

ORIGINAL

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the matter of:

COMMISSION MEETING

Status of Progress on Environmental  
Qualification of Electrical Equipment

(Public Meeting)

Docket No.

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1 D I S C L A I M E R

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7 United States Nuclear Regulatory Commission held on Tuesday,  
8 September 17, 1985 in the Commission's office at 1717 H Street,  
9 N.W., Washington, D.C. The meeting was open to public  
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1 UNITED STATES OF AMERICA  
2 NUCLEAR REGULATORY COMMISSION

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4 STATUS OF PROGRESS ON ENVIRONMENTAL QUALIFICATION  
5 OF ELECTRICAL EQUIPMENT

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7 PUBLIC MEETING

8 Room 1130

9 1717 H Street, N.W.

10 Washington, D.C.

11 Tuesday, September 17, 1985

12 The Commission met, pursuant to notice, at 2:05 p.m.

13 COMMISSIONERS PRESENT:

14 NUNZIO J. PALLADINO, Chairman

15 JAMES K. ASSELSTINE, Commissioner

16 THOMAS M. ROBERTS, Commissioner

17 FREDERICK M. BERNTHAL, Commissioner

18 LANDO W. ZECH, JR., Commissioner

19 STAFF AND PRESENTERS SEATED AT COMMISSION TABLE:

20 V. Stello R. LaGrange

21 D. Eisenhut J. Knight

22 R. Vollmer

23 AUDIENCE SPEAKERS:

24 G. Zech

25

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

[2:05 p.m.]

CHAIRMAN PALLADINO: Good afternoon, ladies and gentlemen.

Commissioner Bernthal was detained and will be joining us shortly.

Members of the NRR Staff are with us today to discuss environmental qualification of electrical equipment important to safety in nuclear power plants.

Section 50.49 of the Code of Federal Regulations allows a Director of the Office of Nuclear Reactor Regulations to grant extensions for finalization of environmental qualification to a date no later than November 30, 1985 if good cause is demonstrated. Beyond November 30, 1985, the Commission itself may grant extensions in exceptional cases.

[Commissioner Bernthal joins the meeting.]

By generic letter in early August, licensees were advised that the Commission's intentions that extensions will be granted only in rare circumstances and that enforcement action will be taken against licensees that continue to operate their plants with unqualified equipment beyond November 30, 1985 without extensions approved by the Commission.

Justification for continued operation will have to be provided to the Staff by licensees, and extensions will have to be approved by the Commission. Fines may be imposed;



1       however, the generic letter indicated that some mitigation of  
2       any penalty may be considered based upon satisfaction of  
3       factors identified in the generic letter.

4               The objective of today's meeting is for the Staff to  
5       brief the Commission on the status of environmental  
6       qualification. Furthermore, it is possible the Commission  
7       would like to explore with the Staff what the Commission may  
8       expect between now and the November 30, 1985 deadline.

9               Do any of my fellow Commissioners have any  
10       additional remarks?

11               [No response.]

12               CHAIRMAN PALLADINO: I should note also that Regions  
13       III and IV will be listening via telephone hookup.

14               Let me turn the meeting over to Mr. Stello.

15               MR. STELLO: Okay.

16               I had a brief comment I wanted to make at the  
17       outset. The purpose of the meeting is clearly to go over the  
18       status of where we were on the EQ issue. The concern is to what  
19       to do with those plants which will be asking the Commission to  
20       extend the deadline beyond November 30 as set forth in the  
21       rule, as you already mentioned.

22               It is our intention to take the submittals -- and I  
23       believe we now have six plants, and I will get into that in a  
24       minute, who have indicated they will be requesting the  
25       Commission to beyond that November 30 deadline -- the Staff

1 will take whatever the submittals are as objectively as we  
2 can, evaluate the reasons that are given by the licensees, and  
3 determine after we have analyzed carefully those reasons what  
4 recommendation we think is appropriate and bring that  
5 recommendation to the Commission for the Commission to make  
6 the policy judgment as to whether or not to extend it.

7 We believe that we will do the job as technically  
8 and comprehensively as we know how, and then the Commission  
9 can make the policy judgment of what to do, but we will have  
10 our recommendation. We do not have any recommendation on any  
11 plant today, and we are proceeding and you will get the  
12 status of where we are on those plants during the briefing.

13 With that I would ask Darrell --

14 CHAIRMAN PALLADINO: Could I ask you one  
15 question? Do you have any idea of when you might have the  
16 evaluations and recommendations of the six plants that have  
17 already requested extensions?

18 MR. STELLO: I believe Darrell will be going through  
19 that in this briefing.

20 CHAIRMAN PALLADINO: Thank you.

21 MR. EISENHUT: Thanks, Vic.

22 You will recall the last briefing we had was on  
23 April 2nd, and at that time we went through the overall status  
24 of where the review has been and where we saw that it was  
25 going. That meeting, of course, led to the Commission

1 guidance and led to the issuance of a generic letter, and led  
2 to the Staff carrying on with the program as it is now.

3 Just in the way of indexing as to where we were at  
4 that time, you will recall that the Staff's view was that the  
5 industry has come a long way over the last five, six, seven  
6 years. Clearly, the program has taken longer to get into  
7 place than we would have liked for it to, but where we are  
8 today was we projected that if you look at the actual pieces  
9 of equipment that are out there to be qualified, it was the  
10 Staff's view that something approaching 95 percent of all the  
11 equipment is now qualified.

12 The pieces that have not been shown to be qualified  
13 have not been evaluated to see whether or not there is an  
14 adequate justification for continued operation or else that  
15 the plant is not operating, and on all operating plants there  
16 does exist justification to continue operation.

17 So, to some extent the program that we are looking  
18 at at this time is we are getting down to the last piece of  
19 the program, the last perhaps 5 percent of the equipment, and  
20 to that extent we are already discussing somewhat of the  
21 exceptions to the overall program.

22 The documentation of the adequacy of the existing  
23 environmental qualifications programs in utilities was also  
24 discussed, and we estimated that about 30 or so plants had  
25 been evaluated to see if there was inadequate documentation,

1 most of those granted being the NTOL reviews that we were  
2 doing.

3 Today we are going to give you a specific update, as  
4 Vic mentioned, discussing one of the principal items, being  
5 the extension requests that could foresee that would be here  
6 to go beyond November 30. In April I projected there would be  
7 about 10 to 12 plants that we could foresee that would go  
8 beyond. That still would be my estimate today as to where we  
9 might see us go.

10 If I could have the next slide, please.

11 [Slide.]

12 Much of this slide I reckon I have already covered  
13 except since the April 2nd meeting, recall that we were  
14 evaluating 95 total plants, that is, plants up through the  
15 last plant to receive its license. We have continued to  
16 complete the evaluations as the Commission had put forth in  
17 its guidance. The actual number of extensions requested and  
18 granted up to November has remained unchanged. That is, we  
19 acted on all those that were in house at the time in March,  
20 and we have six plants that requested an extension beyond  
21 November 30, either already in the door or they have told us  
22 that they are on their way to being submitted.

23 CHAIRMAN PALLADINO: You say eleven evaluations  
24 completed total now 84. That means 84 evaluations are  
25 completed?

1 MR. EISENHUT: That is correct. We have eleven  
2 evaluations to go, and I will be focusing on that in just a  
3 moment.

4 COMMISSIONER ASSELSTINE: But those do not include  
5 actual inspections?

6 MR. EISENHUT: Those do not include inspections.  
7 And If I could defer on the inspections for a couple of  
8 minutes, we do summarize that when Dick Vollmer will be making  
9 his presentation.

10 [Slide.]

11 This breaks down the 95 plants up to where we are  
12 today, and there are 95 plants licensed to operate excluding  
13 the three that are permanently or semipermanently shut down  
14 with licenses, which included San Onofre, for example, Dresden  
15 1, for example.

16 There were 41 operating reactors that did not seek  
17 extensions beyond March 31. There were 45 that were granted  
18 extensions up to the November 30 timeframe. We had issued  
19 seven new OLs with the November 30 deadline, and you will  
20 recall we discussed that in connection with a number of OLs,  
21 and there were actually two units that were licensed, full  
22 power licenses, that met environmental qualification prior to  
23 November 30.

24 Those were, as I recall, the Diablo Canyon units. So  
25 it should add up to 95.

1 [Slide.]

2 This slide summarizes really the substance of where  
3 we are today in the overall evaluation program. There are six  
4 units, as I mentioned, that have an extension either in house  
5 or have told us that it is coming in house. We expect a  
6 couple more plants to be submitted, and I will speculate on a  
7 few of those as we go down the page.

8 The extensions requested, as Vic has mentioned, are  
9 going to be evaluated from a technical standpoint as  
10 objectively as we can, and perhaps -- the first one that came  
11 in is the Brunswick-2 unit, and I have a backup slide.

12 [Slide.]

13 I would like to focus for just a moment on the kinds  
14 of factors the Staff is evaluating. This is a busy slide. We  
15 do have copies that we will be providing you.

16 These are the items that the utility basically  
17 submitted as arguments in favor of an extension. First, you  
18 have got to keep in mind we would argue the plant is safe.  
19 There is a justification for continued operation of the  
20 equipment. There has been a justification for the last number  
21 of years, certainly to extend for another 120 days, which is  
22 the Brunswick request. That same justification could almost  
23 certainly be carried on.

24 So you have got to put in the front end that the  
25 plant is, in fact, safe. The Brunswick facility finds itself



1 in a situation where Brunswick No. 1 is, in fact, undergoing  
2 an extensive outage. They had been out and shut down for about  
3 nine months. We have bullets about halfway down the page  
4 here. Unit 1 has been shut down. They are doing quite a bit  
5 of work, including the environmental qualification work, and  
6 they are projecting return to service about mid-December.

7 The very next bullet, at about the middle of the  
8 page, is the utilities arguments include the fact that if he  
9 deferred his environmental qualification work on Unit 2 until  
10 after he has completed the Unit 1 outage, it certainly is more  
11 efficient and effective. He has learned things from the Unit  
12 1 outage. He has learned from a man rem exposure standpoint  
13 where he could or should more efficiently and effectively from  
14 an ALARA standpoint be able to carry out the outage, so he  
15 would argue that it would be prudent to wait until he has  
16 completed the Unit 1 outage where he has his staff working  
17 basically 60-hour weeks now for a number of months, give him a  
18 breather, looked at the lessons learned, and start that  
19 outage, I believe it is, March of next year.

20 Another item he put forth is that today, if you look  
21 at his environmental qualification program, he has a very  
22 diligent program. We have, in fact, gone out and done an  
23 inspection of his environmental program at the Brunswick Unit  
24 1 and 2 site and feel that he does have a very fine program.

25 There were some glitches in it, but if you look at

1 the overall programs in the industry, it is one of -- a solid  
2 program that he has in place today.

3 COMMISSIONER ASSELSTINE: But that's today as  
4 opposed to -- has it been diligent since the environmental  
5 qualification rule was issued?

6 MR. EISENHUT: That's right. That item is, in fact  
7 the last item on the other side of the scale also, which is a  
8 factor that needs to be considered. On the one hand, you know  
9 today that he has an adequate program; however, you know that  
10 it has taken him a number of years to get there. And how do  
11 you weigh that considered against other utilities where we may  
12 think the program itself is marginal but it got there in a big  
13 hurry?

14 So those are the kinds of considerations that we are  
15 going to have to evaluate.

16 CHAIRMAN PALLADINO: Look at your Slide 5. You can  
17 see the number of items and the number of components. That  
18 plant certainly stands out among the others.

19 MR. EISENHUT: That's right. In fact, sir, that's  
20 why I'm using that one as the example, because while it talks  
21 about something on the order of 179 items, or we call it 200  
22 for the sake of argument, the plant has up to about 2000  
23 individual pieces of equipment, so we may be talking something  
24 on the order of 10 percent of the equipment is actually in  
25 question as of today.



