

NUCLEAR REGULATORY COMMISSION

ORIGINAL

COMMISSION MEETING

In the Matter of: DISCUSSION AND VOTE ON FIRE
PROTECTION PROGRAM

DATE: October 16, 1980 PAGES: 1 - 84
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400 Virginia Ave., S.W. Washington, D. C. 20024

Telephone: (202) 554-2345

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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Discussion and Vote on Fire Protection
Program

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Room 1130
1717 H Street Northwest
Washington, D.C.

Thursday, October 16, 1980

The Commissioners met at 2:10 p.m., pursuant to
notice.

PRESENT:

- JOHN AHEARNE, Chairman.
- COMMISSIONER VICTOR GILINSKY.
- COMMISSIONER JOSEPH HENDRIE.
- COMMISSIONER PETER BRADFORD.

ATTENDING FROM THE NRC STAFF:

- Edson Case
- Darrel Eisenhut
- Richard Vollmen
- Roy Voegler
- Howard Shapar
- Myer Bender, ACRS
- Joseph Scinto
- Robert Ferguson
- William Dircks

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Thomas Wambach
Gregory Harrison

ALSO PRESENT:

Leonard Bickwit,
Office of the General Counsel.

Samuel Chilk,
Secretary of the Commission.

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P R O C E E D I N G S

1
2 CHAIRMAN AHEARNE: We plunge ahead into the fire
3 protection rule and associated issues. In attempting to prepare
4 myself for this afternoon's meeting, I found that I had probably
5 not been able to keep abreast of the number of changes to changes
6 to changes that have been flowing through. So I think that I am
7 reasonably abreast, but when it start getting down to where there
8 are Telefax copies of handwritten notes, it begins to be doubtful.

9 So, in the absence of a television screen, we have
10 the update of the document -- in the absence of that, I am not
11 sure which of you gentlemen will speak to what it is that we
12 really have with us. But, Bill, since you are sitting up front,
13 you have to take responsibility. What are you presenting to us?

14 MR. DIRCKS: We are just trying to catch up ourselves
15 with the last minute instructions. I think Dick has the --

16 CHAIRMAN AHEARNE: You mean the gentleman --

17 MR. DIRCKS: The guy trying to leave, the guy on his
18 way out.

19 MR. CASE: We will briefly describe the rule as we
20 have proposed it.

21 CHAIRMAN AHEARNE: Now when you say "we have proposed
22 it," most of these papers I have received recently come from you.

23 MR. CASE: Without those changes.

24 CHAIRMAN AHEARNE: That is not the way --

25 MR. CASE: Well -- those changes were in response to some

ar4 1 understandings that I had that there might be some changes down
2 here. That being the case, then I would also make some changes.

3 CHAIRMAN AHEARNE: I see.

4 MR. VOLLMER: Why don't I try this: go over briefly
5 what we have and what you have in front of you, dated September
6 30th, and then try to bring you up to date on other possible
7 changes.

8 CHAIRMAN AHEARNE: Now that's 438-A?

9 MR. VOLLMER: That's right.

10 CHAIRMAN AHEARNE: As modified by --

11 MR. VOLLMER: There was a modification --

12 CHAIRMAN AHEARNE: -- the October 14th?

13 MR. VOLLMER: That's right, as modified by that.

14 CHAIRMAN AHEARNE: All right.

15 MR. VOLLMER: If we could have the first viewgraph,
16 please.

17 (Slide.)

18 Briefly, of course, the key provisions are, first of
19 all, that the intended rule would be applicable to plants having
20 an operating license prior to January 1st, 1979, and that plants
21 not falling into that particular category would be reviewed under
22 the branch technical position 9-5.1.

23 CHAIRMAN AHEARNE: Since this issue has been around
24 for a long time, I'd like to make sure I understand what we are
25 doing, for plants without operating licenses after 1/1/79?

1 MR. VOLLMER: For operating licenses for plants after
2 1/1/79.

3 MR. CASE: The rule is not applicable.

4 MR. VOLLMER: And the branch technical position, or
5 Appendix A thereto, would be applicable. Now it's Appendix R,
6 the proposed rule, that has a number of very specific items,
7 the origin of which are -- they represented items that involved
8 items that needed resolution between the Staff and Applicants
9 with operating reactors -- or Licensees with operating reactors,
10 and there was a choice of going to orders on these specific
11 items or rule and, as you know, the rule was the option chosen.

12 Now the point I wanted to make was that we generally
13 feel that the Appendix A to the branch technical position for
14 operating reactors contains the fire protection program which,
15 if implemented, gives us an adequate level of safety in the fire
16 protection area, and therefore plants that have been reviewed by
17 that, we feel, need not necessarily go back and re-look at
18 Appendix R specific items. We'll get into that in a minute.
19 That's why I'm trying to press out between the --

20 COMMISSIONER GILINSKY: This would be a simple
21 grandfathering issue?

22 MR. VOLLMER: Yes, which I'll get into in just a
23 second. But I just wanted to set the stage that the rule is
24 applicable to those plants with operating licenses before 1/1/79.

25 And, therefore, the rule itself, as currently

1 constructed, would not be applicable to plants thereafter, but
2 also would not apply to 67 operating plants if the grandfathering
3 provision that is in the rule currently is accepted, and the
4 Staff had intended the rule --

5 CHAIRMAN AHEARNE: Let's see, now. It's not going to
6 apply to 67 operating plants, and it's not going to apply to
7 plants with operating licenses after 1/1/79?

8 MR. VOLLMER: I'm sorry, would not apply to 67 operating
9 plants in some very specific areas. The Staff had originally
10 intended the rule, as I said, to apply to specific items that
11 were not able to be resolved by the normal Staff means through
12 application of the branch technical position and the appendix.

13 Therefore, these set of requirements were drawn up
14 and the Staff, in looking at it, believes that, as I said
15 before, the level of protection or the level of safety would be
16 adequate if Appendix A to the branch technical position had been
17 fully implemented for all the operating reactors.

18 CHAIRMAN AHEARNE: Now for reactors after 1/1/79, it is
19 Appendix A and the branch technical position has been used as
20 the criteria?

21 MR. VOLLMER: For the operating reactors, that would be
22 right. For the near-term OLs and the ones in between.

23 COMMISSIONER GILINSKY: What was the reason for
24 cutting it off at 1/1/79?

25 MR. VOLLMER: Historically I cannot answer that.

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1 Robert Ferguson?

2 MR. FERGUSON: I didn't hear your question, Dick.

3 MR. VOLLMER: The question was, why the cut-off date
4 of 1/1/79?

5 MR. CASE: Why 1/1/79 in particular? Why not
6 1/2/79?

7 MR. SCINTO: I have a recollection of that.

8 COMMISSIONER HENDRIE: There aren't any plants
9 after 1/1/79, except the ones we have dealt with in the last six
10 months, and it was convenient, it had a certain majesty to it.
11 The first of the year. It could have been later.

12 MR. FERGUSON: I am Bob Ferguson from NRC.

13 At the time the rule was begun and we were picking a
14 date, there was a different organization, Division of Operating
15 Reactors, was looking at basically the operating reactors. The
16 Division of Systems Safety was looking at those plants under OLs.
17 Where we had the problems with the operating plants, with the
18 OLs, it was a matter of a license was required, and in general
19 they were meeting Appendix A, at the time the rule was proposed,
20 January 1st was the dividing line which divided all the operating
21 plants from those that were under review for operating licenses.

22 CHAIRMAN AHEARNE: So at the time it was proposed,
23 then, January 1st was the dividing line between saying that
24 any plant that had already received its operating license --

25 MR. FERGUSON: Right.

1 COMMISSIONER GILINSKY: Versus one that was to receive
2 it after.

3 Your ability to twist arms is greater where the
4 license had not been received?

5 MR. VOLLMER: That's right. We have had not problems
6 in -- I mean we have been successful in getting the fire
7 protection provisions implemented to our satisfaction in those
8 areas where the licenses are in the balance.

9 CHAIRMAN AHEARNE: Did Sequoyah meet that?

10 MR. VOLLMER: They met the branch technical position
11 and Appendix A.

12 Now, as far as the acceptance of the branch technical
13 position, and essentially the grandfathering proposed by the
14 rule on those items that already have been accepted by the Staff
15 review, and were not in contention between the Staff and the
16 Applicant, those were the items put at issue here, and the question
17 is whether or not we should proceed in that vein to allow licensees
18 to implement those things that had been approved by the Staff,
19 or whether we should go back and require backfitting of the
20 items in Appendix R, even though that area had been covered by a
21 previous Staff review.

22 COMMISSIONER GILINSKY: Let me tell you why I was
23 asking about the date. In some respects the rule goes beyond
24 Appendix A. I find it odd that one would have a requirement
25 that goes beyond Appendix A for a certain class of plants, and

1 then say those before don't have to meet it, and those after
2 don't have to meet it.

3 MR. VOLLMER: Okay. If you will allow me to go on for
4 just about two more minutes, I'd like to address that, because
5 there is another point in the fact that the Staff reviews
6 under Appendix A, the branch technical position, were done by a
7 number of fire protection groups. And they were done with a
8 Staff review that may have included a certain amount of auditing
9 rather than very specific attention to detail, and so therefore
10 there may be some areas where the authorized fire protection
11 program is not entirely consistent even with the branch technical
12 position, or not entirely consistent with Appendix R.

13 But the point is that the review consisted of an
14 overall fire protection program review under the general
15 guidance of the branch technical position appendix, much the
16 same as you review a plant under the Standard Review Plan.

17 What we propose, as part of the -- part of being
18 able to assure that in the reasonably near future that whether
19 one goes back and backfits the requirements of Appendix R or not,
20 the next slide will indicate --

21 (Slide.)

22 -- that we intend to have a fire protection program
23 which will address by review -- and when I say a three-year
24 program, what I am indicating is that the entire spectrum of
25 operating plants will be looked at every three years, and that

1 look would consist of reviewing what the current requirements
2 are and taking a look at the specific SRP and writeups that
3 had been committed to by the utility, going to the site, conducting
4 an audit in the plant, walk-through on procedural areas, fire
5 brigade, recordkeeping, equipment testing, and so on. And then
6 come back and take a look at how the plant really measured up
7 in terms of an integrated fire protection program, and recommenda-
8 tions, and take action where appropriate.

9 We feel that on balance this would accomplish as
10 much as trying to backfit very specific provisions which would
11 require the Staff to go back and re-review plants that in some
12 cases had implemented fire protection programs, or at least had
13 committed to certain fire protection programs.

14 COMMISSIONER GILINSKY: Let me ask again, unless you are
15 going to cover this in a minute, why weren't the newer plants
16 required to satisfy the requirements of the rule as opposed to
17 the branch technical position?

18 MR. VOLLMER: We feel that the newer plants, particularly
19 with the separation requirements that we have in them, or the
20 branch technical position itself, 9-5.1, meet the fire protection
21 program with the general safety requirements that are currently
22 in the rule.

23 CHAIRMAN AHEARNE: Let me ask the question a different
24 way:

25 Does Appendix R go beyond Appendix A?

1 MR. VOLLMER: In some very specific requirements.

2 CHAIRMAN AHEARNE: If it does go beyond that, if we
3 put in place the rule, we will be requiring in those specific
4 areas that the plants prior to January '79 have those provisions
5 in them; is that correct?

6 MR. CASE: Some of them; not all of them.

7 COMMISSIONER HENDRIE: Unless they have already come
8 to agreement.

9 MR. VOLLMER: Yes, that's right.

10 CHAIRMAN AHEARNE: But then we would be back in the
11 situation that Vic was asking about, in requiring for some
12 plants prior to January '79 some features that go beyond what
13 we would be requiring of plants that we are just now licensing.
14 How do you defend that?

15 MR. VOLLMER: Well, I think the way you defend it --
16 I'm not trying to defend it. Let me say the way you could --

17 CHAIRMAN AHEARNE: I'm saying how do you defend it?

18 MR. VOLLMER: I think the point is, what is achieved
19 by the fire protection program itself? I mean it is a rather
20 comprehensive set of requirements which deals with a lot of
21 different requirements in terms of detection, protection, and
22 separation of systems, and so forth, and it's a feeling by the
23 Staff that Appendix R itself does not constitute a fire protection
24 program, but the branch technical position does in itself
25 constitute a fire protection program, and that would not be

1 significantly enhanced by requiring the specific provisions of
2 Appendix R.

3 CHAIRMAN AHEARNE: We are not trying to strike a
4 responsive chord in Dr. Bender, but are you saying in essence
5 that it would be overly prescriptive had we put in those specific
6 requirements for plants in the future, that you would prefer to
7 look at as an integrated whole; but whereas in the past you feel
8 that this is necessary to do so? And if that's true, it seems
9 that there still is this thread that links back to the approach
10 that we did reject, which was giving specific orders for specific
11 things that you really want specific plants to do it if they
12 haven't done it; this is the approach to do it.

13 MR. VOLLMER: The branch technical position allows a
14 more judicious assessment of the program as a whole, and its
15 interrelated workings, rather than taking a specific provision.
16 So I guess I would say, unless somebody else would care to
17 comment, that the prescriptive nature would be an argument against
18 it, yes.

19 MR. CASE: Well, let me just say something. I don't
20 like the word "prescriptive," but I'll use it. In a rule, by
21 its very nature, covering all plants and all circumstances, it
22 must be more conservative than you would do in any individual
23 case, except in the most extreme case. A rule that covers a
24 multitude of things cannot be tailored to each one of those
25 things. So it must envelop the expected worst, and therefore, in

1 some, it is more conservative than is necessary.

2 CHAIRMAN AHEARNE: Will you not, then, end up with
3 the phenomenon -- let's take five years in the future -- and
4 assuming essentially a nonchange of a lot of other features, but
5 five years from now you will have some plants meeting a more
6 conservative set of characteristics?

7 MR. CASE: In some respects, yes.

8 COMMISSIONER GILINSKY: This may sound like a broken
9 record, but if we've gotten smarter during the course of
10 developing this rule, and decided some of the things we wanted
11 before weren't quite the right things to require, and have
12 changed our mind, why aren't we applying that to the newer
13 plants?

14 MR. CASE: Because we don't know there are any such
15 animals. The paper says there are three things on this list
16 we are considering backfitting that we're going to study further
17 to see if they fit that category; i.e., they are the result of
18 experience in getting smarter and are worth the time and effort
19 to backfit.

