything in writing on these 128 items as  
5 to why they're not related to the event and should  
6 be released, I assume?

7 MR. BURTON: That's correct.

8 MR. MYERS: That's correct.

9 MR. ROSSI: Are you prepared to verbally  
10 go down the list one by one and tell us what the  
11 item is and why it's not related to the event?

12 MR. MYERS: One by one or in groups.  
13 There are several, you'll see -- many of the items  
14 are painting activities, so there are -- each one by  
15 one or by groups we can take and walk through.

16 MR. BEARD: You say some of the items  
17 involve painting?

18 MR. MYERS: Yes, all activities are  
19 covered under our maintenance work order system. So  
20 the number 128 sounds like a lot, but a lot of them  
21 are rather -- I don't want to say mundane, but --

22 MR. ROSSI: Simple and straightforward.  
23 You think we can dispense of them quickly?

24 MR. MYERS: Yes. The intention is it

1 obviously is far from the line of concern, so that  
2 we could release these with verbal discussion on the  
3 significance or the system involved.

4 MR. ROSSI: Okay. Then let me ask the  
5 NRC people including the team members and Region 3  
6 people, do you have any problem with going through  
7 and listening to them and we can discuss whether we  
8 agree that they can be released? I mean, do you  
9 think we can do that?

10 MR. JACKIW: No problem.

11 MR. ROSSI: There may be a few of them  
12 that are complicated.

13 MR. BEARD: I think as a general approach  
14 that's almost the only way we can do it because of  
15 the magnitude of the number we're talking about. We  
16 certainly can't discuss 120 items in the caucus  
17 because we'd get them all mixed up.

18 MR. ROSSI: So let's just talk about them  
19 in the order that you want to talk about them. And  
20 make sure that nothing gets off the list unless it's  
21 been talked about and we've agreed to it. I guess  
22 that's what we can do.

23 MR. BEARD: It would be helpful to me if  
24 somebody could identify by page number and some

1 other detail which are the eight that you would  
2 propose to leave under quarantine before we start.

3 MR. BURTON: Okay. If you'll look at Page  
4 3 of 10, item No. 1-85-1169-00 is one of those items.

5 MR. BELL: What do these numbers mean?

6 MR. BURTON: The numbers I just read to  
7 you are the maintenance work order number associated  
8 with the work to be done.

9 MR. BELL: This 1-85 doesn't mean that it  
10 was initialed in January '58?

11 MR. BURTON: No. Our maintenance work  
12 orders have three distinct categories: 1 being a  
13 corrective work order, the 85 being the year in  
14 which it was created.

15 MR. BELL: So if I see a number over here  
16 79, that's been on the work list since 1979?

17 MR. BURTON: That is correct.

18 MR. BELL: I come to Page 6, I see a  
19 couple with 78 and 79.

20 MR. LEE: More specifically the two  
21 preceding the work order identifies it as a  
22 modification rather than a corrective maintenance  
23 work order. And the number identifies the year in  
24 which that modification was initially submitted.

1 MR. BURTON: And the 3 is a preventive  
2 maintenance work order.

3 MR. BELL: Okay.

4 MR. BEARD: I assume that these numbers  
5 are chronologically throughout the year?

6 MR. BURTON: Yes, they are.

7 MR. BEARD: What is the current number you  
8 are at as of June the 12th, today?

9 MR. BURTON: I do not know the answer to  
10 that. I don't think that's the last one we have in  
11 there.

12 MR. ROSSI: Well, why don't we continue  
13 down through the eight that you believe should  
14 remain frozen for the time being. First one is on  
15 Page 3.

16 MR. BURTON: Page 3.

17 MR. ROSSI: That's the only one on Page 3?

18 MR. BURTON: Yes, sir.

19 MR. LANNING: Could you explain that a  
20 little bit, what is that item?

21 MR. LEE: That's the generic maintenance  
22 work items for repairs to the auxiliary boiler.

23 MR. BEARD: What do you mean by generic in  
24 this instance?

1 MR. LEE: Rather than write a specific  
2 work order each time something goes wrong with the  
3 aux. boiler, we have a generic, a work order that is  
4 good for the year or a fixed period of time. Any  
5 maintenance work done on the aux. boiler during that  
6 time is performed and documented on this one work  
7 order.

8 MR. BEARD: It's like a blanket work order?

9 MR. LEE: That is correct.

10 MR. WOOD: I think we should mention we  
11 don't necessarily intend that these remained  
12 quarantined, but we feel that more discussion than  
13 just a simple line item here may be appropriate.

14 MR. FOSSI: Yes, I understand.

15 MR. BEARD: All right.

16 MR. BURTON: The next items are on Page 5  
17 of 10. They are items No. 1-85-1887 --

18 MR. BELL: On Page 4 of 10 there is -- is  
19 that deletion, it doesn't -- deletion and line  
20 through that doesn't have an "OK" by it. That's a  
21 job that you don't want to perform?

22 MR. BURTON: It is completed. It's a job  
23 that is completed. This system is a little bit  
24 behind, and we know that job is now on the completed

1 list. It no longer belongs on this job. The ones  
2 that are lined through are completed work.

3 MR. BELL: Excuse the interruption.

4 MR. ROSSI: Okay. Items 2 and 3 then are  
5 on Page 5, and you started to give the numbers.

6 MR. BURTON: Yes. I'll repeat the numbers.  
7 They are 1-85-1887-00 and 01. They pertain to main  
8 feed pump No. -- turbine No. 1. The specific work  
9 order requests that we put strip chart recorders in  
10 on this indication, that's the extent of that work.  
11 It's just installation of strip chart recorders.

12 MR. BEARD: This would be a modification?

13 MR. BURTON: It is not a modification, no,  
14 sir. It is a maintenance work order, corrective  
15 work order, to just install some new strip chart  
16 recorders.

17 MR. BEARD: But installation of new  
18 equipment is in somebody's view a modification.

19 MR. LEE: This is temporary test equipment  
20 and does not constitute a modification.

21 MR. BURTON: It's not a modification.  
22 Modifications will be depicted by a 2 in the front  
23 of it.

24 On Page 6 of 10, we have item 1-85-1897-00.

1 This same type of work order associated with No. 2  
2 main feed pump turbine. The next item is on Page 6  
3 of 10, it's 1-85-1934-00. This is on the turning  
4 gear to install the power fuses.

5 The item below that, 1935, I'm sorry,  
6 1-85-1935-00, is again a troubleshooting work order  
7 on the main feed pump turbine. That's to  
8 troubleshoot the turbine.

9 MR. BEARD: Main feed --

10 MR. BURTON: Main feed pump turbine.

11 MR. BELL: Which one?

12 MR. BURTON: That's No. 1, I think.

13 No. 1 or 2.

14 MR. LEE: I would guess 2 based on the sub  
15 system.

16 MR. BURTON: I'm sorry, that is 2, yes.

17 MR. SHAFER: If I may.

18 MR. BURTON: Yes.

19 MR. SHAFER: I would like to interject,  
20 when we are looking at work such as this, if we  
21 point out a need for NRC presence during the work  
22 activity, then I will need a time schedule as to  
23 when you propose to do that work so that I could get  
24 the logistics and get the people out here.



1 MR. ROSSI: Yes. I think today, as I  
2 understand it, all we're going to talk about today  
3 are the 128 items that do not need to be frozen, do  
4 not have to have careful controls on them when you  
5 work on them and will not need NRC follow up. And  
6 then when you're ready, we'll talk about the ones  
7 where NRC follow while you do the work. May or may  
8 not be appropriate; is that correct?

9 MR. WOOD: That's correct.

10 MR. ROSSI: So that simplifies the problem  
11 a little bit, I think, for today. Puts a hard  
12 problem off.

13 MR. BURTON: The next item is on Page 7 of  
14 10. This is a modification. It's 2-85-0087-01.  
15 This is to install some temporary instrumentation.  
16 It's test instrumentation on the auxiliary feedwater  
17 system.

18 MR. BEARD: Is this on just one of the  
19 trains?

20 MR. BURTON: It is on the auxiliary  
21 feedwater system. Would more than likely affect  
22 both trains. The maintenance work order looks at  
23 both trains in this case.

24 MR. WOOD: To elaborate on this, that we



1 are committed to doing a test program on the steam  
2 supply for the aux. feed pump turbines, that was a  
3 part of the Region 3 inspection that we had over the  
4 last couple of months. Inspector Isa Yin has been  
5 involved on that. And we have committed to doing a  
6 test and to record load data on various hangers.  
7 This test equipment would then be involved in  
8 gathering that loading data.

9 MR. ROSSI: Okay. That's seven items that  
10 I count now.

11 MR. BURTON: That constitutes the entire  
12 list, 7 instead of 8.

13 MR. ROSSI: So in looking at your list, I  
14 gather that you don't have the maintenance work  
15 orders prepared yet for troubleshooting, fixing some  
16 of the equipment that you had problems with. So the  
17 seven isn't the whole thing. Like MSIV problems and  
18 SFRCS problems, those you just don't have the  
19 maintenance work orders prepared yet. Okay. I  
20 understand.

21 MR. MYERS: The first stage in the system  
22 is a request for work order with the initial  
23 maintenance work criteria. The system is put  
24 together, and it's moved to approval of the work

1 order. Most of those are in the request stage and  
2 evaluation.

3 MR. ROSSI: Okay. I understand. Okay.

4 MR. MYERS: How would you like to do this?

5 MR. ROSSI: Well, I think why don't you  
6 tell us how you propose to do it, and we'll complain  
7 if we think that's an inappropriate way, since you  
8 came prepared.

9 MR. WOOD: I would propose that Ben would  
10 just continue down the list and briefly explain the  
11 problem, and we generally have concurrence that that  
12 situation does not fall within the scope of the  
13 detailed full traceability control work request  
14 system that we intend to use for the frozen system.