1                   CHAIRMAN PALLADINO: But when you look and compare  
2 with others, it still stands out.

3                   MR. EISENHUT: That is correct, and that was the  
4 point I was making with respect to these are the licensees'  
5 arguments in favor of the extension, and I am only focusing on  
6 a few. Clearly, there is also an economic consideration. I  
7 don't know whether we have actually a bullet on this or not.  
8 The unit is due to come up on March 30 for a refueling  
9 outage. If we require him to go into a refueling outage on  
10 November 30, or into an outage on November 30, he will  
11 undoubtedly also turn that into a refueling outage because he  
12 could not go through the environmental qualification work,  
13 operate for four months and then come back down for a  
14 refueling outage. He would state that he would want to run  
15 the two in parallel. If you don't run them in parallel --

16                   CHAIRMAN PALLADINO: What do you mean, in parallel?

17                   MR. EISENHUT: That is, while he would be doing the  
18 environmental qualification work, he would also be undergoing  
19 a refueling outage.

20                   CHAIRMAN PALLADINO: Oh, I see.

21                   COMMISSIONER BERNTHAL: What is the difference  
22 between an item and a package in a component?

23                   MR. EISENHUT: You will recall from the last  
24 briefing a particular kind of an item, a piece of equipment we  
25 called an item. If he has five of those, those are five

1 individual pieces of equipment or a component.

2 COMMISSIONER BERNTHAL: What is a package?

3 MR. EISENHUT: Where are you referring to?

4 COMMISSIONER BERNTHAL: Thirty-three EQ packages.

5 MR. EISENHUT: If I could defer on that a moment, I

6 will get to the EQ, and there is an explanation for that.

7 If you look at the licensees' arguments, though,  
8 there is the irreversible loss of four months of the nuclear  
9 fuel by the approach that he is on.

10 CHAIRMAN PALLADINO: Say that again?

11 MR. EISENHUT: The utility's program would be that  
12 he could not justify shutting down for an environmental  
13 qualification outage on November 30th for a prolonged outage  
14 and then coming back up for the last four months of the fuel  
15 cycle and then shut back down for a prolonged refueling  
16 outage. If, in fact, he is required to shut down on November  
17 30, he stated that he would go into his refueling outage at  
18 that time and simply discharge the fuel without the authorized  
19 burnup on the fuel.

20 COMMISSIONER ASSELSTINE: Of course, he doesn't  
21 necessarily have to do just that. The other alternative would  
22 be to pay the civil penalty.

23 MR. EISENHUT: Well, that is another item on the  
24 list. I wanted to point out that in the utility's -- I  
25 believe it is their September 10th letter to the Commission,

1 the utility has stated that for a number of reasons, he could  
2 not see justifying operating the plant and be facing a civil  
3 penalty. That is, he feels that is just not a viable. I think  
4 it is in his September 10th letter to the Commission that, if,  
5 in fact, the option is face the civil penalty on November 30,  
6 and if, in fact, you use the full \$5000 per item per day, I  
7 think it comes out something on the order of \$30 million to  
8 \$40 million by the time you get to the time you would shut  
9 down the plant.

10 COMMISSIONER ASSELSTINE: Because of the large  
11 number of items?

12 MR. EISENHUT: Because of the large number, but  
13 independent of the large number --

14 CHAIRMAN PALLADINO: Fifty-five times five is what?

15 MR. EISENHUT: I don't know. I am told by -- \$5000  
16 per day per item for 120 days.

17 CHAIRMAN PALLADINO: Well, I was looking at it per  
18 day. If there is no mitigation, it would be 55 times 5, or  
19 \$275,000 a day.

20 MR. EISENHUT: Or 179 if you count it per piece of  
21 equipment.

22 COMMISSIONER BERNTHAL: It sounds like they are  
23 still roughly \$800,000 in the black.

24 MR. EISENHUT: But even if they would argue that it  
25 is -- I think the position is, even if it is any kind of a

1 civil penalty, they feel that that is --

2 COMMISSIONER ASSELSTINE: They would rather not  
3 operate than incur a civil penalty?

4 MR. EISENHUT: That's my reading and understanding  
5 of the September 10th letter.

6 COMMISSIONER BERNTHAL: Why is that? You know, if  
7 it were \$50 a day --

8 MR. EISENHUT: I think that is right because I think  
9 it is also -- my bottom line is going to be that I would  
10 suggest that my recommendation would be that I think the  
11 Commission has to really hear this from CP&L eventually to  
12 understand the reasons. As I recall, it was more the  
13 situation where they just didn't feel it would be a good  
14 public posture to be in, where they are operating in a mode  
15 where they are in violation of an NRC requirement and  
16 willfully taking a civil penalty per day, even if it's one  
17 dollar per day.

18 COMMISSIONER ZECH: It's a matter of principle.

19 MR. EISENHUT: A matter of principle. I only flag  
20 these -- I just want to mention the ones at the bottom of the  
21 slide also here on the arguments against the extension are  
22 some of the items that you have mentioned. The number does  
23 stand out, and I will get to that in a moment.

24 CHAIRMAN PALLADINO: Which slide are we on?

25 MR. EISENHUT: I'm still at the bottom of backup

1 slide No. 1. The EQ program has been slow starting through  
2 the early eighties, but I need to point out that it was also  
3 slow for the industry as a whole. It's not something that you  
4 can really stand out on, necessarily, at Brunswick. So we  
5 will be weighing those factors to come to a technical  
6 recommendation for the Commission to make a policy call on how  
7 to factor these things together.

8 CHAIRMAN PALLADINO: Do they have any special  
9 circumstance that said even though they started slow, they  
10 couldn't accelerate like all the others?

11 MR. EISENHUT: Yes. There are a couple of items  
12 which we certainly have not evaluated yet. One is there are  
13 some unique design features in terms of a harsh environment.  
14 There is also a consideration with respect to -- recall, the  
15 rule was quite complex and it was tied to the second refueling  
16 outage after a specified date or November 30. To replace the  
17 equipment, you must be in a refueling outage.

18 Their first refueling outage occurred a month after  
19 the date the clock was turned on for the second refueling  
20 outage, which puts them, actually, from a practical standpoint  
21 in the worst possible situation. So those are the kinds of  
22 factors that we are going to be evaluating.

23 To answer your other question, Mr. Chairman, we  
24 would hope that over the next couple of weeks you will start  
25 seeing the evaluation packages coming down on the six plants

1       that have now requested an extension, so the Commission will  
2       be seeing our recommendation on the items --

3               COMMISSIONER ZECH: We will get them in the next  
4       couple of weeks?

5               MR. EISENHUT: You will start to get them in the  
6       next couple of weeks, yes, sir. Brunswick is obviously a  
7       little bit more complicated, and that one will take a little  
8       bit longer, but the first one that I believe we are processing  
9       is Nine Mile Point 1, which I would expect to come down even  
10      in the next week.

11              MR. ZECH: But Brunswick, as I recall, the paperwork  
12      that was submitted -- I know you have done other things since  
13      then, but it seems to me that last July they put in a request.

14              MR. EISENHUT: They put in their request. We had  
15      been meeting with them, and in fact, I think it has been in  
16      the last week they have supplemented it twice.

17              MR. ZECH: Right. I understand.

18              MR. EISENHUT: In fact, a number of these items on  
19      this list come out of the more recent submittals because their  
20      previous submittal really didn't lay out all the factors --

21              MR. ZECH: I appreciate the fact that it's  
22      complicated, but I know they made adjustments to it, and you  
23      people have looked at the plant and gone over it, but it seems  
24      to me that we ought to try to get on it as soon as we can, and  
25      I presume that is what you are doing.



1 MR. EISENHUT: Our target is to have it to you by  
2 October 1.

3 COMMISSIONER BERNTHAL: I guess I don't quite  
4 understand what the utility would propose, and I won't ask you  
5 to explain what they would propose in lieu of a civil  
6 penalty. What sort of enforcement mechanism would they like  
7 the NRC to use? We can't put the CEO on a rack for  
8 lengthening periods of time once a week or something like  
9 that.

10 Finally this agency has to have enforcement  
11 measures, and although I have long argued and fully appreciate  
12 the limited value of many of the small fines we levy --  
13 because a utility really gets hit three times. They get hit  
14 when the proposal is made and then they get hit later for  
15 something else, and finally it's a year later, and once again  
16 the fine is levied and they get three raps in the media when,  
17 in fact, they deserved only one. So I am sympathetic, but  
18 unfortunately, I don't know what alternative we have.

19 I don't need to preach this sermon to you, but what  
20 I would like to hear from Staff is how the argument has  
21 affected your point of view up to this time and what kind of  
22 mitigation you might be willing to recommend, assuming all the  
23 arguments are good. But we do have deadlines, and this has  
24 been around for, what, five years or so.

25 MR. STELLO: Let me try to answer the first part of

1 your question first. Why do utilities feel the way they do  
2 about civil penalties? I think you really need to talk to  
3 them. They have some strong feelings about the impact that  
4 civil penalties have in the communities they serve.

5 COMMISSIONER BERNTHAL: Well, so do I. As I just  
6 said, I have never agreed with this policy of many, many small  
7 fines. Maybe we ought to rethink the issue of a point system  
8 or something, and I have always favored that.

9 MR. STELLO: But that is the environment they are  
10 in, and they are a product of the history they have had up  
11 until now, and some of them have very, very strong feelings  
12 about doing anything that they can to the best of their  
13 ability to avoid being penalized, be it civil penalties or  
14 almost any enforcement mechanism, if they have a choice.

15 Now, I think in this particular case you need to  
16 talk to the licensee and hear from them why they feel that  
17 way. I have heard it from a lot of them. I can understand  
18 that they would rather not, certainly, have to deal with civil  
19 penalties. It's a way of life. They have had a lot of it and  
20 it has affected them pretty badly even in the financial  
21 market.

22 What other alternative or what other views we might  
23 have, I don't believe that's a fair question until we have  
24 finished our evaluation. When we are finished, then I think  
25 that would be part of what we would recommend, and until you



1 have really finished all of it, I think it would be premature  
2 to try to deal with that.

3 The general question, I think, is one that, to the  
4 extent you can, you certainly can get a reaction from the  
5 industry, and there is a fairly strong feeling in all who I  
6 have talked to about that particular issue for a long of  
7 reasons.

8 COMMISSIONER BERNTHAL: Well, okay. I don't think  
9 we can solve that problem here, but I have been listening to  
10 this, not as long as you and Commissioner Roberts have,  
11 Mr. Chairman, but I would like to suggest again that we take a  
12 look at that policy, and I still am inclined to urge that we  
13 look at a point system here rather carefully at some point.

14 COMMISSIONER ASSELSTINE: I thought that the last  
15 time we worked on the enforcement policy, we did make an  
16 effort to cut down on large numbers of small penalties and  
17 that we were fairly successful in doing just that. And I  
18 would also say, you know, we have got to review the  
19 enforcement policy that is going to be coming to us fairly  
20 soon. We can talk about that in that context.

21 But I think for purposes of this meeting, we have to  
22 recognize that it appears that there may well be three  
23 situations. There may well be the group of utilities that  
24 made diligent good faith efforts to comply with this rule and  
25 did a good job, and I hope that is the majority.

1           There may also be a group that may have met the  
2     deadline, arguably, but they didn't do a good job, and when we  
3     do the inspections, we find out that they just didn't do what  
4     they were supposed to do, and I think in generic letter we  
5     have dealt with that group by saying if we find that is the  
6     situation, we are going to go back and we are going to impose  
7     civil penalties and take enforcement actions against that  
8     group.

9           And then there is a third group that just  
10    dilly-dallied around and didn't conscientiously deal with the  
11    problem and now they are in saying, hey, now we need some  
12    relief for that. I think the generic letter is fairly clear  
13    on that group, too.

14           CHAIRMAN PAULADINO: And it made a substantial fine  
15    for those plants that have large numbers of items.