20 We grant there are possibly three in this category,
21 the two-hour versus the eight-hour battery, the --

22 COMMISSIONER GILINSKY: But you're talking about
23 backfitting. I'm talking about forward-fitting.

24 MR. CASE: If you then concluded you weren't going to
25 backfit because it was that much better or improved, I think it --

1 MR. VOLLMER: Vic Benaroya, Chief of the Chemical
2 Engineering Branch.

3 MR. BENAROYA: Actually, as we learn more, we are
4 applying more than Appendix A, like in the coating of one of the
5 items, when we found out from the tests that coatings could not
6 be supported as values, we did not accept coatings as values.
7 We changed the requirement, so that somewhere along the line,
8 we improved that.

9 There are some plants that would accept it as coating
10 barriers, but most of the time we found out they were not
11 applicable and we changed it.

12 COMMISSIONER GILINSKY: Even under the branch technical
13 position?

14 MR. BENAROYA: Yes, sir. We hope to revise Appendix A
15 by March, as one of the SRPs has to be changed. But these things
16 have been implemented, yes.

17 COMMISSIONER GILINSKY: So, in effect -- and that would
18 be the case under the rule, too?

19 MR. BENAROYA: As we learned, yes. We are implementing
20 in the new plants.

21 COMMISSIONER GILINSKY: So are you saying, in effect,
22 the new plants, whether they are subject to this rule or not,
23 would in fact be treated as if they were?

24 MR. BENAROYA: Yes. The main reason why we don't want
25 this applicable to future plants is exactly what Mr. Bender is

1 saying: We want to have the opportunity to look at the whole
2 plant and apply it as is necessary.

3 COMMISSIONER GILINSKY: You want the flexibility?

4 MR. BENAROYA: That's right. In this case, in Appendix
5 R, we are applying it to specific plants because they already
6 have been reviewed, and we found that those other items that
7 are necessary to implement, to get the level that we need, they
8 have been reviewed. We have gone to the site, we have looked
9 at them, and that's what we think is needed to bring them up
10 to par. That's Appendix R. For new plants, we want to look at
11 the whole picture again, and that's why we don't want to prescribe
12 at this moment.

13 MR. CASE: I understand that to be the Staff situation.
14 I must say I am not sure I completely agree with it.

15 COMMISSIONER GILINSKY: I am not sure I can fully
16 understand it.

17 (Laughter.)

18 MR. CASE: My problem with that is the flexible
19 approach, I'm afraid, leaves too much to the taste of the
20 individual reviewer, and I would rather have a more uniform standard
21 at a level that I was more confident of its consistency, than
22 to give the freedom to the individual reviewer that the branch
23 technical position does.

24 CHAIRMAN AHEARNE: Of course, that position you just
25 espoused would lead you to making R applicable?

1 MR. CASE: Yes, it would.

2 MR. BICKWIT: What happened to your earlier argument?

3 MR. CASE: You do a cost-benefit, yes, it is more
4 conservative, but it is more consistent and better suited for
5 the purpose.

6 COMMISSIONER GILINSKY: You are saying you understand
7 it is the Staff position, but. It reminds me of a story about
8 President Kennedy saying he agreed with someone, but he didn't
9 know if the government would.

10 (Laughter.)

11 MR. CASE: Perhaps there is a judicious point between
12 the two. Perhaps there is too much flexibility in Appendix A.
13 You could take some out, which would satisfy me; and leave enough
14 to satisfy Vic.

15 MR. BICKWIT: To meet your earlier argument, you could
16 provide for exemptions.

17 MR. CASE: Yes.

18 MR. SHAPAR: Well, every rule itself provides for
19 exemptions once the rule is written.

20 MR. BICKWIT: That's my point.

21 COMMISSIONER GILINSKY: It does seem to me that we
22 ought to be applying to the newer plants the requirements that
23 we now think are the right ones.

24 MR. CASE: What Vic is saying, there is enough
25 flexibility to do that. You could meet it with this, you could

1 meet it with that, and it's a living document.

2 MR. VOLLMER: As I said, the Appendix R in itself is
3 not a total program.

4 MR. BENAROYA: I'm sorry if that was misunderstood.
5 What I'm saying is when we learn something new, like the
6 coatings and tests, we bring it to the attention of our director
7 and say, "Look, we are going to change our evaluation because
8 of that," and we get the approval and then we go and do that,
9 as part of the new process. It's the new requirement. It's
10 not done unilaterally, arbitrarily. It's done through the
11 system, and we have approval.

12 I think that Eisenhut was a party to those decisions.

13 (Laughter.)

14 In other words, it is done structurally.

15 MR. VOLLMER: Again, if we toss the requirements of
16 Appendix R into our forward-looking review process, it probably
17 wouldn't have substantial impact.

18 CHAIRMAN AHEARNE: Would or would not?

19 MR. VOLLMER: I don't think it would have a substantial
20 impact. Is that right, Vic, if we put Appendix R into our
21 forward-looking review, we would not have a substantial impact?

22 MR. BENAROYA: It shouldn't, but it will require a
23 lot of manpower to review to make sure that we are meeting every-
24 thing.

25 COMMISSIONER GILINSKY: Wait a minute. I thought I heard

1 you say that in effect you were applying Appendix R to the
2 newer plants.

3 MR. BENAROYA: To the newest plants, yes.

4 COMMISSIONER GILINSKY: And isn't that what you were
5 talking about?

6 MR. VOLLMER: That's what I thought I just said,
7 yes, that it wouldn't have much of an impact.

8 COMMISSIONER GILINSKY: We are talking about the
9 newer plants.

10 MR. VOLLMER: Forward-fitting, Vic.

11 COMMISSIONER GILINSKY: The OLS being granted now.

12 MR. BENAROYA: We should know. That's correct.

13 COMMISSIONER GILINSKY: I understand that you are,
14 in fact, applying --

15 MR. BENAROYA: That's what I think would be minimal.
16 I'm sorry.

17 COMMISSIONER GILINSKY: You are, in effect, applying
18 the requirements of Appendix R, even though the rule does not
19 strictly apply to those plants but you are doing it in the
20 context of the branch technical position which gives you enough
21 flexibility to apply these new requirements?

22 MR. BENAROYA: Yes, correct.

23 CHAIRMAN AHEARNE: Joe?

24 COMMISSIONER HENDRIE: Watch out how you phrase
25 that. Let me suggest that the correct way to phrase it is the

1 following:

2 In your application and your reviews of the branch
3 technical position on fire protection, the plants currently
4 coming through the line, you take into account the knowledge
5 that is reflected in particular ways in Appendix R, by requiring
6 a metal plate 2 feet x 3 three, okay? But you take it into
7 account under the branch technical position in your current
8 reviews in the context of evaluation of an overall plant fire
9 protection program, as the branch technical position attempts
10 to spell out, and it isn't that every place or corner or turn
11 you put in a blue plate 2 x 3 feet, willy-nilly, whether it makes
12 no sense, which is the prescription kind of thing of Appendix R;
13 but rather you look to see what the combustibles and what are
14 the sources, and what do the fires do, and do what is sensible
15 under the general prescriptions of the branch technical position.

16 Okay. Wouldn't you agree that's a better -- because
17 I am afraid what they are getting you to say here is that Appendix
18 R is precisely what you are doing on new plants, and I'll bet
19 you a cookie it isn't.

20 MR. BENAROYA: No, that's why we say that we don't
21 want Appendix R for new plants, because we have to look at the
22 whole picture.

23 COMMISSIONER GILINSKY: Let me ask you whether you
24 agree with Joe's characterization of Appendix R.

25 MR. CASE: I don't.

1 COMMISSIONER HENDRIE: I don't think you want to be
2 pinned to those specific things in Appendix R as fixed requirements
3 in every fire protection program in every plant henceforth. You
4 are going to find places where what you are doing then is to
5 hang your fire protection program on some very awkward and
6 uncomfortable fixed points, and you are going to wish you hadn't
7 done it.

8 COMMISSIONER GILINSKY: Well, I guess if Appendix R
9 is as bad as you say, we oughtn't to have any part of it.

10 COMMISSIONER HENDRIE: I don't know that as bad as
11 I say is quite right. Appendix R is there because the Staff has
12 done a batch of fire reviews, okay, and in various plants they
13 come down and resolve and come to agreement of things to be done,
14 for things for the upgrade, except for items A and B in this
15 plant, and C, D, and F in that plant, and A in another one, and
16 D in another one. And the Staff has gotten to the point where
17 they have said, in effect, "By god, we are right up to here, to
18 our lower lips. We've had it. We are going to put these
19 specific items in a rule and call it Appendix R, and all you guys
20 are just going to do it our way, and we will stop arguing about
21 it."

22 Having been through a lot of these routines, I feel,
23 you know, at least some sympathy for the regulatory thrust there.
24 But that doesn't leave you with Appendix R as a very well shaped
25 forward-looking guidance to effective fire protection programs,

1 you see, because it is aimed at putting the thumbs on a whole
2 series of insects out of the past.

3 (Laughter.)

4 And that's why the main thrust here is to argue that
5 for future plants, look at the branch technical position, and
6 then the fire protection as an integrated protection plan for a
7 plant, but to clear up these things in the past, stick Appendix R
8 on there.

9 (Slide.)

10 COMMISSIONER BRADFORD: Do you know of situations in
11 which plants now under review would in effect not meet Appendix R?

12 MR. EISENHUT: Let me try to back up a little. We
13 put up a slide here.

14 COMMISSIONER GILINSKY: Could you give us an example?

15 MR. EISENHUT: I don't know how far back to go.

16 As Commissioner Hendrie said, you've got to go back and remember
17 first there was a branch technical position. That branch
18 technical position was the family of requirements on fire protec-
19 tion.

20 COMMISSIONER HENDRIE: Has that changed very much
21 since '74, '75?

22 MR. EISENHUT: I don't think it's changed at all.

23 (Laughter.)

24 That set of requiremerts -- the branch technical
25 position family of requirements, there was a cut-off date and I

1 don't remember exactly when it was. It was plants that were
2 being reviewed at some point in time in '76 that had to meet
3 branch technical positions.

4 Now, recognizing that if you applied the branch
5 technical position to operating plants, some of the things were
6 just impractical because the plants were already built. So we
7 generated the second document which was branch technical position
8 Appendix A. Those are two separate documents, and that's important
9 here, because then when we were going through the reviews on
10 Appendix A plants, all the operating plants, we found that
11 generally there was anywhere from 34 to 50 items on fire protection
12 to be reviewed on the plants. We got down to a lot of plants
13 where we had hold-outs, where we had a lot of Staff debate on
14 one or two issues. So we discussed the approach discussed
15 earlier, whether to go with Appendix R or orders or what.

16 We went with Appendix R, which had the items basically
17 there listed across the top, and this is just one page of several
18 page listing which you have as a hand-out, which lists the items
19 that are hanging loose on plants.

20 You find that some of the items in the proposed
21 Appendix R really now today will only have an impact on one plant,
22 as the Appendix R is proposed.

23 If you go down some of the columns, you can go back
24 and forth, and you find it as a matrix. It strictly was
25 conceived as a requirement to get off the dime and stop the Staff

1 debate back and forth on these issues and put a requirement in
2 place.

3 The general thrust was the requirements being put
4 in place on operating plants should be consistent with the
5 safety developed from using the BTP in the first place on new
6 plants, as opposed to the BTP Appendix A.

7 So this was to go around and get those little
8 flyspecks that kept popping up item by item on the plants, get
9 them resolved once and for all.

10 COMMISSIONER GILINSKY: Why do you say opposed to
11 Appendix A?

12 MR. EISENHUT: Because they are two documents.
13 Appendix R deals only with the operating plants. So now you
14 have on operating plants --if you have a plant that has, for
15 example, 50 fire protection issues, you may be resolving 48 of
16 them by using Appendix A, and the last two by using Appendix R.
17 And, in fact, that is exactly the real life situation you have.
18 It's a breakdown, if you go down the plants, which you'll also
19 see on one of the tables that we passed out.

20 So the family of using Appendix A on a large number
21 of the items which were done and basically have been resolved
22 for a couple of years, and using Appendix R for these selected
23 open items as a family is supposed to be that safety level you
24 get, about the same as applying the branch technical position to a
25 new plant.

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1 Now the branch technical position, as opposed to
2 branch technical position Appendix A, which are two separate
3 documents.

4 MR. BENAROYA: Equivalentwise, it's the same. It's
5 equivalent.

6 MR. EISENHUT: It's equivalent.

7 COMMISSIONER GILINKSY: Can you structure Appendix A
8 with more or less the same thing in mind?

9 MR. EISENHUT: It had more flexibility in it for
10 recognizing the fact that operating plants could not meet a lot
11 of the things in the branch technical position. So you came up
12 with perhaps an alternate way of trying things.

13 COMMISSIONER GILINSKY: But it was the fact that
14 Appendix A wasn't being satisfied that drove you to this?

15 MR. EISENHUT: It was a way expedient to resolving
16 the issue.

17 MR. CASE: It was either Appendix A or branch
18 technical position.

19 MR. EISENHUT: You know, Appendix A said propose an
20 alternative. It's been now, let's see, five years, and, you know,
21 if you look at a lot of these plants, you find --

22 VOICE: We hadn't articulated clearly the requirements
23 in all these areas.

24 MR. EISENHUT: We hadn't articulated them, and we had
25 no real force behind the branch technical position, and I venture

1 to say if you look at some of these plants that have-- Big Rock
2 Point has one issue hanging loose, and Arkansas has two issues
3 hanging loose. Gee, they have resolved 35 issues three years
4 ago, but we can't reach closure on these last two items. But
5 there was not an intent now to take these 15 items from Appendix
6 A and just say, "All new plants have to meet those." It would
7 not be sufficient by itself, because it's only one part of the
8 overall fire protection program. You really have to say -- take
9 all of it if you're going to -- in a program you would have to
10 marry the other 25 items to these 15, to do the job.

11 CHAIRMAN AHEARNE: In other words, you have got a
12 bunch of orders and you drop them all off --

13 MR. EISENHUT: That is exactly right. And that's
14 why I said if you go down the line, I think -- for example, the
15 second or third item, hydron isolation valves, I think only
16 affects one plant. Only one plant is hanging loose on that issue.
17 So one could argue that the only thing the proposed Appendix R
18 will have an impact on will be Maine Yankee from that item.

19 All of the other 60 some operating plants were
20 reviewed pursuant to Appendix A for branch technical position and
21 found acceptable.

