

ORIGINAL
RETURN TO SECRETARIAT RECORDS

NUCLEAR REGULATORY COMMISSION

IN THE MATTER OF:

PUBLIC MEETING

REVIEW OF PUBLIC COMMENTS AND ANALYSIS BY

STAFF OF UCS PETITION

Place - Washington, D. C.

Date - Thursday, 22 December 1977

Pages 1 - 73

Telephone:
(202) 347-3700

ACE - FEDERAL REPORTERS, INC.

Official Reporters

444 North Capitol Street
Washington, D.C. 20001

NATIONWIDE COVERAGE - DAILY

DISCLAIMER

This is an unofficial transcript of a meeting of the United States Nuclear Regulatory Commission held on DEC 22 1977 in the Commission's offices at 1717 H Street, N. W., Washington, D. C. The meeting was open to public attendance and observation. This transcript has not been reviewed, corrected, or edited, and it may contain inaccuracies.

The transcript is intended solely for general informational purposes. As provided by 10 CFR 9.103, it is not part of the formal or informal record of decision of the matters discussed. Expressions of opinion in this transcript do not necessarily reflect final determinations or beliefs. No pleading or other paper may be filed with the Commission in any proceeding as the result of or addressed to any statement or argument contained herein, except as the Commission may authorize.

CR5888
ER:mp
mask

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

PUBLIC MEETING

REVIEW OF PUBLIC COMMENTS AND ANALYSIS BY
STAFF OF UCS PETITION

Room 1130
1717 H Street, N. W.
Washington, D. C.

Thursday, 22 December 1977

The meeting was convened at 9:35 a.m., pursuant to notice, Dr. Joseph M. Hendrie, Chairman of the Commission, presiding.

BEFORE:

JOSEPH M. HENDRIE, Chairman
PETER A. BRADFORD, Commissioner
VICTOR GILINSKY, Commissioner
RICHARD T. KENNEDY, Commissioner

Ace
Reporters, Inc.
24
25

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

2 CHAIRMAN HENDRIE: If we could come to order, the
3 subject this morning is a continuation of the Commission's dis-
4 cussion on a petition by the Union of Concerned Scientists,
5 dated November 4, on the subject of the safety implications of
6 tests on electrical connectors and electrical cables made by the
7 Sandia Laboratories as part of the NRC safety research program.

8 The purpose of this morning's meeting of the Commis-
9 sion on this subject is to hear a summary of the full staff
10 report which has now been made, the staff report dated Decem-
11 ber 15. This is a report for which the Commission allowed some
12 extensions of time. Originally specified for the report -- the
13 15th was the final due date.

14 This staff report should cover the full range of the
15 petition matters as contrasted to earlier staff documents that
16 were directed primarily to whatever emergency aspects there
17 might be in those matters.

18 If the staff is ready, I assume, Mr. Case, you are
19 ready?

20 MR. CASE: Dr. Mattson will make the presentation.

21 DR. MATTSON: Mr. Chairman, I would propose that the
22 summary I would give would be fairly brief. We've had several
23 opportunities to go over most of the technical considerations
24 prior to today.

25 CHAIRMAN HENDRIE: That would be merciful, Mr. Mattson,

1 and allow the Commission a fuller opportunity for questions and
2 discussions. That would be helpful, I think.

3 DR. MATTSON: I think what I would like to do is
4 briefly track the general structure of the report that we filed
5 on December 15, giving the results of our overall review of
6 the petition and our conclusions and our recommendations.

7 The central conclusions of that report on safety
8 matters were that, first, there was no immediate safety problem
9 with respect to environmental qualification of electrical equip-
10 ment; and second, the actions taken and underway for fire pro-
11 tection provide adequate protection.

12 These central safety aspects raised by the petition
13 are summarily discussed in the introductory chapter 1 of the
14 December 15 report.

15 The UCS petition specifically requested six types of
16 action by NRC. These actions dealt with three cases with the
17 Commission's testing program. The first two had to do with a
18 request for accelerated testing, on the one hand, of fire pro-
19 tection cables, electrical cables. Another had to do with
20 accelerated testing of the environmental qualification of con-
21 nectors.

22 The third research-oriented request had to do with
23 independent verification in the laboratory of environmental
24 qualifications of electrical equipment by NRC.

25 The other three actions had to do with the

pv3
1 Commission's licensing activities, first to cease the granting
2 of CPs and OLs until general design criteria 3 or 4 and the
3 single-failure criteria of the regulations were satisfied;
4 another having to do with the cessation of construction activi-
5 ties involving cables and connectors; and finally, the shutdown
6 of operating reactors until general design criteria 3, 4, and
7 the single-failure criteria were satisfied.

8 Chapter 2 of our December 15 report deals specifi-
9 cally with each of these six requested actions.

10 In an attempt to be brief, I will simply say that we
11 recommend that the Commission deny the petition on all six
12 of those requested actions.

13 The bases for those recommendations of denial are
14 discussed in summary fashion in chapter 2. Then in chapter 3
15 there is an overall report on our detailed technical basis for
16 those conclusions reached in chapter 2.

17 In addition, chapter 3 contains our analysis of the
18 44 public comments which we received on the petition in response
19 to the Commission's Federal Register notice.

20 There are several things that I think are worth
21 summarizing here.

22 COMMISSIONER KENNEDY: Would it be possible to sum-
23 marize briefly, at this meeting, those comments, or are they
24 too diffused?

25 DR. MATTSON: Let me try, and if you wish me to go

1 further, then we can do that.

2 COMMISSIONER KENNEDY: I just want a brief summary.

3 DR. MATTSON: As I recall, there were 44 comments,
4 of which five supported the petition, that is, suggested that
5 the Commission grant the petition.

6 COMMISSIONER KENEEDY: In whole; in its entirety?

7 DR. MATTSON: Yes. As a general matter, those five
8 supportive of the petition comments did not contain detailed
9 analysis of the Sandia test information.

10 There were 20-odd -- only four stick in my mind --
11 comments which recommended denial of the petition. Some of
12 those contained no thorough or detailed analysis of the Sandia
13 test results.

14 Others contained quite thorough engineering and
15 technical analysis of the implications or conclusions to be
16 drawn from the test results.

17 There were another group of comments which offered
18 technical information or technical analysis or commentary on
19 the petition without making recommendations with regards to
20 its disposition by the Commission.

21 MR. CASE: Let me go over those numbers again. There
22 were 14 recommending that the petition be granted; 24 was right
23 on the mark.

24 COMMISSIONER KENNEDY: Fourteen recommended that it
25 be granted.

1 MR. CASE: Yes.

2 COMMISSIONER KENNEDY: Thank you.

3 DR. MATTSON: If I could summarize some of the prin-
4 cipal areas that we have concentrated on -- in the technical
5 basis in chapter 3, one that is worth bringing up-to-date has
6 to do with the surveys on electrical connectors, the use and
7 qualifications of those connectors.

8 You will recall we did a preliminary telephone survey
9 in which we identified a number of plants which were using
10 connectors. That was supplemented by the bulletins 7705, the
11 results of which are in. On page 56 of the report there is a
12 table which is an expanded version of the one which I showed
13 as a slide the last time we met.

14 In summary, it shows that we have identified 19
15 plants having safety-related electrical connectors inside a
16 containment which are required to function in the LOCA environ-
17 ment. On the basis of preliminary information now supplemented
18 by the formal response to the INE bulletin, we have concluded
19 that qualified connectors are in use. We are continuing our
20 examination of the detailed qualification documentation. We
21 expect that that examination will be completed in January. We
22 have examined it to the point where we feel there are no sur-
23 prises in the information. It is a matter of going through
24 the specific tests, the specific temperatures, pressures, and
25 what have you, to confirm in detail what we have previously

1 judged. We don't expect any difficulties in that regard.

2 MR. SNYDER: Roger, have you received now all of the
3 documentation you asked for? This table indicates you are
4 waiting..

5 DR. MATTSON: We have received reports from all
6 operating plants. We have received the formal documentation of
7 the test information where tests were relied upon to demonstrate
8 environmental qualifications.

9 It was my understanding within the last couple of
10 days that they were still awaiting some formal documentation.

11 Karl Seyfrit, can you speak to that question? Do we
12 have all of the documentation in, and it's just a matter of not
13 completing the review yet; is that correct?

14 MR. SEYFRIT: That's not quite correct. We are still
15 awaiting formal documentation from a couple of facilities that
16 had connectors inside the container.

17 However, I might point out that the facilities in
18 question have reported the use of connectors for which we have
19 qualification information from other facilities. I suspect that
20 we will wind up getting the same material at the end.

21 COMMISSIONER GILINSKY: Can I ask you, Roger, what
22 is the legal status of someone who is operating without qual-
23 ifications? Suppose it did not exist at all. Would that be
24 covered by a regulation? Is that something covered by an agree-
25 ment with any technical specifications, or is it simply something

1 that is understood to be a commitment through part of the PSAR,
2 or what?

3 MR. CASE: I think it would be required to appendix
4 B to part 50, that they have documentation under the QA criteria
5 to support the qualification of the equipment, so if that were
6 not available, they would not be in compliance with the regula-
7 tions.

8 However, given a situation like that, the Commission
9 has a number of actions it might take in light of that situa-
10 tion, enforcement-type actions it could take. The first ques-
11 tion is the health and safety problem. Once you get beyond
12 that, then you are into what sort of sanctions are appropriate
13 in view of the fact that the licensee does not meet the regula-
14 tions.

15 DR. MATTSON: Well, you're talking about two regula-
16 tions. One is a regulation that it shall be environmentally
17 qualified. The other is a regulation that you shall have docu-
18 mentation to support that.

19 COMMISSION GILINSKY: What is the first?

20 DR. MATTSON: General design criteria 4 would be the
21 one for design environmental qualifications and appendix B to
22 part 50 would be the regulation on the quality assurance docu-
23 mentation.

24 The health and safety matter bears more directly
25 on the first, on the general design criteria 4, and has been

1 the emphasis of our review. We have said, I think, throughout
2 the last couple of months that there were some licensees who
3 were unable, in at least rapid fashion, to produce documentation,
4 and as Karl said, there are still some who have not supplied
5 that documentation yet, although they have said they are rely-
6 ing on essentially the same test information as other licensees.