15 MR. ROSSI: Okay. Fine. You're going to  
16 start with the first item on the list.

17 MR. BURTON: I'll start with the first  
18 item on the list. Let me qualify something up front  
19 now. I'm not ready to discuss exactly what the  
20 entire MWO says on each one of these items. We've  
21 reviewed them from the status of did they, in fact,  
22 impact on the present situation whether or not it  
23 was the initiating event or had anything to do with  
24 the APW system.

1           So when it says electrical covers missing,  
2       those are covers on boxes, circuit boxes. They're  
3       just going to replace those. It's on a specific  
4       system. And I'm not aware of which exact system.

5           MR. BEARD: Well, I have a real problem  
6       with that.

7           MR. BURTON: Okay.

8           MR. BEARD: From a personal perspective,  
9       if we don't know what system is involved, I would be  
10      hard pressed to give any assessment as to whether it  
11      would be appropriate to release it or not. I can  
12      understand you're not having the details, and I  
13      certainly wouldn't expect a lot of details of 200 or  
14      so work orders, but not to be able to tell us what  
15      systems we're talking about or some general concept  
16      of it, I can't make a decision on that.

17          MR. ROSSI: Yes. I thought yesterday, that  
18      we'd agreed that in order to let this stuff go, that  
19      you would come and tell us what the item -- well,  
20      tell us your justification that the item was not  
21      involved in the event in any way. And in order to  
22      do that, I would think we'd have to know what system  
23      it is and what the piece of equipment is.

24          We don't need to know specifically what

1 you're going to do with it. All we need to know is  
2 what it is so that we can make a judgment on whether  
3 it is or is not related to the event. As a matter  
4 of fact, I thought you were going to give us the  
5 justification, why you felt it was not related to  
6 the event.

7 MR. BEARD: In fact, I thought yesterday  
8 we were talking about something in writing. And  
9 now we've agreed to do it verbally because there  
10 is not a written thing. And I have real heartburn  
11 over not being able to identify the system or major  
12 components involved. I mean, we've got to figure  
13 away to get over this impasse on the first item  
14 right now.

15 MR. WOOD: We can get the listing of  
16 subsystems very quickly and have that available for  
17 the discussion, that we can just read off the  
18 subsystem involved.

19 MR. BEARD: Have you done a review of all  
20 these and convinced yourselves that these really are  
21 not involved without identifying what subsystems are  
22 involved? Explain how you did that.

23 MR. BURTON: This review was done by the  
24 operations personnel and by the the outage

1 management personnel reviewing each one of these  
2 particular MWOs and looking at what work was being  
3 accomplished on this particular MWO.

4 MR. ROSSI: Are the people who did that  
5 review here in the room?

6 MR. BURTON: No, they are not.

7 MR. BEARD: They're not the people that  
8 made the determination these are not related to the  
9 event are not in the room?

10 MR. BURTON: I personally helped on most  
11 of this item, but as I said, I don't recall each and  
12 every one of the subsystems. But we did look at  
13 each one of the subsystems.

14 MR. BEARD: I would like to suggest that  
15 we adjourn and get the appropriate people for this  
16 discussion. Then reconvene at a acceptable  
17 agreeable time.

18 MR. ROSSI: Yes, I guess my inclination is  
19 I don't think you've come prepared to do what I  
20 thought we were going to do.

21 MR. MYERS: well --

22 MR. ROSSI: I mean, I thought you were  
23 going to come prepared to give us the justification  
24 on why certain pieces of equipment were not related

1 to the event to the extent that we needed to have  
2 the careful controls and determine the as-found  
3 condition and so forth. And it really appears that  
4 you aren't prepared now to do that. But neither the  
5 people that did the review are here nor sufficient  
6 detail about why the items are not related to the  
7 event is available in the, you know, today or now  
8 anyway.

9 MR. MYERS: Okay. The discussion we had  
10 yesterday, if we were talking about a dozen or so  
11 pieces of equipment, was fairly easy. When we  
12 extrapolate that to the -- all the activity that's  
13 involved under the plant, we end up with an activity  
14 which essentially we've been underway with all day  
15 today, going through each one of the current  
16 maintenance work orders. Again maintenance work  
17 requests are even, you know, even more voluminous  
18 and more in detail and are under review.

19 So coming in with just a list of five  
20 things was not appropriate. We either would have to  
21 go through the entire activity and justify that or  
22 come up with a short list which we attempted to do  
23 yesterday and was met rather unsuccessfully.

24 MR. ROSSI: Yes, but I think that you need

1 to give us the justification of why the items don't  
2 belong on the list. And that includes justification  
3 of why they are sufficiently unrelated to the event  
4 that we don't need to keep careful records.

5 MR. MYERS: I think we can do that. But  
6 to the level of detail, we'll have to get --

7 MR. ROSSI: You're probably going to need  
8 the people here who made the judgment. You know,  
9 the people that know about the event and looked at  
10 the equipment and know what the equipment is and can  
11 tell us why it's not related. And admittedly, a lot  
12 of this stuff may be pretty obvious to everyone, but  
13 it's not going to be obvious to us unless we know  
14 what the -- what system the equipment is in and what  
15 the equipment is.

16 MR. MYERS: Okay.

17 MR. BURTON: Could I add something, Ted.  
18 When we go down through this list, Ernie, let me  
19 pick a specific subject. On Page 3, if you'll turn  
20 there, I have items on Page 3, the first item, the  
21 next to the last two items are painting items.  
22 Do you want us to go through each one of those?  
23 That's --

24 MR. BEARD: What vicinity of the plant



1 would you be talking about painting? Is it the  
2 auxiliary feedwater room?

3 MR. BURTON: The first one is painting in  
4 RACA. The other is painting turbine room floors.  
5 Painting fire doors.

6 MR. BEARD: Well, if the fire door you're  
7 talking about is the one on the auxiliary -- where  
8 the auxiliary feed pumps are, we may very well want  
9 that however. I mean, I'm not trying to be  
10 ridiculous sounding, but I'm trying to illustrate,  
11 again, the point that it depends on what's involved  
12 and how it relates to the equipment that  
13 malfunctioned during this plant transient.

14 MR. MYERS: Let me then -- I think we have  
15 to agree from that level of detail, neither your  
16 option nor our option really sounds appropriate or  
17 else we might as well start, you know, around the  
18 clock on each individual item.

19 Maybe you could help us. In your activity  
20 at Salem, what levels of -- what was -- was there  
21 something there done from a starting from a proposed  
22 list or -- right now, what you're telling me is  
23 every maintenance work order must be reviewed  
24 directly with you with the individuals involved in



1 the maintenance.

2 MR. ROSSI: Well, that's not quite the way  
3 we left it yesterday. We kind of left it up to you  
4 to go back and figure out how to come back to us and  
5 convince us that certain items did not need to be on  
6 the list.

7 MR. MYERS: I understand that.

8 MR. ROSSI: And I would have been  
9 perfectly willing to have a list of equipment or  
10 areas of the plant or that kind of thing that were  
11 sufficiently well defined so that we could make a  
12 judgment that they were not related to the event.  
13 But apparently you chose to go maintenance work  
14 order by maintenance work order route, which I have  
15 no problem with either.

16 The problem I have is not knowing what  
17 electrical covers you're talking about in enough  
18 detail to make a judgment as to whether they were or  
19 weren't related to the event, because if there are  
20 electrical covers in the SFRCS system somewhere,  
21 then they might be related to the event.

22 MR. MYERS: Okay. Let me propose one  
23 of the approaches. If we'd have gone away and  
24 come back with your description, painting fire

1 doors would have been a lump. Aux. feedwater room  
2 pump -- pump room fire door I'm sure even our  
3 maintenance people and operations people would not  
4 have connected with the possibility at all of  
5 influencing the event.

6 So I think -- I just want you to feel that  
7 I don't -- I don't think that would have been -- we  
8 could have tripped over ourselves very easily there  
9 too when you're observing work in the room and  
10 somebody's doing something with the door, all of a  
11 sudden we'd have been at odds. So --

12 MR. ROSSI: Well, there may very well be  
13 some of the items on here we could discuss. I mean,  
14 there was one in here on paint the turbine room  
15 floor. You know, if somebody is sure that the  
16 turbine room is far removed from any of the  
17 equipment that was involved in this event, we can  
18 talk about it. But --

19 MR. MYERS: It's not.

20 MR. BELL: No, the main feed pumps are  
21 there.

22 MR. ROSSI: What's there?

23 MR. BELL: The main feed pumps.

24 MR. WIDEMAN: What about the turning gear?

1 MR. BEARD: I thought -- might be I was  
2 all wet in this case. I thought that in response to  
3 the confirmatory action letter issued by the NRC,  
4 this company had decided that certain pieces of  
5 equipment fell within the jurisdiction of that  
6 letter, and you put them on freeze or in quarantine.  
7 Okay?

8 MR. MYERS: To a notice we did do that.

9 MR. BEARD: Some list of equipment.

10 MR. MYERS: That list was discussed with  
11 you yesterday.

12 MR. BEARD: And yesterday when we  
13 discussed that list, maybe we felt like that events,  
14 malfunctions, a little further into the transient,  
15 if you can call it that, should have also been on  
16 the list. So I think there was a suggestion that  
17 maybe the list could have been a little bit more  
18 comprehensive.

19 I'm totally surprised to come in here this  
20 hour and find out you stopped all maintenance on the  
21 whole plant. I'm flabbergasted. I think that you  
22 were going to go back -- I thought you were going to  
23 go back and take your basic list of 11 items or  
24 whatever it was yesterday, maybe adjust that up a

1 few or whatever, but still come up with your initial  
2 assessment of those systems or pieces of equipment  
3 that were related to the event and that probably  
4 would not have ever been on any quarantine list of  
5 things like painting fire doors.

6 In other words, we would start with an  
7 already pared down list based on your review of what  
8 you felt met the intent and confirmatory action  
9 letter which is not the entire plant. And then we  
10 would look at those items which maybe 15, 20 items.