22 COMMISSIONER GILINSKY: What was the significance of
23 your saying that Appendix R was really aimed at getting the same
24 level of safety as the --

25 MR. EISENHUT: The general philosophy was --

1 COMMISSIONER GILINSKY: In other words, you have
2 decided somewhere along the way that you ought to be doing
3 better with the operating reactors than you started out to do?

4 MR. EISENHUT: No. You see, the Appendix R items
5 are married together with the document, namely Appendix A, which
6 is less stringent than the requirements today on a new plant.

7 MR. CASE: What he's asking, what is the difference,
8 and why did you apply Appendix A to the BTP to some plants, and
9 the BTP to others?

10 MR. EISENHUT: Because I wanted new plants to be
11 better than the old plants.

12 MR. CASE: These new plants are now the operating
13 plants.

14 MR. EISENHUT: No, the cut-off here is 1/79, and the
15 way it was cut -- you know, we didn't issue a lot of OLs in '79.

16 (Laughter.)

17 And in 1980 -- so from a practical standpoint, it's
18 not an impact. The thrust was that the branch technical position
19 should apply to new plants and it is more stringent than the
20 Appendix A branch technical position.

21 COMMISSIONER GILINSKY: But here you are talking
22 about a lot of old plants. Originally you started out, or we
23 started out with the point of view recognizing that operating
24 plants were more difficult to deal with, you are limited in what
25 you can do and, therefore, accepting a lower standard of fire

1 protection, is what it amounts to.

2 But you are saying that in Appendix R, in gathering
3 up these unresolved items, you aimed higher than that, and
4 really tried to bring those plants -- or at least in those areas.

5 MR. EISENHUT: In those areas, to help partially
6 to balance off what you are requiring and what you are approving
7 for the other large numbers of items in plants.

8 COMMISSIONER GILINSKY: It sounds as if a plant
9 had pretty well complied with Appendix A, it would have left it
10 at a lower level of fire protection; but if it had a bunch of
11 unresolved items, you are going to crank them up to a -- I'm
12 just trying to understand.

13 MR. EISENHUT: I understand.

14 MR. FERGUSON: I take issue with two things: One,
15 this is a higher level of protection than Appendix A; and two,
16 these things were never articulated before Appendix R came
17 along. A lot of the words in Appendix R are the same words in
18 Appendix A, and the reason they went into Appendix R is because
19 somebody didn't agree with those, and in order to get them to
20 agree, you've got two or three choices: Forget about it, issue
21 an order, or issue a rule. And the rule is the way of enforcing
22 it.

23 Now there are two or three areas where this goes
24 beyond the requirements in Appendix A. The two things
25 specifically are associated circuits and the seismic design in

1 the reactor coolant pump, or the collection system in the reactor
2 coolant pump.

3 The associated circuits should be an obvious one that
4 we thought was already included, when somebody said something is
5 independent of an area, we would assume the licensee or the system
6 designer would say any circuits associated with that system would
7 also be independent of that area. It is a basic safety problem,
8 it's a basic requirement, if you're saying something is independen
9 of something else.

10 I don't see that's a new requiremen'. It goes beyond
11 what it said in Appendix A, but it's basic engineering, and the
12 seismic design -- excuse me.

13 CHAIRMAN AHEARNE: Is that particular analysis being
14 required for new plants?

15 MR. FERGUSON: Yes, sir.

16 COMMISSIONER GILINSKY: So you would really
17 characterize -- if I can put words in your mouth, Appendix R is
18 just plugging the gaps in Appendix A, with basically the same
19 goals?

20 MR. FERGUSON: In an enforceable document, yes.
21 Appendix A is not enforceable by I&E or by ourselves. With
22 somebody who disagrees with this and doesn't want to do it.

23 MR. CASE: There are, to my understanding, three
24 possible exceptions to that:

25 One is the associated circuits; one is the separation

1 criteria in Appendix R, if at least not more specific or
2 stringent than was used in implementing the branch technical
3 position; and the third is the battery, two-hour batteries.

4 MR. FERGUSON: Eight hours is in Appendix A, but
5 that's a --

6 MR. CASE: That's a classic case of a reviewer
7 taking liberty with what the guidelines are.

8 MR. VOLLMER: The other is the fire-retardant coating
9 as a barrier which is allowed by Appendix A.

10 COMMISSIONER GILINSKY: What was this about the
11 reviewer taking liberties?

12 MR. FERGUSON: Appendix A requires eight-hour
13 battiers, the same as Appendix R. In those plants where it was
14 reviewed and approved with the two or four-hour battery, that
15 was done at a time, by a reviewer at the time who said, "Well, is
16 this a firm requirement or what?" And we didn't have a firm
17 position on it. And subsequent to that, we have decided, no, we
18 want an eight-hour battery.

19 MR. VOLLMER: As I indicated before, the reviews
20 were conducted under the Appendix A guidance by a number of
21 review groups in the -- you couldn't go back and say that every
22 specific item may be met, because there was give-and-take in
23 certain areas and staff judgment used, and the purpose -- one of
24 the purposes of the three-year review program was to go back and
25 make sure that there is indeed an equivalent and uniform level of

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1 fire protection in all plants, and if this were to be backfitted
 2 in all the items, then it would require the Staff to gear its
 3 resources or turn its attention to going back and looking at
 4 every plant, every plant's compliance with the very specific
 5 features of Appendix R, and that would be difficult, because in
 6 some cases, as Bob said, the branch technical position Appendix
 7 A did, for the most part, require the explicit provisions of
 8 Appendix R, but there may have been some give-and-take, some
 9 Staff judgment in its implementation, and so the level of
 10 consistency may meet a review, a Staff review element, but may
 11 not strictly meet the very black-and-white words of Appendix R
 12 as a rule.

13 COMMISSIONER BRADFORD: Well, Dick, you are making it
 14 sound as though the differences might be quite small. Isn't it
 15 true that they might be quite large?

16 MR. VOLLMER: I think in some cases there could be
 17 some specific reviews which either by the way the review was
 18 conducted, or the fact that the review may have been an audit --

19 (Slide.)

20 -- where some of the very specific features of
 21 Appendix R, the branch technical position, may not have been
 22 implemented, and that would be the purpose of the re-review on a
 23 three-year schedule to find those. That's true.

24 COMMISSIONER BRADFORD: But you've got some areas
 25 listed in here where you know that the discrepancies are going to be

1 large which have troubled you enough already that you pulled
2 them out for a re-review. Now that must be in part because you
3 are not altogether sure what's there in those areas.

4 MR. VOLLMER: That's true. In some cases, for
5 example, the associated circuits, there may be a need for a
6 better definition of what is needed in the fire-retardant
7 coatings. We have some ongoing tests which may better define
8 the adequacy or nonadequacy of such things.

9 COMMISSIONER BRADFORD: But you have already taken
10 the position that you don't need credit for coatings.

11 MR. VOLLMER: Appendix A gives credit for coatings,
12 but Appendix R does not. I think the first page of the
13 Commission paper points that out, and that's why I feel it may
14 warrant further consideration for rulemaking.

15 COMMISSIONER BRADFORD: Aren't there some plants
16 that don't even have coatings?

17 MR. VOLLMER: I imagine there are some plants that
18 don't have coatings, but credit could not be given for that as a
19 protection feature.

20 MR. EISENHUT: Could I go to the next slide, A-2.

21 (Slide.)

22 This slide up here will, I think, explain the
23 situation we have got. Vic, you may want to use it then. On
24 the plants being reviewed against Appendix R, we listed here on a
25 table what this really means, and you will see clearly there are

1 plants that don't have one of these three areas we just talked
2 about, the three areas in the middle. We just labeled them,
3 for the sake of anything else, three backfitted items that Mr.
4 Case just mentioned.

5 These are the plants -- this is right after the
6 second page you have in your hand-out.

7 If you look at a plant, for example, you will see
8 that -- and this sort of lays the groundwork coming on a little
9 bit later. You see the three backfit items, where it's got the
10 three boxes, associated circuits is an open item. It turns out
11 that is the open issue, where you see on the right-hand side of
12 one under Appendix R; the other two, separations and barriers
13 particularly, on that plant was resolved and concluded under
14 Appendix A.

15 It's fair to say that in a lot of these plants where
16 you see an X down under that item, there is a difference between
17 what we approved on an Appendix A plant and what would be required
18 by an Appendix R plant. And, in fact, it could be in some plants
19 a significant difference. And that's why we highlighted these,
20 because as Dick -- to sort of lead into where he's going, I
21 think -- one of the items that we're going to focus on is, we are
22 planning to focus on in the briefing -- was there are three
23 potential areas between Appendix R where, on the one hand, you
24 can make an argument that we ought to just go ahead and backfit
25 them across the line. The impact of the tradeoffs are pretty

1 straightforward. You can see that if it's an open issue, it's
2 still open under Appendix R, and will get the Appendix R fix.
3 If it's got an X, it means it was resolved under the Appendix A
4 item and, in fact, would get the Appendix A fix.

5 So there will be a difference.

6 COMMISSIONER BRADFORD: Okay. I would like to spend s
7 time on that aspect of the discussion, but I don't want to just
8 involuntarily twist us away from the forward fit discussion, if
9 that still has life to it.

10 CHAIRMAN AHEARNE: I'm willing to -- because I think
11 he's got a working understanding of this issue.

12 COMMISSIONER BRADFORD: Okay, Dick, do you want to
13 spend some time now then on the --

14 MR. CASE: These potential backfit issues.

15 COMMISSIONER BRADFORD: Yes.

16 MR. VOLLMER: Okay. The backfit issues are the
17 fire-retardant coatings, the emergency lighting systems, and
18 the associated circuits.

19 The retardant coatings is things like flammastic,
20 which have been given credit for in Appendix A reviews. Again,
21 as an integrated review, Appendix R, in our best judgment of
22 what needs -- what the needs of fire protection are would not
23 give credit for that.

24 CHAIRMAN AHEARNE: So your best judgment is --

25 MR. VOLLMER: Our best judgment today is credit

1 should not be given because the data we have would indicate that
2 it shouldn't be given, and we are going to have tests conducted
3 which would better serve our judgment in that area. But right now
4 we just don't have it.

5 That doesn't mean again --

6 MR. CASE: The tests under the research program.

7 COMMISSIONER GILINSKY: Can I ask about those tests?

8 Is this a situation that we are less sure now than we were before
9 about the effectiveness of these coatings? Or is it that we
10 now believe they are ineffective?

11 MR. VOLLMER: I'd like to ask Vic to answer that.

12 MR. BENAROYA: Well, first of all, we give credit
13 to coatings only for the first five or six plants. After that,
14 we changed, and we did not give credit even under Appendix A,
15 the very first plants.

16 MR. CASE: The question, Vic, is are we convinced
17 the coatings are ineffective, or is it the degree of effectiveness?

18 CHAIRMAN AHEARNE: I guess if we stopped giving
19 credit after the first five or six plants, we must have concluded
20 they were ineffective.

21 MR. BENAROYA: No, they have some effect. In
22 propagation, they are very effective. They don't let the fire
23 propagate.

24 What we mean by barrier is that the fire will not go
25 from one area to the other, so that there are other.. Some

1 fire protection item will come in, like the fire brigade or
2 something else, so we need some protection between the two areas,
3 and coatings do not give that protection. It's not enough, and
4 it will give 15 or 10 minutes.

5 COMMISSIONER GILINSKY: What is the objective of the
6 test we are running now?

7 MR. BENAROYA: Okay. At Browns Ferry, we gave
8 credit to coatings as a barrier, and we want to make sure
9 that the coatings-- that the tests we are going to run on the
10 coating -- if the test is going to fail, we know what we are
11 doing is right.

12 Now let me also add that TVA has added an open
13 shutdown system, anyway, so that even if the test fails, it won't
14 affect TVA, because they already have a shutdown system for the
15 failure.

16 COMMISSIONER GILINSKY: So that the tests are being --
17 I guess I am still not clear. What is it the tests are going to
18 do for you?

19 MR. BENAROYA: Well, we would ask around the worst
20 case. The worst case is one where we found out we didn't have
21 adequate protection, and we shifted after the first few plants.
22 That's the worst case. So we are going to run the test to make
23 sure -- to see if really we are right, and that we do not have
24 adequate protection for those five or six plants for that area.

25 COMMISSIONER GILINSKY: Now is it possible that as a

1 result of these tests, we would start again to give credit for
2 coatings?

3 MR. BENAROYA: I doubt it.

4 MR. CASE: It's possible, but he doubts it.

5 MR. VOLLMER: If somebody came up with something.

6 CHAIRMAN AHEARNE: The likely result would be that
7 you would take action against those five or six?

8 MR. BENAROYA: If the test fails, as we expect it
9 might fail, we would go back and change those plants.

10 COMMISSIONER GILINSKY: So with a view towards
11 strengthening the case --

12 MR. CASE: I think the action that would be taken
13 would be to come to the Commission and to ask them to backfit
14 that portion of Appendix R to those plants. That's what I had in
15 mind, was that we were going to study it further.

16 COMMISSIONER BRADFORD: Tell me why we shouldn't
17 backfit that portion of Appendix R to those plants now.

18 MR. CASE: Well, because there are conflicting points
19 of view on the matter, and it isn't entirely clear to me that that
20 is necessary, and that the tests are going to be run and -- how
21 soon -- we'll make a decision based on the tests.

22 COMMISSIONER GILINSKY: When you're saying backfit
23 and you won't give credit, well, not giving credit isn't in
24 itself something --

25 MR. CASE: You would require all operating plants

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P.2

1 to follow the provisions given in Appendix R, which gives no
2 credit for coating. That requests 20 foot separation or a 1-R
3 barrier, plus spreading.

4 COMMISSIONER GILINSKY: Do we know what the impact of
5 that would be on the six plants? Is it clear that they would
6 impact, if they do something in addition to what they are doing?

7 MR. CASE: Yes.

8 MR. BENAROYA: We know they have to do something,
9 not exactly what in each plant.

10 COMMISSIONER GILINSKY: Well, for example, in
11 Browns Ferry, you seem to be saying it wouldn't make any
12 difference.