7 Apparently what is involved there is the difficulty
8 on the part of the licensee in obtaining the documentation from
9 the people who performed the test, where they did not have the
10 documentation on site.

11 COMMISSIONER GILINSKY: So, in other words, if you
12 thought it did not exist at all, you would come to a different
13 conclusion.

14 DR. MATTSON: That, in fact, is what happened in
15 D. C. Cook. Yes.

16 COMMISSIONER BRADFORD: I guess I have a little
17 difficulty understanding how one set of licensees would have
18 trouble coming out with data that other licensees have already
19 submitted to you.

20 DR. MATTSON: The ones that submitted probably had
21 it at the facility. That is, they had retained it in the
22 record files and were able to just go back and retrieve it and
23 send it in, where the other had to first search his own files
24 and find it wasn't there, perhaps, and write a letter to the
25 people who did the tests. You will often run into multiple

1 tiers of suppliers, contractors, and subcontractors for a plant
2 that is several years old. You are tracing back through fabri-
3 cation records and testing records, and it could be a rather
4 difficult task.

5 COMMISSIONER BRADFORD: Well, I take it we don't have
6 to conjecture. We know which plants these are, and we must know
7 why they're having trouble providing you the documentation.
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

1 MR. SEIFFERT: I think that is true. I would
2 like to clarify perhaps one comment that Mr. Case made.
3 And I don't want to take issue with Mr. Case, but I would
4 point out that the question of documentation depends to
5 a great extent on the vintage of the plant.

6 In some cases, if you go back far enough, you
7 will find that there was no specific requirement for the
8 documentation being available or held for a specific time,
9 and some of that is very difficult to come by.

10 Dresden 1 is a good case in point where, as they
11 begin to look for their documentation, initially, they
12 did not even remember who had performed the tests, but
13 they were able to trace this back through their chain and
14 discover who had performed the test and, again, were able
15 eventually to get the documentation.

16 Some of the facilities, as Dr. Mattson has
17 pointed out, had the tests performed by other laboratories.
18 They did not retain the details of the tests in their
19 files but merely certifications that the tests had been
20 performed. And now they must go back to the laboratory
21 who had performed the tests and get the details of the
22 test results.

23 And that is the reason for some of the delay.

24 COMMISSIONER BRADFORD: Which plants are those?

25 MR. SEIFFERT: I don't have those details with

1 me today. I could look them up and get them for you,
2 but I do not remember specifically which plants we have
3 the information from and which we don't at this point.

4 COMMISSIONER BRADFORD: How does Dresden fit
5 into the picture at all? They are not on this table.

6 MR. SEIFFERT: I know, but they were one of the
7 plants initially, where we had some question about their
8 documentation of some penetration tests.

9 DR. MATTSON: You recall we did two surveys:
10 one on penetration and one on connectors.

11 MR. SEIFFERT: And it was that same process that
12 they had to go through to obtain the qualification from
13 the penetration tests.

14 DR. MATTSON: Another point I would like to make
15 under the environmental qualification area is that the
16 December 15th staff report contained the summary of the
17 state of knowledge, if you will, of the staff concerning the
18 environmental qualification of other electrical equipment.
19 There is an Appendix B to the staff report which goes to
20 some length to describe that state of knowledge.

21 If I can summarize it, the principal feature of
22 the staff actions ongoing pertaining to the environmental
23 qualification of other electrical equipment is the decision
24 to make environmental qualifications of electrical equipment
25 the first subject for consideration under the systematic

1 evaluation program. The 11 licensees in that program,
2 or currently in that program, have been told through their
3 owners group that this would be the first item, the letter
4 to the licensees telling them of the information we need
5 and the scope of inquiry we intend to make is about to
6 go out, I guess over the Christmas holidays sometime.
7 Basically, we are shooting for a three-month goal with
8 two questions in mind: first, the status of environmental
9 qualification of electrical equipment on those 11 plants;
10 and then, given some general picture there, we will make
11 a judgment on a second question, that is, the need to look
12 further at this time at the environmental qualifications of
13 the other operating plants. That is, equipment other than
14 the penetrations and connectors, which we just recently
15 looked at.

16 Our judgment at this time is that it is not
17 necessary to initiate a full-blown detailed study of these
18 other operating plants and other electrical equipment. We
19 have explained the basis for that in some detail, drawing
20 from the evolutionary history of environmental qualification
21 standards and their use in the licensing process.

22 But the systematic evaluation program gives us an
23 opportunity to confer in that judgment. We will be doing
24 that within the next 90 days. And the judgment is that if
25 we need to do more in the operating plants, we will do it.

sh 1 I would like to leave the environmental
2 qualification area in this summary -- overview, at least --
3 and speak of fire protection quite briefly.

4 As we said the last time we were up here, the
5 Sandia tests, to our way of thinking, are confirmatory
6 to our previous position on the required protection for
7 exposure fires; that is, separation and retardancy
8 criteria are not sufficient in themselves to protect against
9 the propagation of exposure fires and other measures such
10 as detections, suppression, administrative measures, and
11 so forth, are necessary.

12 The fire protection program we've described at
13 some length in our December 15th report. Its overall
14 adequacy is continuing to be supported by the report. Our
15 work is continuing on standards, as we refine the standards
16 on the basis of public comments and their use in the
17 licensing process.

18 Our review of operating plants is continuing.
19 We have given you a current picture of the status of that
20 review. Our work in the licensing of new OLs and CPs we
21 reported on in the report and our research program has been
22 summarized.

23 I might indicate that the program at Sandia is
24 continuing. Its first phase can be roughly characterized
25 as the separation tests, the subject of the petition. The

1 second topic now being studied at Sandia concerns the
2 fire retardancy capability of coatings for electrical
3 cables. The next set of tests will have to do with
4 suppression systems, fire extinguishing systems. Then
5 there will be some tests beginning in February or so on
6 our barriers, the effectiveness of barriers on stopping
7 the propagation of fire.

8 The continuing tests are providing us useful
9 information on coatings. We have yet to receive written
10 reports from Sandia laboratory. Some preliminary information
11 is that they have tested for coatings. Some do well, some
12 don't do so well.

13 We will be examining that kind of information
14 expeditiously as it is received. We continue to believe
15 the Sandia program is useful and supportive of our
16 standards development and criteria-setting activities
17 for use in the licensing process.

18 The final section of the December 15th report
19 had to do with the question of conformance with the
20 regulations, which is one of the principal thrusts of the
21 Union of Concerned Scientists' petition.

22 I could briefly summarize that by saying that
23 we believe that the general design criteria 3 and 4 are
24 being met in the licensing process and are being met for
25 operating reactors. The single-failure criterion, as it

1 appears in many of the general design criteria, we
2 believe has been misconstrued by the Union of Concerned
3 Scientists. The single-failure criteria is not a design
4 basis in and of itself; it is, rather, a way of assuring
5 the liability of the systems which have other design
6 bases. For example, the prevention of fire.

7 We have gone into some detail to try to sort
8 that out in Chapter 4 in the report. We can say simply
9 that the single-failure criteria are being met. We have
10 tried to elucidate that subject by providing with the
11 staff report a copy of a staff report on single-failure
12 criteria, which we delivered to the Commission some months
13 ago and we have appended it here, attempting to show
14 how the single-failure criteria has tended to be used and,
15 in fact, is used in the licensing process. Not just in
16 fire protection and electrical equipment, but across the
17 spectrum of safety systems.

18 That completes an overview of the report, Mr.
19 Chairman. I would be glad to answer your questions.

20 COMMISSIONER BRADFORD: I guess I have a fairly
21 broad range of questions. I don't know how you want to do
22 this. Section-by-section?

23 CHAIRMAN HENDRIE: Not particularly. Why don't
24 you go ahead.

25 COMMISSIONER BRADFORD: Well, let me just start

1 with something that picks up on what you're talking about
2 at the end, Roger.

3 On page 22 of the report, down toward the
4 bottom of the page, could you just explain a little bit
5 more -- well, the specific language that puzzles me is
6 where you say, "for fire protection it may not be necessary
7 for the system to be designed with the seismic category I
8 criteria or meet single-failure criteria because it
9 serves only as a system of last resort if other systems
10 have failed."

11 Now on its face, you say a system of last
12 resort is one you wanted to be especially careful about.

13 DR. MATTSON: It may be you're reading the
14 sentence a little too broadly. The sentence is talking
15 about the dedicated system which is described in the
16 preceding sentences.

17 Let me try to talk about what the dedicated
18 system is, and then I think it would be easier to answer
19 your questions.

20 What is being said here is that, although
21 current regulatory guides and branch technical positions
22 implementing general design criteria 3 on fire protection
23 require a measure of separation and barriers or other
24 fire protection measures which may exceed what exists
25 at operating plants, that that does not necessarily mean

1 that not all operating plants have insufficient fire
2 protection. In fact, where the review of an operating
3 plant has shown that it is physically not possible to
4 separate these systems, there are alternative ways of
5 providing fire protection.

6 One would be to provide an additional system;
7 that is, to add hardware to an operating plant or to
8 qualify existing previously nonsafety grade-type equipment
9 to another service which would provide a dedicated system
10 which, in itself, would be the system which would function
11 given a fire that wiped out otherwise redundant trains. That
12 is a dedicated system, to substitute for the separation
13 requirements in the current criteria.

14 Therefore, it leads to the description that you
15 have referred to, the one of last resort, when other safety
16 systems have failed; that is, some single failure could
17 wipe out or some fire could eliminate redundant safety
18 divisions in an operating plant.

19 If that is the case, then there has to be some
20 last resort, some other system, in order to meet the same
21 failure kinds of considerations. And that would be the
22 dedicated system and, hence, it becomes a system of last
23 resort.

24 Vic, do you want to add to that?

25 MR. STELLO: The plant at least has two independent

1 systems. The degree of independence varies, depending
2 upon the age of the plant. If it becomes difficult to
3 show for specifically fires that a fire would not take
4 out both independent systems existing, then the way to
5 accomplish still having the redundancy is to put in a
6 third system.