16           COMMISSIONER ASSELSTINE: That's right, and I think  
17    we all had difficulty in excusing that group, and I think that  
18    was the purpose of the generic letter, was to send a message  
19    to the licensees that we are serious about this, the deadline  
20    does mean something, and for those that have not made diligent  
21    good faith efforts to get the job done and to do the job  
22    right, that they are not going to get off scott free.

23           COMMISSIONER BERNTHAL: Yes, I agree with everything  
24    you said. I was really asking a more generic question.

25           COMMISSIONER ASSELSTINE: Yes. The broader one we

1       should look at, I agree.

2               COMMISSIONER BERNTHAL: Specifically here I would  
3       have that -- my only dissatisfaction was that we didn't start  
4       this sooner because now it occurred to us, I think, rather  
5       late in the game that it is a pretty hefty penalty now, and I  
6       think if we had started maybe a year or two ago with an  
7       escalating financial penalty, that may have been one way.

8               COMMISSIONER ASSELSTINE: But in essence we have  
9       already given them until November, recognizing the original  
10      deadline was in March, and basically we gave them until  
11      November.

12              MR. EISENHUT: Well, let's see. On Slide 4 --

13              CHAIRMAN PALLADINO: That's a subject I think we  
14      have to take up at another meeting.

15              COMMISSIONER BERNTHAL: Yes.

16              MR. EISENHUT: If I could go back to Slide 4, I  
17      won't discuss the other extension plants until the next slide,  
18      but there is one plant that is due to shut down November  
19      30th. That was a license condition, a commitment from the  
20      licensee, I believe, when we issued the plant, and that was  
21      Byron 1.

22              There are several plants who have stated, in a  
23      meeting we had about a week or so ago on TVA, where Hugh Paris  
24      stated it is their intention that the TVA plants, which are  
25      all shut down today, will not restart until environmental

1       qualification is, in fact, resolved.

2               There are only two of them that it really  
3       immediately hits, and that is the Sequoyah 1 and 2 units.  
4       They stated in that same meeting that it was their intention  
5       to hope to restart each of the Sequoyah units later this  
6       year. We have been meeting with them. In fact, we met with  
7       them in an all-day meeting yesterday. It is not entirely clear  
8       that they may not come back and ask for relief on certain  
9       aspects of certain equipment.

10              Recall that TVA voluntarily shut down both the  
11       Sequoyah units because of environmental qualification  
12       problems.

13              COMMISSIONER ASSELSTINE: Darrell, what position had  
14       they taken on the two Sequoyah units back in April in terms of  
15       where they stood on environmental qualification?

16              MR. EISENHUT: Let's see. We, in fact, in the April  
17       meeting flagged Sequoyah 1 as one of the only units that had  
18       not completed its detailed review of environmental  
19       qualification, as I recall. I think that is what we said in  
20       the April 2nd Commission --

21              MR. LA GRANGE: Yes. We were still evaluating both  
22       Sequoyah units, and in fact, we were continuing that  
23       evaluation when they elected to shut down.

24              COMMISSIONER ASSELSTINE: I take it you have not  
25       done an inspection yet for Sequoyah.

1 MR. LA GRANGE: Not yet. I'm sure we will before  
2 they restart.

3 COMMISSIONER ASSELSTINE: Okay, good.

4 MR. EISENHUT: There are a couple of other plants we  
5 also mentioned in April that I want to flag here again: Fort  
6 St. Vrain, Hatch 2, Oyster Creek and Pilgrim. We discussed  
7 some of those plants in the April 2nd briefing. I only want to  
8 really focus on one today again, and that is Fort St. Vrain,  
9 where first the utility thought its equipment was qualified,  
10 and he was in that posture for a considerably long period of  
11 time.

12 As we pointed out, in April the Staff had really not  
13 devoted much attention to Fort St. Vrain because of its unique  
14 nature and the different environment. We were putting our  
15 resources where they were certainly more effective from the  
16 broad standpoint. So the Staff really had not looked much at  
17 the unique environment and qualification of equipment at Fort  
18 St. Vrain. In fact, it was in January of this year they were  
19 actually sent detailed questions. When Bob LaGrange and the  
20 environmental qualification group started doing their review,  
21 they sent detailed questions to Fort St. Vrain.

22 They right now have a rather major program under way  
23 looking at the qualification of their equipment. It is very  
24 likely, at least in my mind, that they will be coming in with  
25 a request to go beyond November 30th, largely because of the

1 late hour we are in the process and largely because of the  
2 unique environment that they are facing. All of the  
3 requirements in the environment and profiles where we have  
4 devoted our real attention up to this point in time were on  
5 light-water reactors.

6 CHAIRMAN PALLADINO: Are they coming in for an  
7 extension because they have found that they are not in  
8 compliance or --

9 MR. EISENHUT: They have not as of today requested  
10 an extension, and they have not stated they are going to. It  
11 is my opinion, though, based on our review, that since they  
12 are now to the point where they are recognizing that they have  
13 to do quite a bit of work, they are now to the point where  
14 they have a number of consultants whom we have quite a bit of  
15 confidence in, I believe, and who are quite experienced on the  
16 EQ problem working the issue.

17 CHAIRMAN PALLADINO: But they only got started after  
18 you started asking questions?

19 MR. EISENHUT: That is correct. They up to that  
20 point in time and up to today -- officially I believe their  
21 position is they think they are qualified and meet the intent  
22 of the rule.

23 CHAIRMAN PALLADINO: But now you say they have hired  
24 a consultant to help them. Did they do that before?

25 MR. LA GRANGE: Yes. In response to generic letter

1 84-24, it was their position, the bottom line position that as  
2 it applied to Fort St. Vrain, they comply with the  
3 requirements of 50.49. They subsequently came in with  
4 responses to the questions we had sent to them back in January  
5 which indicate they had open items remaining to be resolved.

6  
7 We met with them a couple of times. They hired  
8 several consultants to start really looking into the problems  
9 that we were raising that we didn't feel had been adequately  
10 addressed and had discovered they have a significant amount of  
11 work to do on that plant to actually bring them into  
12 compliance with 50.49. It is going to be sometime, probably,  
13 in my opinion, mid next year before they are complete with  
14 that effort.

15 COMMISSIONER ASSELSTINE: And that is largely  
16 because they did not look at the characteristics of the  
17 environment for that particular plant?

18 MR. LA GRANGE: They are finding quite a few  
19 problems, installed equipment not what they thought it was,  
20 equipment that is in a harsh environment now that they looked  
21 and they did not think was in a harsh environment previously,  
22 and the problems go on and on and on and on.

23 MR. EISENHUT: It is a number of different  
24 things. You can't really generalize. It is hard to  
25 characterize. It is not that they didn't recognize that they



1 had a different environment. In fact, they recognized that  
2 quite a bit, to the point where --

3 COMMISSIONER ASSELSTINE: Well, when it is to their  
4 benefit, they have argued that fairly consistently.

5 MR. LA GRANGE: It is not just a problem with the  
6 environment. They are trying to do something about that by  
7 putting in some automatic accident mitigation systems, but  
8 it's not the environment. Their problem is much, much larger.

9 COMMISSIONER ASSELSTINE: It sounds like they just  
10 didn't do a good job, huh?

11 MR. LA GRANGE: Well, they probably didn't do  
12 anything much before this year.

13 CHAIRMAN PALLADINO: What do you mean, it's not the  
14 environment? I thought this was environmental qualification.  
15 Is it --

16 MR. LA GRANGE: No, I thought Commissioner  
17 Asselstine's question was was the environment the problem.

18 COMMISSIONER ASSELSTINE: The fact that it is a  
19 gas-cooled reactor as opposed to a light-water reactor, and  
20 they just didn't understand the characteristics --

21 MR. EISENHUT: We don't think that that itself is  
22 the cause of the problem. It's much broader than that. They  
23 have a program in place now, I think, that is taking shape,  
24 but we don't see -- I mean it's going to take quite some time  
25 to work it out. But again, we are going to do an honest, you



1 know, objective evaluation of it. I think it's too early to  
2 speculate that they didn't do it or they dropped the ball or  
3 whatever. We are going to take a hard look at it.

4 COMMISSIONER ASSELSTINE: In view of the widespread  
5 nature of the problems there, have you taken a fresh look at  
6 the JCO for that plant?

7 MR. LA GRANGE: Well, since their position was they  
8 were in compliance with 50.49, there weren't any JCOs for that  
9 plant.

10 COMMISSIONER ASSELSTINE: So now there has to be  
11 one?

12 MR. LA GRANGE: Well, in all honesty, they are  
13 looking for relief to operate up to 8 percent power right now  
14 to dry out the core while they are still doing their EQ  
15 review, and the Staff is evaluating that right now, and if it  
16 is granted, that would only allow them to operate up to the  
17 end of November up to 8 percent.

18 MR. EISENHUT: Yes, we have the plant today shut  
19 down, and the plant will remain shut down until there is an  
20 adequate JCO, but even if they would start up, the request is  
21 to go up to -- I think it is 8 percent now to stay at a  
22 constant level for some time.

23 So the Staff will not let them start up until we are  
24 confident there is an adequate justification.

25 CHAIRMAN PALLADINO: Can I ask you about the other

1 three plants? Are those plants where we might face possible  
2 extension requests?

3 MR. EISENHUT: Yes. In fact, we discussed --

4 CHAIRMAN FALLADINO: That is the only connotation I  
5 could put to "other." Maybe I wasn't imaginative enough.

6 MR. EISENHUT: Okay. When we briefed you in April  
7 of this year, we had flagged those to some degree, and in fact  
8 we discussed the rationale behind it. For example, Oyster  
9 Creek, as I recall, was undergoing a major improvement program  
10 in the plant for many, many months. They had stated that they  
11 expect to have everything qualified by November 30, but it may  
12 be as late as March 1986, I think is what the letter stated.

13 So we are rolling along, and we may very well get a  
14 request from --

15 COMMISSIONER ASSELSTINE: But didn't their letter  
16 say they would shut down, either they would have it qualified  
17 by November 30th or shut down or something?

18 MR. EISENHUT: Well, you recall there were a number  
19 of people who said that. In fact, their view came about, I  
20 guess, because of our view wherein we said it is our intention  
21 not to support any requests past November 30, and we are past  
22 that situation, so I think that commitment is sort of null and  
23 void, to some degree, because it was predicated on the fact  
24 that we weren't going to support operation past November 30,  
25 and now we are in a mode where we are going to do this

1 detailed evaluation of whether or not to recommend supporting  
2 it.

3 COMMISSIONER ASSELSTINE: Okay.

4 MR. LA GRANGE: Hatch 2 is on the docket as saying  
5 that they are having a problem with their hydrogen and oxygen  
6 analyzer, and they haven't officially requested an extension,  
7 but if their problems continue, they would request an  
8 extension. That is why they are listed there.

9 Pilgrim. I have heard that they may have a possible  
10 strike at the plant, and they still have quite a bit of work  
11 to do before November, and that would cause them to not be  
12 able to complete the job by November.

13 This Slide 4, I expect, with the exception of the  
14 plants that are down now and they won't restart until they are  
15 complete or until after November 30th, each of these groups is  
16 probably going to -- more than likely, this is a snapshot in  
17 time, and the EQ is changing significantly from day to day --  
18 so these groups are going to increase, I am sure, before the  
19 end of this year.

20 COMMISSIONER ASSELSTINE: As I recall, our generic  
21 letter said that if you are going to ask for an extension, you  
22 had better do it by September 30th.

23 MR. EISENHUT: That is correct. So we would expect  
24 any requests received to be by September 30 in order to be  
25 considered a timely request. That is what the generic letter

1       said, and we are certainly going to be reminding the utilities  
2       about that aspect.

3               CHAIRMAN PALLADINO: Did I hear correctly? I'm not  
4       sure of what you said about the groups. It was my impression  
5       that these four were possible candidates for requests.

6               MR. EISENHUT: That's correct. As I said before, I  
7       would suspect that those four may very well move up to the top  
8       category where an extension request is, in fact, received.