13 MR. BENAROYA: No, because they put already an
14 alternate shutdown system for that area.

15 COMMISSIONER GILINSKY: Does that reduce it to five
16 plants?

17 MR. BENAROYA: Please don't pin me down, because it's
18 five or six or seven.

19 MR. VOLLMER: Okay. Now on the second we discussed
20 emergency lighting system.

21 MR. FERGUSON: That previous discussion bothers me a
22 little bit. If Appendix R is applied across the board, you are
23 making a big factor on every plant, it's not six plants, in doing
24 the operating plants --

25 COMMISSIONER GILINSKY: On that particular item?

1 MR. FERGUSON: On that particular item. Every plant
2 was reviewed by a fire protection engineer who went there and
3 tried to look at it in terms of what Appendix A also requires,
4 and also used his own judgment of what makes engineering fire
5 protection sense for that particular area he was looking at, and
6 whatever was there he felt comfortable with. He did not always
7 ask for a l-R barrier throughout the area, and a sprinkler system
8 covering the area, as is required now in Appendix R. He did not
9 rely strictly on what was in Appendix A, which essentially says
10 for redundant cables, fire protection coating, and an automatic
11 system.

12 None of our fire protection engineers from day one
13 gave credit for coatings as barriers. They gave it as fire
14 retardants, that if it got started, it would slow up the fire, and
15 it would take a bigger fire to get it started in that particular
16 area. Where there are crossovers in the operating plants, the
17 operating plants have put about half an inch of maronite between
18 it, extending six or eight feet on each side of the crossover
19 point.

20 They have tested them by putting a couple of gallons
21 of fuel oil in the lower tray and burning all the cable in it,
22 and it withstands a 20 or 30 minute fire under those conditions.

23 COMMISSIONER BRADFORD: All operating plants have
24 done that?

25 MR. FERGUSON: I'm saying some operating plants have

1 done that. Most have put the -- it was Rancho Seco that ran the
2 tests, and a lot of them have used the same situation, the test
3 results, for their own facility.

4 There are detector-operated fire protection deluge
5 systems, redundant fire protection systems. Instead of using
6 barriers. All sorts of situations like that, which a fire
7 protection engineer, looking at it, felt gave adequate protection
8 of the specific protection required by Appendix A -- or Appendix
9 R, excuse me.

10 The big question in backfitting that particular section
11 is whether or not you are backfitting just for the sake of
12 meeting this particular configuration or protection.

13 There is no question in our mind that this particular
14 configuration is adequate. We have no problem saying --

15 COMMISSIONER BRADFORD: Which -- you are not saying --

16 MR. FERGUSON: There is no problem in saying that
17 is an adequate level of protection. You have a bigger problem
18 going back to an operating plant where you have just approved
19 something worse than that, and preparing a 5109 justification,
20 but going from what they have just done to what is here makes
21 a significant difference in the fire protection of the plant.

22 COMMISSIONER BRADFORD: Are you also saying that
23 you are satisfied that all of the operating plants do provide
24 adequate levels of protection? Obviously not, or we wouldn't
25 be here at all. You're not saying that all the Appendix A -- all

1 the Staff reviews done pursuant to Appendix A are now viewed
2 by the Staff with its current knowledge as having provided
3 adequate assurance, whatever they may have signed off on at the
4 time?

5 MR. FERGUSON: Well, the "all" bothers me, because
6 there are one or two items that there is no question it can be
7 done. I'm saying where if I had a fire protection engineer look
8 at a specific situation, I am satisfied that there is an adequate
9 level of fire protection in there that I feel comfortable with.
10 It may not be the exact configuration that is in here; it may not
11 go for -- go for the biggest fire, but whatever the protection is
12 that we have here will cover, but it is adequate for the situation.

13 COMMISSIONER GILINSKY: You seem to be saying also
14 that it isn't -- one has to do more than just compare Appendix R
15 and Appendix A.

16 MR. FERGUSON: Absolutely.

17 COMMISSIONER GILINSKY: Because in some cases, what
18 is out there is not in fact what one would think would be out
19 there on the basis of Appendix A.

20 MR. FERGUSON: Yes, sir, that's true.

21 MR. VOLLMER: I think one indicated it was a program
22 review under the guidance of Appendix A, just as you would do a
23 review under a regulatory guide. There are staff judgments made,
24 and I think as Bob characterized, and I started to lead off with,
25 it is our view that the overall fire protection program as reviewed

1 under branch technical position in Appendix A does provide an
2 adequate level of safety, and that for those plants, the complete
3 backfitting of Appendix R would not be needed.

4 There were certain specific items we feel need another
5 look.

6 COMMISSIONER BRADFORD: Why do they need another look?

7 MR. VOLLMER: They need another look because they
8 have been identified -- well, the first one we just talked about
9 the coatings. It's not clear, as I see it, anyway, it is not
10 clear that they provide a level of protection it may have been
11 thought they would afford when those particular plants were
12 reviewed in the small number of plants, but they may not afford
13 the protection that was thought of and that was accepted by the
14 particular fire protection engineer who reviewed that area.

15 The emergency lighting is another example where
16 Appendix A has a specific requirement for whatever -- in some
17 cases, the judgment of the individuals that perhaps the need
18 for that area in some cases, the area may have been only needed for
19 let's say, an hour in the event of an emergency situation, and
20 so therefore said, "Why do you need an eight-hour period," where
21 you may have made that judgment on that basis and accepted less
22 than an eight-hour battery?

23 COMMISSIONER BRADFORD: What I'm finding hard to
24 accept here is that when you go to a specific area, such as the
25 eight-hour lighting, or the separation in barriers, it's turning

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1 out that you do have specific cases and presumably specific
2 plants in which at least you have strong reason to doubt that
3 the Appendix A regimen and the ways in which it was checked out
4 by individual inspectors, do provide you with a level that you are
5 comfortable with.

6 What I can't grasp is how it is if those three areas
7 are troublesome, we can be confident that the rest of the Appendix
8 R can be assumed to be perfectly all right.

9 MR. CASE: Because there hasn't been that much change
10 in thinking in those other areas, or they are essentially identical.
11 The requirements between A and R.

12 COMMISSIONER BRADFORD: If they were identical, there
13 would be no problem backfitting.

14 MR. BENDER: I had hoped to make some orderly
15 presentation --

16 (Laughter.)

17 -- but it looks to me like --

18 CHAIRMAN AHEARNE: You should have --

19 MR. BENDER: Well, maybe I should have. I assumed
20 this was just like an ACRS meeting, and consequently I shouldn't
21 expect any different rule to apply, so I might as well put my two
22 cents in when I can.

23 CHAIRMAN AHEARNE: Yes.

24 MR. BENDER: First, I want to go back for a minute
25 and talk about the total circumstance that we are in. We see...

1 to be thinking that here we are putting out another appendix and
2 it's going to sharpen up the safety and fire protection capability
3 of these plants.

4 In fact, all Appendix R is going to do is require
5 some things that were in the branch technical position, but have
6 never been fully implemented. Some of them are Appendix A and
7 some are in the original requirement, and evidently in introducing
8 the rule, the main interest is in saying, well, damn it, we
9 really mean it when we say we want something.

10 Well, if you have time to look at the review the
11 EEI made of a number of plants to see what the issues are, I
12 think you would have to agree that where the plants have not
13 complied, it's because the specific circumstances are such that
14 it's more difficult for those particular plants to comply with
15 one particular requirement in their case than all the other
16 plants. And consequently there is some resistance that has
17 been developed.

18 Now it's obviously mostly money. In looking at the
19 circumstance and reviewing the requirements, all the plants
20 indicated they could comply if you were insistent upon them
21 spending the money.

22 CHAIRMAN AHEARNE: They could comply if we really
23 meant it.

24 MR. BENDER: If you meant it enough to think it was
25 worth the money spent --

1 CHAIRMAN AHEARNE: If we really meant it and thought
2 it enough to put it in an order or a rule.

3 MR. BENDER: That's right. In an order. An order
4 would make them do it. You don't have to have a rule.

5 CHAIRMAN AHEARNE: But either one would make them do
6 it.

7 MR. BENDER: But I think the people that I have
8 talked to -- I'm not necessarily a proponent of their viewpoint --
9 but what they are as concerned about as anything else is the
10 question of whether you cut off all debate, do they have a chance
11 to have their case made, and is it being made in the right place.
12 Because fire protection engineers are like all other engineers,
13 they sometimes become very arbitrary and their basis is not always
14 founded on either good engineering or good judgment.

15 I'll cite at the moment the question of how good these
16 flammastic materials are. Obviously they are not good enough
17 to fit an arbitrary fire of a certain size, because they are not
18 heat-resistant barriers and they are not good insulation. Their
19 purpose is really to occupy the oxidation sites with the
20 anticipation that if the fire does not get to a certain level, it
21 will quench itself. And I think it's been shown that in many
22 applications, including the TVA test, that those quenchants
23 that exist in the flammastic materials are pretty effective in
24 keeping the fire from spreading.

25 Now if you get a big fire, it's not clear that we can

1 fight it. My own view -- and I have made this point a number
2 of times to the Staff and in other places -- is the only safe
3 thing to do is to argue that fires must burn to extinction.
4 That's really the only way in which you can show that you have a
5 good safe plant and be able to show that certain things will
6 survive that circumstance.

7 That's what new plants ought to be required to do.
8 But there are not any new designs on paper that we can look at
9 to determine whether that's the case.

10 The existing plants generally follow the practices
11 that are 20-odd years old, even if some of them are still under
12 construction, and they have gone so far that you can't back up and
13 do all the things you would like to do.

14 We don't even know today that we have protected
15 ourselves against all the cross connections that might arise.
16 We have searched for all of them, but we haven't found all of
17 them, for certain. And consequently the anticipation is that
18 these fire protection features that have been put in are intended
19 primarily to reduce the risk that the fire will occur in a place
20 where it can cause trouble. It's not 100 percent certain, and
21 what we are arguing about is whether we have got 95, 97 percent,
22 99 percent, or something less.

23 My own belief is that we've probably got 95 percent of
24 what we are going to get in the existing plants, with a few
25 exceptions.

1 The rule that's being put forth here is only intended
2 to draw attention to the places where plants are arguing. One
3 plant that can't comply with the separation of the two fire mains,
4 happens to have the fire mains in the same trench, they've got to
5 dig up and put in another trench somewhere else and move one of
6 the fire mains, and they have in that case analyzed the fire
7 mains and shown that they are physically able to support them-
8 selves, and if the trench were undermined in some way, they could
9 physically stand up.

10 Whether they could survive an earthquake or not, I
11 don't know, but separating them won't necessarily cure that
12 problem, either.

13 Now I'm only using these points as illustrations of
14 the fact that every instance is going to have to be looked at
15 individually, and more than likely it's going to be a matter of
16 judgment about what we force the plants to do.

17 I would strongly urge the Commission to withdraw its
18 intent of developing a rule, because a rule obviously has all kinds
19 of interpretations in this room, and it's going to be worse
20 when it gets out in the field, and consequently you're not going
21 to be much better off than you were, and insist that the Staff
22 deal with its case-by-case circumstances in a prompt way.

23 In my view, if we just had some decent rules for
24 fire control back in the days of Browns Ferry, we wouldn't have
25 had any of this debate, because just telling people to watch for

1 fires and to prevent them would have prevented that fire from
2 occurring.

3 Somehow or another, I get the feeling that here we are
4 six years later arguing about some things that could have been
5 implemented the first year, because we wanted to worry about many
6 details.

7 I think I'd like to stop there and just say I could
8 give you a more ordered presentation, but I think the case has
9 been made here just by the confusion that exists.

10 COMMISSIONER GILINSKY: How do you deal with the point
11 that was raised before that in some of these points, the items,
12 there just weren't any responses from the licensees, and that it
13 was in part to deal with that, that the Staff went for a rule?
14 How does that differ? Is it just more tailored to the individual
15 case?

16 MR. BENDER: It would have required them to sit down
17 with the guys, as they're going to have to do, anyhow, and say,
18 "Here's our requirement. How are you going to respond to it?"

19 And if the guy says, "Look, I don't want to dig
20 another trench," and you say, "I don't care, you've got to go
21 under the lake and dig a trench, and if you have to shut down
22 for six months while you do that, that's the requirement," and
23 that may be necessary.

24 COMMISSIONER GILINSKY: What's the distinction between
25 the order and the rule here?

1 MR. BENDER: Well, only that the rule, because of the
2 way in which it is formulated, does not allow the licensee to
3 come in and say, "Well, look, I've got an alternative proposal
4 for this. How about letting me try it?"

5 When you set the rule, you always end up by going
6 through a legal process.

7 COMMISSIONER BRADFORD: Why hasn't the licensee done
8 that years ago?

9 MR. BENDER: I'm not sure that he hasn't. I think
10 my impression is that the Staff has not itself established clearly
11 enough what it wanted, and the licensee has tended in many cases
12 to say, look -- that's a guy down here at a very low level who is
13 making the point. I don't know whether that's representative of
14 the total regulatory position. Remember what you heard, that
15 fire protection engineers went into the plants and looked and made
16 judgments and said, "This is good enough," and they approved some
17 plants, and they were individuals, many of them were experienced
18 in certain areas, many of them were not totally familiar with the
19 philosophy that was being dealt with. We are talking about
20 something that occurred over a period of six years.

21 MR. SHAPAR: I think there are clearly other
22 differences between rulemaking and orders here in the context.
23 In either case, there was an opportunity for comment, because
24 the Commission went out with a notice of proposed rulemaking.
25 So there was public comment on the rule. Both are effective when

1 they are in effect. However, if you go by the order route, there
2 is an opportunity for hearing, and you can't even make the order
3 immediately effective and get your new requirement in place unless
4 you make a finding that the public health, safety or interest
5 requires the order to be made immediately effective, about which
6 there may be a question in this context, which means that if
7 they command a hearing, you won't have any requirement in place
8 until that hearing is over and the matter is adjudicated.

9 So I think these concepts should be kept clearly in
10 mind.

11 MR. BICKWIT: Also if the licensee wants relief, he
12 does have the option even under the rule to make his case to the
13 Staff and to the Commission for an exemption from that rule.

14 MR. BENDER: But the process is tedious, and again you
15 have the same problem.

16 MR. SHAPAR: It's not as tedious as having an
17 adjudicatory hearing.

18 MR. BENDER: In either case you are entitled to a
19 hearing, but my impression is that the rule puts the licensee in
20 the position where he has to argue the health and safety of the
21 public case instead of you, and it looks to me like you have
22 escalated the discussion into a court of law, when a lot more of
23 it could be done by technical discussion with a higher level of
24 Staff participation.

25 MR. SHAPAR: But in either case you are not entitled

1 to a hearing as such, if you go the rulemaking route. There is
2 no requirement for a hearing.

3 CHAIRMAN AHEARNE: A major issue that I think Mike
4 has raised is will you agree with the description that it's only
5 a lower level Staff that has been telling the licensee that we
6 were serious?