11 MR. MYERS: We would have liked to have  
12 done that. However, at the conclusion of your  
13 discussion yesterday for compliance reasons -

14 MR. ROSSI: No, I understand you. I  
15 understand what you did, and I understand the  
16 reasons for it, and I understand the difficulty with  
17 this. And I hope you understand the difficulty we  
18 have with it. Wayne, did you want to say something?

19 MR. SHAFER: No, I don't think so.

20 MR. ROSSI: One thing that we might want  
21 to do at this point in time is go off the record and  
22 caucus in our individual groups and discuss this a  
23 little bit. Is that worthwhile amongst the NRC  
24 people?

1 MR. BELL: Yes.

2 MR. ROSSI: Or does anybody have anything  
3 they want to say in this meeting now before we do  
4 that?

5 MR. BEARD: I'd like to ask a question.  
6 Maybe Ted, maybe you're the right one to ask this  
7 since you're sort of leading this effort. Given the  
8 discussion we had yesterday and the discussion we've  
9 just had, do you think that Toledo Edison could take  
10 another look and come up with a reasonably proper  
11 list, I'll call it that?

12 MR. MYERS: That's the approach I would  
13 rather take. However, to be quite -- to be quite  
14 candid, I perceive that we would, in coming up with  
15 that list, probably not rule out cases like some of  
16 the things, electrical covers or activities that you  
17 may feel could have been related, and we would  
18 consider them minor I&C or electrical activities  
19 that we -- we may, as we're observing, you may  
20 consider that noncompliant.

21 Our system list would tend to be not areas.  
22 It would tend to be more equipment and maybe, like  
23 you said, associated activity in that area directly  
24 adjacent to that equipment that may have -- you may

1 consider it event, we would not. I'm pretty sure  
2 we'd fall short in that.

3 MR. BEARD: I need the input in that  
4 decision making process of more than just your  
5 maintenance people. It would seem to me you would  
6 need our operations people, people who are familiar  
7 with the event that happened, so they would know  
8 what systems, quote, are in question, unquote.

9 MR. MYERS: That's correct.

10 MR. BEARD: And some joint effort to  
11 decide what's an appropriate list. But I'm just  
12 trying to get a handle on if you took that route,  
13 you think you could come up with a better list, if I  
14 can use that term?

15 MR. MYERS: I agree. We took that route.  
16 We came up with the original list. I'd -- I'd like  
17 to propose that we take that route again and expand  
18 that original list rather than --

19 MR. ROSSI: I really think we need to  
20 caucus at this point amongst ourselves and then come  
21 back and meet again in about ten minutes. That's  
22 what I think we should do.

23 MR. MYERS: I think one point. It is our  
24 direction and intent to comply completely with the

1 letter. We -- in the discussions of yesterday we  
2 saw what we felt were conflicting signals from what  
3 had originally gone on and we were doing and felt  
4 compelled to -- I don't want to say turn around and  
5 do it the other way backwards from starting from  
6 scratch and working forward. It seemed that we were  
7 not in agreement with the way the list came out  
8 yesterday, which did include our maintenance and  
9 operations and event people. So --

10 MR. ROSSI: Well, you know, the problem  
11 with something like electrical covers is a number of  
12 problems. One, if the electrical covers are in  
13 circuits associated with the MSIVs or the SFRCS,  
14 then even if they didn't have any relation at all to  
15 the event, somebody going down, doing work on  
16 electrical covers, however simple, could, indeed, do  
17 something that would then change the as-left status  
18 of the equipment after the event. I mean, it could  
19 do that. And so we got to think about that. And  
20 that's why we have the concern.

21 And I guess the same thing goes for  
22 painting in the area of this equipment. You know,  
23 somebody can knock something with a ladder while  
24 they're in there painting and you may never know



1 they did it. And then when they go in for the  
2 as-found status of the equipment, what they find is  
3 whatever somebody did while they were in there  
4 painting and not the as-found condition after the  
5 event. And that's the concern that I have doing it  
6 this way.

7 MR. MURRAY: We can see that, sure.

8 MR. ROSSI: And I hope you see that. And  
9 so I know it's putting the burden back on to you to  
10 find a way of justifying that certain items can be  
11 worked on and don't need controls, and then our  
12 agreeing with that. And I don't think that this  
13 does it at the degree that you appear ready to  
14 discuss it now.

15 MR. MYERS: Nor did our list. I think our  
16 list should not only include equipment but, like you  
17 say, area type quarantines.

18 MR. BEARD: Proximity that would have to  
19 be considered. But I think that the biggest things  
20 I'm getting out of this meeting is that our  
21 perception of how close you were to a list that we'd  
22 be content with yesterday of, what was it, 11 items  
23 yesterday was maybe there were a few more that  
24 should be added and apparently your perception was



1 there should be a lot added. And that's where we  
2 didn't communicate very well.

3 MR. ROSSI: Well, I think that in actual  
4 fact, that what we discussed yesterday, we knew -- I  
5 left the meeting with the same understanding that  
6 they had, that they were going to come back today  
7 with what might be a fairly lengthy list, but they  
8 were going to come back with the justification that  
9 would be fairly easy to understand and fairly  
10 straightforward of why that stuff didn't belong on  
11 the list and then we could fairly quickly agree with  
12 it. That's what I thought we were going to do. Was  
13 is that your understanding?

14 MR. LANNING: That was my understanding to  
15 too.

16 MR. ROSSI: And we did, indeed, perhaps  
17 didn't say that, but there was every reason to  
18 believe that, you know, they would do what they did.

19 MR. BEARD: Okay.

20 MR. MURRAY: So the best approach now  
21 would be for us to take the list of 111 items from  
22 yesterday, define that and include some physical --

23 MR. ROSSI: No, I'm still back at the  
24 point of starting with the more lengthy list and

1 taking items off. Where do you guys --

2 MR. BEARD: We don't want to tell you how  
3 to do your job, Terry.

4 MR. MURRAY: I understand. But I'm trying  
5 to figure out what would be mutually the best.

6 MR. BEARD: It's something between where  
7 we are today and where we were yesterday.

8 MR. ROSSI: I think we need to caucus. I  
9 think we all agree we need to caucus, so why don't  
10 we break into, you know, all the NRC people, we'll  
11 go someplace and meet, and you people can stay here,  
12 and then we'll reconvene. Why don't we go off the  
13 record now.

14 (Thereupon, a recess was taken.)

15 MR. ROSSI: First of all, we have  
16 caucussed now and discussed the issue. Let me ask a  
17 question of the Toledo Edison people. Do you have a  
18 list of the equipment that you think should remain  
19 frozen?

20 MR. WOOD: Yes.

21 MR. ROSSI: You have that list. Okay.  
22 And you have it ready to read?

23 MR. WOOD: It is the same list that we  
24 read yesterday.

1 MR. ROSSI: Okay. Why don't you read your  
2 list for the record today, and we'll compare your  
3 list with our list and come to an agreement on what  
4 should remain frozen. First of all, frozen should  
5 mean no work in the proximity of the equipment and  
6 no work on the equipment. And the proximity should  
7 mean within an area where somebody could damage it  
8 by painting or drop something on it or whatever.

9 MR. BEARD: Scaffolding.

10 MR. ROSSI: Okay. Why don't you start  
11 with your list, and we'll see how it compares with  
12 ours.

13 MR. WOOD: The first one is the main feed  
14 pumps including the main feed pump turbines.

15 MR. ROSSI: And controls.

16 MR. WOOD: And controls.

17 MR. ROSSI: And controls. Okay. Fine.  
18 We agree with that one. That should be on the list.

19 MR. WOOD: Okay. The second is the SFRCS  
20 system. Do we want the acronyms described?

21 MR. ROSSI: I think the acronyms have been  
22 well enough described. I think we all agree. That  
23 one, we all agree with that.

24 MR. WOOD: The third is the aux. feed pump

1 turbines and controls.

2 MR. BEARD: Both of them?

3 MR. WOOD: Yes.

4 MR. ROSSI: Okay. We agree with those.

5 MR. WOOD: The fourth are the main steam  
6 isolation valves.

7 MR. ROSSI: Both valves?

8 MR. WOOD: Correct.

9 MR. ROSSI: And controls and actuation  
10 circuits and pneumatic systems that are used to  
11 operate them. Does that cover that?

12 MR. BEARD: I think that covers that.

13 MR. ROSSI: Okay. Fine.

14 MR. WOOD: Okay. The fifth is valve SP7A,  
15 which is on the start-up feed pump water discharge  
16 side.

17 MR. ROSSI: Okay. Now, when you say valve  
18 SP7A, that would have to mean the controls that are  
19 used to operate that valve in addition, right?

20 MR. WOOD: That's correct.

21 MR. BEARD: The valve itself and the  
22 controls.

23 MR. ROSSI: The valve itself and the  
24 controls?

1 MR. WOOD: That's correct.

2 MR. ROSSI: Okay.

3 MR. WOOD: The sixth item was the source  
4 range detectors.

5 MR. BEARD: Are you proposing the source  
6 range detectors be quarantined?

7 MR. WOOD: Yes.

8 MR. BELL: Haven't you fixed both of those?  
9 Didn't you fix one during the event so it could be  
10 source range --

11 MR. WOOD: There was an operator action,  
12 which I don't have the details, but I believe they  
13 opened the cabinet and the detector --

14 MR. BELL: Well, they're not sitting up  
15 there right now with both source ranges inoperable,  
16 are they?

17 MR. MYERS: No, but that was something  
18 that had to be a malfunction. And to be under  
19 quarantine didn't mean they didn't do anything  
20 immediately. It means we have to document it, so  
21 anything we did do and anything more we need to do  
22 further should be under the same control. We'll  
23 open the door, and it started --

24 MR. ROSSI: That one, I guess, is

1 questionable in our mind whether you need to keep  
2 that one frozen. We would like documentation on  
3 what you've done however.

4 MR. ROSSI: On it. And you will keep your  
5 normal records on what's done with that in terms of  
6 finding problems with it?