7 So there would now be three ways in which you
8 could assure safety. The third one you must show is
9 completely independent of the problem you're trying to
10 solve; that is, the fire. You have to put in a completely
11 separate electrical system so that the fire that you're
12 trying to protect against could not take out the two
13 systems you're trying to protect, plus this third.

14 If you did it, that is referred to as a
15 dedicated system. The combination of these two will now
16 meet the single failure.

17 Therefore, you need not make the dedicated
18 system by itself now meet the single failure because the
19 fire could not cause both the new system and the dedicated
20 system you'd be adding, depending upon the existing system
21 to be lost.

22 Hence, you come to the conclusion you don't need
23 that additional.

24 COMMISSIONER BRADFORD: What you're saying, I
25 think, makes more sense than the way it is put here.

1 CHAIRMAN HENDRIE: I think it's also worth
2 noting that because the third system would be added
3 specifically to deal with the fire situation, its
4 qualifications are related just to that fire situation,
5 rather than the full range of possibilities, seismic and
6 whatever else.

7 DR. MATTISON: But the first two would have those
8 qualifications, the seismic and whatever else.

9 COMMISSIONER BRADFORD: Now is the system that
10 you described the system that is in effect in all operating
11 plants now?

12 MR. STELLO: No, that is an option. They can
13 either find a way in which to add the fire protection so
14 that the two existing systems would not be lost. If
15 they can do that, that is acceptable. If they choose,
16 however, there is an additional way to go, and that is
17 to add this dedicated system that was chosen as an
18 option.

19 COMMISSIONER BRADFORD: But I gather from what
20 you say at this point in time they don't have to have done
21 either.

22 MR. STELLO: No. They must do either one or
23 the other.

24 COMMISSIONER BRADFORD: They must have already
25 done it.

1 MR. STELLO: They are in the process of doing
2 it now. That is what our fire review, ongoing at the
3 present time, is accomplishing.

4 COMMISSIONER BRADFORD: When does that process
5 have to be complete?

6 MR. STELLO: We will have our reviews finished
7 by December, 1978.

8 COMMISSIONER BRADFORD: When do they have to
9 have the system in place?

10 MR. STELLO: They are putting some of the systems
11 in now and depending upon the status of our review, which,
12 if it goes the way it usually does, we will require something
13 more. And they will be putting in systems past the time
14 when we will complete our review.

15 Our decisions will have been made in terms of
16 writing off on what they have in the plant, plus what else
17 we want by December of next year.

18 MR. CASE: Can you give an idea of how typically
19 much longer than that the last plant might comply?

20 MR. STELLO: It is very difficult to pick a
21 particular date, but normally, there might be some activity
22 which would be most convenient to accomplish. And we would
23 agree that it is proper to wait that long for that
24 particular item, to cause that activity to be coordinated
25 with a refueling outage. And they might have to get

1 inside the containment or inside areas that we would not
2 want them to work in while the plant is operating.

3 So we would have them install that equipment
4 during their scheduled refueling. So that could be any
5 time, as much as possibly a year, to install some
6 additional equipment.

7 So if I had to guess, I would guess it might
8 be as long as a year or so beyond the December date for
9 not all, but specific pieces of hardware might be
10 installed.

11 COMMISSIONER BRADFORD: But I gathered from the
12 thrust of the report that the general design criteria is
13 that there's three or four of them?

14 MR. STELLO: Three is fire.

15 COMMISSIONER BRADFORD: Okay. In your estimation,
16 it is being met?

17 MR. STELLO: Yes, sir.

18 COMMISSIONER BRADFORD: Even though this
19 additional system is not in place?

20 MR. STELLO: That is true.

21

22

23

24

25

1 COMMISSIONER BRADFORD: Could you explain again why
2 that is?

3 MR. CASE: Because the branch technical system,
4 which is the ultimate goal, takes into account all knowledge that
5 we have today and takes into account -- and the satisfaction
6 of general design criteria 4 on the basis of that, takes into
7 account the probability of fire and the number of plants. It
8 is a moving target, and today we believe that with their exist-
9 ing equipment, plus the requirements that we put on for house-
10 keeping, minimizing fires, administrative procedures, and the
11 requirements we are in the process of putting on with regard to
12 other administrative procedures, fire brigades satisfy the
13 minimum requirements of the general design criteria 3 today.

14 COMMISSIONER BRADFORD: And that is based in part
15 on a conclusion having to do with the improbability of the fire?

16 MR. CASE: Yes.

17 MR. STELLO: One very important point -- all of
18 these plants, except for one who has got some additional informa-
19 tion to submit, has submitted a program which has analyzed the
20 plant in conformance with the branch technical position 9.5.1,
21 which implements the requirements of fire protection.

22 So, in terms of the licensee's point of view, they
23 have submitted to us something that, in their view, meets our
24 requirements. And we usually look, typically, to licensing,
25 the licensing process. We look at what they give us, and we

1 review it, and typically we have discussion and debate as to
2 whether they are doing what we really want them to do, and we
3 wind up adding some more. And that is the part of the review
4 process where there is usually more and more added to what he
5 already has committed. But they have done the first part of
6 this, which is, we sent them the branch technical positions and
7 said, "Do it," and they sent their response back to us with one
8 exception where there is some additional information coming in
9 on one plant. So, all of the 65 have done that part of it.

10 COMMISSIONER BRADFORD: What is the interrelationship
11 between a branch technical position and a general design cri-
12 teria, technical specifications and regulatory guides and
13 regulations?

14 DR. MATTSON: Well, let's start at the top and work
15 down.

16 The regulation, NCR part 50, is the regulation of
17 interest here. The general design criteria is something like
18 67, and they are contained in appendix A to 10CFR part 50.

19 COMMISSIONER BRADFORD: You don't have to be meeting
20 the regulatory guide to meet the criteria?

21 MR. STELLO: That's right.

22 DR. MATTSON: The regulatory guides would be the next
23 lesser step of formalism. They are one way of meeting the
24 regulation.

25 MR. CASE: And I should point out here, not

1 necessarily a minimum, since they are a staff way of meeting
2 the general design criteria, hence are applicable to all plants.

3 DR. MATTSON: The generic nature makes them more
4 conservative than a minimum way of meeting a regulation on a
5 specific plant, taking into account the design of that plant.

6 Now, the regulatory guides would be guidance to
7 licensees or applicants on how to meet the regulations. The
8 branch technical position on the other hand is guidance to the
9 staff on how to perform its review under the regulations. That
10 is the procedures, the methods, the criteria, the findings to
11 be used or that follow from the staff review.

12 COMMISSIONER KENNEDY: Which, in a sense, also
13 provides guidance.

14 DR. MATTSON: Yes, it does, and is widely used in
15 that respect. It is a much-used document.

16 COMMISSIONER BRADFORD: And if the licensee is not
17 meeting the branch technical position, there may still be other
18 ways for them to comply with the general design criteria.

19 MR. CASE: Yes, as well as regulatory guides.

20 DR. MATTSON: And the branch technical positions in
21 the standard review plan are still just one way of coming at
22 the problem. We often find ways, designs that aren't treated
23 by the standard review plan, new ways of coming at a problem
24 that haven't been seen before in the licensing process, in which
25 there are no well-developed review methods. Nobody has thought

1 about acceptance criteria in a general sense before. When an
2 applicant proposes those, we are bound to review them. And so
3 you can look at the standard review plan, also, as one way of
4 meeting the regulations. It is often the acceptance criteria of
5 the standard review plan simply don't apply to a given design.
6 We have to come up with another criteria.

7 COMMISSIONER BRADFORD: The last one, then, was
8 technical specifications.

9 DR. MATTSON: Those are contained in the license for
10 a specific facility, and they generally set the limit and con-
11 ditions of operation for the facility under the terms of the
12 license.

13 MR. CASE: In effect, it is a license condition.

14 COMMISSIONER BRADFORD: You do have to meet that to
15 comply?

16 DR. MATTSON: Yes.

17 MR. CASE: It is another name for a license condition.

18 COMMISSIONER BRADFORD: So they would be sort of
19 supplemental to the general design criteria that you had to meet
20 to get the license in the first place.

21 MR. CASE: Well, they are more limits on operating
22 parameters as distinguished from the general design criteria
23 which are design requirements.

24 DR. MATTSON: The general design criteria would be
25 applicable to everybody. The license would be applicable only

1 to that particular facility.

2 CHAIRMAN HENDRIE: Do you want to take a break for
3 a minute, Peter?

4 COMMISSIONER BRADFORD: I do have some others, but
5 I don't want to jump around.

6 CHAIRMAN HENDRIE: Well, if you are ready to go ahead,
7 why, go ahead.

8 COMMISSIONER BRADFORD: Okay.

9 With regard to a couple of the Union of Concerned
10 Scientists' specific requests, that is, the notifying of the
11 licensing boards and the hold on construction permits, would
12 it be a fair summary of your response to that is not that what
13 they are after isn't necessary but that it is already in
14 effect, that the licensing boards are applying these considera-
15 tions?

16 DR. MATTSON: They did not specifically ask us to
17 notify the boards, although that action has been taken. What
18 they asked us to do was to tell the boards to cease considera-
19 tion of CPs and OLs until these general design criteria 3 and 4
20 and some failure criteria were met.

21 Our response is that they are being met in the
22 licensing process and there is no need to notify the boards
23 to cease consideration of these matters.

24 Now, we have taken steps to notify boards that have
25 plants where electrical connectors exist or penetrations for

1 that matter of the existence of the UCS position and the status
2 of staff thought on the qualification of connectors for that
3 particular facility.

4 COMMISSIONER BRADFORD: Does that include connectors
5 and fire protection as well?

6 DR. MATTSON: Not on fire protection. As we reported
7 earlier to you, the Sandia tests do not add new safety informa-
8 tion beyond what we already presumed to be true in the fire
9 protection review for all plants in the licensing process, and
10 therefore it is not material, new information, and it has not
11 been brought to the attention of the boards.

12 CHAIRMAN HENDRIE: I'm sorry, I missed the front end
13 of that. There was a question I was going to ask, and I see
14 Joe Scinto wanted to make a comment.