7 My impression was it was a lot higher than that.

8 MR. CASE: I don't agree with that. I think Darrel
9 has been on the horn, I think Dick has.

10 MR. VOLLMER: Most of the origin was before my time.
11 Darrel?

12 MR. EISENHUT: Sure, we had a considerable number of
13 discussions with the utilities, and we have argued a lot of these
14 issues.

15 CHAIRMAN AHEARNE: Try to identify who the "we" is.

16 MR. EISENHUT: At my level, Vic Stello and I both had
17 a large number of discussions the last three or four years.
18 You remember, as I said earlier, probably 80 to 90 percent of all
19 the fire protection items have been implemented for a couple of
20 years, and I think that speaks for a lot of those debates and
21 discussions. These are the ones where after those discussions --
22 and it was with appropriate levels of management in the companies,
23 generally the vice president level, we still have these dis-
24 agreements.

25 So the question was down to, as I said earlier, how to

1 make it an issue.

2 COMMISSIONER GILINSKY: Moreover, it seems to me
3 that in suggesting that we ought to go more to a case-by-case
4 approach, you are in effect suggesting what you are deriving,
5 and you said, you know, a single Staff guy goes out and takes a
6 look, he may or may not know what he's doing.

7 MR. BENDER: Oh, I think you have to do it. You
8 physically have to look at the plants, and you've only got a
9 handful of people doing these things, and it's occurred over a
10 half dozen years.

11 I don't argue that Darrel has participated in some
12 fraction of them, because back in the beginning almost everything
13 had to be fought out. But as you have gotten down toward the
14 end, I think the cases are most explicit, and you just about have
15 to go down and stand in front of the plant and say, "Well, when
16 are we going to route this?" If you tell me to put in some type
17 of fire protection barrier that's three-hour resistant, and I've on-
18 got room to get something that's equivalent to about an hour's
19 resistance in there without tearing the plant apart, and involving a
20 very extensive set of modifications, I think reason requires that
21 you look at it physically, and that's about what we have been
22 arguing.

23 COMMISSIONER GILINSKY: But wasn't this the very thing
24 that you were commenting on not very favorably when you said
25 here is a guy who wanders off --

1 MR. BENDER: No, I am not arguing what the desirability
2 or not-desirability of having an individual look at it is. What
3 I'm saying is that those individuals that look were good people,
4 but they didn't necessarily have the broad kind of comprehension
5 that needed to be covered that you might desire today. And where
6 they could get agreement, they established agreement in a few
7 places it turned out that the agreement that was required by the
8 licensee or the applicant, whatever he is -- I'm not sure whether
9 both kinds exist right now -- became so expensive or so time-
10 consuming that people decided they just had to stand their ground.
11 And these have not been addressed yet.

12 MR. VOLLMER: I think it's been brought out a number
13 of times, though, that many of the items here do not meet the
14 specific requirements of Appendix A, even the branch technical
15 position Appendix A, because the Staff judgment did allow some-
16 thing lesser. And I'm not sure that armed with all these
17 exceptions, and we have a traveling road show, that we are going
18 to be able to close that gap. It may be. I don't know.

19 MR. BENDER: Have you looked at the EEI review of
20 the issues?

21 MR. VOLLMER: Yes, I did.

22 MR. BENDER: I think they cited a number of cases
23 where the requirements were such that alternatives could have
24 been introduced, and they did not sound all that bad to me.

25 MR. VOLLMER: I think in many cases the reason why we

1 are at where we are is because we were not able to get -- we
2 went the alternative route.

3 Now maybe we didn't exhaust that type of a process,
4 and I --

5 CHAIRMAN AHEARNE: Dick, let me ask whether you have
6 any additional points you want to make, because I suspect that
7 Peter has some points he wants to make.

8 MR. VOLLMER: I was only going to cover the different
9 implementation schedule proposals.

10 CHAIRMAN AHEARNE: Why don't you do that?

11 MR. VOLLMER: Okay. That would be on the last --
12 that would be on the third slide.

13 (Slide.)

14 Implementation schedule. If you recall, on the last
15 version of the proposed rule, and also the implementation schedule
16 suggested of the more specified in the Commission memo and order
17 of May 23rd was basically that the fire protection modifications
18 be implemented by November 1st, and there was a less -- there
19 was schedule relaxation for alternate and dedicated shutdown.

20 What we are suggesting in this particular rule is
21 that as a maximum that the implementation schedule for administra-
22 tive items required by the rule would be 30 days after the
23 effective date of the rule. For those modifications that involve
24 changes to the plant or equipment, but don't require NRC prior
25 approval and don't require the plant to shut down, that they be

1 fully implemented in nine months after the rule becomes effective,
2 and finally that the fire protection features that would involve
3 plant modifications, that they be implemented before start-up,
4 following the first refueling outage 90 days or 180 days after
5 the rule becomes effective.

6 We don't think that there should be any relaxation in
7 trying to get implementation on the earliest possible timeframe
8 for those items committed by the licensees, and we know that
9 many plants would not be able to accommodate fully meeting these
10 requirements on an earlier time schedule, particularly say January
11 1st of '81 or something like that.

12 For the alternate and dedicated shutdown systems,
13 both of those will require NRC review and approval. Now I might
14 mention the alternate shutdown systems is a way to circumvent a
15 specific problem that you find in the plant. If you find in a
16 plant an area where the fire protection itself cannot circumvent
17 a specific problem -- in other words, in the cable spreading room,
18 you can't really provide adequate protection to redundant trains
19 of safety-related equipment. You provide instead a circuit
20 around that particular area for items that are needed for safe
21 shut-down and cooldown of the reactor.

22 So it's really a system itself. It's more of a
23 circuitry around a potential problem area.

24 COMMISSIONER GILINSKY: Roughly how many plants
25 would be in that category, do you know?

1 MR. VOLLMER: Almost all plants require either
2 alternate or dedicated shutdown, in some place or other. We're
3 talking about just a few plants that they wouldn't be required,
4 a few plants -- I think five or six that we feel would require
5 dedicated shutdown. Oconee 1, 2, 3 is committed to it. Yankee
6 Rowe, we're requiring it.

7 COMMISSIONER GILINSKY: What is the difference
8 between dedicated and alternate?

9 MR. VOLLMER: Okay, alternate shutdown is a circumventi
10 of the problem by some circuitry. In other words, you have an
11 alternate circuit around a problem area that you can be assured
12 has protection.

13 The dedicated shutdown system would be a real system,
14 an honest-to-goodness system of dedicated hardware, dedicated
15 equipment, separate, that you have high reliance on, that would
16 not be involved in the same type of a fire situation that your
17 normal plant circuitry or system would be involved in.

18 COMMISSIONER GILINSKY: All of them have one or the
19 other, or did you say the five would have neither?

20 MR. VOLLMER: There's five or six that will require
21 a dedicated; there is a small number, five or so, that would
22 require neither; and the balance will require alternate shutdown
23 system somewhere or other.

24 COMMISSIONER GILINSKY: And you require the dedicated
25 systems where the problem is more severe than it would be --

1 MR. VOLLMER: Well, for example, the dedicated system
 2 would be in a plant that, say, all of the cables are so completely
 3 mixed that it would be hopeless to try to separate out and
 4 provide an alternate shutdown system. So it would require a
 5 specific dedicated system that would circumvent the whole problem.

6 It depends, really, on the degree of nonseparation of
 7 safety trains, where you have just a very bad safety situation,
 8 you would tend to go to the dedicated. Where you have situations
 9 where you can define appropriate solutions to get around the
 10 separation problem, and you would use the alternate shutdown
 11 approach. There are a few plants that would require neither.

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1 MR. EISENHUT: Excuse me. The reason they don't
2 require either is they already have them, the capability.

3 MR. VOLLMER: The capability to shut down.

4 MR. EISENHUT: Right, the capability is there, one way
5 or the other.

6 CHAIRMAN AHEARNE: All right. So you would propose,
7 then, your rule --

8 MR. VOLLMER: The rule is suggesting those
9 as appropriate implementation dates.

10 CHAIRMAN AHEARNE: Peter, since a large amount of this,
11 the interchange particularly of recent information between Ed and
12 your office, and that you do have some additional proposals?

13 COMMISSIONER BRADFORD: Well, particularly as to the
14 material that I think Ed has sent down recently which mostly
15 pertains to possible adjustments if the Commission went a
16 different way, for example on the grandfathering question.

17 CHAIRMAN AHEARNE: I might not have gotten that one.

18 MR. CASE: Let me explain. There is at least that
19 possibility that the Commission would grandfather the section
20 that I dealt with on the separation.

21 The way the separation section is currently written
22 in the proposed Appendix R, it requires staff review -- not
23 requires staff review; it suggests this alternative, and that
24 alternative, or, if you don't want to meet either one, propose
25 something to the staff.

1 I sought to remove the staff from that process by
2 specifying yet another alternative. That was my exchange with
3 Peter: To, since there would be more plants involved and staff
4 participation would therefore be more because of the larger
5 number of plants --

6 COMMISSIONER BRADFORD: Basically, though, I think
7 it's right that we don't get to that, really, until we decide
8 grandfathering. I guess that really hinges on a couple of
9 fairly fundamental points, one of which is whether what's
10 involved here really is a situation in which most plants are
11 perfectly all right in, let's just say the three areas that
12 you're proposing for the staff review; or whether there isn't
13 really reason to be considerably more concerned about things
14 like the separation and the adequacy of the reviews that were
15 done over the last few years.

16 I must say, my sense of the situation is that it
17 isn't one that I am very comfortable with as to a number of
18 those specific plants. I had also gathered that there was some
19 difference of view within the staff on the backfit question,
20 and I am wondering if I could ask whether there were others in
21 the room who had a somewhat different perspective on it?

22 MR. VOLLMER: Right. If you wish, Greg Harrison
23 could address that --

24 COMMISSIONER BRADFORD: That would be fine.

25 MR. VOLLMER: -- his views on the backfit. Greg?

1 MR. HARRISON: My name is Greg Harrison, Fire
2 Protection Engineer with NRR. I support the view that we should
3 retrofit the rule in, as a minimum, the three areas of alternate
4 shutdown, fire barriers versus fire codings, and emergency
5 lighting and associated circuits. So it depends on how you
6 do your accounting. There could be three or four areas.

7 I sort of equivalent between barriers and alternate
8 shutdown, because barriers are an alternative to installing an
9 alternate shutdown system.

10 Over the last two to three years, I have, from time
11 to time, read various -- Well, I've read all of the SERs
12 produced for the operating plants, and it dawned on me that
13 there was a technical difference between the reviews of those
14 plants versus plants done with DSS, and I so documented that in
15 a memo two years ago, March of '78, or it might be '79; time
16 escapes me.

17 In any event, much of what I've heard so far to me
18 is the sense we hear the arguments that everybody complies with
19 the rule, or almost, and it's only one item here, and one item
20 there, and, really, I listen to all those arguments and, to me,
21 I conclude that it would be very easy to retrofit. There would
22 just be growing pains in certain plants -- particularly those
23 who have held the line right down to this point, who have
24 basically said, you know, we ain't gonna do anything until you
25 force us. It is those plants that I --

1 CHAIRMAN AHEARNE: Could I ask you one question?

2 MR. HARRISON: Go ahead.

3 CHAIRMAN AHEARNE: You said, "plants that have said
4 we won't do anything" --

5 MR. HARRISON: The open items.

6 CHAIRMAN AHEARNE: All right, because --

7 MR. HARRISON: The open items. Everybody has done
8 something to varying degrees. My comment is, most people have
9 done -- as has been said before me -- most people have -- most
10 of the companies have installed most, if not all the fire
11 protection criteria that we have imposed upon them. And it is,
12 to me, by not retrofitting we are, in a sense, rewarding those
13 who held out. That bothers me. It does not parallel the thrust
14 of accomplishing a safety objective.

15 COMMISSIONER GILINSKY: Could I ask about that?

16 It seemed to me it was the other way around, in the sense that
17 some companies have, say, covered things with flammastics --

18 MR. HARRISON: That's correct.

19 COMMISSIONER GILINSKY: -- and that was then accepted.

20 I mean, it is they who would then have to go and make changes.

21 MR. HARRISON: Right. But not in all cases. Because,
22 see, sometimes in a number of cases it's because they have also
23 installed alternate shutdowns. That wouldn't be a severe impact,
24 because -- in other words, it's either alternate shutdown, or
25 it's either barriers, for a lot of these areas.

1 COMMISSIONER GILINSKY: Well, the ones who have held
2 out will now be forced to comply --

3 MR. HARRISON: -- to do one or the other.

4 COMMISSIONER GILINSKY: -- by the rule.

5 MR. HARRISON: Correct.

6 COMMISSIONER GILINSKY: There isn't any question about
7 backfitting with them.

8 MR. HARRISON: There would not be, no.

9 Now the thing -- I guess the next point I want to make --

10 MR. BICKWIT: And then the ones who have ignored, just
11 ignored the staff entirely that you mentioned, they would have
12 to comply with the rule.

13 MR. HARRISON: That's correct. Then -- which leads
14 to something which hasn't been said, yet. There are a number of
15 items that have been reviewed and closed out, so therefore not
16 identified as an open item. This would be acceptance by the
17 staff of fire retardant coatings for fire-rated barriers. Now
18 those items, in those areas of the plants, never appear as an
19 "open item" that we have dealt with in a somewhat frantic
20 fashion in the last six months or so.

21 Now there are a number of those items in existence in
22 a number of plants. So the question that hasn't been asked today
23 is: Exactly what are we grandfathering?

24 I am disturbed personally by the staff position of
25 "we'll just retrofit" and see what we have later, knowing full

1 well that we already have the engineering data in saying fire
2 rated barriers are not the same as fire coating. That's very
3 clear. There is much in the literature that's documented that
4 supports this -- fire testing at Sandia, fire testing in the
5 major oil companies -- they're hunting for the same thing:
6 circuit integrity for 15 minutes in a flammable liquid fire.
7 They know that coatings give you 3 minutes.

8 So, to me, there is no issue -- there couldn't be a
9 clearer issue, that the fire coatings are not the same as fire-
10 rated barriers. And in the fire protection engineering profes-
11 sion, it's just common sense.

12 CHAIRMAN AHEARNE: I'm not really following you with
13 respect to your barriers here. Which item are you focusing on?
14 Are you focusing upon this question of not requiring for those
15 early plants --

16 MR. HARRISON: Correct.

17 CHAIRMAN AHEARNE: -- the elimination of --

18 MR. HARRISON: Right. There was an equivalency given
19 to fire coatings to a fire barrier. Therefore, the review --

20 CHAIRMAN AHEARNE: But that really is -- I am trying
21 to make sure I understand your point. That is with respect to
22 that early set of plants?