9               CHAIRMAN PALLADINO: And also possibly may exist for  
10      one of the Sequoyah plants, or both?

11              MR. EISENHUT: There is certainly that possibility,  
12      although a week and a half ago when we had the rather detailed  
13      meeting with TVA, and I believe, in fact, Commissioner  
14      Asselstine was there, Hugh Paris' commitment was very, very  
15      clean; he did not intend to request an extension beyond  
16      November 30 and would not operate the plant until then,  
17      although in fairness to him, I don't think they had really  
18      proceeded into their detailed evaluation at that point in time  
19      also.

20              MR. LA GRANGE: During the meeting yesterday, they  
21      indicated that they plan or hope to return one of the Sequoyah  
22      units to operation by late October, realizing they have a  
23      qualification problem with cables, in which case they would  
24      have to request an extension unless they shut back down in  
25      November.

1           COMMISSIONER BERNTHAL: I still want to know the  
2 difference between a package and an item.

3           MR. EISENHUT: Good point. TVA has a documentation  
4 package. I didn't know we used that terminology in the  
5 briefing. It's a documentation package.

6           MR. LA GRANGE: Well, you are looking at backup  
7 slide 2 on TVA plants. That is what this review team that was  
8 assembled by TVA -- the team consisting of TVA personnel and  
9 Westec, a consultant, personnel from Westec -- was put  
10 together to review the TVA program, the EQ program, and  
11 several what they call or refer to as EQ packages. Other  
12 people refer to them as EQ files. It's the same thing. People  
13 lump different -- they may have a package that consists of  
14 three or four different cable manufacturers and maybe a cable  
15 package. Somebody else may have five different files, with  
16 each file addressing individual cable manufacturers. So it is  
17 really an EQ file with documentation supporting EQ.

18          COMMISSIONER ASSELSTINE: And that package could  
19 then translate into literally hundreds or thousands of actual  
20 individual cables in the plant.

21          MR. LA GRANGE: Well, it could translate into maybe  
22 seven or eight cable vendors and thousands of miles of cable.

23          COMMISSIONER BERNTHAL: What I am really trying to  
24 get a sense for is what would the numbers be for TVA. Pick a  
25 plant. I guess I am interested particularly in Brown's

1     Ferry. Sequoyah is rather different, but what would the  
2     numbers be on Slide 5? Just take Brown's Ferry.

3             MR. EISENHUT: Well, I went back and read the last  
4     Commission meeting in April, and there was a Slide C which  
5     listed Brown's Ferry 1 as having 90 items with 262 components,  
6     Brown's Ferry 3 having 83 items with 211 components.

7             MR. LA GRANGE: That was for the extensions. As I  
8     recall, Brown's Ferry had around 1500 or 1600 pieces of  
9     equipment.

10            MR. EISENHUT: Total pieces.

11            COMMISSIONER BERNTHAL: All three plants?

12            MR. LA GRANGE: No, each plant.

13            COMMISSIONER BERNTHAL: Each plant had 1500  
14     components in it? Is that what you are saying?

15            MR. LA GRANGE: Yes. Not unusual.

16            MR. EISENHUT: No, this is the number of pieces of  
17     equipment where they had to have an extension to November 30.  
18     You start with an inventory of something like 1500 to 1800  
19     individual widgets, pieces of equipment in the plant. The  
20     extension request on Brown's Ferry 1, where they had extended  
21     and requested relief up to November 30, was for 90 items which  
22     comprised 262 individual components, which is, you can see, a  
23     certain percentage of the 1500 or 1800 that didn't apply.

24            Now, that has evolved since our last Commission  
25     briefing, but it gives you an indication of the kinds of

1 numbers that we are talking of.

2 COMMISSIONER BERNTHAL: So, what is the answer to my  
3 question?

4 MR. EISENHUT: A large number. Would you accept "a  
5 large number"?

6 COMMISSIONER BERNTHAL: Are we talking of the order  
7 of 100 items with -- give me the numbers. Brown's Ferry, all  
8 three -- what are the numbers? What I want is a comparison  
9 with other utilities and other plants.

10 MR. EISENHUT: I don't know the specific numbers  
11 today. The latest thing I can give you on the comparison is  
12 what was called Slide C in the April 2nd briefing, which  
13 listed about 25 plants. There were three plants that had over  
14 50 items. In fact, there were only five in double digits.  
15 Brown's Ferry 1 had 90, Brown's Ferry 3 had 83.

16 CHAIRMAN PALLADINO: But I don't understand what  
17 those 90 were. You said those are the ones that they wanted  
18 an extension till November 30.

19 MR. EISENHUT: Those are the ones where they needed  
20 more time to qualify the equipment. That is, they had not  
21 shown them to be qualified at that time.

22 CHAIRMAN PALLADINO: But they only asked for an  
23 extension until November 30?

24 MR. EISENHUT: Because we had led them to believe  
25 that was the -- the only thing they could request of the Staff



1 is, in fact, until November 30.

2 CHAIRMAN PALLADINO: So we don't know what the  
3 number would be comparable to the Brunswick or the other  
4 numbers on this page?

5 COMMISSIONER ASSELSTINE: You could provide a Slide  
6 5 for the five TVA units, couldn't you?

7 MR. EISENHUT: Certainly.

8 CHAIRMAN PALLADINO: As a matter of fact, it would  
9 be interesting to do it for Fort St. Vrain, Hatch 2 and Oyster  
10 Creek. As a matter of fact I have that written, how many  
11 items and components?

12 MR. LA GRANGE: Are we looking for the total number  
13 of pieces of equipment in these plants?

14 COMMISSIONER ASSELSTINE: Items and components for  
15 which qualification has not yet been demonstrated.

16 MR. LA GRANGE: On TVA you are probably talking all  
17 of them. With the findings they had there, they didn't have  
18 documentation to support qualification on but three or so.

19 CHAIRMAN PALLADINO: But for these plants, and  
20 especially the four at the bottom, I think it would be very  
21 instructive to have them with the number on Slide 5, with the  
22 appropriate number.

23 MR. LA GRANGE: Well, we would have, but they have  
24 not yet requested an extension and identified the specific  
25 numbers that they want relief on.



1 MR. EISENHUT: We haven't gone back to TVA and  
2 requested it; however, TVA's answer undoubtedly is they  
3 haven't completed their evaluation. So since they have stated  
4 that they are still performing the evaluation --

5 MR. STELLO: Why don't we come in and give you  
6 whatever we have based on the documents we have, and to the  
7 extent we can construct this table for those plants, we will  
8 do it, and if not, then we will just simply inform you.

9 COMMISSIONER BERNTHAL: Yes. I am just trying to  
10 get a sense; are they twice as far behind or three times as  
11 far behind? I don't really want every bean counted.

12 MR. STELLO: The statement was made a moment ago  
13 that the equipment is unqualified, and that is not correct.  
14 It doesn't mean the equipment is unqualified. It means there  
15 are questions in finding documents, and that is a completely  
16 different issue.

17 COMMISSIONER BERNTHAL: I understand for Sequoyah,  
18 or is that true for all of them?

19 MR. STELLO: For all the plants. The components  
20 used in these plants are the same identical components used in  
21 other plants for which the documents do exist, and we will  
22 have to determine whether they are or are not appropriate.  
23 Don't let's start taking the next step and calling it  
24 unqualified equipment. That is not just a fair thing to do.  
25 We are getting a little too far ahead of what we know.

1 MR. EISENHUT: I hope I have been stating it  
2 correctly each time. In fact, it's a question of whether or  
3 not they have been shown to be qualified. It has not been  
4 found that they are "unqualified."

5 COMMISSIONER ASSELSTINE: Right, but that's the only  
6 way we know whether it is or it isn't, is a demonstration that  
7 in fact the equipment is qualified. And I think in the  
8 Sequoyah situation, Bob is probably right because several  
9 months ago they thought they had the information to  
10 demonstrate that it was, and it turns out on the basis of the  
11 questions that were raised it is uncertain, and so at the  
12 present time TVA would probably say, gee, we can't tell you  
13 that we have demonstrated that any of this equipment is  
14 qualified. We are trying to finish our evaluation to decide  
15 where there are questions, where we need to do more work or  
16 where we have pulled together the documentation.

17 So if you want a snapshot now, it may not be real  
18 meaningful.

19 MR. VOLLMER: While we are on the issue of  
20 unqualified equipment, just to clarify, for the purpose of  
21 enforcement, the Footnote 1 in the generic letter said for the  
22 purposes of enforcement, unqualified equipment means that for  
23 which there is not adequate documentation, and so on and so  
24 forth. But in the Commission briefings that we have had  
25 heretofore, what we have said is exactly as described by

1 Darrell and Bob, that that determination is not made in the  
2 absence of documentation.

3 COMMISSIONER BERNTHAL: At 1000 items it adds up  
4 pretty fast.

5 MR. EISENHUT: Yes, but it is only if they want to  
6 operate past November 30th, and it is their commitment that  
7 they will not operate the TVA units until they have --

8 CHAIRMAN PALLADINO: But the item is not the same as  
9 components. You may have 1000 components, but it may be a  
10 lesser number --

11 MR. VOLLMER: Right. That is also Footnote 2 of the  
12 generic letter. It is defined.

13 MR. EISENHUT: We had to define the nomenclature.

14 If I could skip past Slide 5, since we have all  
15 looked at it and talked about it, and go on to Slide 6, if I  
16 could, on the IE inspection program, Dick Vollmer will be  
17 discussing the next two slides.

18 MR. VOLLMER: This past April we did discuss with  
19 you the pilot inspection program, so I won't go into the  
20 detail we did there. As the slide indicates, up until now we  
21 have completed nine inspections. Several of these were for  
22 plants that, at the time they were inspected, did not need to  
23 be in compliance with 50.49 because of the time of the  
24 inspection and the time that the 50.49 deadline fell in the  
25 scheme of things. But now we have both those that are under

1 and those that were not under the 50.49 deadline. In  
2 particular, Zion, Point Beach 1 and 2, Brunswick 1 and 2, Nine  
3 Mile 1, and Calvert Cliffs 2 were inspected at a time which  
4 they should have been in compliance because they were under  
5 the 50.49 deadline.

6 CHAIRMAN PALLADINO: What about the plants that just  
7 got licenses? Do you count those as inspected if one were  
8 given a license?

9 MR. VOLLMER: I think Darrell mentioned that. We do  
10 go out on an EQ audit before the NTOL is inspected. It is an  
11 audit review, and the results of that review are written up in  
12 the SERs. For example --

13 CHAIRMAN PALLADINO: Are those in addition to the  
14 eleven, I mean to the nine?

15 MR. VOLLMER: Well, those would be in addition  
16 because these represent the pilot inspection program to look  
17 at detail in compliance with 50.49. They are broader  
18 inspections. They are more intensive. The NTOL inspections  
19 are not that intensive. For example, Byron was cited here to  
20 shut down for EQ by November 30th, so they could not meet  
21 compliance with 50.49, so they indicated they would shut down.

22 CHAIRMAN PALLADINO: But they were different. There  
23 are some of them, though, that had no condition.

24 MR. VOLLMER: Many of them did have conditions.  
25 Some did not. Those that did not, we presume that they were

1 in compliance as best we can tell, and they will be factored  
2 into the inspection such that all operating plants will have  
3 an EQ inspection when we are all through, and when we are all  
4 through, we are talking about probably the end of fiscal year  
5 1987 to complete all plants.

6 MR. EISENHUT: But Dick, I think it is fair to say  
7 that the new OL would be certainly a lower priority on the  
8 scheme because we have at least done an audit inspection.  
9 Recall it was the same situation we had with fire protection,  
10 where we had been doing -- when the new OL gets its license,  
11 we go out and do a field inspection of the documentation to  
12 give us the requisite amount of confidence before we go  
13 forth.

14 In this case I think the principal thrust of the  
15 inspections, at least to this point in time, is the operating  
16 plants that have been out there.