15 Should I ask you to repeat, and then to get your
16 comment?

17 MR. SCINTO: Yes.

18 DR. MATTSON: We have not informed the hearing boards
19 on the results of the Sandia fire tests on the basis that it
20 is not material, new information. It is information of a
21 confirmatory nature which confirms a presumption which underlies
22 the current staff criteria applied to all plants now in the
23 licensing process, insofar as fire protection is concerned.

24 COMMISSIONER KENNEDY: That has been true since when?

25 DR. MATTSON: Well, it flowed from the Browns Ferry

1 fire and these were issued over a year ago and have been applied
2 to branch technical positions for some time. I can't think of
3 the specific date, but it has been ongoing.

4 Joe?

5 MR. SCINTO: I just wanted to add that that is being
6 done. We did do that for the McGuire board. McGuire had a
7 proceeding before the board, and there was a question about
8 whether this Commission should inform that board. I don't think
9 we have informed any other boards thus far. The information we
10 have gotten with respect to connectors, for example, the plants
11 on page 56, none of those are before hearings.

12 I have on my desk that I got sometime last week the
13 package of responses from all of the licensees in response to
14 bulletin 7705. I'll be going through that to determine whether
15 any of those are pending before any board, and if there are
16 any others pending before boards, we will send that information.

17 COMMISSIONER KENNEDY: This would include all people
18 holding construction permits?

19 MR. SCINTO: Yes.

20 DR. MATTSON: There is one other set of information,
21 and that is that the people under construction had an additional
22 30 days to respond to 7705, by January 8, and we will be dealing
23 with that. The people under CP review, we have said in the
24 report that it is not likely that we would see connectors at
25 this level or this stage of review, at the construction permit,

1 where we were reviewing design criteria and methods and what
2 have you and not looking at the detailed design.

3 CHAIRMAN HENDRIE: Although, with the circumstances,
4 the question may arise specifically and it may come up now here
5 with a petition.

6 COMMISSIONER KENNEDY: I just wanted to clarify that,
7 in fact, any plant now under construction will have been examined
8 and the licensing will have looked at this and they will comment.

9 MR. SCINTO: I'm sure they will.

10 CHAIRMAN HENDRIE: Let's see. Let me try to under-
11 stand, then, the notification situation. Your feeling is that
12 with regard to the cable fire matters that the tests -- the
13 issues raised following from the tests and the UCS position are
14 not new information which should be taken to the boards, that
15 information is implicit in the staff's review for fire protec-
16 tion and has been since at least the Browns Ferry fire, and the
17 adaption of the fire protection action plan.

18 MR. CASE: Yes.

19 CHAIRMAN HENDRIE: With regard to connector matters,
20 such notification is occurring, as is occurring, is related to
21 information coming in from licensees and applicants as to the
22 qualification status and the staff's conclusions about an agree-
23 ment with or lack of agreement with those conclusions.

24 MR. CASE: Yes, sir. If they are connectors, and
25 the matter is pending before a board, that board is notified

1 of the position.

2 DR. MATTSON: But we would notify them before we com-
3 pleted the review of qualification for those connectors. We
4 would notify them immediately upon learning of the existence
5 of those connectors. That is material and relevant information
6 for that hearing, and our instructions are to notify boards
7 before we have completed our review.

8 CHAIRMAN HENDRIE: So that if there were --

9 DR. MATTSON: Which is, in fact, what we did with
10 McGuire.

11 CHAIRMAN HENDRIE: So, if there is a proceeding
12 underway and you learned that connectors either are being used
13 if it is an OL or may be used if it is a CP, you notify the
14 board and this does not depend upon whether or not you think
15 there are environmental qualifications -- adequate qualifica-
16 tions, documentation in hand at the moment.

17 DR. MATTSON: We would indicate to the board the
18 process we have had underway to reach that conclusion, if, in
19 fact, we did not have it at the same time we had the information

20 CHAIRMAN HENDRIE: But you would notify either way?

21 DR. MATTSON: That's right.

22 CHAIRMAN HENDRIE: So the board would know what the
23 situation was.

24 DR. MATTSON: Yes.

25 MR. SCINTO: Mr. Chairman, I want to indicate that

pv10

1 we notify those boards for which there is some issue somewhere
2 near the subject. For example, there are two boards still, in a
3 sense, sitting on cases on this page 56. In Peach Bottom there
4 is still a question before the appeal board relating to a
5 water quality certification matter. I don't think I will send
6 a copy of that. It really isn't relevant to water certification.
7 I will be talking to a lawyer on the case to be sure that is
8 true. And Oyster Creek --

9 CHAIRMAN HENDRIE: I don't know, Joe. Let me say
10 I have a very sensitive feeling about cases in which proceedings
11 are open pending the receipt of water qualifications data. And
12 the other one was --

13 MR. SCINTO: Oyster Creek. And that had to do with
14 the matter of shipworms in Barnegat Bay, and we would look at
15 the case to see whether they would all be deemed in any sense
16 relevant to the subject matter of the proceeding. We still
17 have that obligation, although we are not supposed to evaluate
18 a significant item. We should send them only relevant material.
19 I don't think it is relevant, but I will be discussing that
20 with the particular lawyer on the case.

21 CHAIRMAN HENDRIE: Okay. I am fighting desperately
22 to make -- to not make some remark about shipworms, and I think
23 I am succeeding.

24 Peter, you were -- this discussion interrupted a
25 line of questions that you had underway.

1 COMMISSIONER BRADFORD: Well, calling it a "line"
2 dignifies it somewhat.

3 Staying with the question of notification, on the
4 UCS request, am I, in looking at that, at least that No. "D,"
5 it seems to me to say -- unless there's another way to read it
6 -- that in effect the license and appeals board should be asked
7 to doublecheck in areas that they ought to be checking thoroughly
8 anyway.

9 MR. CASE: Could you give me a clue to the page, sir?

10 COMMISSIONER BRADFORD: Well, page 2.

11 CHAIRMAN HENDRIE: And your summary discussion is
12 on page 10.

13 COMMISSIONER BRADFORD: In other words, what they
14 are asking those applicants to demonstrate to the boards -- the
15 compliance with the regulations, including specifically -- and
16 then it goes on -- why wouldn't that be routine?

17 DR. MATTSON: It is routine for an applicant to have
18 to show that, and what we have said is that, given that that
19 is done routinely before the boards, the only thing new is
20 the possible consideration to call to the attention before the
21 boards and has gone somewhat beyond the request of the peti-
22 tioner, is the materiality and the relevance of the Sandia test
23 results. But, given our conclusion that the general design
24 criteria and the single-failure criteria are being met and that
25 that is a matter before the boards and discussed and documented

1 before the board, that there's nothing flowing from the Sandia
2 tests that would change that, except in those cases where there
3 are connectors identified in plants pending before boards.

4 MR. CASE: I guess we could say, "Yes, do that,"
5 because that is the present instructions. Is that what you're
6 driving at?

7 COMMISSIONER BRADFORD: I was trying to understand
8 whether there was more than appeared on its face.

9 MR. CASE: Well, frankly, yes. I interpret it to
10 mean there is a problem, therefore tell them to halt until
11 something is done. It is the implication, rather than the words.

12 COMMISSIONER BRADFORD: But there's something being
13 done is the meaning of criteria.

14 MR. CASE: Yes, but the implication that what is
15 being done now in showing satisfaction that these criteria is
16 inadequate, therefore halt that process until some other more
17 adequate proof is given.

18 MR. NELSON: It is the phrase "demonstrate compli-
19 ance." You say, "Yes, they have." UCS says, "No, they haven't."

20 MR. CASE: Yes. We are showing that now.

21 MR. NELSON: So, you say you've complied with them.

22 DR. MATTSON: We are saying a little bit more than
23 than. We have said that what the staff has done complies with
24 the request, indeed, that is before the Commission and we have
25 described to you why we think "D" need not be done, because it

1 doesn't accomplish anything beyond what has already been done.

2 COMMISSIONER GILINSKY: What is it that need not be
3 done?

4 DR. MATTSON: To halt licensing activities pending
5 before boards until 3, 4, and the single-failure criteria are
6 met, and the reason for recommending that it need not be done
7 is that 3, 4, and the single-failure criteria are, in fact, met.

8 COMMISSIONER GILINSKY: But aren't you saying that
9 no construction permits or operating licenses are to be issued
10 unless compliance with these regulations is demonstrated?

11 MR. CASE: Yes.

12 COMMISSIONER GILINSKY: So, what you're saying is,
13 you don't think additional notification or additional drawing
14 new attention to this item is necessary?

15 DR. MATTSON: That's right.

16 COMMISSIONER GILINSKY: But it might be useful.

17

18

19

20

21

22

23

24

25

5888.04.1

1 DR. MATTSON: Drawing attention to whether
2 that is useful or not, it's a separate question from whether
3 or not the Commission would take an action to cease
4 activities. The petitioner doesn't ask you to simply
5 inform the boards. He doesn't, in fact, speak to the
6 question of just informing the boards in these six requested
7 actions.

8 MR. CASE: But I think reading that request
9 should be done in the context of the other ones. It
10 doesn't all say keep on doing what you are doing.

11 COMMISSIONER GILINSKY: But aren't you saying
12 that we are, in fact, doing that. So it comes down to --

13 MR. CASE: If you pull it out of context and
14 look at it, yes, you could say that we are doing that,
15 because we believe these criterion regulations are being
16 met now and it is demonstrated to the satisfaction of the
17 boards before they issue CPs.

18 COMMISSIONER GILINSKY: Well, in saying that
19 you are recommending -- in Iowa, the request, you simply
20 are saying that you don't think any additional notification
21 is necessary.

22 MR. CASE: Yes.

23 COMMISSIONER BRADFORD: There is a funny semantic
24 at work here. That is, at the time D was filed with us,
25 you were not routinely notifying licensing boards of, for

5888 .2
h 1 example, connectors, and having problems with them.
2 Since then, we are, in fact, notifying licensing boards.
3 Whether you say that as a result of that, we are denying
4 D, or have, in fact, already granted the use of Ds.

5 DR. MATTSON: Well, you will recall that our
6 initial response was we did not know of the existence of
7 connectors, where we have found a plant in the licensing
8 process with connectors.