23 MR. HARRISON: Yes, sir.

24 CHAIRMAN AHEARNE: And not the later plants?

25 MR. HARRISON: Right.

1 COMMISSIONER GILINSKY: Let me understand that, too.
2 We have heard that there was credit given for these coatings for,
3 say, half-a-dozen plants.

4 MR. HARRISON: I wouldn't restrict it to a half-a-
5 dozen.

6 COMMISSIONER GILINSKY: Well, that's what I was going
7 to ask. Someone else said that if we went back, we would have
8 to deal with essentially all the plants, or many plants. It
9 wasn't just a matter of those half-a-dozen.

10 MR. HARRISON: I think it would be many.

11 COMMISSIONER GILINSKY: And what is the reason for
12 that? That credit was only given for the initial number? Or is
13 that not right, either?

14 MR. HARRISON: I'm not sure I understand that.

15 CHAIRMAN AHEARNE: The argument really is: How many
16 plants are involved? The issue that was presented is that early
17 in the review for the early plants, the credit was given in the
18 analysis and has stopped being given. So that the backfit
19 requirement, if it is laid, would be laid on those early set of
20 plants. And you seem to be disagreeing.

21 MR. HARRISON: I don't have a specific number, but I
22 certainly think it is far greater than seven -- 30 or 40 plants,
23 maybe, would be my estimate.

24 COMMISSIONER GILINSKY: That many plants where credit
25 was given for coatings?

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1 MR. WAMBACH: I am Tom Wambach from Division of
2 Licensing.

3 One of the problems in the reviews performed for
4 Appendix A, as Mr. Ferguson described, the teams went to the
5 site and they applied their fire protection judgment. The rule
6 calls for 20 feet of separation. We can't tell right now how
7 many areas of a plant might have 19 feet, 18 feet, 15 feet --

8 COMMISSIONER BRADFORD: Two feet?

9 MR. WAMBACH: And where credit was given for the
10 flammastic, as Greg said, as a barrier, and where it was used
11 just to reduce combustibility of the cables because they didn't
12 have cables that met the IEEE standard.

13 So to try to give you a number on the impact, I think
14 we would have to go back and look at each plant. You'd have to
15 go around the plants with a 20-foot bar to check all the
16 distances.

17 MR. BENDER: There was nothing magic about --

18 MR. WAMBACH: But that's what's in the rule.

19 MR. BENDER: It's a fairly arbitrary number.

20 COMMISSIONER GILINSKY: Well, we always have to select
21 some number. But I would like to understand. When Vic was
22 saying that credit was given for half-a-dozen plants, were you
23 talking about cables, or what?

24 MR. BENDER: Cables.

25 COMMISSIONER GILINSKY: I see. But it was also given --

1 COMMISSIONER BRADFORD: -- in a judgment sense for a
2 bunch of other situations?

3 COMMISSIONER GILINSKY: Could you distinguish between
4 the "6 plants" and the "30 plants" for me, please?

5 MR. BENAROYA: In this case, it's a method of opinion
6 as to how many we have. In the first, we had -- in my opinion,
7 we have about half-a-dozen where we have that problem.
8 Apparently Greg feels that it is a lot more.

9 COMMISSIONER GILINSKY: Where does the "20 feet" come
10 in?

11 MR. BENAROYA: Well, there is a certain amount of
12 equivalency in anything. In fire protection, that's what we
13 have always. We have alternate ways of skinning the same cat.
14 We say that if you have 20 feet, for example, separation --

15 COMMISSIONER GILINSKY: Between what and what?

16 MR. BENAROYA: Between two different divisions,
17 completely free of space, nothing in between, then if you have
18 an exposure fire in the floor it will not affect both divisions
19 at the same time. Therefore, a barrier is not required.

20 COMMISSIONER GILINSKY: Okay.

21 MR. BENAROYA: Now if they come closer, we say you're
22 going to put in a 1-R barrier, and a sprinkler system.

23 COMMISSIONER GILINSKY: Okay.

24 MR. BENAROYA: Or you can put in a 3-R barrier without
25 the sprinkler system. All these things are all equivalent.

1 COMMISSIONER GILINSKY: But are you saying that there
2 are only six plants where that separation has been reduced
3 because coatings were given credit?

4 MR. BENAROYA: That's correct.

5 COMMISSIONER GILINSKY: And you seem to differ not only
6 with Greg, but with -- I'm sorry, I don't know your name.

7 MR. WAMBACH: Tom Wambach.

8 COMMISSIONER GILINSKY: Yes.

9 MR. WAMBACH: Well, I would find it difficult to make
10 that statement when the review teams that went out originally
11 didn't know that we were coming up with this 20-foot criteria
12 and the l-R barrier, so they would have had to somehow predict
13 three years ago that we were going to come up with it.

14 COMMISSIONER GILINSKY: I see. So what you are saying
15 is that we're really not sure, and we don't know how many are
16 out there, and there are probably a fair number?

17 MR. BENAROYA: That's right. It's a matter of
18 judgment as to how many we have.

19 MR. HARRISON: That, if I may, takes me back to I
20 think where I started. The staff review was done on an inte-
21 grated program under specific guidance, and we really don't know,
22 if we go back -- without going back into the details of the
23 review, and maybe going back to the plants, to find out how, or
24 whether they specifically meet each element of the Branch
25 Technical position, and that is one of the prime reasons we felt

1 a three-year program needed to be instituted to bring them, if
2 there were deficiencies, up to an equivalent level.

3 COMMISSIONER BRADFORD: Let's see. When the staff
4 team went out to do these Appendix A reviews, did they not write
5 down and document the basis for their conclusions?

6 MR. HARRISON: Yes, they did, in the SER.

7 COMMISSIONER BRADFORD: So that when -- Why can't you
8 then, just by reviewing those documents, ascertain compliance?
9 Why? Because too often you're running into judgments?

10 MR. EISENHUT: You know, the issue of whether it was
11 20 feet or not wasn't an issue at the time, so it's not addressed
12 in the SER.

13 MR. CASE: We said, "adequate separation."

14 MR. EISENHUT: To fix you on a data point, 30 of the
15 plants -- about 30 units -- this issue of separation is still an
16 open issue that has to be resolved under Appendix R, which is
17 not really a subject here. The other 40, I concur that I think
18 you have to go back and look at those and decide how many of
19 those would be impacted by this or not. You don't know the
20 number unless you go back and look at those 40 plants. It's not
21 documented in their submittals, and it's not documented in the
22 SERs because it wasn't really an issue at the time of whether
23 it's 20 feet or not.

24 You can ascertain a lot of that information, but you
25 can't really address the question from Appendix R.

1 COMMISSIONER BRADFORD: Okay, now, Darrel, as to those
2 plants, say we just backfitted the three issues in question for
3 the moment, what would be the difference in the scope of work
4 that the staff would have to do under the proposed formulation
5 on the one hand where you're going to go back and look at those
6 three issues and then decide afterwards, as against the review
7 that would have to be done to simply enforce what would then be
8 Appendix R?

9 MR. EISENHUT: Well, we take them one at a time,
10 because -- the numbers are different if we look at different
11 issues. And this is part of that table that I supplied you.

12 If you look under the "separation and barrier" column,
13 that "X" means it was previously closed under the Appendix A.

14 COMMISSIONER BRADFORD: Right.

15 MR. EISENHUT: So the staff would be planning no other
16 work in that area at this time. It's a closed issue. The only --

17 MR. CASE: That wasn't his question, Darrel. His
18 question was: What's the difference in the staff manpower to
19 try to decide whether to backfit or not, versus --

20 COMMISSIONER BRADFORD: -- to enforce Appendix R.

21 MR. CASE: -- enforcing Appendix R --

22 COMMISSIONER BRADFORD: -- which included, that's right.

23 MR. EISENHUT: You would have to look at those 40
24 plants.

25 COMMISSIONER BRADFORD: Either way?

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1 MR. EISENHUT: Either way.

2 You would have to look at those 40 plants to decide
3 whether or not Appendix R would require something or not, or
4 whether they meet the proposed Appendix R. You would have to
5 evaluate those 40 plants.

6 MR. CASE: Well, that's not the way I proposed and
7 made up my mind. I was going to wait to see what the research
8 test said. And then if it said absolutely no credit should be
9 given for coating, then so be it, and backfit to the licensees,
10 and the licensees would go out there and do the measuring. And
11 where they didn't apply, they would go to these alternatives.

12 The staff review of that would, at best, be minimal
13 and would probably be done by I&E.

14 (Laughter.)

15 MR. CASE: If you have some specific rules for them
16 to meet, then you don't have to have --

17 MR. EISENHUT: I wasn't inferring that -- You have to
18 have some mechanism to look at those 40 plants, whether it's us
19 or the licensee. The number on that item is 40. Other of
20 these issues, the number is a lot bigger or a lot smaller.

21 MR. HARRISON: And I guess my point is that it is
22 clear to me as a professional fire protection engineer that we
23 certainly know the difference between "barriers" and "coatings."
24 And if I struck a few, I could produce many a test document,
25 government-funded and private-funded, that would certainly beyond

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1 a shadow of a doubt show that there certainly shouldn't be,
2 beyond the wildest dreams, be any credit given to fire-retardant
3 coating as a fire-rated barrier.

4 COMMISSIONER GILINSKY: Why did we give credit in the
5 first place?

6 MR. HARRISON: That was before my time.

7 MR. BENAROYA: May I answer that one? Because other
8 fire protection engineers recommended it.

9 MR. BENDER: There is a better answer than that,
10 however. It has to do with the postulated fire. When things
11 started back in the beginning, most people were concerned about
12 the initiators, and being able to keep the fire from getting out
13 of bounds. Now in these tests, they have established some
14 arbitrary condition that is the reference fire. That had to be
15 done in order to run the tests. Whether a fire of that sort
16 will actually appear or not just is a speculative matter. And
17 I think good practice would say that, starting from scratch,
18 you would design for the arbitrary fire. But when you're
19 backfitting, then you really have to look at it in a risk
20 context and say: What is the likelihood that that fire will
21 really show up? You've got to bring in some solvent and burn
22 it, really, to get the fire. Am I overstating the position?

23 MR. HARRISON: No, that's fair. And I'll take it
24 another step further. There are three ways to make a decision:
25 one under certainty, uncertainty, and risk. We are, at all

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1 times in fire protection, dealing -- contrary to the ones who
2 are in love with probabilities -- we are in a state of uncertainty.
3 So it is always more conservative to put a probability of "one"
4 on the occurrence of a fire.

5 The next question is defining it. We have had some
6 learning curve on this, and through our site visits we have
7 found all kinds of conditions in plants -- operating and
8 otherwise -- and we know there are small fires.

9 An example would be: We have observed an individual
10 cleaning cables in a cable spreading room with acetone, which
11 is a Class I-A liquid. All we have to do is look at it.
12 So small transient exposure fires will occur certainly sometime
13 in the operating life of a nuclear power plant. I think that
14 should be taken into consideration in a formal fire-hazard
15 analysis.

16 COMMISSIONER GILINSKY: Well, Mike, you seem to be
17 arguing with the notion of backfitting in this area, even if
18 these tests prove out?

19 MR. BENDER: Yes, I am. Because I think -- the two
20 of us don't have any disagreement on this thing; it's just a
21 matter of where you start.

22 If you want to start with the postulative, you're
23 going to have that kind of fire, then you have to put in
24 something that's resistant to it. But in the circumstance where --
25 it's not like an oil refinery where the material is there all

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1 the time, and you certainly are going to have fires that are
2 hot fires. In this case, to have this fire, you're going to
3 have to have somebody bring in the thing -- and he's right.
4 They'll bring in acetone once in a while. I have no doubt that
5 we will have an occasional fire.

6 I do have questions about the likelihood of a fire of
7 the size which is postulated of burning in the place where the
8 barrier is not adequate.

9 MR. BENAROYA: But that would be a difference of
10 opinion among anybody. On this case, we all agree. That's why
11 we changed it.

12 (Laughter.)

13 COMMISSIONER GILINSKY: Well, but you also seem to be
14 saying: Let's not backfit now. Let's run these tests. But
15 also at the same time you seem pretty well agreed that the
16 tests are very unlikely to demonstrate that these coatings are --

17 MR. CASE: Well, I guess I would have to say one
18 other thing. The staff was told to get this rule up just as
19 damn quickly as you can, and faster than that if you could.

20 (Laughter.)

21 MR. CASE: And we didn't have much time to debate this
22 back and forth and reach a position one way or the other. So
23 one safety valve I used, frankly, in order to meet an expedited
24 schedule where, if I'm getting advice on both sides and it's
25 not obvious which one to choose, I threw it in the category,

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1 "we'll decide later," on the basis that it's better to have
2 three-quarters of a load than none.

3 COMMISSIONER GILINSKY: Yes, but that would be
4 consistent. I mean, if you took Mike's point of view, which is
5 that you're not sure you want to backfit even if the coatings
6 aren't any good, that's one thing. But you seem to have decided
7 that if these tests prove out, that the coatings aren't any good,
8 then you're going to go ahead and backfit.

9 MR. CASE: That's what I decided, and Mike probably
10 didn't agree with it.

11 COMMISSIONER GILINSKY: Also, you seem to have decided
12 that the tests aren't all that necessary; that the data is
13 there. So what is holding you back, other than the awkwardness
14 of having told people to do one thing, and then telling to do
15 another?

16 (Laughter.)

17 MR. CASE: I'm a little skeptical of Greg's one-hundred
18 percent assurance that the tests are not going to work.

19 COMMISSIONER GILINSKY: Well --

20 MR. CASE: If that were all that obvious, I sort of
21 wonder why we --

22 COMMISSIONER GILINSKY: Well, Victor didn't seem to
23 be differing all that much.

24 MR. BENAROYA: I depend on my fire protection engineers;
25 I'm not a fire protection engineer. Please don't get me wrong.

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1 I am a chemical engineer. But as a manager, I listen to my
2 people and take their advice. I value their advice.

3 COMMISSIONER GILINSKY: Well, what I'm saying, I wasn't
4 trying to draw any difference between you. In fact, I was saying
5 that there seems to be agreement, that --

6 MR. FERGUSON: One of the problems with going back and
7 backfitting to the rule, the rule -- we have one requirement in
8 there that if you don't have a 3-R barrier; a 1-R barrier around
9 one system, and a sprinkler system in the area. That's what the
10 rule requires right now.