17 COMMISSIONER BERNTHAL: What happened to Pilgrim?  
18 Did you already tell us that?

19 MR. STELLO: They have a strike.

20 COMMISSIONER ROBERTS: They have one or they  
21 anticipate one? Did it start or is it anticipated?

22 MR. LA GRANGE: There was talk about a strike, and  
23 the licensee is quite worried that it would hold up his EQ  
24 work, but I am not sure if it has actually occurred or not.

25 COMMISSIONER BERNTHAL: Is that why they have

1       dropped off your scope here? You know, they were one of the  
2       worst off as of last April, and I don't even see their name  
3       mentioned.

4               MR. EISENHUT: Their name is listed down under the  
5       "Other" category.

6               COMMISSIONER ASSELSTINE: They are one of the four  
7       they said might come in for extensions.

8               MR. EISENHUT: Because we still are not sure they  
9       are going to make November 30th. The same reasons we had  
10      before.

11              COMMISSIONER BERNTHAL: But there is a good reason  
12      that they are 100 items out of compliance or whatever it was  
13      as of last spring?

14              MR. EISENHUT: That is correct.

15              MR. LA GRANGE: I am sure there will be other plants  
16      that are not listed on this slide that will request  
17      extensions.

18              MR. STELLO: Somebody can correct me if I am wrong,  
19      but I think the plant has been in an outage doing EQ work now.

20              COMMISSIONER BERNTHAL: Pilgrim?

21              MR. STELLO: Yes, and I think the problem is whether  
22      they are going to be able to get it finished. I will check  
23      that when I get back, but that is my recollection.

24              MR. VOLLMER: Okay. Going on to Slide 7.

25              [Slide.]

1           The inspection approach has been a review of the  
2   Licensee's program for implementing 50.49 as one element of  
3   the inspection. What we are looking at there is how do they  
4   determine what equipment is on the EQ list, and what  
5   procedures do they have that identify how the EQ activity is  
6   carried out, development of surveillance of maintenance  
7   procedures and things like that to carry out the programmatic  
8   aspects.

9           Then review Licensee's surveillance procedures for  
10   qualifying equipment to see that the equipment is properly  
11   tended to for the life of the plant. And for example, if the  
12   equipment is cited in the EQ documentation as being good for  
13   five or ten years, does the maintenance program have a way of  
14   coming up and making sure that the equipment is changed out at  
15   the appropriate time?

16           We also take a look at the safety evaluation  
17   reports, which is generated by NRR, and see that the  
18   corrective action commitments are taken. These are, for  
19   example, moving equipment out of areas to a less harsh  
20   environment area or changing orientation of equipment which  
21   perhaps needs to have drain holes or things like that, but  
22   whatever they have committed to do, we take a look at that.

23           We also review on the 15 to 25 percent sample the EQ  
24   document files to see how a licensee has made its  
25   determination based on test reports, similarity analyses and



1 comparison with other EQ analyses that the inspectors are  
2 familiar with to see that basically we think he is doing an  
3 adequate job in his analysis, and support that the equipment  
4 is qualified will carry the day, and where we don't find that  
5 is the case I will get into in the next slide, but that is  
6 where most of the arguments are going to take place, and most  
7 of the things are in the gray area.

8 For example, he has made a similarity analysis  
9 saying that this seal on this type of equipment is close  
10 enough to that type of seal which has already been qualified  
11 in which you have radiation demonstration data available  
12 There are areas where, reasonable engineers can differ, and we  
13 anticipate and have already seen a number of arguments that we  
14 are going to have to get into with the Licensee where we say  
15 we are not persuaded that you have adequate justification, you  
16 will have to go out and get additional information.

17 That could be in some cases more analysis, that  
18 could be in some cases where they can't persuade us additional  
19 tests. Until then, the licensee is advised that he should be  
20 aware that equipment is in a not-demonstrated qualification  
21 status, and if there were something that we felt very strongly  
22 about, and I will get into the next slide, then the licensee  
23 might have to go by tech specs, declared inoperable or take  
24 other action.

25 But in any event, they should be aware the JCO

1 for further operation of the facility is an important part of  
2 his evaluation of how to deal with our inspection results.

3 We also perform a physical inspection of selected  
4 equipment, things like if a piece of equipment is qualified in  
5 a certain physical configuration, seeing it is not installed  
6 upside down, if there are drain holes and things like that, to  
7 see that the nameplate data is correct, to see that the  
8 ambient temperature in the place where he has this equipment  
9 installed meets the nameplate data, and also does the piece  
10 that is there actually correspond to the piece that is  
11 asserted to be qualified in the documentation file.

12 [Slide.]

13 COMMISSIONER ASSELSTINE: On those last two items,  
14 do you have a sliding scale? That is, if you go do an  
15 inspection and begin to find problems in the document files,  
16 or you begin to find problems when you go out and do your  
17 walkthrough through the plant, do you dig deeper and begin to  
18 look at a larger sample size on those kinds of things or not?

19 MR. VOLLMER: I think the sample size has been  
20 somewhat constrained. We certainly dig deeper into what is  
21 behind that particular area, but sample size has been fairly  
22 constant. It is fairly constant in terms of the size of the  
23 sample, that being 10 to 25 percent, and we try to apportion  
24 the thing.

25 I think if there was an area where it looked like

1 the licensee had a specific programmatic weakness that would  
2 -- we would benefit by a generic looking at the broader  
3 program. We have done that. We have made broad  
4 recommendations to the licensee in those areas.

5 CHAIRMAN PALLADINO: Do you plan to follow up  
6 inspections with some frequency?

7 MR. VOLLMER: Well, we have indeed done a follow-up  
8 inspection of Calvert Cliffs. We have done a follow-up  
9 inspection of Calvert Cliffs.

10 CHAIRMAN PALLADINO: Well, suppose a plant passes  
11 with flying colors: do you plan to come back in five years?

12 MR. VOLLMER: We don't have any periodic inspection  
13 for reevaluation. We ought to evaluate that when we get  
14 through our first round, which is still a couple of years  
15 away.

16 CHAIRMAN PALLADINO: But you have had a follow-up  
17 visit? That's when you had something that you wanted to go  
18 back and --

19 MR. VOLLMER: That's when we had some very specific  
20 things we felt we needed to go back on. And that would hold  
21 true, I think, with any plant.

22 But also the results of the inspection, in the  
23 general sense, it would be up to the Region to evaluate the  
24 Licensee's performance in taking care of those inspection  
25 items, so they wouldn't be really left out, drifting too long.

1           MR. STELLO: The Chairman, I think, was interested  
2           that when you went and found a plant was okay, did you ever  
3           inspect this area again, and the answer was, yes, through the  
4           routine program, but not through some comprehensive program  
5           like this. It would fall into the routine inspection program.

6           COMMISSIONER ASSELSTINE: Well, maintenance aspects,  
7           you want to make sure the equipment is maintained, so it  
8           continues to be qualified.

9           MR. VOLLMER: Yes. The next slide is inspection  
10          results.

11          [Slide.]

12          We still have not identified equipment that in the  
13          judgment of the inspectors would fail or malfunction in an  
14          anticipated environment, and as we get down a little bit  
15          later, you can question me -- you may question me on how we  
16          come to that judgment, and I'll be happy to try to answer  
17          that.

18          But we did, for example, find one case where an item  
19          was not the item the Licensee thought was there. Indeed, it  
20          had a different serial number and manufacturer type, I think,  
21          than he though was there. On further looking, it appears that  
22          that particular item did have adequate qualification data  
23          behind it, but again, we have not found anything that we  
24          clearly know would malfunction or fail in the environment that  
25          we expected to see.

1           The programmatic deficiencies we have seen are those  
2 indicated. The fact that the Licensee is not able to come up  
3 with his documentation in a very auditable form and things  
4 like that, the fact that --

5           CHAIRMAN PALLADINO: You say they couldn't come up  
6 with the documentation in an auditable form. How could you  
7 draw the first conclusion?

8           MR. VOLLMER: Okay. If he doesn't, that's a  
9 programmatic deficiency. Now when the inspectors dig deeper  
10 into that, again it's discussion with the Licensee. He will  
11 bring up additional data. It's a week inspection, so he will  
12 scurry around. He has his consultants there. So he will try,  
13 where we find this to be the case, to find backup  
14 information. Our inspectors are also very knowledgeable about  
15 a broad data base of EQ that's out in the whole industry, and  
16 they certainly use that knowledge to justify -- or as part of  
17 the basis for their decisions when they're doing inspections.

18           So what the first part is here is that  
19 programmatically he's not very well put together. Secondly,  
20 in the area of retrieving information, secondly perhaps in the  
21 area of the equipment maintenance and surveillance procedures  
22 have not been fully developed. In some cases, this doesn't  
23 make a lot of difference, because in many cases the  
24 maintenance and surveillance procedures are those things which  
25 will require equipment to be changed out over a period of

1 time. The Licensee has, perhaps, some lead time for that.  
2 But still, you look programmatically at how he's --

3 CHAIRMAN FALLADINO: If you look at the bottom  
4 statement on that slide, it says that 20 to 60 percent of EQ  
5 document files reviewed did not fully support qualification,  
6 and that seems to contradict the first statement, that no  
7 equipment was identified that would be expected to fail or  
8 malfunction in the anticipated environment.

9 I guess what I'm asking is, if you don't know up to  
10 60 percent or you don't have documentation for up to 60  
11 percent of the items, it would be difficult to make the first  
12 statement.

13 MR. VOLLMER: I think perhaps the 20 to 60 percent  
14 -- let me jump down to that -- is a little bit misleading.  
15 What we say is, 20 to 60 percent did not fully support  
16 qualification in the plant that we looked at. Now if you go  
17 through a documentation file, which may cover at some plants a  
18 number of pieces of equipment -- it may cover a broad  
19 category, for example, all cables -- now if for a certain type  
20 of cable, for example, one of the items of qualification --  
21 for example, radiation or temperature or pressure -- was not  
22 adequate, then you would say that that particular  
23 documentation file did not fully support qualification.

24 So in each file, there is a number of environmental  
25 issues addressed.

1                   Ten? Is that how many we look at?

2                   MR. LaGRANGE: Anywhere from ten to twenty.

3                   MR. VOLLMER: Anywhere from ten to twenty different  
4 types of issues, and there's a large number of components, so  
5 if you fall off on one item where you're not fully convinced,  
6 then it sort of drops into this particular hopper.

7                   So it's a fairly significant victory when the  
8 Licensee can fully support qualification for all the items in  
9 any given file, to the degree that the inspection looks at it.

10                  MR. LaGRANGE: This Bullet No. 1 is really a  
11 judgment call. Absent the documentation, does it appear that  
12 based on the knowledge of the inspectors and the use of the  
13 similar equipment at other plants, there's no evidence that it  
14 will fail, and, in fact, there is evidence existing elsewhere  
15 that shows it will probably work.

16                  MR. VOLLMER: We're getting into the discussion that  
17 we had before. Is the equipment unqualified or does it fail  
18 to be demonstrated to be qualified?

19                  Item 1 is, if we run across something that we feel  
20 is clearly unqualified in the inspector's judgment, based on  
21 his experience and what he has seen out in the field, the  
22 bottom there is that the Licensee hasn't given us adequate  
23 demonstration, paper demonstration, that he can support his  
24 qualification assertion, and that is why the discrepancy  
25 exists.



1                   COMMISSIONER ASSELSTINE: Dick, can you give me a  
2 sense for the range of what you found? You have done five  
3 inspections since we had the April meeting. Take the best and  
4 the worst of those five plants, and tell us what you found  
5 in terms of these deficiencies.

6                   CHAIRMAN PALLADINO: Which plants?

7                   COMMISSIONER ASSELSTINE: Well, they did five plants  
8 since we met in April: Rancho Seco, Point Beach, Brunswick,  
9 Nine Mile Point, and Calvert Cliffs, Calvert Cliffs being a  
10 reinspection.

11                   If you could go through and sort of highlight the  
12 range of what you found, because you've talked about  
13 deficiencies occurred at some or most, but sort of the range  
14 of either, on the one hand, the best performance you found in  
15 any of those five inspections, and on the other end, the worst  
16 you found.