9 MR. MC GUIRE: We notified the board forthwith.
10 We know of no others at this point, so we have not
11 notified other boards.

12 COMMISSIONER BRADFORD: Now as to fire protection
13 in that context, I think you would have out before me the
14 timetable as to existing plants. What about plants in
15 the licensing process?

16 Are they supposed now to be meeting a condition
17 consistent with the branch technical positions?

18 MR. STELLO: In the case of plant?

19 DR. MATTSON: Yes, sir.

20 MR. NELSON: Now you're not suppressing any
21 dissent there.

22 MR. CASE: I don't think so.

23 CHAIRMAN HENDRIE: We will have to wait and see.
24 If it is professionally done, we are prepared to accept it.

25 DR. MATTSON: Yes, they are required to meet

5888-4.3

sh 1 the review criteria, 9.5-1, and the regulatory guide
2 1.120.

3 Plants at the operating stage are required now
4 to come into conformance with those guidelines also.

5 Is that responsive to your question or was
6 there something more to it?

7 COMMISSIONER BRADFORD: I guess what I'm after
8 is to be sure that we are not licensing plants today on
9 the basis that we would then be invalidating it at the
10 end of 1978.

11 MR. CASE: Why don't you try it this time,
12 Dick. It is a moving target as well as for the operating
13 plants. Let me see if I can say it and then you can
14 disagree with me.

15 As of January of next year, '78, no operating
16 licenses will be issued unless the staff has completed
17 its review in accordance with branch technical position
18 9. whatever. Having completed its review does not necessarily
19 mean that the plant implementation of those requirements
20 agreed upon will be done. There will be this implementation
21 period.

22 So starting in January, every plant will be
23 reviewed completely against the new criteria for an operating
24 license and they will have a time.

25 Now the ones before that time have been turned

5888 .4
1 over to Vic in the operating reactors, and he fits them
2 in with his program for implementing the branch
3 technical position on operating procedures.

4 MR. STELLO: I agree with everything Mr. Case
5 said, except I would like to make January, February.

6 COMMISSIONER BRADFORD: Let me ask it slightly
7 differently.

8 If Browns Ferry came in for an operating license
9 today, would they get it?

10 MR. STELLO: On the one they have now?

11 COMMISSIONER BRADFORD: No.

12 MR. STELLO: No. We would require more of them
13 than we did originally about what they have now.

14 MR. CASE: But no more than what they have now,
15 except for the implementation, which is not done yet.

16 COMMISSIONER BRADFORD: And what is it that
17 specifically has changed since then? A regulation? A
18 reg guide? A branch technical position?

19 MR. STELLO: It began with the branch technical
20 position.

21 COMMISSIONER BRADFORD: The general design criteria
22 and the regulations are the same?

23 MR. CASE: Yes. And the basis for the change
24 in the branch technical position or the reg guide. Our
25 idea of what will satisfy, or more than satisfy, the general

58884.5

1 design criteria is the increasing knowledge that has
2 developed and, in particular, with the Browns Ferry fire.

3 COMMISSIONER BRADFORD: On page 37, you refer
4 to an interim fire protection technical specification that
5 has already been proposed.

6 I take it being proposed is not the same as
7 being implemented.

8 MR. CASE: That is correct. The way it goes is
9 we write a letter to the licensees, and we have on all of
10 these operating plants, and say we propose to amend your
11 technical specifications in the following manner. Dot, dot.
12 And then it lists, unless we hear from you within 20 days,
13 this will be done. So we are in that phase.

14 COMMISSIONER BRADFORD: Why would it take whatever
15 it is, 2 plus years since Browns Ferry, to go through that
16 part of the exercise?

17 MR. STELLO: The Browns Ferry fire started a
18 process where we reviewed what we were doing and that took
19 us a substantial period of time, nearly a year, for the
20 study group and for the staff to eventually come up with
21 what changes would be required, and they evolved in that
22 period of time.

23 And then we had to develop the specific guidance,
24 which we did, and send it to the licensees. They, in turn,
25 had to have sufficient time to look at their plants and get

5888 .6
1 the plants to conform to these new requirements. And
2 then they sent them in to us and we had to have some time
3 to review them and agree with what they have done, and
4 with the number of plants you have and the administrative
5 process and the limited resources.

6 MR. CASE: Let me say it another way.

7 We have completed now, we have gone through
8 enough of that and gone through at least, I believe, two
9 plants where we have finally decided what we want in
10 light of this new branch technical position, including,
11 most specifically, the administrative requirements in terms
12 of fire brigades and things like that, for me to conclude
13 that for all of the other reviews yet to be completed, we'll
14 come out essentially in the same way as the administrative
15 requirements. Given that, now let's impose those
16 administrative requirements on the rest of the operating
17 plants.

18 We have now enough of the review process to
19 understand how it is going to come out essentially on all
20 plants on the administrative side.

21 So let's apply that now as it can be done
22 without waiting for new equipment and lengthy exchanges or
23 evaluation by the staff.

24 COMMISSIONER BRADFORD: But the reason you would
25 not put out -- I guess the part that is puzzling me is you

5888-4.7

sh 1 actually go through a process of getting plants up to
2 speed before you put out the technical specifications.
3 That doesn't go out. The interim technical specifications
4 did not go out until we knew everybody, or almost everybody,
5 to meet it.

6 MR. STELLO: We have confidence that everyone
7 can generally meet these interim technical specifications.
8 Then when we are finished and all of this equipment is in,
9 then we will have to develop a final set of technical
10 specifications that relate to all of the equipment that
11 is there and that will take place after the review is
12 finished.

13 These, you realize, are being done in an interim
14 fashion. The reviews are not complete on all of the plants.
15 We are taking some of the more significant items and
16 formalizing them through the technical specification process.
17 And they will be enforceable because there will be license
18 conditions.

19 And then when our review is complete, we will
20 need to go through and then come up with, we will go from
21 these interim technical specifications to a set of final
22 technical specifications at the time we write off, literally,
23 on the design of the fire protection program.

24 COMMISSIONER BRADFORD: Okay. It may not make a
25 big difference, but when the interim technical specification

5888-4.8
1 takes effect at the end of that 20 days, it is
2 effective immediately. There's no further time period
3 involved.

4 MR. CASE: Unless the licensee chooses to
5 disagree.

6 MR. STELLO: Even if he agrees, we have to
7 allow the time to go through the review process and revise
8 his procedures which are required by us to implement them.

9 There will be some time needed to now, once
10 we have agreed on what they are, to actually write them
11 into the procedures in this plant.

12 So immediately effective is the wrong
13 characterization. It is a very formal process that he
14 has to follow, which is required by a license condition
15 in implementing them.

16 So there will be some time after.

17 COMMISSIONER BRADFORD: Why is that a better
18 way than after the end of the first year when we have done
19 the review of what we are doing and had some idea of where
20 we had to go than putting out a document, I guess, which
21 would not look very different with specific time deadlines
22 in it, instead of waiting that second year and then putting
23 something out that is subject to further negotiations?

24 MR. STELLO: I don't think we could have done it
25 a year ago.

588 4.9

1 sh . 1 COMMISSIONER BRADFORD: Because we needed to
2 know more?

3 MR. STELLO: Yes, because there is enough
4 differences in individual plants where they needed to be
5 individualized. You're dealing with a spectrum of plants,
6 some of which are nearly 20 years old, and at the time,
7 the arrangement of that plant was different. And if you
8 look at each individual plant, there is enough differences
9 to where you need to at least have some understanding of
10 how you can generalize them to the plants.

11 I think a year ago I just don't think we could
12 have done it. That is my judgment.

13 CHAIRMAN HENDRIE: Could you make some comment
14 about such things as housekeeping measures and so on with
15 regard to flammables in the operating plants?

16 My impression is, and I would appreciate
17 clarification, that the situation is not quite that nothing
18 has been done in any of the operating plants, that years
19 have gone by and years will go by, but rather, that there
20 has, indeed, been a rather substantial concern from the
21 operators of the plants that are in operation about this
22 possibility.

23 I would think that there would have been a
24 review of the procedures so that operators could try to
25 assure themselves that they did not have some sort of

5888 .10

1 maintenance procedure that they were using routinely,
2 like TVA's candle procedure, which was an obvious fire
3 hazard. And I would suspect that good operating staff,
4 in fact, would have doubled up its attention to house-
5 keeping matters and the cleaning out of inflammable
6 materials from areas where there is a sensitive need
7 to a fire, and particularly with regard to disabling
8 redundancy of these systems. And I would appreciate some
9 comment.

10 Am I too cheerful in this view, or what?

11 DR. MATTSON: No, sir, you are not too cheerful.
12 You can refer back to page 37, where Commissioner Bradford
13 was reading about the interim technical specifications
14 on fire protection. There is a list of essentially the
15 items that you have just enumerated. Administrative
16 controls on the handling and storage of combustible
17 ignition sources, areas that contain safety-related systems
18 modification have been and continue to be made, retardant
19 fire detection, fire-fighting capability, operating procedures,
20 to develop the licensees to assure safe shut down in the
21 case of a fire, and the additional modifications being made
22 to operating plants to decrease the severity of a fire
23 and the increase the plant's ability to cope.

24 We refer elsewhere in the report to the
25 inspections and subsequent inspections by the Office of

5888 .4.11

1 sh . 1 Inspection Enforcement following the Browns Ferry fire
2 and the study group report to speak to the control of
3 combustibles.

4 COMMISSIONER BRADFORD: If I understood the
5 legal framework correctly, it wasn't until the technical
6 specifications came that you actually had an enforceable
7 document; that is, the better operators have done this,
8 and you've encouraged all of them to do it. And one
9 would hope they all have. But if you actually wanted to
10 crack down, the first time that you have the legal
11 basis to do it, given the general design criteria and
12 the regulations are the same, that these would be in the
13 technical specifications.

14 DR. MATTISON: I think that is true, except
15 the ability of an inspector to cite the licensee for
16 failure to comply with general design criteria 3 -- that is,
17 if, in the inspector's view, the licensee is not in
18 conformance with adequate fire protection equipment. On
19 the other hand, you can't lay down detailed technical
20 specifications on the operation of a plant, lacking knowledge
21 of what should be in those specifications.