7 MR. BEARD: Those two items are safety  
8 related, and hence would get all the tender loving  
9 care and records and QA checks associated therewith?

10 MR. WOOD: Don, can you answer that?

11 MR. LEE: Yes, that is a true statement.

12 MR. BEARD: So later if someone wanted to  
13 know what was the root cause of the failure and what  
14 were corrective actions, that information is  
15 retrievable?

16 MR. LEE: If it were done under a  
17 maintenance work order, yes. The corrective action  
18 taken to date was the conduct of a surveillance test.  
19 We have the surveillance test documented.

20 MR. MYERS: To make things easy, if there  
21 is at all interest, I think we should impose the --  
22 whatever controls we're going to impose on the  
23 others.

24 MR. ROSSI: Okay. Fine. We'll agree then.

1 We're all agreed that the source range nuclear  
2 instrumentation will remain on the list for having  
3 the controls, keeping records of the as-found  
4 conditions and what's done.

5 MR. BEARD: Let me say while we're on the  
6 source range channel, because this is a very  
7 important item to what we're related to. I think  
8 it's very important to reemphasize that if the shift  
9 supervisor determines he needs to place that  
10 equipment back in operation or if he needs emergency  
11 maintenance, if I can use that term, for the safety  
12 of this plant, he should do so without hesitation,  
13 and that should be made perfectly clear.

14 MR. ROSSI: That is true for any of the  
15 equipment that we're talking about.

16 MR. MURRAY: We understand that. We will  
17 reiterate that to our people.

18 MR. BEARD: While we're on the source  
19 range, that may be the one it would come up on.

20 MR. MYERS: We understand that.

21 MR. WOOD: Okay. The seventh item on our  
22 list was the turbine bypass valve which failed. And  
23 I don't have the specific number in front of me.  
24 Perhaps someone else does.



1 MR. LEE: SP13A2.

2 MR. BEARD: SP13 --

3 MR. LEE: A2.

4 MR. BEARD: A as in able?

5 MR. LEE: Yes, 2.

6 MR. ROSSI: That one we're talking about  
7 the valve itself, and the failure there was a damage  
8 to the valve. So are we considering the controls on  
9 it?

10 MR. BEARD: Yes. Oh, on the controls?

11 MR. ROSSI: Yes.

12 MR. BEARD: I think that it's our  
13 understanding that the damage was the physical  
14 damage to the valve what may be due to water hammer,  
15 and I don't see the controls as being related.

16 MR. ROSSI: So on that one, we would say  
17 the valve, structural part of the valve, the valve  
18 body and valve itself are not controls.

19 MR. MURRAY: For that one it would be  
20 valve only then?

21 MR. ROSSI: Yes.

22 MR. SHAFER: Well, would you not also want  
23 to include any other indication of water hammer if  
24 there is in that vicinity?

1 MR. BELL: Have you found any other  
2 potential damage caused by a water hammer that  
3 occurred in that main steam system?

4 MR. WOOD: I'm unaware of any other damage.

5 MR. BELL: Has anybody walked the main  
6 steam system down as an inspection to see if there  
7 was any other damage, hangers -- are all the hangers  
8 there or --

9 MR. WOOD: I have no direct knowledge of  
10 whether the system worked.

11 MR. MURRAY: I think that I heard that a  
12 walkdown was done, but I'm not sure of that, so I  
13 certainly don't want to document it yet, but --

14 MR. BEARD: Could we put on an action item  
15 to get back to confirm any other of that activity.  
16 I think it's important to know if there was other  
17 damage related to that similar to the bypass valve.

18 MR. MYERS: And I believe we should make  
19 not just a walkdown, but a particular walkdown.

20 MR. BEARD: An appropriate walkdown  
21 considering the water hammer may have been involved.

22 MR. ROSSI: So that's a different issue  
23 than the one of keeping the equipment on freeze.  
24 That's an agreement that you will --

1 MR. MYERS: Look for more.

2 MR. ROSSI: -- look for -- do a reasonable  
3 look for other possible water hammer damage, which  
4 would be the normal thing that would be done if this  
5 event were not being handled specially.

6 MR. BEARD: I would like to know as the  
7 item I had in mind originally was I'd like to hear  
8 back whether it has already been done already by  
9 this time or whether you are initiating such an  
10 activity. And, of course, obviously the results of  
11 the walkdown.

12 MR. ROSSI: Okay. But we're still agreed  
13 it's the turbine bypass valve, body and valve, not  
14 the cont ls. But as a related item to that, you've  
15 agreed that you'll do a walkdown to look for  
16 additional water hammer damage that may have  
17 occurred in the steam system. Okay.

18 MR. SHAFER: And may I add then that that  
19 would automatically freeze any work, if you do find  
20 additional damage, it would freeze work on that  
21 damage?

22 MR. ROSSI: Yes. If you do find  
23 additional equipment damaged by the water hammer,  
24 you want to add that to your list of frozen

1 equipment until we can talk about it.

2 MR. BEARD: How far along are we on your  
3 list?

4 MR. WOOD: I'm ready to cover No. 8, which  
5 was the pilot operated relief valve.

6 MR. ROSSI: That should include the  
7 controls and actuation circuits too.

8 MR. BELL: Excuse me. May I interject  
9 something here. Do you have a dual set point PORV  
10 for low temperature overpressurization protection?

11 MR. LEE: No.

12 MR. BELL: Okay. Because if you do, then  
13 you would have that switch thrown and that would  
14 mean that your statement wouldn't be applicable.

15 MR. WOOD: Okay. No. 9 are the main steam  
16 safety valves.

17 MR. ROSSI: Okay.

18 MR. WOOD: No. 10 were two valves, AF 599  
19 and 608.

20 MR. ROSSI: Okay.

21 MR. WOOD: And No. 11 was the SPDS system.

22 MR. SHAPER: Back on item 10, when you  
23 talk about those two valves, you're also talking  
24 about the actuators and controls?

1 MR. WOOD: Controls, that's true.

2 MR. SHAFER: Okay.

3 MR. BEARD: Is that the end of your list?

4 MR. WOOD: Yes.

5 MR. BEARD: And according to the way you  
6 were counting them up, that was how many?

7 MR. WOOD: That was 11 items.

8 MR. ROSSI: We have the list in the  
9 transcript. Wayne, did you take down the list? Did  
10 you copy it down too?

11 MR. SHAFER: Yes.

12 MR. ROSSI: You have a copy of the list?

13 MR. SHAFER: The list they just presented?

14 MR. ROSSI: Yes.

15 MR. WHITE: Yes.

16 MR. ROSSI: I have a check off list here,  
17 and it's in the transcript.

18 MR. BEARD: You have the list in the order  
19 of the numbers and whatnot?

20 MR. SHAFER: Yes, sir.

21 MR. BEARD: On the SPDS, that was the last  
22 item I believe. I don't think we got through  
23 discussing whether that should remain on the thing  
24 or not.

1 MR. ROSSI: Would being -- I think the  
2 general --

3 MR. BEARD: My personal feeling is if it  
4 were handled with appropriate care and documentation,  
5 that that could and should be released. It is -- I  
6 understand it not safety related equipment.  
7 Therefore, it may be in the category because of the  
8 event you want to document better, but I think that  
9 it would be -- it was a preexisting failed item as I  
10 understand it. It was in a failed state before the  
11 event and throughout the event. And I don't see  
12 that it has -- it has a bearing on the event, but it  
13 didn't fail during the event.

14 MR. MYERS: I'd like to, if there's a  
15 concern over that, I'd like to -- that is a specific  
16 problem, that is the computer driven boundaries of  
17 the -- and it's also the delogging computer that  
18 we -- that we see in the display system, so the  
19 boundaries of that would be very, very hard to come  
20 up with. The SPDS display is what we're concerned  
21 about in the control room, that would -- if we were  
22 going to do it, we would have to bound it there, and  
23 we're not sure that that would really be appropriate.  
24 We'd be able to --

1 MR. MURRAY: The NRC doesn't care about it  
2 being on the list.

3 MR. MYERS: Yes, that's why I wanted to --  
4 if there was concern, if someone wanted it on,  
5 that's a real hard one to bound.

6 MR. ROSSI: That one we don't believe  
7 needs to be on the list. So why don't you do that  
8 in accordance with your normal way of handling that  
9 equipment.

10 MR. BEARD: I'd like to ask you a question  
11 about an additional item. It's come to our  
12 attention that during the event the activities in  
13 the control room were -- aggravated maybe too strong  
14 a term -- but one of the complicating factors was  
15 that the control room HVAC was spuriously tripping  
16 into its safety related research mode. That was  
17 occurring during the event. Do you have a work  
18 request or any activity on that?

19 MR. LEE: Yes.

20 MR. BEARD: You do? Is this a problem  
21 relating to a spurious actuation of some defined --  
22 like a rad monitor?

23 MR. LEE: Yes.

24 MR. BEARD: So the basic culprit is the



1 rad monitor, not the control room HVAC?

2 MR. LEE: That is true. More specifically  
3 it is a cooling water flow switch which causes this  
4 particular radiation element to trip and the rad  
5 would affect the ventilation.

6 MR. BEARD: Cooling water to what?

7 MR. LEE: To the RI.

8 MR. BEARD: So I guess as a result of that  
9 brief discussion, I think it sort of went on the  
10 list and immediately back off, if I can put it that  
11 way.

12 MR. ROSSI: There was another item that  
13 did not work properly during the transient, and that  
14 was the suction transfer, the auxiliary feedwater  
15 suction to the service water system.

16 MR. BEARD: Yes, that's right, we didn't  
17 put that one in.

18 MR. ROSSI: Do we want that one on the  
19 list?

20 MR. BEARD: Is this a chronic problem?  
21 I mean it's happened more than once?

22 MR. LANNING: Yes, it is. I think that  
23 ought to be on the list.

24 MR. ROSSI: So that ought to be on the

1 list. The controls and valve involved in -- or  
2 valves, it may be valves, because I think there are  
3 interlocks between a couple valves associated with  
4 the suction transfer to the service water system in  
5 the auxiliary feedwater suction.