17                   Slide 6 shows the plants for which inspections have  
18 been done and the dates, and the last five were done since we  
19 met in April

20                   CHAIRMAN PALLADINO: Okay. Thank you.

21                   MR. VOLLMER: Okay. One plant, particularly Zion-2,  
22 we reviewed thirteen files, and only two files did not  
23 adequately support the qualification. Those were on  
24 Limitorque MO, motor-operated, valves and a certain type of  
25 terminal blocks. There were other open items -- maintenance

1 procedures, training, documentation errors that we found.  
2 Those are procedural, programmatic things. We felt that there  
3 were other items, for example, that we weren't sure that we  
4 could agree with their 50.49 master list which identified  
5 every piece of equipment that should be under the EQ program,  
6 including maintenance program. That's also programmatic.

7 If you go on to what looks to be about the worst,  
8 there were nineteen files looked at, and eleven of those files  
9 did not adequately support documentation.

10 CHAIRMAN PALLADINO: I can't hear you.

11 MR. VOLLMER: Of nineteen files reviewed, eleven did  
12 not adequately support qualification, and that was Calvert  
13 Cliffs Unit-1.

14 COMMISSIONER ASSELSTINE: This is the first  
15 inspection?

16 MR. VOLLMER: Well, --

17 COMMISSIONER ASSELSTINE: Or is this the second  
18 inspection?

19 MR. VOLLMER: First inspection. But the second  
20 inspection, we were disappointed. There were improvements,  
21 but not to the extent that we had hoped. And if you want any  
22 details, I could ask one of the inspection personnel to brief  
23 you.

24 But in that particular case, we, you know, had  
25 target rock valves, Rockbestos cable, motors, certain types of

1 motors, terminal blocks and so on. So we had a number of  
2 things where they did not demonstrate by their documentation  
3 that qualification had been achieved.

4 Now in some of these, the inspector was aware of  
5 extenuating -- he was aware of information that perhaps the  
6 Licensee wasn't, but in no cases did the inspector feel that  
7 that equipment clearly would be expected to fail in the case  
8 of an adverse environment.

9 MR. EISENHUT: Dick, do you have the date on the  
10 Brunswick inspection?

11 MR. VOLLMER: The data on the Brunswick inspection?

12 MR. EISENHUT: It's one of the later post-April --

13 MR. VOLLMER: Yes. Fourteen files were reviewed on  
14 Brunswick, and four of these did not adequately support  
15 qualification. Accelerometers, pressure transmitters, some  
16 more Rockbestos cable, and I can't read the other one --  
17 Westinghouse -- oh, the penetration assemblies, electrical  
18 penetration assemblies.

19 So that's the range of things. I've looked this  
20 over, and with the exception of a few things such as the  
21 Rockbestos cable and Limitorque MOVs, there don't seem to be  
22 any that jump out at you as being clearly across the board.  
23 We haven't got that many inspections under our belt, however.

24 COMMISSIONER ASSELSTINE: Have inspection reports  
25 been written on each of those inspections that are listed on

1 Slide 6?

2 MR. VOLLMER: I think we have four reports written.

3 COMMISSIONER ASSELSTINE: Which ones are written,  
4 and which ones aren't in?

5 MR. VOLLMER: Gary Zech will indicate which ones are  
6 complete.

7 MR. ZECH: Gary Zech from the Staff.

8 We have written reports since the April inspection  
9 on Fort Calhoun, Rancho Seco. The other ones remaining are  
10 Point Beach, Brunswick, and Nine Mile Point and are in various  
11 stages of preparation, and we just finished Calvert Cliffs  
12 last week.

13 MR. VOLLMER: But we had the Zion and Crystal River  
14 already done.

15 MR. ZECH: That's right. And Fort Calhoun was the  
16 next week after that April inspection, and that has been  
17 issued.

18 COMMISSIONER ASSELSTINE: Did you find programmatic  
19 deficiencies in every one of the inspections or not? Did  
20 anyone come through clean in terms of their program?

21 MR. VOLLMER: No. There was always something we can  
22 find. Some of them were rather -- not large in terms of  
23 programmatic inspections. Some, I think, in a couple of  
24 cases, the Staff felt that they had really pretty good  
25 programs underway, but there were some open items.

1 COMMISSIONER ASSELSTINE: Which one of that group do  
2 you think had the best program?

3 MR. VOLLMER: I would turn to the inspectors.

4 COMMISSIONER ASSELSTINE: Where you have done  
5 inspections, which one looks the best in terms of having a  
6 good EQ program?

7 MR. ZECH: It is difficult to really make an  
8 absolute comparison. But of all those we have inspected, I  
9 guess programmatically is how we really look at it, we could  
10 probably say Zion Unit-2 had one of the better programs, in  
11 that they looked at all the aspects of it -- the maintenance  
12 requirements, the organizational procedures -- to make sure  
13 that the different parts of the organization are involved in  
14 the EQ effort. And there are a couple of others that would  
15 probably be close behind Zion.

16 [Commissioner Bernthal leaves the hearing room.]

17 CHAIRMAN PALLADINO: Okay. Continue.

18 MR. VOLLMER: Okay. I am through with Slide 8.

19 MR. EISENHUT: Let's go to Slide 9, which is the  
20 conclusions.

21 [Slide.]

22 Most plants, where we are today, are well along, as  
23 we said. We are probably well into the 90-something percent  
24 of the equipment is now through the program. We do have the  
25 six extension requests, as we pointed out, that have been

1 submitted, and we might expect a few more.

2 The inspections are going to continue. The Staff's  
3 reviews will continue, focusing on the extension requests. We  
4 will rehighlight that the deadline for requests for extension  
5 to the Commission is September 30th, and we are hopeful that  
6 we can send down our recommendations on the ones that we have  
7 by about October 1.

8 That is, in a capsule summary, where we are today.  
9 That's all we really planned to cover, unless there are any  
10 other specific questions.

11 CHAIRMAN PALLADINO: You make a statement on Slide  
12 9, quote, "Not aware of any plants proposing to operate  
13 without approved extension and qualification not completed."

14 MR. EISENHUT: A simpler way to say that would be  
15 that we are not aware -- nobody is going to go forth -- we are  
16 not aware of anyone who is going to go forth and take the  
17 civil penalty.

18 CHAIRMAN PALLADINO: Even if it is only one item?

19 MR. EISENHUT: I'm not aware of any.

20 MR. STELLO: Mr. Chairman, the question was asked  
21 earlier of how the industry feels regarding accepting a civil  
22 penalty, and I think that is that broad general question that  
23 we really need to deal with in a different context.

24 COMMISSIONER ASSELSTINE: When are your next  
25 inspections, say, for the balance of the year, coming to what

1 plants and which ones are you going to be looking at?

2 MR. ZECH: What we are trying to do is evaluate the  
3 results of the pilot program, and what we are doing now is  
4 looking at turning it over in a phased approach to the  
5 Regions. But we estimate it would take about one inspection  
6 per month for each of the larger regions over the next several  
7 months to get the program going. But right now, our schedule  
8 doesn't go much beyond the next month.

9 Next week is San Onofre Units 1, 2, and 3. And as  
10 Bob LaGrange mentioned, we probably will be doing some sort of  
11 inspection at the Sequoyah plants sometime in October, the  
12 latter part of October. That's all we have right now.

13 COMMISSIONER ASSELSTINE: All right. So the idea  
14 would be, do those, finish your inspection reports on the ones  
15 that you have done as well as those, and then basically  
16 transfer it to the Regions starting the beginning of next  
17 year?

18 MR. VOLLMER: Well, that was our original  
19 anticipation, but in order to do that, we would have to  
20 evaluate the results of the inspections and how well the  
21 training program -- we may institute a specific Regional  
22 training program to do that. And I think also part of it was  
23 to take a look at the inspection results with an enforcement  
24 eye and see whether or not we have a reasonable approach to  
25 turn it over to the Region.



1           So it's not exactly clear. Our original goal, I  
2           think, that we indicated in April, was to do ten inspections,  
3           two per Region, and then turn it over to the Regions.

4           COMMISSIONER ASSELSTINE: The training program would  
5           be for our Regional people?

6           MR. VOLLMER: Well, they have been involved in these  
7           inspections, and we would anticipate probably before we turn  
8           it over to have a conference of some sort to get everybody on  
9           board with not only the results, but also how they should  
10          interpret various actions and EQ situations that they run  
11          into. And again, it's been difficult -- a difficult growing  
12          period here for us in the inspection program, and I think  
13          we're just going to have to sit down and decide how we go from  
14          here.

15          COMMISSIONER ASSELSTINE: How are you getting these  
16          inspection results, the ones that you outlined in Slide 8, in  
17          terms of the deficiencies you found, both in terms of programs  
18          and in terms of individual qualification efforts?

19          How are you communicating that information back to  
20          the industry, not just to the utility that you did the  
21          inspection on, but also throughout the industry, so that those  
22          people that are still completing their EQ work can take a look  
23          at that experience and make sure, for example, that when you  
24          come by, that they have got a maintenance program to keep the  
25          equipment qualified, that they do have their performance

1 requirements well defined for particular pieces of equipment,  
2 that they are not making very bad judgments, at least in terms  
3 of relying on similarity of equipment?

4 How are you getting that?

5 MR. VOLLMER: I know that a number of utilities have  
6 requested the inspection reports. I don't know if there is an  
7 organized effort.

8 MR. STELLO: I think it's a good point. Maybe what  
9 we ought to do is just bundle them all up and write a letter  
10 and send them to the Licensees that we haven't inspected.

11 COMMISSIONER ASSELSTINE: Yes. And say, "Look,  
12 here's one finding" --,

13 MR. STELLO: That's a good idea. We ought to just  
14 bundle them up and send them out.

15 COMMISSIONER ASSELSTINE: In fact, I would even  
16 suggest, if the problems are widespread enough and generic  
17 enough in their applicability, maybe even something beyond  
18 that -- meetings with Licensees on a Regional basis and say,  
19 "Here's the stuff we're finding," at least getting an  
20 information notice out saying, "These are the kinds of  
21 problems we're finding."

22 MR. STELLO: That we can do quickly.

23 MR. ZECH: We issued one in May of '85, in fact two  
24 of them. One was on auditability of files, and the other was  
25 on the qualification process.

1           But I might also add that in almost all of the  
2       inspections, an Owners Group representative has been with us  
3       at the utility, at the invitation of the utility, and is, I'm  
4       sure, feeding back that information.

5           MR. STELLO: We will do that. I think it's a good  
6       idea.

7           CHAIRMAN PALLADINO: I have one question. Getting  
8       back to the schedule, you indicated that the first plant  
9       evaluation of those that requested exemption would probably  
10      come within a week or two. But we have all of these on which  
11      to make decisions well before the 30th.

12           Do you think you will get the six, or at least the  
13      six you have now, completed by mid-October?

14           MR. EISENHUT: Oh, certainly. We're planning to  
15      have those complete by mid-October. I'm not sure that two of  
16      them are even in the door yet physically, but as soon as they  
17      get in, certainly we would be targeting --

18           MR. STELLO: Well, you indicated that you at least  
19      thought that by next week, some simpler ones would be sent to  
20      the Commission with -- I think you indicated CP&L's might be  
21      -- October 1 was the target. We will make every effort to  
22      make sure that we get them down here on about the 15th.

23           CHAIRMAN PALLADINO: We are going to have to make  
24      decisions, and I would like to avoid last-minute crises, if we  
25      can possibly do so.

1           Now let me ask you, with regard to requests that  
2 might come after September 30th --

3           MR. STELLO: Your letter -- or our letter has  
4 specific language in it that deals with that issue.

5           MR. EISENHUT: It says that requests received after  
6 September 30th --

7           MR. STELLO: May be denied on that basis.

8           MR. EISENHUT: It says they will be considered  
9 untimely, and they may be denied on that basis.

10          MR. STELLO: So you have added the element that says  
11 we are going to consider them untimely, and on just the basis  
12 of them being filed late, may be denied only on that basis.  
13 And the Commission will need to be sensitive to what's  
14 happening between now and then in terms of making that  
15 judgment. I don't think we can say much about it right now  
16 until we see how things unfold in the next week or two.