22 And that is what Mr. Stello has said, that he
23 could not issue these interim technical specifications a
24 year ago. He had to know what to put in them, which
25 required study of the plants.

5888.12

1 MR. SHAPAR: And also, he had to have a legal
2 basis for shutting down to show that they had a safety
3 problem.

4 COMMISSIONER KENNEDY: Karl, did you want to
5 add something to that?

6 MR. SEYFRIT: I thought I might talk a little bit
7 about things that we in INE have done. And immediately after
8 the Browns Ferry fire and long before the special study
9 group's report was finished, we had done a couple of things.
10 We issued some bulletins to licensees to look at specific
11 facets of their fire protection program, which included
12 the procedures, not to use handles to make sure that any
13 welding operations and that sort of thing were properly
14 supervised and monitored.

15 We also within our own organization set up
16 additional inspections in the area of fire protection. And
17 it might be worth noting that prior to the Browns Ferry
18 fire we, rightly or wrongly, in INE relied heavily upon
19 the inspections that were being performed at that time
20 by the various insurance companies, and we, as such, were
21 not really making much effort to do specific fire protection
22 inspections.

23 Following the Browns Ferry fire we recognized
24 that was not sufficient. So we now have incorporated into
25 our inspection program specific fire inspections which we

5888 4.13

1 do once per year. And in addition to that, I think it
2 is once a quarter, or perhaps even more frequently.

3 On our routine inspections, we do walk-throughs
4 of the plant where we look specifically for things that
5 might be related to fire hazards, piles of rags, the kinds
6 of things that the insurance companies used to do.

7 So we have taken some fairly significant steps,
8 I think, in our programs to assure that the plants' fire
9 protection capabilities have been improved.

10 The bulletins that we put out requested that they
11 do a number of things. Among them was to do some checking
12 on those areas where they used fire protective coatings to
13 make sure that those coatings, or the integrity of those
14 coatings, was being maintained.

15 That was one of the things at Browns Ferry, where
16 apparently that integrity had been there once in some cases,
17 but had been damaged by subsequent work.

18 So those are the kinds of things that we have.

19 DR. MATTSON: There is a list of those things
20 in specific at page 16.

21 CHAIRMAN HENDRIE: One other note of a semi-
22 technical nature.

23 I recall that classically, in my limited fire
24 protection education, going back more years than we ought
25 to discuss, one did not put water on electrical fires. It

5888 .14

1 was the conventional wisdom of the day.

2 I suspect that conventional wisdom had a lot
3 to do with the reluctance of the operators at Browns Ferry,
4 to put the hoses into the cable spreading rooms.

5 As I remember it, and tell me if I remember
6 correctly, when they finally decided to get some water in
7 there, or at least some fog nozzle-delivered water, why,
8 it helped things considerably, and my impression has been
9 that if they had done it a number of hours earlier, there
10 would have been a considerable improvement in the situation.

11 And I wonder if that is a correct impression. And our
12 people have gotten over the old drivel that you should not
13 put water on electrical equipment.

14 MR. STELLO: I think a direct answer is it is
15 generally now accepted that you need to use water on
16 electrical equipment.

17 CHAIRMAN HENDRIE: Or at least it is not the
18 worst possible thing that you can do.

19 MR. STELLO: Right. I think the problem they had
20 is the heat that was retained within the fire was intense
21 enough that after they would put it out with chemical means,
22 it would start up again, and until they, in fact, cooled
23 it down with the water, which is what the water did do, and
24 then they had it under control.

25 It is my opinion, and there is some speculation

5888 .15

sh 1 in Browns Ferry, if they had done it earlier, would it
2 have made a real big difference? I think that is
3 subject to a lot of debate. I think there are enough
4 people that would argue either side of that one.

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

HEER
CP#5888
5
OKW 1

1 COMMISSIONER BRADFORD: This is the reason that you
2 just put Regulatory Guide 1.120 out for another year? But
3 there is some difference between the staff and the ACRS on
4 among other things, at least the water on electrical fires?

5 MR. CASE: I don't think that is the primary basis
6 for the staff-ACRS disagreement. I think the ACRS' view, at
7 least in some of these fires, are that one ought to require the
8 so-called dedicated system, and not to go through all of the
9 other measures that are required by Reg Guide 1.2, and we
10 don't agree with that, at this point in time, at least.

11 COMMISSIONER BRADFORD: But one of the bases for
12 that is, you do feel that water is an acceptable use?

13 MR. CASE: And we do provide as an alternative the
14 dedicated system. Some of these ACRS views would make it a
15 requirement rather than an alternative.

16 COMMISSIONER BRADFORD: But is their view in any
17 way bottomed on the undesirability of putting water on?

18 MR. CASE: I don't think so.

19 MR. FERGUSON: Your summary is correct.

20 COMMISSIONER BRADFORD: I'm about done with fires.

21 CHAIRMAN HENDRIE: Well, while we are on the
22 cables, we could see if anybody else has questions?

23 COMMISSIONER KENNEDY: I have one question, and
24 that goes to the first request of the petition that is, to
25 permit and direct the staff to accelerate the programs for the

dkw 2

1 physical separation. And the staff sees no immediate need to
2 go to the physical separation. And I understand the reasoning,
3 which was very clearly outlined, and has been stated here, that
4 there is no need to do this.

5 The question is: would it be in any sense
6 desirable to do it, aside from me. I realize that you don't
7 have to do it. The question is, would there be any benefit
8 of any consequence derived if you did accelerate the testing?

9 MR. CASE: Just the separation part of the testing?

10 COMMISSIONER KENNEDY: That is what the proposal
11 says.

12 MR. CASE: The request is limited to the separation.

13 MR. FERGUSON: With regard to some of the fire protection
14 programs we have going, we would like to see the confirmatory
15 tests run as soon as we can have them; it would be helpful
16 to us.

17 MR. CASE: But what about just the separation part?

18 MR. FERGUSON: No.

19 COMMISSIONER KENNEDY: Why would there not be any
20 benefit?

21 MR. FERGUSON: From separation?

22 MR. CASE: From accelerate separation?

23 operating plants, and we are not relying on separation in the
24 operating plants, we are relying on the other protective
25 measures which are going in, and we would like confirmatory

djw 3 1 tests of those measures. We believe they are satisfactory,
2 but the sooner we can get the confirmatory tests run, the more
3 solid our position will be.

4 COMMISSIONER KENNEDY: What you are saying then is
5 you would rather devote the resources that would be required
6 for the confirmatory test on the new procedures, rather than
7 on a separation which you are not relying on anyway?

8 MR. FERGUSON: Yes, sir.

9 COMMISSIONER KENNEDY: Thank you.

10 COMMISSIONER GILINSKY: But it did sound like you
11 would like to have the program speeded up.

12 DR. MATTSON: We might ask the Office of Research
13 whether they can speak to that about the desirability methods
14 of the contract. Ron, can you speak to that?

15 MR. FEIT: Well, taking up a program, in a test-type
16 program, takes a certain amount of time. You have to have
17 the right people, and you have to get the facilities built.
18 And we are operating now at Sandia Laboratories with what
19 we consider full cycle or full-scale. It will probably be a
20 matter of getting an additional test facility. And in any
21 event, we probably could not get that program going in earnest
22 for about six months.

23 DR. MATTSON: And that is a time frame consistent
24 with quite a lot of progress at Sandia in the next six months,
25 and as I described, they're in the second phase of the program

dkw 4

1 and moving in to the fourth phase of the program by February,
2 and moving right along.

3 MR. FEIT: The present facilities right now are being
4 run full time. We also have an additional contract which
5 probably has not been discussed in conjunction with this
6 hearing, at Underwriters Laboratory, and we have revamped --
7 rescheduled some of that work to take into account so many
8 additional separation questions that have been asked, particularly
9 with regard to heretically oriented cable trays, so we have
10 taken some steps in answer to the allegation in the petition.
11 Both laboratories now, insofar as the contracts go, we are
12 working full time on these issues.

13 COMMISSIONER GILINSKY: The staff response here says
14 that the staff does not believe that the fire protection and
15 research program should be accelerated. Now, is that because
16 it is going as fast as it can? Is that the way I should
17 understand it?

18 DR. MATTSON: The staff is saying here that there
19 is no need to accelerate it. As Mr. Kennedy went to the
20 desirability, and I took desirability to the question of
21 possibility. I think we have addressed all three points, and
22 they come down to the kind of summary recommendation in the
23 staff report which says, "Don't accelerate them."

24 MR. CASE: The first sentence goes to need rather
25 than desirability as written here, although it is not completely

1 clear.

2 COMMISSIONER KENNEDY: But it does as well later.

3 It says, "The staff sees no immediate need to devote resources
4 to physical separation beyond those presently in the test
5 program." I just wanted to be sure that as contrasted with
6 need, that it might not be desirable, if you suggested that
7 you would not get that much from it.

8 COMMISSIONER BRADFORD: I was having a little
9 trouble with the distinction of need and desirability. And
10 that relates to the word "desirability", and that is, does
11 anybody want it? Normally, I would think desirability and need
12 are pretty close together.

13 MR. CASE: I draw a very strong distinction between
14 the two. There is hardly anything that I can program -- any
15 research program that I can think of that the staff would not
16 desire more money be spent on or be done faster. I think
17 this is close to -- that you ever get to a question that
18 such as Commissioner Kennedy posed.

19 COMMISSIONER BRADFORD: Well, you are, I think,
20 agreeing though more or less with what I said, that desirability
21 as you were using does relate to whether or not someone on the
22 staff would desire to do it?

23 MR. CASE: Yes.

24 COMMISSIONER BRADFORD: But you just said in the
25 abstract it is something that is desirable.

1 Well, that's not very different from saying it is
2 necessary.

3 COMMISSIONER KENNEDY: It's a difference between, it
4 would be nice to have --

5 DR. MATTSON: Versus I've got to have it.

6 COMMISSIONER KENNEDY: That's right.

7 COMMISSIONER BRADFORD: On the connector question,
8 the second of the UCS requests directed the staff to accelerate
9 the testing program for environmental qualification connectors.