11 What we have done out in the plant, there may be a
12 plant with a 15-foot separation and coated cables. There is no
13 real -- you can't make a technical basis now that the same fire
14 that would damage coated cables which are one-foot apart are
15 going to damage the coated cables that are 15-feet apart. We
16 don't know that the same fire would even touch them.

17 COMMISSIONER BRADFORD: But, Bob, isn't it also the
18 case --

19 MR. FERGUSON: We don't know that if those cables were
20 15-feet off the floor, whether it would bother them at all.

21 COMMISSIONER BRADFORD: Isn't it also the case that
22 there may be plants where the cables are a couple of feet apart,
23 a foot apart? Inches, if you will?

24 MR. FERGUSON: The test which is being run at Browns
25 Ferry, which is the first test, turned out to be vertical cables

1 which are total flammastic and redundant cables, and conduit
2 which is unprotected separated by one or two feet. In places
3 that I know about, in one plant where the safet-related cable is
4 run in conduit and the conduit is in fact in some places one-
5 inch apart. It is not clear that the cable in those things
6 are really redundant to each other. And there are cables -- and
7 the conduit is spread over a 100-foot distance, and it is five-
8 to ten-feet off the floor, and it is not clear that it would
9 all be affected in the same fire.

10 It is not an instantaneous effect. If the fire went
11 on long enough, everything in the cable spreading room got on
12 fire and it burned for an hour or two, it would probably be
13 damaged.

14 The difference between that kind of a thing and
15 actually going through that same area and coating it with a
16 one-hour barrier, it's touch-and-go about whether you're getting
17 any significant benefits from the expense involved.

18 CHAIRMAN AHEARNE: I think it is clear probably to
19 everyone by now that we are not going to reach a resolution this
20 afternoon on this issue. We are not going to get there.

21 So I need to know, assuming -- because I just don't
22 believe we're going to finish -- what status do we have? We
23 now have an order out to the plants that they must do something
24 by a certain date. We have a memo in from Harold saying that he
25 is going to have to start coming in with -- in fact, it said that

1 today was going to be the first of that set of plants.

2 Assuming we do not get this out, which we won't today,
3 what is the status?

4 MR. CASE: Well, what the staff was intending to
5 propose in this next session was that we would review each
6 licensee's license condition date beyond November 1. We would
7 review each request that we have received or would receive for
8 extending compliance after November 1, with basically the
9 criteria of implementation given in the proposed rule as a
10 standard.

11 We would try to insist that during our review some
12 of the features be implemented as soon as practical, but in no
13 even later than they would be implemented if they were an open
14 item under Appendix R in the proposed rule.

15 In other words, there are three categories of times,
16 and we had hoped that today you would have approved the rule
17 with that sort of an implementation schedule and we could present
18 that criteria to you this afternoon. We hoped that you would
19 say "yes," and then we would use that over the next two weeks to
20 deal with those cases that we have.

21 CHAIRMAN AHEARNE: My impression, Peter, from, I think
22 as you mentioned, some of the things that Ed has proposed, that
23 you have a proposed modification to the rule. Is that correct?

24 COMMISSIONER BRADFORD: Yes, basically --

25 CHAIRMAN AHEARNE: Well, I guess that in order certainly

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1 for me to address the rule, I would want to see what that --

2 COMMISSIONER BRADFORD: You want to see that. All
3 right.

4 CHAIRMAN AHEARNE: -- proposed modification is.

5 COMMISSIONER BRADFORD: Yes. Okay. And you've got a
6 pretty good grasp of it, I think, but, sure, I'll be glad to
7 write it down.

8 CHAIRMAN AHEARNE: Because there are at least two
9 versions. I mean, there is one version that says there were
10 three items that I guess had been called down --

11 COMMISSIONER BRADFORD: Yes. Two versions of the
12 backfit question.

13 CHAIRMAN AHEARNE: That's right.

14 COMMISSIONER BRADFORD: Whether to backfit the entire
15 Appendix, or just those three issues. That's right.

16 CHAIRMAN AHEARNE: That's right. And I don't know
17 whether there are any other changes that --

18 COMMISSIONER BRADFORD: Not in the substance of the
19 rule, no. I am puzzled by aspects of the effective date, but
20 the implementation schedule, other than that, is fine.

21 CHAIRMAN AHEARNE: Because we do have the staff-
22 proposed rule. I think the backfit question is probably one
23 that if you put down some versions we can --

24 COMMISSIONER BRADFORD: Yes.

25 CHAIRMAN AHEARNE: And if at all possible, today, we

1 could vote on it tomorrow.

2 COMMISSIONER BRADFORD: Well --

3 CHAIRMAN AHEARNE: And I realize that that's --

4 COMMISSIONER BRADFORD: No, but that's fine.

5 CHAIRMAN AHEARNE: And that might then enable us to
6 get action on this.

7 COMMISSIONER BRADFORD: Did you want to schedule a
8 session tomorrow, then?

9 CHAIRMAN AHEARNE: Well, we have a session scheduled --

10 MR. BICKWIT: We've got a session in the morning, and
11 one in the afternoon.

12 CHAIRMAN AHEARNE: So we could do it after the one in
13 the afternoon. If it's possible to do that. Vic?

14 COMMISSIONER GILINSKY: That's fine with me.

15 CHAIRMAN AHEARNE: We have an I&E briefing at 2:00
16 o'clock, and after that we could --

17 COMMISSIONER BRADFORD: What's in the morning?

18 CHAIRMAN AHEARNE: The morning is closed, organizational
19 management.

20 COMMISSIONER BRADFORD: Does that look like a two-
21 hour session?

22 CHAIRMAN AHEARNE: I wouldn't be surprised.

23 Mike?

24 MR. BENDER: If I could just offer one point that I
25 wanted to make in a more orderly statement, but still I think

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1 it is worthwhile to say.

2 Most of the premise on which we are dealing with fire
3 protection has to do with response to fires, and how long you
4 have to get there by some kind of fire-fighting mechanism.
5 People do argue for sprinkler systems as being effective fire-
6 fighting devices, but I'm sure if you looked at all the
7 literature you would find that not in every case could one
8 argue that sprinklers are 100 percent effective. As a matter
9 of fact, the literature would show some cases where they are
10 only 50 percent effective; and others, where they are 100 percent
11 effective.

12 So the application of any of these fire-protection
13 devices is not totally characterized. Now there are a couple of
14 things about fires that people ought to do, and for some reason
15 or other I don't see them in the rule. One is: When you have
16 a fire alarm, shut down the plant. Don't wait to find out
17 whether you can fight the fire.

18 I don't see that in the rule, but somehow or other
19 my intuition says: Even if you do shut down a few plants
20 because of just a wastebasket fire, you will make people more
21 conscious of the need to keep fires under control. And in fact,
22 it will encourage good practice.

23 Secondly, there is a matter of what to do about the
24 fire brigade. We have argued for five-man fire brigades as
25 though that was the solution to the problem. In fact, three men

1 will put out small fires, and five men can only put out an
2 incremental fire that is somewhat bigger. It would have been
3 enough to fight the Browns Ferry, as it turns out, but not a
4 much bigger fire than that.

5 It seems to me important to think about the total
6 response to fires. Some sites don't have any supplemental
7 fire-fighting capability. Others have a whole big city that
8 surrounds it. And for some reason or other, I don't see enough
9 attention to how the total fire-fighting capability is addressed.
10 And that bothers me a great deal. That wasn't in the Committee's
11 letter, and neither was the first point.

12 Nevertheless, I am concerned about those matters.

13 CHAIRMAN AHEARNE: All right, let me ask you one
14 closing question.

15 In the way the Committee letter was written, I could
16 carry away the impression -- and I wanted to make sure that I
17 don't mischaracterize it -- that you still have some disagree-
18 ments with going specifically in the rule. However, that if we
19 do decide to go heavy with the rule, then the revision that has
20 come up is one that you would think is -- and it's the next word
21 I'm not sure of -- "acceptable"?

22 MR. BENDER: The revision that has come up is
23 acceptable in principle. I think there's no question about that.
24 We have I think made the point, and you have heard it enough
25 times here so it isn't worth saying again, but I will anyhow:

1 Appendix R just covers a little bit of what's in the
2 Branch Technical Position. It's hard for me to believe that
3 you need a rule to cover an incremental piece of your require-
4 ments. You're either going to address all of it, or you're
5 going to leave it in this negotiating position. And I have a
6 hard time seeing that the proposal here helps out the situation
7 much.

8 CHAIRMAN AHEARNE: William, you started the meeting.
9 Would you care to end it?

10 COMMISSIONER BRADFORD: Can I just ask one question?
11 I'm not sure that Mr. Harrison ever actually completed his
12 statement of position. Somehow we sidetracked him in the
13 middle.

14 Can I just ascertain that? And if he didn't, perhaps
15 we can make it an early item of business at the meeting tomorrow.

16 Did you get a chance to state your position fully
17 before we interrupted you?

18 MR. HARRISON: Well, I think the position is clear.
19 I think there -- I guess to summarize, or make it simplistic,
20 I think the rule should be retrofitted on a firm and consistent
21 basis, is one aspect of it.

22 MR. CASE: Well, Greg, make it clear. Do you mean
23 all of the rule? Or the three --

24 MR. HARRISON: The main items having to do with
25 alternate shutdown, associated circuits, fire barriers, and

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1 emergency lighting. Those are the real key issues, and I really
2 think there are an unknown number of plants out there that have
3 been evaluated in the past, and the items are closed out, and
4 to me it is clear -- and also to the fire-protection consultants
5 that work with me -- we're in unanimous agreement that there are
6 a number of items in these plants that have been closed out on
7 a technical basis that we think is in violation of sound fire
8 protection engineering.

9 If the rule is retrofitted, that would give us the
10 vehicle to enforce and reopen up those items. Without the
11 rule -- speaking of manpower -- quite frankly, I don't know how
12 you go back in and ferret everything else out. No one can answer
13 that question. I've asked that question.

14 I think it is well known that there's a tremendous
15 difficulty in accomplishing the regulatory function -- the
16 bureaucracies being what they are. So the rule is an appropriate
17 vehicle to go backwards in time and take advantage of what we
18 have gained on the learning curve, applied evenly across the
19 industry, and bring up fire protection to some acceptable level.

20 CHAIRMAN AHEARNE: But are you specifically -- Is your
21 primary concern those four items that you mentioned?

22 MR. HARRISON: Yes, sir.

23 CHAIRMAN AHEARNE: Len?

24 MR. BICKWIT: I just wanted to ask Ed: The implemen-
25 tation schedule that you're contemplating with respect to the

1 closed item matters --

2 MR. CASE: Yes.

3 MR. BICKWIT: -- were you intending to deal with that
4 in this rule?

5 MR. CASE: No.

6 MR. BICKWIT: Would you entertain some discussion to
7 that effect?

8 MR. CASE: I am for the easiest way, whatever that may
9 be.

10 CHAIRMAN AHEARNE: Sam, that was --

11 MR. DIRCKS: Well, I think the one point that Dick
12 introduced the subject with is that there are three items I
13 think we were saying that we had sort of an open mind on, and
14 I think Dick indicated that these three items were going to
15 be picked up anyway in this three-year evaluation and this three-
16 year cycle of looking at the plants.

17 CHAIRMAN AHEARNE: Yes, and I think one of the issues --

18 MR. DIRCKS: Do you want to do it now? Or do you want
19 to do it within the three-year period?

20 CHAIRMAN AHEARNE: Now the alternate shutdown was not
21 one of your three?

22 MR. CASE: I think Greg just said it that way, because
23 that's where the associated-circuit issue appeared. Am I
24 correct?

25 MR. DIRCKS: That's right. That's right.

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CHAIRMAN AHEARNE: All right.

(Whereupon, at 4:10 p.m., the meeting was
adjourned.)

* * *

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POOR ORIGINAL

NUCLEAR REGULATORY COMMISSION

This is to certify that the attached proceedings before the
COMMISSION MEETING

in the matter of: Discussion and Vote on Fire Protection Program

Date of Proceeding: October 16, 1980

Docket Number: _____

Place of Proceeding: Washington, D. C.

were held as herein appears, and that this is the original transcript thereof for the file of the Commission.

Ann Riley

Official Reporter (Typed)

Ann Riley

Official Reporter (Signature)

**APPROVED APP. A MODIFICATIONS NOT SCHEDULED
FOR COMPLETION BY NOVEMBER 1, 1980**

PLANT NAME	NO. OF ITEMS	ORIG. SCHED.	NO. OF ITEMS EXCEEDING SCHED.	LAST ITEM
INDIAN PT. 2	3	1/81	0	1/81
INDIAN PT. 3	1	8/81	0	8/81
NINE MILE PT.	12	6/81	1	7/81
NORTH ANNA 1	3	1/81	0	1/81
ARKANSAS 2	3	3/81	0	3/81
BEAVER VALLEY 1	4	2ND REFUEL 10/80	4	2ND REFUEL 3/82
CALVERT CLIFFS 1, 2	ALL	11/ 1 /80	5	7/82
CRYSTAL RIVER 3	ALL	AFTER NRC APPROVAL	5*	9/81
R. E. GINNA	23	6/81	0	6/81
PEACH BOTTOM 2/3	ALL	18 MOS. AFTER NRC APP.	28*	2/82
POINT BEACH 1/2	14	5/81	0	5/81
PILGRIM 1	ALL	11/ 1 /80	1	UNK.
PRAIRIE ISLAND 1/2	ALL	10/30/80	6	4/ 1 /81
SAN ONOFRE 1	11	END OF SEP	0	END OF SEP
SURRY 2	2	REFUEL 3/81	2	REFUEL SLIP 12/81
TURKEY PT. 3/4	9	12/1/80	2	5/81
YANKEE ROWE	ALL	11/1/80	2	11/30/80
MONTICELLO	ALL	11/1/80	2	5/81
OYSTER CREEK	ALL	11/1/80	1	2/81
PALISADES	ALL	11/1/80	2	10/81

*THESE ITEMS HAVE NOT EXCEEDED THE SCHEDULE.
NRC APPROVAL WAS DELAYING ITEM.