17          MR. EISENHUT: I think --

18          CHAIRMAN PALLADINO: I just wanted to follow up. So  
19 if we deny it, then what? They have to shut down?

20          MR. STELLO: On November 30th, they would have to  
21 shut down.

22          MR. VOLLMER: Or suffer a penalty.

23          MR. STELLO: No. That's a second issue.

24          CHAIRMAN PALLADINO: Yes, that's a different one.  
25 You can't go beyond the 30th of November without a

1 Commission-approved extension.

2 COMMISSIONER ASSELSTINE: No, no.

3 MR. VOLLMER: No. The letter gives them the option  
4 of doing that.

5 [Commissioner Bernthal returns to the hearing room.]

6 MR. VOLLMER: Facing the enforcement action, that  
7 was specifically an either/or for the Licensee. He may shut  
8 down, or he may continue to operate, subject to enforcement  
9 action.

10 CHAIRMAN PALLADINO: Oh, yes, you're right.

11 MR. VOLLMER: Which can be mitigated on the factors  
12 indicated at the top of page 2.

13 COMMISSIONER ASSELSTINE: That's right.

14 CHAIRMAN PALLADINO: No, wait a minute. It says  
15 here -- let me read the sentence to you. Maybe I don't read  
16 it correctly.

17 "The purpose of this letter is to advise Licensees  
18 that it is the Commission's intention that extensions will be  
19 granted only in rare circumstances, and that enforcement  
20 action will be taken against Licensees that continue to  
21 operate their plants with unqualified equipment beyond  
22 November 30 without extension approved by the Commission."

23 COMMISSIONER ASSELSTINE: That's right. That's  
24 enforcement action. That is defined.

25 CHAIRMAN PALLADINO: Not necessarily. If you had

1       said fines, I would understand it.

2               MR. VOLLMER:   Well, the next sentence --

3               CHAIRMAN PALLADINO:   The next sentence says --

4               MR. VOLLMER:   "It is the Commission's intention that  
5       Licensees that are not in compliance on November 30th and  
6       which have not been given extensions either will have to shut  
7       down or, if they have valid Staff-approved JCOs, select to  
8       operate and face civil penalties.

9               CHAIRMAN PALLADINO:   Okay, that's right.   So then  
10       they would have to take that up.

11              COMMISSIONER ASSELSTINE:   They have to make the  
12       choice.

13              MR. STELLO:   I was trying to make the point that if  
14       something happened that is late, and they have an untimely  
15       filing, you can decide that they can't get an extension.   But  
16       there's the second part of it that has to be done, and that  
17       is, if it's a new piece of equipment, it may or may not have  
18       the JCO.   That will require Staff action, and we may or may  
19       not decide we agree with them.

20              If we don't agree with them, they shut down.   If we  
21       do agree with them, then they have the option.

22              COMMISSIONER ASSELSTINE:   That's right.   And under  
23       no circumstances can a plant operate without a valid JCO.

24              MR. STELLO:   That's right.   So you have to evaluate  
25       the safety issue.

1 COMMISSIONER ASSELSTINE: Including Fort St. Vrain.

2 MR. EISENHUT: Right, including Fort St. Vrain. And  
3 I was going to say, because of the timing, we will be calling  
4 each utility and alerting the senior management that there is  
5 a request, if it's after September 30th, it's not a timely  
6 filing, just reminding them what the letter says.

7 CHAIRMAN PALLADINO: Okay. Any other items to cover  
8 on this matter.

9 [No response.]

10 CHAIRMAN PALLADINO: Okay. Now I haven't adjourned  
11 this meeting yet, but we have affirmation at 3:30, and I guess  
12 we will just have to wait for it.

13 COMMISSIONER ZECH: Mr. Chairman, I would like to  
14 make a point before we go on.

15 First of all, we were talking about equipment  
16 qualification, which is a very important matter, and I think  
17 it's important, you made some important statements, and I  
18 think it is important to recognize that so far in all the  
19 years we've been looking at it, we haven't found any equipment  
20 which would be expected to fail in a harsh environment. I  
21 think that's an important point, and I guess that's what you  
22 have told us, right?

23 MR. LaGRANGE: Well, that's the recent inspections,  
24 and as a result of several years of work, there has been quite  
25 a bit of hardware replaced that would not have functioned, in



1     our opinion, up to this point.

2             COMMISSIONER ZECH:   Also, we are talking about a  
3     problem that is a documentation problem, and it's obvious to  
4     me that the utilities, perhaps at least a number of them  
5     anyway, have not done the job in documentation that they  
6     should have.

7             On the other hand, we have put out what I believe is  
8     a pretty tough policy that does require compliance, and I  
9     think it's appropriate that we have done that.

10            I think now, though, that we have come to the time  
11    of asking for the Staff's good work on helping us to come to  
12    decisions and analyze whether the utilities have, indeed,  
13    taken a reasonable approach, have they taken a comprehensive  
14    approach, have they scheduled their business properly, and  
15    that's what I'm looking for when you come to us, so we can  
16    make a judgment call as to whether exemptions should be  
17    granted or not.

18            I think it's appropriate, though, that we do  
19    recognize that it is a documentation problem that we have,  
20    more than anything, as I understand it, but there is certain  
21    documentation, there is certain paperwork that's important.  
22    And this kind of paperwork, as far as I'm concerned, is indeed  
23    important. It should be documented properly, and it's  
24    appropriate that we have a good, tough policy out that we  
25    follow through on.

1           But it does require some judgment calls on our part,  
2   and we are -- or certainly I feel at my level that I need the  
3   Staff's analysis and your good, cool thoughts on what has  
4   happened in this whole program, in order to help us make a  
5   judgment call.

6           MR. STELLO: That's what we do provide.

7           CHAIRMAN PALLADINO: I think those are very good  
8   comments, although I don't want to give the impression that we  
9   are not interested in the actual qualification of equipment.  
10   I'm sure that's not --

11          COMMISSIONER ZECH: Oh, no, not at all. I think  
12   that's the most important thing of all. It's encouraging, at  
13   least. I think it's important to note that we haven't found  
14   anything really significant that wouldn't perform. If we do  
15   find something, then I think that's the important thing.

16          The documentation is important, but it only verifies  
17   what we are trying to find out in the first place: Will the  
18   equipment operate in a harsh environment?

19          So I think the whole program is very important, and  
20   that's why I agree, Mr. Chairman, we should focus on the  
21   equipment -- that's what we're trying to do -- and safety.  
22   That's what it's all about.

23          CHAIRMAN PALLADINO: Let me make one other comment.  
24   If you run into difficulty on evaluations, such that there is  
25   going to be a significant delay, would you let us know, so

1       that at least we can see how to resolve the problems?

2               MR. STELLO:   We will do our best so that is not, in  
3       fact, the case.   But if we do run into problems, we will let  
4       you know.

5               CHAIRMAN PALLADINO:   All right.   Any other comments?

6               [No response.]

7               CHAIRMAN PALLADINO:   All right.   Now I am going to  
8       ask the audience to bear with us for another three minutes.   I  
9       am going to adjourn this meeting and convene another meeting  
10      that is called affirmation and discussion.   There are two  
11      items on the agenda, and it should take us not over three  
12      minutes to handle it.

13              [Whereupon, at 3:30 o'clock, p.m., the Commission  
14      meeting was concluded.]

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5 This is to certify that the attached proceedings  
6 before the United States Nuclear Regulatory Commission in the  
7 matter of: COMMISSION MEETING

8  
9 Name of Proceeding: Status of Progress on Environmental  
10 Qualification of Electrical Equipment  
(Public Meeting)

11 Docket No.:

12 Place: Washington, D. C.

13 Date: Tuesday, September 17, 1985

14  
15 were held as herein appears and that this is the original  
16 transcript thereof for the file of the United States Nuclear  
17 Regulatory Commission.

18  
19 (Signature)

(Typed Name of Reporter) Suzanne B. Young

20  
21  
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23 Ann Riley & Associates, Ltd.  
24  
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UNITED STATES NUCLEAR REGULATORY COMMISSION

COMMISSION MEETING

SEPTEMBER 17, 1985

STATUS OF PROGRESS ON ENVIRONMENTAL QUALIFICATION  
OF ELECTRICAL EQUIPMENT

OVERVIEW

- o LAST BRIEFED COMMISSION ON STATUS OF ENVIRONMENTAL QUALIFICATION (EQ) ON APRIL 2, 1985
- o SINCE APRIL 2, 1985 MEETING:
  - TWO PLANTS LICENSED (TOTAL NOW 95)
  - 11 EVALUATIONS COMPLETED (TOTAL NOW 84)
  - STATUS OF EXTENSIONS GRANTED/REQUESTED UP TO NOVEMBER 30, 1985 UNCHANGED
  - EXTENSIONS BEYOND NOVEMBER 30, 1985 REQUESTED FOR SIX PLANTS
  - EQ INSPECTIONS OF EIGHT PLANTS AND ONE FOLLOW-UP INSPECTION
- o STAFF REQUIREMENTS MEMORANDUM (SRM) DATED APRIL 26, 1985
  - STAFF RESPONDED BY SECY-85-220
- o GENERIC LETTER 85-15 (COMPLIANCE DEADLINE)
- o SRM DATED AUGUST 27, 1985
- o EQ INSPECTION PROGRAM

STATUS SUMMARY

- o TOTAL NUMBER OF OPERATING REACTORS: 95
  - OPERATING REACTORS WITHOUT EXTENSIONS BEYOND MARCH 31, 1985: 41
  - OPERATING REACTORS GRANTED EXTENSIONS UP TO NOVEMBER 30, 1985: 45
  - NEW OPERATING LICENSES ISSUED WITH A NOVEMBER 30, 1985 COMPLETION DEADLINE: 7
  - NEW OPERATING LICENSES ISSUED WITH QUALIFICATION COMPLETED: 2



PLANTS THAT WILL NOT OR MAY NOT COMPLETE  
QUALIFICATION BY NOVEMBER 30, 1985

EXTENSION REQUESTED

BRUNSWICK 2  
HADDAM NECK  
MILLSTONE 1  
NINE MILE POINT 1  
POINT BEACH 1  
POINT BEACH 2

TO SHUTDOWN FOR EQ BY NOVEMBER 30, 1985

BYRON 1

DO NOT PLAN TO RESTART UNTIL AFTER NOVEMBER 30, 1985  
OR UNTIL EQ COMPLETE

BROWNS FERRY 1  
BROWNS FERRY 2  
BROWNS FERRY 3  
SEQUOYAH 1  
SEQUOYAH 2

OTHER

FORT ST. VRAIN  
HATCH 2  
OYSTER CREEK  
PILGRIM

PLANTS FOR WHICH AN EXTENSION TO THE NOVEMBER 30, 1985  
DEADLINE HAS BEEN REQUESTED

	<u>NUMBER OF</u> <u>ITEMS</u>	<u>(COMPONENTS)</u>
o NINE MILE POINT 1	1	(4)
o BRUNSWICK 2	53	(>179)
o POINT BEACH 1	1	(2)
o POINT BEACH 2	1	(2)
o HADDAM NECK	5	(34)
o MILLSTONE 1	6	(11)

IE EQ INSPECTION PROGRAM

- O INSPECTION MODULE/GUIDANCE COMPLETED AND PROVIDED TO REGIONAL OFFICES
- O NINE INSPECTIONS (INCLUDING ONE FOLLOWUP) COMPLETED - IE LEAD, NRR, REGIONAL PARTICIPATION

CALVERT CLIFFS 1	OCTOBER 1984
ZION 2	JANUARY 1985
CRYSTAL RIVER	MARCH 1985
FORT CALHOUN	APRIL 1985
RANCHO SECO	MAY 1985
POINT BEACH 1/2	JULY 1985
BRUNSWICK 1/2	AUGUST 1985
NINE MILE POINT 1	AUGUST 1985
CALVERT CLIFFS 1/2	SEPTEMBER 1985