6 MR. BEARD: Is that transfer based on  
7 sensing the transfer of --

8 MR. MYERS: Suction side, yes.

9 MR. BEARD: So I'd like to include  
10 instruments.

11 MR. ROSSI: Yes, instruments and controls.

12 MR. BEARD: The things that would tell you  
13 that you thought you had low suction.

14 MR. MURRAY: Instruments, controls and  
15 valves.

16 MR. MYERS: Any additional?

17 MR. BEARD: Let me double-check mine.  
18 You've got the SFRCS. You've got that one. I think  
19 that covers the important items.

20 MR. ROSSI: And, Wayne, you took a list  
21 independent of what's in the transcript. You have a  
22 list independent of what's in the transcript?

23 MR. SHAFER: Yes.

24 MR. ROSSI: So --

1 MR. BEARD: Could we get that typed, Wayne?

2 MR. SHAFER: Yes.

3 MR. ROSSI: We'll get that typed.

4 MR. BEARD: Does Toledo Edison -- I'd like  
5 somehow to get a piece of typed paper that says this  
6 is the list of equipment presently under quarantine  
7 or whatever. So if there's a good firm  
8 understanding, it's not notes and papers scratched  
9 around.

10 MR. ROSSI: Well, we have it in the  
11 transcript, so the only problem is that that's a day  
12 or two off.

13 MR. LANNING: Let me dare to step forward.  
14 I think it's important that we get on with working  
15 with this equipment that needs attention to  
16 determine why they behave the way they did. And I  
17 think it's prudent that we get on with that activity.  
18 So I'd like to suggest that we not just quarantine  
19 this list, then leave it.

20 We should go forth with a schedule of your  
21 preferred pecking list, if you will, of which  
22 equipment you want to try to test, modify, fix first,  
23 such that we can arrange to have some observation of  
24 the activity that's ongoing or some controls that

1 remain cognizant of the activity that's associated  
2 with this piece of equipment.

3 MR. ROSSI: And also, you know, your  
4 procedures of how you're going to make sure that you  
5 know what the as-found condition is and keep careful  
6 track of what is done, we're anxious to get on with  
7 that because we recognize it's got to be done in a  
8 careful controlled manner and it's got to stay  
9 frozen until you're prepared to convince us that the  
10 way you're going to handle it is proper.

11 But it's also important that we move to do  
12 that because we aren't going to know the root causes  
13 of the equipment failures until that work is done.  
14 And what we're planning to do is to listen to your  
15 proposal on how you're going to deal with frozen  
16 equipment in such a way that we have a systematic  
17 record of what you find wrong with it and what you  
18 have to do to repair it and what the root causes of  
19 the malfunctions are. And then we also plan to  
20 discuss with some, if not all, of this stuff of  
21 having NRC Region 3 people there when you do the  
22 work.

23 MR. SHAPER: Let me carefully add, do not  
24 wait until all ten of these items are ready. We

1 are -- in order to expedite it, when you have one  
2 area ready, please let us know, and we can start  
3 scheduling that.

4 MR. BEARD: I think you want to consider a  
5 priority, because I think that the utility folks are  
6 very interested in understanding root causes as we  
7 are. I would think that the reasons why the MSIVs  
8 close, which was a reactor in this transient, are  
9 of primary importance. I would think that the  
10 overspeed trips that occurred are primary importance,  
11 and I think the PORV are primary importance.

12 But I don't mean to be dictating a list.  
13 I'm saying that of this list of equipment, some seem  
14 to be more important than others in a time sense to  
15 understand the root cause of this event, and I would  
16 expect to see some prioritization here.

17 MR. MURRAY: John, can you talk a little  
18 bit about what's going on with the action plan? We  
19 are presently working on the plans for doing the  
20 troubleshooting of these items.

21 MR. BEARD: So they're not in a stagnant  
22 position?

23 MR. WOOD: That's correct. What we have  
24 done today was taken the information that we had

1 discussed yesterday or last evening and sat down  
2 with the action plan leaders of each one of these  
3 items, tried to relate to them very carefully the  
4 types of things that you needed to be assured of  
5 in the process of their actions with particular  
6 attention to the documentation trail and the  
7 traceability, also mentioning the desire to maintain  
8 control for equipment that we may feel eventually  
9 has to be sent off-site. So they have that in-site  
10 now that has been transferred to them that they are  
11 preparing action plans that they recognize has to be  
12 concurred in by the team before we allow any  
13 disturbance of the systems.

14 So they are going through a process right  
15 now. Also they have the capability of analyzing  
16 things like the alarm data and just the raw data,  
17 the transient, and there's evaluation that is  
18 ongoing in different areas, so we're by no means  
19 dead in the water as far as working on these things.  
20 We are dead in the water as far as physically  
21 working on them.

22 MR. BEARD: Oh, yeah, I understood that.  
23 Do you have any feel with that process that you've  
24 launched from the prioritization might be complete

1 or when we would see the first plan for the first  
2 piece of equipment?

3 MR. WOOD: I suspect that we could have a  
4 plan for at least the first piece late tomorrow or  
5 Friday. We had asked for many of the plans to be  
6 prepared by Friday. Bear in mind though we have  
7 to -- we've diverted the effort to a great number of  
8 people, and we have to gather that back in to assure  
9 that it meets the requirements that everyone has  
10 agreed it is needed. And that could be an iterative  
11 process.

12 MR. BEARD: So we're talking about the  
13 first ones that might be available as early as  
14 Friday?

15 MR. WOOD: That's correct.

16 MR. BEARD: Are you including in these  
17 plans the consideration of at what point, whether  
18 you will involve the vendors, the manufacturers and  
19 the design people in the failure investigation?

20 MR. WOOD: Yes. And some of these plans,  
21 by the nature of the problem, are going to only go a  
22 certain step before more information is needed to  
23 construct the rest of the action plan. And that is  
24 recognized. So there may be an iterative process



1 again. Once we get into evaluation of the program,  
2 we may have to check courses periodically before we  
3 get to the end.

4 MR. ROSS: Is there anything else we need  
5 to talk about this afternoon?

6 MR. SHAFER: For the record, all other

7 work activities are ready?

8 MR. ROSS: Yes.

9 MR. BEARD: Yes.

10 MR. ROSS: Let me qualify that. Assuming  
11 that we had not become involved in this, Region 3

12 wouldn't have any additional holds on any of this  
13 other stuff, would they? I mean, assuming we had

14 never come here and never been involved, you ought

15 to continue to do with this other equipment what

16 Region 3 would have done.

17 MR. SHAFER: You have encompassed whatever  
18 operation activities we would be involved in.

19 MR. ROSS: Okay. Fine.

20 MR. WYER: We still have the issue -- we

21 have the list of specific items. The issue that we  
22 still have not resolved internally, obviously, and

23 have to be discussed with you is proximity. It's

24 expectantly compounding with things like space, the

1 system instruments, junction boxes, splices,  
2 connectors. Obviously --

3 MR. ROSSI: They could have the problem.  
4 You know, they could have a problem.

5 MR. MYERS: I understand. And that  
6 that's -- we will probably need to, as we go along,  
7 especially in that area, that that problem, that one,  
8 we may need to come back for certain clarification  
9 and justification to remove certain areas away from --  
10 or try to justify why part of the system we don't  
11 have to worry about or we shouldn't worry about any  
12 cable tray cables and connection boxes or something?

13 MR. ROSSI: Okay. If you have to come  
14 back for clarification, we understand.

15 MR. SILBERG: Is it your view that cable  
16 trays and stuff are part of the system in terms of  
17 the proximity issue?

18 MR. BEARD: I think until the utility does  
19 some sort of consideration as to why they are to be  
20 excluded, we have no alternative but to include.

21 BELL: well, only safety related equipment  
22 runs in those cable trays anyhow, is that not  
23 correct?

24 MR. BEARD: It better be.

1 MR. SILBERG: Don't ask me.

2 MR. BELL: You asked the question.

3 MR. ROSSI: I think J.T. gave the proper  
4 answer. I think the answer is until you come back  
5 with some sort of details on why they ought to be  
6 not covered, that they should be where that's  
7 applicable.

8 I mean, we now have a smaller list than  
9 the 138 items that you came into the room with,  
10 so we hope that we have solved a large part of  
11 your immediate problem, and where additional  
12 clarification needs to be given, I think you need to  
13 come to us with a reasonably detailed proposal on  
14 what you think is the proper thing to do. And we  
15 can look at it and decide.

16 MR. BEARD: And let me add to that in the  
17 way of explanation of why I gave you the answer I  
18 did, and that is that in a number of cases we're  
19 dealing with the spurious activities such as the  
20 MSIV closures, which we're dealing with spurious or  
21 inadvertent overspeed trips, we don't really know  
22 what causes the spurious trips, and it could be  
23 there is some junction someplace, terminal block,  
24 this is the culprit. The spurious things,

1 intermittent problems are a real bear to run down.  
2 I've done several of them.

3 And the cable itself may be easy to  
4 release, but the junction boxes may be different,  
5 you know. And it's because of the nature of the  
6 thing we're dealing with here that you can't give us  
7 the kind of release that you would prefer to give.

8 MR. SILBERG: The only reason I ask the  
9 question and this is from a nontechnical point  
10 because I am totally nontechnical, is that it seems  
11 you're going to have cables in most of the areas of  
12 the plant, which may mean that unless we got  
13 specific clarification, we really can't release any  
14 areas of the plant to do any work in because you got  
15 cables in proximity to everything. I don't know if  
16 that's true or not from --

17 MR. ROSSI: Let's face that problem when  
18 they come back and tell us that's a problem, because  
19 I, you know -- let's face that problem if they come  
20 back and tell us it's a problem.

21 MR. BEARD: My special assessment, that's  
22 not going to be a significant problem, but if it is,  
23 we'll face it.