10 I understand your description of the program.
11 actually in effect, we don't know have a program inthe
12 environmental qualification standards. What we were doing was
13 testing the test, and the connectors happen to be what we
14 were testing at the test.

15 MR. CASE: Yes.

16 COMMISSIONER BRADFORD: Would it be useful, inlight
17 of the experience we've had, to actually qualify -- do we have --
18 let me put it another way, do we have a task program that
19 ever sort of double checks the qualifications of items that
20 the industry has qualified?

21 DR. MATTSON: As a matter of testing, no. As a
22 matter of analysis, independent assessment, independent
23 evaluation, most certainly.

24 COMMISSIONER BRADFORD: You explained that one to
25 me Monday, but we don't have a test program that backs it up

dkw 7 1 on any kind of spot-audit basis?

2 DR. MATTSON: No.

3 COMMISSIONER GILINSKY: Do you have any plans for
4 such a program?

5 MR. CASE: Not to my knowledge.

6 MR. SEYFRIT: I'm sorry; I did not hear the
7 question.

8 DR. MATTSON: An independent audit by tests.

9 MR. SEYFRIT: No we don't do an independent audit
10 by test. However, we do do a great deal of observation, and
11 tests that are being done in the various laboratories. For
12 example, we've had our people at Franklin Institute who have
13 done a great deal of environmental testing, electrical equip-
14 ment, including connectors. And we have observed the tests that
15 they have run; some of the private industries run their own
16 tests. And again, we have our inspectors in and observe the
17 tests in progress.

18 While we don't run them ourselves, we go a lot
19 further than looking at the paper that says the test has been
20 run satisfactorily.

21 CHAIRMAN HENDRIE: Just as a matter of curiosity,
22 is some of that inspection under the vendor inspection program?

23 MR. SEYFRIT: Presently it is. However, even before
24 the vendor inspection program was initiated, we did some of
25 this. We would do a great deal more of it if the vendor

dkw 8 1 inspection program is fully funded.

2 COMMISSIONER GILINSKY: Can I interject a question
3 here?

4 COMMISSIONER BRADFORD: Please do.

5 COMMISSIONER GILINSKY: Sandia seems to have
6 used connectors which were not otherwise qualified in their
7 tests. What conclusions do we draw from the Sandia tests on
8 these connectors?

9 DR. MATTSON: That they were evidently unqualified
10 unconnectors, and they would not meet IEEE 323 insofar as
11 their purchase specifications, insofar as their advertised
12 performance requirements, or performance capability, or insofar
13 as the tests at Sandia. They failed the tests; the tests were
14 designed to see if there was a synergism of environmental
15 effects. In that sense, the test failed, since the connectors
16 weren't qualified. It is hard to say whether they failed by
17 synergism, or some other reason.

18 COMMISSIONER GILINSKY: Do the tests in any way
19 sort of make you wonder about the qualification of connectors
20 in general?

21 DR. MATTSON: We have looked at the test. Even
22 recent tests of connectors, where connectors claim to be
23 qualified. And we found they were qualified, the ones in the --
24 that were put in the autoclave and tested at Sandia were not
25 qualified, and were found not to be qualified.

dkw 9

1 COMMISSIONER GILINSKY: They have not tested any
2 connectors that were qualified?

3 DR. MATTSON: No, sir.

4 COMMISSIONER KENNEDY: Will they?

5 DR. MATTSON: I don't believe there are any plans
6 to.

7 MR. FEIT: As I said last time I was here, one of
8 the connectors that was tested had some previous qualification
9 testing. The tests were done to a previous IEEE 323 standard
10 test, which called for a single LOCA peak and somewhat
11 reduced LOCA temperature. In addition, there was no pre-aging
12 condition applied on the connectors before the test. The
13 Sandia test profile used a '74 version of IEEE 323 which
14 to the best of my knowledge has not yet been tested, or at
15 least tested and reviewed by the staff, because plants have
16 not come down through the mill with this standard.

17 So the current version used an aging cycle. The
18 Sandia version used an aging cycle which has not been used
19 previously, and used a double LOCA peak which had been put in
20 for conservatism, which was not in the original '71 version.

21 So we're talking about different test profiles, and
22 different test sequences. Now, there are differences, and I
23 think the Sandia test perhaps showed a tendency toward certain
24 generic problems, with different connector designs, which
25 I think has been adequately addressed with the bulletins, and

dkw 10 1 I think these problems have been looked at, and will continue
2 to be looked at.

3 The main objective of the Sandia test, however,
4 was not to uncover generic problems. It was simply to study
5 the synergistic effect compared between the sequential test
6 mode and the simultaneous mode which actually would be present
7 during a LOCA accident.

8 COMMISSIONER GILINSKY: Did they independently test
9 them in a sequential manner?

10 MR. FEIT: Yes, two sequential test, a sequential
11 and simultaneous.

12 COMMISSIONER GILINSKY: And the ones that failed on
13 the simultaneous test, did they pass the sequential test?

14 MR. FEIT: No, there was no difference with regard
15 to connectors.

16 COMMISSIONER GILINSKY: They failed all of them?

17 MR. FEIT: Yes, five of the twelve connectors did
18 pass a similar version from '71 in that they did live through
19 the first LOCA peak. They were the connectors that did in fact
20 have previous qualification testing by another testing labor-
atory, so it did check out.

21 I might add, there were other components tested in
22 this series that did test out well, the splices being one of
23 them. The splices that were tested at Sandia did very well
24 in the sequential and the simultaneous mode.
25

11 1 COMMISSIONER GILINSKY: Are these expensive tests?
12 2 Or as such things go, relatively inexpensive?

3 MR. FEIT: They are expensive to run in a testing
4 laboratory, yes. They are somewhat cheaper at Sandia Laboratories
5 because other things are going on. Some of the support efforts,
6 of course, are spread across other programs.

7 Are you after an exact number?

8 COMMISSIONER GILINSKY: Well, I guess I'm surprised
9 at the resistance to some sort of audit program here, just some
10 selective testing of various components to see whether in
11 fact they do meet the qualifications.

12 DR. MATTSON: I don't think you are getting
13 resistance. I think you are speaking in an area where we
14 don't do testing to confirm a lot of things: hydrostatic
15 testing of pressure vessels, for example; testing of motors;
16 testing of pumps; testing of valves; testing -- in a radiography
17 sense; testing in the system's interaction sense. There is a
18 lot of testing that is done before a nuclear power plant goes
19 on line. The environmental qualifications of a little piece
20 of electrical equipment like the connector is probably a
21 minuscule fraction of that total testing, probably an
22 unmeasurable fraction. You're looking at a very fine level
23 of detail, and a very small component. And so any resistance
24 you detect is the resistance of a regulatory program that has
25 been built and structured without independent testing by the

dkw 12 1 government.

2 That is why we have vendor inspection programs, that
3 is why we have lots of inspection things, and licensing review
4 things, in lieu of independent testing here.

5 CHAIRMAN HENDRIE: I think it is fair to say,
6 however, that these connector tests have reminded the staff
7 that several hundred degree steam is a fairly rigorous
8 condition for electrical equipment to sustain and continue to
9 be operable in.

10 DR. MATTSON: Staff is aware of that problem, yes,
11 sir.

12 CHAIRMAN HENDRIE: It is certainly worth keeping
13 in mind.

14 Peter, were you --

15 COMMISSIONER BRADFORD: Running down? Yes.

16 On page 4 of the summary of the safety aspects of the
17 petition, under electrical components, you say, on the basis
18 of the information and action to date that staff has concluded
19 that there is reasonable assurance that electrical connectors
20 and containment penetration would perform the required
21 functions in a LOCA environment.

22 Yesterday, in a very different environment, we
23 were talking about high assurance, medium assurance, and low
24 assurance safeguards. Does "reasonable assurance" here -- is
25 the term of art, does it go back to the law or the regulations?

dkw 13 1

MR. CASE: I think more regulations than the law.

2 MR. NELSON: Regulators as it is construed by the
3 court.

4 COMMISSIONER BRADFORD: But the legal requirement is,
5 you have to have a reasonable assurance that things will work
6 the way they are supposed to.

7 MR. NELSON: Meaning less than absolute; clearly so
8 held.

9 MR. NADER: Ask Nader vs. the AEC and Nader vs.
10 the Nuclear Regulatory Commission.

11 CHAIRMAN HENDRIE: If there is at least a temporary
12 pause in the questions that the commissioners have, this might
13 be an opportune time for me to note that at the last meeting
14 on this subject we heard from Mr. Pollard of the Union of
15 Concerned Scientists. The Commission subsequently agreed to
16 consider possible requests for appearance from other parties,
17 in particular, we have inquired with the -- the Office of the
18 General Counsel has attempted to inquire of parties opposed to
19 the petition whether they might want to appear and make some
20 sort of summary statement, and has added in making those
21 inquiries that the Commission has high interest in a consoli-
22 dation, if such efforts are desired, in order that the time
23 devoted to such response might be reasonably within the
24 Commission's capacity to hear this morning.

25

Now 14 1 I understand from the General Counsel that most
2 of the parties so contacted have indicated that they do not
3 wish to appear, but I believe the canvass has not been
4 100 percent.

5 I, therefore, inquire if there are parties opposed
6 to the petition present who would like to make a brief summary
7 statement, and if you could let me know, if there are any,
8 who you are, I will ask the Commission if they would like
9 to hear you.

10 (No response.)

11 CHAIRMAN HENDRIE: I declare that no parties have
12 thus identified themselves. And, good, that matter is closed.

13 Now, during that respite, some more questions, or
14 items for discussion may have occurred to members of the
15 Commission.

end. 5 16

17

18

19

20

21

22

23

24

25

1 COMMISSIONER BRADFORD: I have one other, on your
2 appendix B, which basically relates to the systematic evalua-
3 tion program on page 5 of that. You run through alternatives
4 to be considered in the event that environmental qualifications
5 did not exist or equipment considered during the SEP.

6 Let's just look at item "C" there, for a minute. If
7 important safety equipment is not environmentally qualified,
8 consideration will be given to alternate ways of performing the
9 safety function by using different systems, including the use
10 of nonsafety-grade systems.