- O RESULTS FROM PILOT INSPECTIONS BEING EVALUATED
- O INSPECTION TURNOVER TO REGIONAL OFFICES TARGETED FOR END CY 1985
  - IE WILL CONTINUE TO PROVIDE TEAM MEMBERS AND CONSULTANTS
  - IE WILL COORDINATE RESOLUTION OF SIGNIFICANT TECHNICAL ISSUES
- O COMPLETION OF INSPECTIONS AT ALL OPERATING PLANTS TARGETED FOR END FY 87

INSPECTION APPROACH

- O REVIEW OF LICENSEE PROGRAM FOR IMPLEMENTING 10 CFR 50.49 REQUIREMENTS
- O REVIEW LICENSEE MAINTENANCE/SURVEILLANCE PROCEDURE FOR QUALIFIED EQUIPMENT
- O REVIEW LICENSEE IMPLEMENTATION OF SAFETY EVALUATION REPORT CORRECTIVE ACTION COMMITMENTS
- O REVIEW EQ DOCUMENT FILES (15-25% SAMPLE)
- O PERFORM PHYSICAL INSPECTION OF SELECTED EQUIPMENT

INSPECTION RESULTS

- O NO EQUIPMENT IDENTIFIED THAT WOULD BE EXPECTED TO FAIL OR MALFUNCTION IN ANTICIPATED ENVIRONMENT
- O PROGRAM DEFICIENCIES IDENTIFIED AT MOST PLANTS
  - ORGANIZATION AND RETRIEVAL OF INFORMATION VITAL TO ESTABLISH QUALIFICATION
  - EQUIPMENT MAINTENANCE/SURVEILLANCE PROCEDURES NOT DEVELOPED OR IMPLEMENTED
- O IMPLEMENTATION DEFICIENCIES IDENTIFIED AT MOST PLANTS
  - INSTALLED CONFIGURATION DIFFERENT FROM QUALIFIED CONFIGURATION
  - SIMILARITY ANALYSIS NOT PERFORMED/INADEQUATE
  - TEST ANOMALIES NOT ADEQUATELY ADDRESSED
  - AGING ANALYSIS INADEQUATE
  - PERFORMANCE REQUIREMENTS NOT DEFINED (INSTRUMENT ACCURACIES, OP. TIMES)
- O 20-60% OF EQ DOCUMENTS REVIEWED DID NOT FULLY SUPPORT QUALIFICATION

SUMMARY/CONCLUSIONS

- o 89 OF 95 OPERATING PLANTS ARE CURRENTLY SCHEDULED TO HAVE COMPLETED OR TO COMPLETE QUALIFICATION BY NOVEMBER 30, 1985, OR PRIOR TO STARTUP AFTER THAT DATE
  - SIX EXTENSION REQUESTS SUBMITTED, MORE EXPECTED
  - SOME PLANTS SHUTDOWN/TO SHUTDOWN AND WILL NOT RESTART PRIOR TO COMPLETION
  - NOT AWARE OF ANY PLANTS PROPOSING TO OPERATE WITHOUT APPROVED EXTENSION AND QUALIFICATION NOT COMPLETED
- o EQ INSPECTIONS TO CONTINUE. TO DATE THEY HAVE IDENTIFIED DEFICIENCIES, AND WILL CONTINUE TO DO SO
- o STAFF'S REVIEW EFFORTS WILL FOCUS ON:
  - DISPOSITION OF EXTENSION REQUESTS TO BEYOND NOVEMBER 30, 1985
  - SPECIAL CIRCUMSTANCES, E.G., FORT ST. VRAIN AND TVA PLANTS
  - EVALUATION OF HADDAM NECK SYSTEMS ANALYSIS TO LIMIT SCOPE OF EQ EQUIPMENT

BRUNSWICK 2  
EXTENSION REQUEST TO MARCH 30, 1986  
FOR 53 ITEMS (MORE THAN 179 COMPONENTS)

BACKUP SLIDE 1

EVALUATION CONSIDERATIONS

LICENSEE'S ARGUMENTS IN FAVOR OF EXTENSION

- o PLANT IS SAFE (JCOS)
- o REFUELING OUTAGE SCHEDULED FOR MARCH 30, 1986
- o SHUTDOWN NOVEMBER 30, 1985 RESULTS IN LOSS OF 120 DAYS OF FUEL
- o UNIQUE PLANT DESIGN RESULTS IN MORE EQUIPMENT REQUIRING QUALIFICATION AND HARSHER ENVIRONMENT
- o REPLACEMENT OF RIP SYSTEM (LARGE NO. OF COMPONENTS)
- o MINIMUM TIME FOR COMPLIANCE - FIRST REFUELING OUTAGE WAS APRIL, 1982
- o SUBSTANTIAL RESOURCE ALLOCATION FOR OTHER WORK
- o COMPENSATORY ACTIONS IN EFFECT (E.G., ENHANCED DRYWELL LEAK DETECTION CRITERIA)
- o BRUNSWICK 1 UNDERGOING EXTENSIVE OUTAGE - 9 MONTHS LONG; WORK INCLUDES EQ; SCHEDULED TO RETURN TO SERVICE DECEMBER
- o UTILITY ARGUES WORKER EXPOSURE AND OVERALL EFFICIENCY OF WORK WOULD BENEFIT FROM ALLOWING TIME TO EVALUATE AND APPLY UNIT 1 LESSONS TO UNIT 2 (1700 MAN-REM EXPOSURE PROJECTED FOR UNIT 1 OUTAGE EXTENSIVE ALARA REVIEW EXPECTED TO RESULT IN 100 MAN-REM SAVINGS ON UNIT 2)
- o CP&L SYSTEM RELIABILITY (MULTIPLE UNITS SHUTDOWN)
- o DILIGENT EQ EFFORTS
- o UTILITY ARGUES CIVIL PENALTY APPROACH NOT VIABLE
- o IE EQ INSPECTION RESULTS FAVORABLE
- o "LIVING SCHEDULE" LICENSE AMENDMENT REQUEST (WORK DURING REFUELING OUTAGES)

ARGUMENTS AGAINST EXTENSION

- o EQ ISSUE HAS BEEN IN EXISTENCE FOR A LONG TIME
- o NUMBER OF COMPONENTS YET TO BE FULLY QUALIFIED IS RELATIVELY LARGE
- o COMMISSION'S DESIRE TO MAINTAIN NOVEMBER 30, 1985 DEADLINE (GENERIC LETTER 85-15)
- o EQ EFFORTS SLOW STARTING THROUGH EARLY '80s



TVA PLANTS

- o A TEAM CONSISTING OF TVA AND WESTEC PERSONNEL REVIEWED TVA QUALIFICATION DOCUMENTATION FOR BROWNS FERRY, SEQUOYAH AND WATTS BAR, AND OTHER ASPECTS OF TVA'S EQ PROGRAM
- o THE TEAM IDENTIFIED MANY DEFICIENCIES IN THE INDIVIDUAL EQ PACKAGES IT REVIEWED AND IN TVA'S EQ PROGRAM IN GENERAL
  - OF 33 EQ PACKAGES REVIEWED (18 FOR BROWNS FERRY, 11 FOR SEQUOYAH AND FOUR FOR WATTS BAR), THE TEAM CONCLUDED ONLY THREE DOCUMENTED QUALIFICATION
  - DEFICIENCIES IDENTIFIED INCLUDED SIMILARITY NOT ESTABLISHED, AGING EVALUATION NOT PERFORMED OR INADEQUATE, QUALIFIED LIFE NOT ESTABLISHED, TEST DURATION NOT ADEQUATE, SPRAY QUALIFICATION NOT ESTABLISHED, MAINTENANCE/SURVEILLANCE REQUIREMENTS NOT ADEQUATE, INTERFACES NOT ADDRESSED, AND TEST ANOMALIES NOT RESOLVED
  - PROGRAM/GENERIC DEFICIENCIES IDENTIFIED INCLUDED INADEQUACIES IN LIST OF EQUIPMENT REQUIRED TO BE QUALIFIED, APPROVED PROCEDURES DO NOT REFLECT PROJECT ACTIVITIES, INADEQUATE PROCEDURE FOR REPARATION OF QUALIFICATION MAINTENANCE DATA, INCORRECT OPERATING TIMES, AND CABLE TRACEABILITY PROBLEMS

o PLANTS WITH EVALUATION COMPLETED EXCEPT FOR  
PRESSURE/TEMPERATURE PROFILE:

DRESDEN 2  
DRESDEN 3  
MILLSTONE 1  
QUAD CITIES 1  
QUAD CITIES 2  
YANKEE ROWE

o PLANTS STILL UNDER REVIEW:

BIG ROCK POINT  
FORT ST. VRAIN  
HADDAM NECK  
SEQUOYAH 1  
SEQUOYAH 2

PLANTS WITHOUT EXTENSIONS BEYOND MARCH 31, 1985

ARKANSAS 1  
ARKANSAS 2  
BRUNSWICK 1  
BROWNS FERRY 1  
BROWNS FERRY 2  
CATAWBA 1  
CRYSTAL RIVER 3  
DAVIS-BESSE 1  
DRESDEN 2  
DUANE ARNOLD  
FARLEY 2  
FITZPATRICK  
FORT ST. VRAIN  
GINNA  
INDIAN POINT 2  
KEWAUNEE  
LACROSSE  
LIMERICK 1  
MAINE YANKEE  
MCGUIRE 1  
MCGUIRE 2  
MILLSTONE 2  
OCONEE 1  
OCONEE 2  
OCONEE 3  
PRAIRIE ISLAND 1  
QUAD CITIES 2  
RANCHO SECO  
ROBINSON  
SALEM 1  
SALEM 2  
SAN ONOFRE 2  
SAN ONOFRE 3  
ST. LUCIE 1  
ST. LUCIE 2  
SUMMER 1  
SURRY 2  
TURKEY POINT 3  
TURKEY POINT 4  
YANKEE ROWE  
ZION 1

PLANTS WITH EXTENSIONS FOR SELECTED EQUIPMENT GRANTED  
FOR PERIODS UP TO NOVEMBER 30, 1985

BEAVER VALLEY 1  
BIG ROCK POINT  
BROWNS FERRY 3  
BRUNSWICK 2  
CALLAWAY 1  
CALVERT CLIFFS 1  
CALVERT CLIFFS 2  
COOK 1  
COOK 2  
COOPER  
DRESDEN 3  
FARLEY 1  
FORT CALHOUN  
GRAND GULF 1  
HADDAM NECK  
HATCH 1  
HATCH 2  
INDIAN POINT 3  
LASALLE 1  
LASALLE 2  
MILLSTONE 1  
MONTICELLO  
NINE MILE POINT 1

NORTH ANNA 1  
NORTH ANNA 2  
OYSTER CREEK  
PALISADES  
PEACH BOTTOM 2  
PEACH BOTTOM 3  
PILGRIM  
POINT BEACH 1  
POINT BEACH 2  
PRAIRIE ISLAND 2  
QUAD CITIES 1  
SAN ONOFRE 1  
SEQUOYAH 1  
SEQUOYAH 2  
SURRY 1  
SUSQUEHANNA 1  
SUSQUEHANNA 2  
THREE MILE ISLAND 1  
TROJAN  
VERMONT YANKEE  
WNP-2  
ZION 2

- o NEW OPERATING LICENSES ISSUED WITH A NOVEMBER 30, 1985  
COMPLETION DEADLINE:

BYRON 1  
FERMI 2  
PALO VERDE 1  
RIVER BEND 1  
SHOREHAM  
WATERFORD 3  
WOLF CREEK

- o NEW OPERATING LICENSES ISSUED WITH QUALIFICATION COMPLETED:

DIABLO CANYON 1  
DIABLO CANYON 2

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Qualification of Electrical EquipmentMeeting Date: 9/17/85 Open ☒ Closed ☐

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