24 MR. MURRAY: In reality, your cable trays

1 are normally up high. You work in a room, and  
2 there's -- you're not likely to have physical  
3 contact with the cables there.

4 MR. BELL: At least your maintenance force  
5 shouldn't be idle now, correct?

6 MR. MURRAY: That's correct.

7 MR. WOOD: Can we talk about one related  
8 topic here that has to do with surveillance testing.  
9 The tech specs require us to do surveillance testing,  
10 and we have made it clear to our operators that  
11 we're not under any way allowing violation of the  
12 tech specs through what we're doing.

13 So there's some day-to-day surveillance  
14 testing that has to continue. Now, with this list,  
15 we would also imply that surveillance testing on any  
16 equipment outside of this would be permissible and  
17 that surveillance testing on these items, if  
18 sufficient time is --

19 MR. ROSSI: What you have to do to meet  
20 the tech specs in my opinion falls within what we  
21 mentioned before, that the things that you have to  
22 do to maintain the plant in a safe condition have to  
23 be done. And if it's required by the tech specs, my  
24 view is that you do it. What's your view, J.T.?

1 MR. BEARD: Well, it's an interesting  
2 question. I get involved on a very frequent basis,  
3 sometimes more frequent than I'd prefer, with what's  
4 called emergency tech spec changes. Just looking  
5 over the list of items that we've got here, it  
6 raises the question. I think it's an excellent  
7 question.

8 I think your question raises the one that  
9 said for some of these pieces of equipment, like the  
10 steam feed rupture control system, it may be that  
11 for the mode of operation the plant's in, that it  
12 would be better to defer any surveillance because it  
13 may be that system is not required to be operable in  
14 cold shutdown. And, therefore, you would want and  
15 could very easily leave that one totally alone.

16 MR. ROSSI: Yes. But I think bottom line  
17 is if it's required by the tech specs, they continue  
18 to do it.

19 MR. BEARD: No, that's not what I'm saying.

20 MR. MURRAY: There's a difference. J.T.  
21 is talking about the ones that would not be required  
22 when we're in this mode. And John was referring to  
23 the ones that are required.

24 MR. SILBERG: If it's not required in this

1 mode, presumably you won't do it. But the question  
2 is are there surveillance requirements that are  
3 required of this mode for pieces of hardware that  
4 are under quarantine?

5 MR. LANNING: No, no, I would suggest that  
6 they, if they run into this situation, that they let  
7 us know that, let the team know what surveillance  
8 you want to do --

9 MR. BEARD: On a case basis.

10 MR. LANNING: Handling it on a case by  
11 case basis.

12 MR. WIDEMAN: Only as it relates to the  
13 frozen equipment.

14 MR. ROSSI: And if you're forced to do  
15 anything to maintain the plant safe or meet your  
16 license requirements, then you should do it and  
17 record what you've done. I mean, we cannot give you  
18 any relief in meeting your tech specs, but where you  
19 have to do something to meet your tech specs, then  
20 you should carefully record what it is you had to do  
21 and any results from that. But let's make it clear  
22 again, you have to continue to meet your tech specs.

23 MR. MYERS: Could Wayne restate his  
24 statement? I'm not quite sure I understood.



1 MR. LANNING: I had a suggestion that it

2 you -- if the clock is ticking to do a technical

3 surveillance requirement.

4 MR. WYERS: Required in the mode.

5 MR. LANNING: In the mode for this system,

6 whatever it is, that is a courtesy, let us -- let

7 Route Ross know the required surveillance case that

8 you need to do, and then let us consider it on a

9 case-by-case basis.

10 MR. WYERS: Consider --

11 MR. ROSS: Yes, they will have another

12 team that we could step out of this room where they

13 can't get us and they find that five hours from now

14 they have to do something to meet the each space.

15 And I want to leave it very clear, what you have to

16 do to meet the each space you should do it, but

17 record accurately what you do. We are not telling

18 you that you can violate your each space for this.

19 MR. BELT: What did you have in mind when

20 your question, what surveillance do you see that

21 need to be done on this equipment?

22 MR. MOORE: Well, there's constant checks,

23 for instance, that I think are done on a daily basis.

24 MR. BELT: But constant checks only involve

1 taking readings, right? That doesn't disturb the  
2 equipment?

3 MR. WOOD: Okay.

4 MR. MYERS: May or may not. Selector  
5 switches might be involved. Again, spurious  
6 indications here were not --

7 MR. MURRAY: Trying to be careful.

8 MR. BELL: I understand.

9 MR. ROSSI: Record what you do. If you  
10 turn a switch to record a surveillance, record it.

11 MR. MYERS: All these would be listed,  
12 especially normal surveillance tests would be listed,  
13 so we could normally construct that.

14 MR. ROSSI: It's retraceable.

15 MR. MYERS: What we do and will redo it  
16 for you, and, you know, it's a standard surveillance  
17 test, nothing new or different troubleshooting.

18 MR. BELL: I'm sure though that if your  
19 surveillance procedure required you to change,  
20 switch positions, there's a signoff that that switch  
21 was put in the proper position, then there's also a  
22 signoff that the switch was restored, so we would  
23 have traceability on these instrumentation systems.

24 MR. ROSSI: Yes, I think we would get that

1 even without the request that it be done.

2 MR. BEARD: There's only one area of the  
3 items that are on the quarantine at the moment that  
4 I would even begin to be concerned too much about,  
5 and that is the steam feed rupture control systems  
6 and the instruments that provide inputs thereto.  
7 And I guess you can short-circuit that whole concern  
8 if you say that it's true that for this mode of  
9 operation that system is not required to be operable.  
10 Is that true?

11 MR. MYERS: Certainly for this mode. I  
12 don't know if we completed a surveillance test while  
13 we're in mode 3, which might have had it required.

14 MR. BEARD: Okay. Because the one area  
15 you find you need to make, say, an instrument test  
16 or whatever, if it provides an input through the  
17 steam feed rupture control system, I think it would  
18 be obviously prudent to be careful and document what  
19 you do, because that may very well be the source of  
20 your spurious actuations of the MSIV.

21 MR. BELL: Excuse me. You don't have --  
22 you don't maintain a surveillance schedule so that  
23 you ensure -- --

24 MR. WOOD: Yes.

1 MR. BELL: Does that tell you that tonight  
2 that surveillances are due on any of these related  
3 systems?

4 MR. MYERS: I was just going to mention  
5 that. Possibly why don't we do that review, and  
6 come with you tomorrow morning first thing and say  
7 everything is free, there's no surveillance tests in  
8 this mode for any of the activity, or there are the  
9 following five and they're applying for --

10 MR. LANNING: You know what surveillances  
11 you've got to do.

12 MR. MURRAY: We certainly do.

13 MR. BEARD: All we've got to do is go up  
14 and push the computer, and it will tell us.

15 MR. BELL: How about tonight, is there  
16 anything we need to clear up before we go home at 6:02?

17 MR. MYERS: My orders are to do them if  
18 they are required. As a courtesy to notify Ernie, I  
19 was concerned about this. Okay. Right now I'm not  
20 sure --

21 MR. LANNING: Are you still concerned? Do  
22 you still have questions?

23 MR. MYERS: We will notify Ernie.

24 MR. ROSSI: You comply with your tech

1 specs. And if you have to do something with this  
2 equipment to comply with your tech specs, you  
3 carefully record it. I think that's what we've  
4 agreed to. Keep meticulous records on it.

5 MR. WOOD: That careful recording is a  
6 part of our system which is in place now. There's  
7 no extraordinary effort that we have identified to  
8 capture that data.

9 MR. BEARD: I think that everybody  
10 realizes that there's got to be an exercise of  
11 experienced engineering judgment in this thing  
12 because we can get to the point of we -- all of us  
13 in this room, if we're not careful, get to the point  
14 of being ridiculous. And I think we beg of you to  
15 use that judgment as you see it so we don't spend  
16 hours upon hours discussing the details.

17 MR. ROSSI: And we did that, but that, you  
18 know, we don't lose the information on what the  
19 problem was. We need to know that.

20 MR. BEARD: Okay.

21 MR. ROSSI: It's to your advantage,  
22 needless to say, that you'll be able to identify  
23 what the problems with this equipment are beyond all  
24 doubt because that's going to be important to both

1 you and us. Are we finished?

2 MR. BEARD: I would suggest that we  
3 adjourn.

4 MR. BELL: I don't believe we got all  
5 their concerns cleared up with the maintenance?

6 MR. WOOD: Yes.

7 MR. ROSSI: Let's adjourn.

8 - - - - -

9 Thereupon, the proceedings were  
10 concluded at 5:54 o'clock p.m.

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## CERTIFICATE

I, Anne I. McBrayer, a Notary Public in and for the State of Ohio, do hereby certify that I took the proceedings before the Nuclear Regulatory Commission Fact Finding Team and that the foregoing transcript of such proceedings is a full, true and correct transcript of my stenotypy notes as so taken.

I do further certify that I was called there in the capacity of a Court Reporter, and am not otherwise interested in this proceeding.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal of office at Columbus, Ohio, on this 14th day of June, 1985.

*Anne I. McBrayer*

ANNE I. MCBRAYER, a Notary  
Public in and for the  
State of Ohio.

My Commission expires February 3, 1988.