11 Now, this is not the time, obviously, to pursue the
12 systematic evaluation program, but I wonder if we are not get-
13 ting -- if that is the sort of standard that gets applied when
14 equipment turns up unqualified, aren't you at that point getting
15 pretty far from whatever reasonable assurance it was upon which
16 the plant was permitted to commence operation in the first place?
17 That is, you are now talking about --

18 MR. CASE: Well, it says "consider." So, this is
19 no more than we will look and see what other equipment they
20 may have which is not safety-related to see if it would perform
21 as reliably as the so-called qualified -- expected qualified
22 safety equipment would. So, you would have to look for its
23 environmental qualifications of this nonsafety equipment, its
24 reliability, and all of the other characteristics that you
25 would look for in the safety-related. It's just that we might

1 or not to let it continue operating?

2 MR. STELLO: That is the issue.

3 COMMISSIONER BRADFORD: This is more or less kind of
4 the test?

5 MR. CASE: The thought process you go through.

6 COMMISSIONER BRADFORD: I think I'm done.

7 CHAIRMAN HENDRIE: Okay.

8 Other comments from the staff?

9 COMMISSIONER GILINSKY: I wonder if I could ask the
10 gentleman from the research office whether Sandia intended to
11 use qualified connectors in this test.

12 MR. FEIT: Well, the intent of the program was to
13 get typical equipment that was used in the plant without any
14 regard to going into a plant and lifting a specific piece of
15 equipment. The reason that that line was drawn, in our view,
16 is that NRC is not in the business of qualifying existing plant
17 hardware or putting a stamp of approval on it. That is our
18 judgment and the laboratory's judgment right now.

19 So, with this fine line, they did not go through
20 NRC, pick out a typical plant, pick out a typical connector
21 that was in the plant. Rather, they went another route. They
22 contacted a number of different suppliers.

23 COMMISSIONER GILINSKY: I understand that they ended
24 up with connectors that weren't qualified.

25 MR. FEIT: It was the intent, though, to get equipment

pv2

1 have a different label, but you would require the same quality
2 of that other equipment.

3 MR. STELLO: I might make a couple of points, and
4 the first is, the use of nonsafety-grade equipment does not
5 and should not have the connotation that it is bad stuff. It
6 is the equipment that is used for the normal operation of the
7 plant, such as, for example, the feedwater system. So, the
8 quality is certainly high. It just doesn't get that special
9 label of "safety equipment" and have some special things that
10 are attached to it.

11 And a second, maybe more important, point is I don't
12 think it is appropriate to read any one of these in isolation.
13 It is all of them together that will be considered in making
14 the judgment. And where a specific piece of equipment can
15 perform a safety function, that will be considered.

16 These are the general concepts which you recall are
17 being used for the overall systematic evaluation program and
18 for convenience they were repeated here as the types of things
19 that would be considered in making these judgments, and no one
20 of these is all of it. It is all of them together.

21 COMMISSIONER BRADFORD: Are these items "A" through
22 "E" basically the framework within which you evaluate circum-
23 stances in which you discover there is something about a plant
24 that is in operation that would not pass muster; if you are now
25 about to grant it an operating license, the question is whether

1 that would have been typical of what is in a plant without any
2 regard to making sure that a particular connector would be --

3 COMMISSIONER GILINSKY: Well, why not do what was
4 originally intended to be done?

5 MR. FEIT: You're saying redo it?

6 COMMISSIONER GILINSKY: With qualified connectors.

7 That's what we were going to do or they were going to do; And
8 are they not, perhaps, even obligated to do that by the terms
9 of the contract? I don't know what they are.

10 MR. FEIT: The contract was made with the suppliers.
11 And the response that they did get from the suppliers verbally
12 was that all three connectors should meet the LOCA tests. This
13 was the verbal communication. The purchase orders specifically
14 called for class 1E connectors did not spell out a specific LOCA
15 environment.

16 COMMISSIONER GILINSKY: I understand, but we must
17 have had some discussions with them about the tests they were
18 going to perform, and did they indicate that there were any
19 connectors which were typical of those used in the plants?

20 MR. FEIT: That was the understanding we had.

21 COMMISSIONER GILINSKY: Well, they have not met the
22 terms of that agreement. Are they not now obligated to carry
23 out those tests?

24 MR. FEIT: In that regard, you can say they have
25 not met the terms of the agreement. They have contacted the

1 suppliers to see just why the connectors did not pass. In each
2 case there have been different negotiations.

3 CHAIRMAN HENDRIE: That isn't quite getting to the
4 point. The point is, it was our intent and their intent to
5 run a certain series of tests. In fact, a somewhat different
6 series of tests have been run. They have been very interesting.

7 COMMISSIONER KENNEDY: But they don't answer the
8 questions we asked.

9 CHAIRMAN HENDRIE: And there remains -- what about
10 the test we had intended to run? Would it be useful to go and
11 run those?

12 MR. FEIT: This issue was discussed with the labora-
13 tories. As a matter of fact, it was discussed again last week,
14 and it is our feeling that the question of synergism -- is
15 there a synergistic effect in considering the sequential and
16 simultaneous test mode -- has been answered to our satisfaction.
17 And when one looks across the board at different types of
18 materials and interface designs, there probably is not a major
19 synergism.

20 Now, the particular facility they were working with
21 has been retired. They are modifying a new facility that should
22 be ready by the end of the fiscal year. At that time it is our
23 intent to redo some of the synergistic effects tests.

24 CHAIRMAN HENDRIE: With connectors qualified with
25 the current versions of 323?

1 MR. FEIT: With components and materials that we feel
2 is typical of what is in the plant.

3 CHAIRMAN HENDRIE: No, no. Let me go back -- with
4 connectors qualified to 323.

5 MR. FEIT: We have not committed to ourselves within
6 the staff and to the laboratory. The two specifically test
7 connectors, certainly, we could do that. We have not reached
8 that agreement at this point. Certainly we could do that. It
9 would be no problem.

10 CHAIRMAN HENDRIE: If I said I suspect it would not
11 displease the Commission substantially if you did that, with
12 connectors qualified to the 323, would that be a sort of gentle
13 guidance?

14 COMMISSIONER KENNEDY: I think it would be nice, Mr.
15 Chairman, if you did say that.

16 MR. FEIT: The guidance is accepted and received,
17 and I will pass it on.

18 MR. SEYFRIT: Mr. Chairman, I don't want to engage
19 in a discussion or argument, but I believe -- at least it was
20 my understanding -- and to try to be more responsive to the
21 specific question that was asked, that the original contract
22 and the arrangements for the tests did not specifically say any-
23 thing about testing connectors in this test that was being
24 brought. That was not really a part of the purpose of the test,
25 as I understand it. Sandia made a decision to use connectors

pv7

1 as a part of this synergistic test, just because it was a simple
2 thing to do. But testing connectors, as such, was never really
3 an intended part of the test?

4 Is that true, Ron?

5 CHAIRMAN HENDRIE: That is fair. And in fact, if I
6 thought about it, I would have understood that, Karl.

7 MR. FEIT: The original 189 that set up the contracts.

8 CHAIRMAN HENDRIE: Ron, thank you very much. I'm
9 afraid that any further clarification will confuse me. But I
10 recognize the point you make, Karl. However, the fact that
11 connectors were selected as a handy size of typical componentry
12 to put in the chamber, the fact that events have flowed as they
13 have flowed raises considerable interest, at least over here,
14 on this side of the table, in what would have happened if there
15 had been a set of connectors specifically which were alleged
16 to be fully qualified components. And it is in that sense that
17 I express an interest in how that would have come out.

18 Let's see. Let me ask my colleagues -- do you feel
19 a need for any immediate Commission action with regard to the
20 matters raised in the petition? That is, there are six requests
21 made by the petition. The staff recommends denial of all six,
22 for reasons expressed in their report and discussed otherwise
23 throughout this series of meetings.

24 We have heard from the Union of Concerned Scientists
25 at the last meeting; and from the staff today.

1 COMMISSIONER GILINSKY: Are you lumping all six
2 together? Or are you simply talking about any immediate action?

3 CHAIRMAN HENDRIE: Well, I'm thinking in terms of
4 whether any of us feel a need to take some action, immediate
5 action now, in the context of today or the rest of this week.

6 COMMISSIONER KENNEDY: As contrasted with what the
7 staff is recommending?

8 CHAIRMAN HENDRIE: Yes, as contrasted with what the
9 staff has recommended, and as contrasted with having an appro-
10 priate draft order prepared which would deal with each of these
11 items raised in the petition, which draft material we would
12 consider, and consider the points of view and the wording as
13 we normally would, by circulating them. And then we might or
14 might not need a subsequent meeting of the full Commission.

15 COMMISSIONER BRADFORD: That is not the same as
16 saying we are necessarily denying the petition.

17 CHAIRMAN HENDRIE: That is correct. Nor does it
18 commit to any particular language.

19 COMMISSIONER BRADFORD: And I take it does say what
20 we said already, and that is that there is a petition filed in
21 October asking that more reactors be shut down and that one
22 would not be considered.

23 CHAIRMAN HENDRIE: Just so.

24 So, I will ask the counsel's office to begin to
25 draft a suitable order from the Commission dealing with the

1 petition, and we will see that draft language directly, and
2 each of us can make marks upon it; and alternate versions, and
3 we will see where we go from there.

4 Does that seem reasonable?

5 MR. NELSON: To deal with the whole petition? All
6 of the issues?

7 CHAIRMAN HENDRIE: I would think so.

8 MR. NELSON: The so-called emergency allegations,
9 as opposed to long run?

10 CHAIRMAN HENDRIE: I think I would like that. I
11 think we may as well attempt to deal with that.

12 MR. NELSON: From our viewpoint it's easier to write
13 one than two, Mr. Chairman.

14 MR. SNYDER: We seem to have everything here in
15 front of us in order to do that.

16 CHAIRMAN HENDRIE: Very good. Thank you very much.

17 The Commission will have a few minutes' recess.

18 (Whereupon, at 11:30 a.m., the meeting was adjourned.)

19 * * * *

20

21

22

23

24

25

end#6