PROPOSED APPROACH
NON-IMPLEMENTED APPENDIX A ITEMS

- Administrative controls, manpower changes, and training
 - All Appendix A review matters are implemented
- Modifications not requiring shutdown and those requiring shutdown
 - Complete as soon as practicable
 - Must meet license condition schedule, if before Appendix R schedule
 - But not later than Appendix R schedule would require
 - No shutdown required, no later than 90-months after effective date of Appendix R
 - Shutdown required, no later than before startup after first refueling outage that begins at least 180 days after effective date of Appendix R
- Dedicated Systems
 - Only one plant (Oconee) approved under Appendix A
 - License condition requires completion by December 1981

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STATUS OF FIRE PROTECTION MODIFICATIONS

PLANT NAME	INCOMPLETE APP. A ITEMS				3 BACKFIT ITEMS			APP. R ITEMS	
	ADMINISTRATIVE	NON-SHUTDOWN	SHUTDOWN	LATEST SCHEDULE	ASSOC. CKTS	SEPARATION & BARRIERS	EMERGENCY LIGHTING	ADMINISTRATIVE	HARDWARE
BROWNS FERRY 1, 2, 3	0	0	0	NA	X	X	X	0	0
BRUNSWICK 1, 2	0	0	0	NA	X	X	X	0	0
D. C. COOK	0	0	0	NA	X	X	X	0	0
COOPER	0	0	0	NA	X	X	X	0	0
DAVIS BESSE 1	0	0	0	NA	X	X	X	0	0
FT. ST. VRAIN	0	0	0	NA	X	X	X	0	0
HATCH 1, 2	0	0	0	NA	X	X	X	0	0
INDIAN PT. 2	0	0	3	1/81	X	X	X	0	0
INDIAN PT. 3	0	0	1	8/81	X	X	X	0	0
KEWAUNEE	0	0	0	NA	X	X	X	0	0
OCONEE 1, 2, 3	0	0	0	NA	X	X	X	0	0
RANCHO SECO	0	0	0	NA	X	X	X	0	0
NINE MILE PT. 1	0	11	1	7/81	X	X	X	0	0
NORTH ANNA 1	0	0	3	1/81	X	X	X	0	0
NORTH ANNA 2	0	0	0	NA	X	X	X	0	0
SALEM 1	0	0	0	NA	X	X	X	0	0
SEQUOYAH 1	0	0	0	NA	X	X	X	0	0
TROJAN	0	0	0	NA	X	X	X	0	0
ARKANSAS 1	0	0	0	NA			X	0	2
ARKANSAS 2	0	0	3	3/81			X	0	2
BIG ROCK PT.	0	0	0	NA		X	X	0	1
BEAVER VALLEY 1	0	0	4	3/81		X	X	0	1
CALVERT CLIFFS 1, 2	0	2	3	7/82			X	0	6
CRYSTAL RIVER 3	0	4	1	9/81			X	0	3
DRESDEN 1	PRIOR TO STARTUP						X	0	2
DRESDEN 2, 3	0	0	0	NA			X	0	2

STATUS OF FIRE PROTECTION MODIFICATIONS (Cont'd.)

PLANT NAME	INCOMPLETE APP. A ITEMS				3 BACKFIT ITEMS			APPR. ITEMS	
	ADMINISTRATIVE	NON-SHUTDOWN	SHUTDOWN	LATEST SCHEDULE	ASSOC. CKTS	SEPARATION & BARRIERS	EMERGENCY LIGHTING	ADMINISTRATIVE	HARDWARE
DUANE ARNOLD	0	0	0	NA	X	X	X	0	2
FARLEY 1, 2	0	0	0	NA		X	X	0	1
FITZPATRICK	0	0	0	NA			X	0	4
FT. CALHOUN	0	0	0	NA			X	0	3
R. E. GINNA	0	6	17	6/81		X	X	0	1
HADDAM NECK	0	0	0	NA		X	X	2	2
LA CROSSE	0	0	0	NA			X	0	6
MAINE YANKEE	0	0	0	NA	X	X		2	4
MILLSTONE 1	0	0	0	NA			X	2	2
MILLSTONE 2	0	0	0	NA			X	2	3
MONTICELLO	0	0	4	5/81			X	3	3
OYSTER CREEK	0	1	0	2/81			X	0	2
PALISADES	0	0	2	10/81		X	X	0	1
PEACH BOTTOM 2, 3	0	28	0	2/82		X		3	4
POINT BEACH 1	0	11	3	5/81			X	2	5
POINT BEACH 2	0	11	3	5/81			X	2	5
PILGRIM 1	0	0	1	UNK.	X	X	X	0	1
PRAIRIE ISLAND 1, 2	0	3	3	4/81		X		0	2
QUAD CITIES 1, 2	0	0	0	NA	X		X	0	1
H. B. ROBINSON 2	0	0	0	NA	X		X	2	3
SAN ONOFRE 1	0	4	7	END OF SEP			X	0	5
ST. LUCIE 1	0	0	0	NA				2	6
SURRY 1	PRIOR TO STARTUP						X	0	5
SURRY 2	0	0	4	12/81			X	0	5
THREE MILE ISLAND 1	PRIOR TO STARTUP 12/81						X	0	2
TURKEY POINT 3/4	0	14	0	5/81			X	1	3

STATUS OF FIRE PROTECTION MODIFICATIONS (Cont'd.)

PLANT NAME	INCOMPLETE APP. A ITEMS				3 BACKFIT ITEMS			APP. R ITEMS	
	ADMINISTRATIVE	NON-SHUTDOWN	SHUTDOWN	LATEST SCHEDULE	ASSOC. CKTS	SEPARATION & BARRIERS	EMERGENCY LIGHTING	ADMINISTRATIVE	HARDWARE
VERMONT YANKEE	0	0	0	NA		X	1	5	
YANKEE ROWE	0	2	2	11/80	X	X	0	1	
ZION 1, 2	0	0	0	NA		X	3	2	

FIRE PROTECTION OPEN ITEM STATUS

FIRE PROTECTION OPEN ITEMS	APP R. ITEM															
PLANT NAME	WATER SUPPLY	SECTIONAL ISO. VALVES	HYDRANT ISO. VALVES	MANUAL SUPPRESSION	HOSE TESTS (ADM)	FIRE DETECTION	SEPARATION & BARRIERS	FIRE BRIGADE (ADM)	BRIGADE TRAINING(ADM)	EMERG. LIGHTING	ADMIN. CONT. (ADM)	ALT. & OED. SHUTDOWN	PENETRATION SEAL TEST	FIRE DOORS	OIL COLL FOR RCP	
ARKANSAS UNIT 1						X					X					
ARKANSAS UNIT 2					X	X										
BIG ROCK POINT											X					
BEAVER VALLEY 1											X					
CALVERT CLIFFS 1, 2				X	X	X					X	X	X			
CRYSTAL RIVER 3					X	X					X					
DRESDEN 1						X					X					
DRESDEN 2, 3						X					X					
DUANE ARNOLD												X	X			
FARLEY 1, 2											X					
FITZPATRICK	X					X					X	X				
FT. CALHOUN	X					X					X					
R. E. GINNA											X					
HADDAM NECK							X	X			X				X	
LA CROSSE	X			X	X	X					X				X	
MAINE YANKEE			X	X			X	X	X			X				
MILLSTONE 1						X	X	X			X					
MILLSTONE 2						X	X	X			X				X	

FIRE PROTECTION OPEN ITEM STATUS (Cont'd.)

FIRE PROTECTION OPEN ITEMS	APP R. ITEM	WATER SUPPLY	SECTIONAL ISO. VALVES	HYDRANT ISO. VALVES	MANUAL SUPPRESSION	HOSE TESTS (ADM)	FIRE DETECTION	SEPARATION & BARRIERS	FIRE BRIGADE (ADM)	BRIGADE TRAINING (ADM)	EMERG. LIGHTING	ADMIN. CONT. (ADM)	ALT. & DED. SHUTDOWN	PENETRATION SEAL TEST	FIRE DOORS	OIL COLL. FOR RCP
PLANT NAME																
MONTICELLO							X	X	X		X	X	X			
OYSTER CREEK							X					X				
PALISADES												X				
PEACH BOTTOM 2, 3					X	X	X		X		X	X	X			
PILGRIM 1													X			
POINT BEACH 1, 2							X	X	X			X	X	X	X	
PRAIRIE ISLAND 1, 2							X					X				
QUAD CITIES 1, 2							X									
H. B. ROBINSON 2							X		X		X		X			X
SAN ONOFRE 1		X				X	X					X				X
ST. LUCIE 1		X		X			X	X	X	X		X				X
SURRY 1, 2				X		X	X					X	X			
THREE MILE ISLAND 1							X					X				
TURKEY POINT 3, 4		X					X	X				X				
VERMONT YANKEE		X		X			X				X	X				X
YANKEE ROWE								X				X				
ZION 1, 2							X	X	X		X	X				

KEY APPENDIX R PROVISIONS

- APPLICABLE TO PLANTS WITH OLS PRIOR TO 1/1/79
- NOT APPLICABLE TO FIRE PROTECTION MEASURES ACCEPTED BY STAFF BASED ON APPENDIX A TO BTP 9.5-1 REVIEW
- IMPLEMENTATION SCHEDULES GEARED TO SPECIFIC REQUIREMENTS AND IMPACT ON PLANT OPERATION.

ELEMENTS OF THREE YEAR FIRE PROTECTION PROGRAM REVIEW

- REVIEW OF FP-SER VS CURRENT REQUIREMENTS

- SITE AUDIT AND PLANT WALK-THROUGH
 - PROCEDURES
 - RECORD KEEPING
 - FIRE BRIGADE
 - INSPECTION OF FIRE AREAS
 - EQUIPMENT TESTS

- EVALUATION AND RECOMMENDED ACTIONS

IMPLEMENTATION SCHEDULE

- o ADMINISTRATIVE ITEMS - RULE + 30 DAYS
- o FP FEATURES INVOLVING MODIFICATIONS, NO PRIOR NRC APPROVAL - RULE + 9 MONTHS
- o FP FEATURES INVOLVING MODIFICATIONS AND PLANT SHUTDOWN - FIRST REFUELING OUTAGE AFTER RULE + 6 MONTHS
- o ALTERNATE SHUTDOWN - 6 MONTHS FOLLOWING NRC APPROVAL/FIRST REFUELING AFTER NRC APPROVAL
- o DEDICATED - 30 MONTHS AFTER NRC APPROVAL

SPECIFIC ITEMS FOR FUTURE BACKFIT CONSIDERATION

- **FIRE RETARDANT COATINGS**
- **EMERGENCY LIGHTING SYSTEMS**
- **ASSOCIATED CIRCUITS**

CORRECTIONS FROM
OCT. 14, 80 MEMO
ENCLOSED

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SECY-80-438A

September 30, 1980

CONSENT CALENDAR ITEM

For: The Commissioners

From: Harold R. Denton, Director
Office of Nuclear Reactor Regulation

Robert B. Minogue, Director
Office of Standards Development

Thru: Executive Director for Operations

Subject: RULE ON FIRE PROTECTION PROGRAM FOR NUCLEAR POWER PLANTS OPERATING
PRIOR TO JANUARY 1, 1979

Purpose: Commission approval of the Final Rule on Fire Protection Program.

Discussion: On May 29, 1980, the Commission published in the Federal Register (45 FR 36082) A Notice of Proposed Rule Making inviting written suggestions or comments on the proposed Rule by June 30, 1980. As a result, 51 comment letters were received. The proposed Rule was modified to reflect these comments. A draft revision of the final Rule was sent to the Commission on September 19, 1980. Enclosed is the staff's proposed final Rule (10 CFR Part 50 §50.48 and Appendix R), including the statement of considerations (Enclosure A) and the value-impact statement on the above subject (Enclosure B) for Commission approval.

This paper does not include a discussion of alternatives because these complex fire protection issues have previously been the subject of detailed consideration by the Commission and staff and numerous licensing actions. The bases for the requirements in the final Rule are discussed in the statement of considerations. As noted in our September 19, 1980 memorandum, this Rule allows the grandfathering of fire protection modifications already approved by the staff. It also extended the implementation date. The bases for these provisions are also discussed in the statement of considerations.

The final Rule also discusses three issues that the NRC staff believes may warrant further rulemaking to "backfit" the related requirements of Appendix R.

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dit for fire retardant coatings as a fire
does not. The ongoing replication test
he adequacy of the combination of fire
and suppression systems. The results of
rant imposing further fire barrier

ting systems were accepted with less than the
supply required by Appendix R. The cost of
y approved two-hour battery supplied systems



WASHINGTON, D. C. 20555

July 15, 1980

MEMORANDUM FOR: H. Bender, Chairman
ACRS Subcommittee on Fire Protection

FROM: Garry G. Young
Nuclear Engineer

SUBJECT: SUBCOMMITTEE ON FIRE PROTECTION MEETING OF JULY 9, 1980

I have prepared the attached proposed meeting summary for your review. Copies are being distributed to other ACRS members for their information and comment. Corrections and additions will be included in the minutes of the meeting.

Garry G. Young
Garry G. Young
Nuclear Engineer

Attachment:
As stated

cc: ACRS Members
ACRS Technical Staff
G. Ariotta, SD
D. Notley, SD
V. Banaroya, NRR
R. Ferguson, NRR

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L. Notley

UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
WASHINGTON, D. C. 20543
September 11, 1980

MEMORANDUM FOR: Guy A. Arlotto, Director
Division of Engineering Standards
Office of Standards Development
FROM: ~~Garry G. Young~~
Garry G. Young
Reactor Engineer
SUBJECT: ACRS COMMENTS ON PROPOSED FIRE PROTECTION RULE
(SECY-80-88)

At the request of Mr. M. Bender, Chairman of the Fire Protection Subcommittee, I am forwarding a draft of proposed changes to 10 CFR 50, Appendix A, Criterion 3 which will be discussed during the 246th ACRS meeting.

Mr. Bender has requested that the NRC Staff consider the concept of revising Criterion 3 as proposed in the attached, rather than issuing the new proposed rule on fire protection. The attached draft is forwarded as an example for discussion and should not be considered an ACRS recommendation. The ACRS will be discussing the proposed fire protection rule during the 246th ACRS meeting on October 9-11, 1980 and the NRC Staff is requested to make a short presentation which should include some comments on changing Criterion 3 versus adding the new Appendix R to 10 CFR 50.

Attachment:
As stated

- cc: M. Bender, ACRS
- R. F. Fraley, ACRS
- M. Libarkin, ACRS
- J. McKinley, ACRS
- D. Notley, SD
- R. Ferguson, NRR
- T. Rohm, EDO
- G. Zach, NRR

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