MWO NUMBER	STATUS	RESP GROUP	RESP ENGR	SUBSYS NUMBER	PROBLEM SUMMARY
OK 1-84-1131-01	P-WRK-APPR	ELEC	RWUEBB	015-03	ELECT. COVERS MISSING 5/14/85
OK 1-84-1611-00	P-WRK-APPR	FMD	JMHANS	013-06	PERM. SEAL CORE BORES 5/24/85
OK 1-84-1855-00	P-WRK-APPR	MECH	TATHOM	099-09	SHAFT SEAL LEAK. 6/8/85
OK 1-84-2220-00	P-WRK-APPR	WELD	SDHENR	011-01	SW0379-MISSING ON P003-3 6/12/85
OK 1-84-2883-00	P-WRK-APPR	ELEC	JWLONG	015-03	SPRAY SHIELD WALKDOWN
OK 1-84-3002-04	P-WRK-APPR	IC	GLPYZI	028-01	CTRM EVS 1-1 TEST TP641 4/8/85
OK 1-84-3002-05	P-WRK-APPR	IC	GLPYZI	028-01	CTRM EVS 1-2 TEST TP641
OK 1-84-3084-00	P-WRK-APPR	ELEC	APWISE	005-01	CLEAN UP BACK OF BE309 SAC 1
OK 1-84-3173-00	P-WRK-APPR	PIPE	JJONEI	049-02	ROTATIONAL MOVEMENT snubber
OK 1-84-3305-01	P-WRK-APPR	PIPE	TATHOM	022-01	GAGE DGS And Stg. Tk
OK 1-84-3324-00	P-WRK-APPR	PIPE	TRISLE	016-04	NN1892 CONTROLS IMPROPER CCW Surge Tk
OK 1-84-3412-00	P-WRK-APPR	MECH	GLPYZI	013-08	DO ST5016.11
OK 1-84-3413-00	P-WRK-APPR	MECH	GLPYZI	042-03	CIRC WTR PMP DAMPERS CLOS
OK 1-84-3503-02	P-WRK-APPR	WELD	SDHENR	011-01	CRCKD WELD-F15-3 B/D LINE SW Pump 3
OK 1-84-3648-00	P-WRK-APPR	IC	TRISLE	014-01	CMPT PT BAD #2 PMP UPR BR TPCW Pump 2

MORE DATA IS AVAILABLE. DEPRESS FORWARD FOR ACCESS.

MWO NUMBER	STATUS	RESP GROUP	RESP ENGR	SUBSYS NUMBER	PROBLEM SUMMARY
OK 1-85-0002-01	P-WRK-APPR	ELEC	JWLONG	015-03	RACKING BREAKERS Generic
OK 1-85-0004-01	P-WRK-APPR	ELEC	RWUEBB	015-03	FUSE & LAMP REPLACEMENT Generic
OK 1-85-0013-02	P-WRK-APPR	MECH	MBRAYN	085-07	SPSIG TK PMP #2 BOUNDUP
OK 1-85-0086-01	P-WRK-APPR	PIPE	TATHOM	016-04	FILTER PLUGGED, CRDC
OK 1-85-0121-00	P-WRK-APPR	PIPE	SDHENR	011-01	SW VALVE STUD CORROSION
OK 1-85-0236-01	P-WRK-APPR	ELEC	JAFEHL	060-05	TEMP. S.S. FAN DATA
OK 1-85-0347-01	P-WRK-APPR	ELEC	RWUEBB	099-06	BATTERY SB LOW SG Security
OK 1-85-0374-01	P-WRK-APPR	IC	JMDESA	007-02	GENERIC MWO FREEZE PROT.
OK 1-85-0396-00	P-WRK-APPR	IC	BFHICK	061-01	TEMP PROBE BAD CS Amp 1
OK 1-85-0407-02	P-WRK-APPR	IC	TAGULV	072-01	SEE ACTION DESCRIPTION. Daily CK. 02 Monitors
OK 1-85-0433-00	P-WRK-APPR	IC	RPTOTH	013-09	FIRE DET ALARMING.
OK 1-85-0574-00	P-WRK-APPR	ELEC	APWISE	007-01	DRASTIC INCREASE IN AHPS Cathodic Probe
OK 1-85-0605-00	P-WRK-APPR	IC	GTCHUN	093-02	T489 READS BAD. HP Turb. Thrust Brng.
OK 1-85-0661-02	P-WRK-APPR	IC	BFHICK	079-01	CTHT POST ACC RAD NON 4/4/85 Generic
OK 1-85-0661-03	P-WRK-APPR	IC	BFHICK	079-01	CTHT POST ACC RAD NON 4/4/85 Generic

MORE DATA IS AVAILABLE. DEPRESS FORWARD FOR ACCESS.

HWO NUMBER	STATUS	RESP GROUP	RESP ENGR	SUBSYS NUMBER	PROBLEM SUMMARY
OK 1-85-0727-00	P-WRK-APPR	SERV	SHHURR	099-19	PAINTING IN RACA
OK 1-85-0829-02	P-WRK-APPR	IC	TRISLE	064-03	FY 4338 SATURATED 6/12/85 RCP 2.1 Seal Leakage
OK 1-85-0855-00	P-WRK-APPR	MECH	GLPYZI	029-01	REPAIR TEMP CONTROLLER. Warehouse H4V
OK 1-85-0874-00	P-WRK-APPR	ELEC	APWISE	007-02	BA H/T CKT 98 & 139
OK 1-85-0923-00	P-WRK-APPR	SERV	SHHURR	099-06	PREPARE & CNG. SECR LOCKS
OK 1-85-0949-01	P-WRK-APPR	IC	BFHICK	018-01	STATION AIR COMP SETPOINT
OK 1-85-1073-01	P-WRK-APPR	PIPE	CRANDE	013-03	FP0318 PACKING HARD
OK 1-85-1108-00	P-WRK-APPR	SERV	SHHURR	099-20	IMPRV CHP LAB APPEARANCE
OK 1-85-1111-00	P-WRK-APPR	SERV	SHHURR	099-19	RACA PAINTING
1-85-1169-00	P-WRK-APPR	IC	TRISLE	085-08	AUX BOILER WORK Generic
OK 1-85-1289-00	P-WRK-APPR	FMD	DTIELDR	012-01	VERIFY LP SPARES. Lighting Spares
OK 1-85-1297-00	P-WRK-APPR	MECH	GLPYZI	032-04	HIGH VIBRATION - C014-01
OK 1-85-1304-00	P-WRK-APPR	SERV	SHHURR	099-18	PAINT TURBINE RM FLOOR
OK 1-85-1315-00	P-WRK-APPR	SERV	SHHURR	019-03	PAINT FIRE DOORS.
OK 1-85-1355-00	P-WRK-APPR	IC	JNDESA	047-01	LPFM HTR LVL CONTROL BAD

MORE DATA IS AVAILABLE. DEPRESS FORWARD FOR ACCESS.

MMO NUMBER	STATUS	RESP GROUP	RESP ENGR	SUBSYS NUMBER	PROBLEM SUMMARY
OK 1-85-1395-00	P-WRK-APPR	ELEC	JWLING	005-01	PCB INSPECTION
OK 1-85-1409-00	P-WRK-APPR	IC	TRISLE	043-04	JUMPER RE1003B LO FLOW
OK 1-85-1439-01	P-WRK-APPR	IC	LLMAGA	099-14	CTRL PROB ON CTRL CAMERA
OK 1-85-1498-00	P-WRK-APPR	FMD	DRBREE	099-16	NCR 85-0033
1-85-1547-00	P-WRK-APPR	PIPE	GLPYZI	021-03	E51-1 LEAKS
OK 1-85-1556-00	P-WRK-APPR	IC	BEHICK	048-01	CV5016 SAN LITE NOT FLASH 5/21/85
OK 1-85-1627-00	P-WRK-APPR	FMD	DRBREE	013-09	COND. INTERF. NCR#85-0041
OK 1-85-1627-01	P-WRK-APPR	FMD	DRBREE	099-16	FIREPROOFING NCR#85-0041
OK 1-85-1641-00	P-WRK-APPR	FMD	DRBREE	099-16	FIREPROOFING NCR#85-0039
OK 1-85-1646-02	P-WRK-APPR	IC	JLTABB	064-03	FY 4438 SATURATED 6/15/85
OK 1-85-1673-00	P-WRK-APPR	IC	JADESA	058-01	RC FLOW INPUT TO RPS CH 4 5/15/85
OK 1-85-1691-00	P-WRK-APPR	PIPE	TATHOM	039-01	FILTER NEEDS CHANGED.
OK 1-85-1692-00	P-WRK-APPR	ELEC	APWISE	021-01	WTR TRHT FD PAF 1-2 STRM
OK 1-85-1724-00	P-WRK-APPR	PIPE	CRANDE	049-02	DH63 PACKING LEAK
OK 1-85-1759-00	P-WRK-APPR	PIPE	KLOTET	099-16	LOOSE BOLTS ON S/S

MORE DATA IS AVAILABLE. DEPRESS FORWARD FOR ACCESS.

AND NUMBER	STATUS	RESP GROUP	RESP ENGR	SUBSYS NUMBER	PROBLEM SUMMARY
OK 1-85-1773-00	P-WRK-APPR	PIPE	GLPYZI	085-01	P125 LEAKING @ FLANGE
OK 1-85-1775-00	P-WRK-APPR	MECH	GLPYZI	028-01	HV5356B DOESN'T FULL OPEN CTRM VAL.
OK 1-85-1777-00	P-WRK-APPR	PIPE	GLPYZI	030-02	AUTO VENT NEAR AC45 LEAKS
OK 1-85-1780-00	P-WRK-APPR	IC	RPTOTH	043-04	PSH-8818 IS INOPERABLE
OK 1-85-1785-00	P-WRK-APPR	MECH	GLPYZI	032-03	#1 NH EXH FAN VIBR., DATA
OK 1-85-1788-00	P-WRK-APPR	ELEC	JMLONG	045-03	CTRM SHART FIRE CABLES
OK 1-85-1822-00	P-WRK-APPR	FND	DTFLDR	099-20	BUILDING PAINTING.
OK 1-85-1828-00	P-WRK-APPR	IC	RPTOTH	048-04	SOL VLV FOR INST AIR DRY
OK 1-85-1830-00	P-WRK-APPR	FND	MPBEIE	050-03	NCR 85-0053
OK 1-85-1852-00	P-WRK-APPR	MECH	GLPYZI	028-04	CTRM SYS #2 NOT BALANCED
OK 1-85-1864-00	P-WRK-APPR	MECH	HAKUSH	048-04	3000HR INSPECTION REPAIRS
OK 1-85-1879-00	P-WRK-APPR	ELEC	APMISE	048-04	STA AIR COMP TRIPPED 6/1/85
1-85-1887-00	P-WRK-APPR	IC	JADESA	036-02	TRBLSHOOT MFT <sup>1</sup> TRIP CKT
1-85-1887-04	P-WRK-APPR	IC	JADESA	036-02	TRBLSHOOT MFT <sup>1</sup> TRIP CKT
OK 1-85-1893-00	P-WRK-APPR	CSYS	JMLONG	034-04	ESSEN BUS C4 VOLT ABNOR.

MORE DATA IS AVAILABLE. DEPRESS FORWARD FOR ACCESS.

7 stop check 6/1/85

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MMO NUMBER	STATUS	RESP GROUP	RESP ENGR	SUBSYS NUMBER	PROBLEM SUMMARY
1-85-1824-00	P-WRK-APPR	PTPE	TATHON	022-01	WT-6763 LEAKAGE.
OK 1-85-1825-00	P-WRK-APPR	IC	THGULV	085-06	HV2075 NOT CONTROLLING BA Evap 2
1-85-1897-00	P-WRK-APPR	IC	JHDESA	036-02	TRBLSHOOT HFFT 2 TRIP Strip Chart Recorders
OK 1-85-1910-00	P-WRK-APPR	FMD	DRBEE	099-16	OIL DRUM STORAGE PAD
OK 1-85-1931-01	P-WRK-APPR	PIPE	MAKUSN	018-01	SAC#1 CW SIGHTGLASS DIRTY
OK 1-85-1933-00	P-WRK-APPR	IC	TRISLE	079-01	INSTALL JUMPER REC 15986A
1-85-1934-00	P-WRK-APPR	ELEC	RHUEBB	002-03	RC4401 POWER FUSE
1-85-1935-00	P-WRK-APPR	IC	JHDESA	036-02	TROUBLESHOOT 6/1/85
OK 1-85-1947-00	P-WRK-APPR	ELEC	RHUEBB	098-01	GENERATOR BRUSHES
OK 2-78-0038-05	P-WRK-APPR	FMD	ASWILS	045-01	REWORK R.O.
OK 2-79-0421-22	P-WRK-APPR	FMD	APBEIE	050-01	BOOT-SEALS
OK 2-79-0421-23	P-WRK-APPR	FMD	APBEIE	050-01	BOOT SEALS
OK 2-81-0171-04	P-WRK-APPR	FMD	RPKOCI	071-03	CROUT & PAINT REQ'D
OK 2-83-0034-02	P-WRK-APPR	FMD	DTELDR	099-06	CORE DRILLS
OK 2-83-0034-03	P-WRK-APPR	FMD	DTELDR	099-06	INSTALL CONDUIT

MORE DATA IS AVAILABLE. DEPRESS FORWARD FOR ACCESS.

HMO NUMBER	STATUS	RESP GROUP	RESP ENCR	SUBSYS NUMBER	PROBLEM SUMMARY
OK 2-84-0008-09	P-WRK-APPR	FMD	DTELDR	013-10	REMOVE FD1157.
OK 2-84-0053-01	P-WRK-APPR	FMD	DRBREE	099-16	FIRE WALL RM. 411
OK 2-84-0207-01	P-WRK-APPR	FMD	NPBEIE	084-01	MSR HIGH LEVEL SENSORS
OK 2-85-0033-01	P-WRK-APPR	FMD	DRBREE	099-16	ROOF INCIDENTALS
OK 2-85-0033-02	P-WRK-APPR	FMD	DRBREE	099-16	REPLACE OFF. ROOF
2-85-0087-01	P-WRK-APPR	IC	WHBEHR	050-03	INSTALL TEMP. INST. <i>AFW 6/3/85</i>
OK 3-84-0959-01	P-WRK-APPR	IC	JWROCE	014-01	LT1588 *CALIB CK*TPCW LVL
OK 3-84-0979-01	P-WRK-APPR	IC	LLMAKA	022-01	LT6707-CALIB CK-NEUT TK
OK 3-85-0133-06	P-WRK-APPR	IC	MRBURN	065-01	AE1999/AR1999 * WKLY PH
OK 3-85-0134-01	P-WRK-APPR	IC	MRBURN	065-01	AE1999*DISCRN & DET CURVE
OK 3-85-0254-06	P-WRK-APPR	IC	LLMAKA	046-01	EXT STEAM NRV WEEKLY PH
OK 3-85-0331-06	P-WRK-APPR	IC	GTCHUN	097-01	CIT2463 *CLN* GEN CONDUCT
OK 3-85-0556-06	P-WRK-APPR	IC	JDSWAR	095-03	C4101 *CK* H2 ANALYZ WKLY
OK 3-85-0664-01	P-WRK-APPR	ELEC	JWLONG	004-01	ACD4 *CLN&INSP* SW PHP #3
OK 3-85-0665-01	P-WRK-APPR	ELEC	JWLONG	004-01	ACD5 *CLN&INSP* SW PHP #3

MORE DATA IS AVAILABLE. DEPRESS FORWARD FOR ACCESS.



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MMO NUMBER	STATUS	RESP GROUP	RESP ENGR	SUBSYS NUMBER	PROBLEM SUMMARY
OK 3-85-0730-06	P-WRK-APPR	ELEC	RMEERB	096-01	DAILY RM GEN, EXC, ALTEREX
OK 3-85-0739-01	P-WRK-APPR	CSYS	RMEERB	015-02	CALIB/INSP*PROT REL/INSTR
OK 3-85-0739-06	P-WRK-APPR	IC	JDSWAR	010-01	*INST AIR RCVR DEW POINT*
OK 3-85-0877-06	P-WRK-APPR	IC	TRISLE	005-00	*CLEAN* AUX BLR FIRE EYE
OK 3-85-0912-02	P-WRK-APPR	IC	GABLUN	007-02	BA & FREZ PROT HEAT TRACE
OK 3-85-0913-02	P-WRK-APPR	IC	GABLUN	007-02	BA & FREZ PROT H/T*CALIB*
OK 3-85-0927-01	P-WRK-APPR	MECH	SDHEER	011-01	F015-03 *LUB* SM STROR #3
OK 3-85-0933-01	P-WRK-APPR	MECH	SDHEER	011-01	MP0033 *LUB* SM PHP #3
OK 3-85-1170-06	P-WRK-APPR	IC	JADESA	028-01	AE5358A*DRIP RATE*CTRH CL
OK 3-85-1171-06	P-WRK-APPR	IC	JADESA	028-01	AE5358B*DRIP RATE*CTRH CL
OK 3-85-1172-06	P-WRK-APPR	IC	JADESA	028-01	AE4863A*DRIP RATE*CTRH CL
OK 3-85-1173-06	P-WRK-APPR	IC	JADESA	028-01	AE4863B*DRIP RATE*CTRH CL
OK 3-85-1284-01	P-WRK-APPR	MECH	GLPYZI	032-04	C014-01 *INSP*RAD MST EXH
OK 3-85-1317-01	P-WRK-APPR	MECH	GLPYZI	033-02	*DASHB & CLM* CTRC PHP
OK 3-85-1471-06	P-WRK-APPR	IC	MRBURN	072-01	AE3992*RECHRC&CALIB*02MON

MORE DATA IS AVAILABLE. DEPRESS FORWARD FOR ACCESS.



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MMO NUMBER	STATUS	RESP GROUP	RESP ENGR	SUBSYS NUMBER	PROBLEM SUMMARY
003-85-1472-06	P-WRK-APPR	IC	MRBURN	072-04	AE4968*RECHRG&CALIB*02MON
003-85-1781-06	P-WRK-APPR	IC	JWZTHH	043-04	DETECTOR FILTER CHANGE
003-85-1782-06	P-WRK-APPR	IC	JWZTHH	043-04	DETECTOR FILTER CHANGE
003-85-1811-06	P-WRK-APPR	IC	TRISLE	079-04	RE MONTHLY FILTR CHG
003-85-1812-06	P-WRK-APPR	IC	MRBURN	071-03	RE1878A*CLN&CHRG LINER*
003-85-1813-06	P-WRK-APPR	IC	MRBURN	071-03	RE1878B*CLN&CHRG LINER*
003-85-1814-06	P-WRK-APPR	IC	TRISLE	079-04	RE4597AB*OBSERVE STARTUP*
003-85-1815-06	P-WRK-APPR	IC	TRISLE	079-04	OBSERVE RAD MON STARTUP
003-85-1818-04	P-WRK-APPR	IC	JDSWAR	079-04	RE4598AB-CK-POST ACC VENT
003-85-1819-04	P-WRK-APPR	IC	JDSWAR	079-04	RE4598BB-CK-POST ACC VENT
003-85-1907-04	P-WRK-APPR	IC	LLMAKA	031-04	*CLH/ALIGN* CTRH CRTS
003-85-1913-05	P-WRK-APPR	IC	LLMAKA	031-04	*CLN* MAG TAPE UNITS 1&2
003-85-1914-04	P-WRK-APPR	IC	LLMAKA	031-04	* *10MB DISK DRIVES (2)
003-85-1929-04	P-WRK-APPR	MECH	TATHOH	099-09	SAN LIFT#6 *CLEAN FILTER*
003-85-1974-04	P-WRK-APPR	ELEC	JAFEHL	021-04	*CLH&CK* SEWAGE TRHT HTRS

MORE DATA IS AVAILABLE. DEPRESS FORWARD FOR ACCESS.

# DAVIS-BESSE MAINTENANCE MANAGEMENT SYSTEM

06/12/85

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MMO BROWSE

MMO NUMBER	STATUS	RESP GROUP	RESP ENGR	SUBSYS NUMBER	PROBLEM SUMMARY
OK 3-85-2133-01	P-MRK-APPR	MECH	NAKUSN	018-01	C101-01*3000HR INSP*SAC#1
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YOU HAVE REACHED THE END OF THIS FILE. THERE IS NO MORE DATA AVAILABLE.