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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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PUBLIC WORKSHOP ON
TECHNICAL AND POLICY CONSIDERATIONS
FOR
NUCLEAR POWER PLANT LICENSE RENEWAL

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CONCURRENT SESSION 5
OVERVIEW OF CONCEPTUAL APPROACH
AND REGULATORY FRAMEWORK

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Sheraton Resort Hotel
Conference Room 5
11810 Sunrise Valley Drive
Reston, Virginia

Monday, November 13, 1989
1:15 p.m.

1 NRC PARTICIPANTS:

2 Frank Gillespie

3 Lawrence Chandler

4 Robert Bosnak

5 Cecil Thomas

6

7 INDUSTRY PARTICIPANTS:

8 Sol Burstein, ASME

9 Jay Silberg, Shaw, Pittman, Potts & Trowbridge

10 Joseph Gallo, Hopkins & Sutter

11 Don Edwards, Yankee Atomic Electric Company

12 Pat Ward, Grove Engineering

13 Bob Weiseman, Westinghouse

14 Bart Cowan, Ekert, Siemens

15 John DeVincentis, Yankee Atomic Electric Company

16 Tim Bailey, Northern States Power Company

17 Ed Griffing, NUMARC

18 Frank Bell, Baltimore Gas & Electric

19

20 NRC AUDIENCE PARTICIPANTS:

21 Leon Rider

22 Guy Arlotto

23 James Sniezek

24

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P R O C E E D I N G S

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[1:15 p.m.]

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MR. GILLESPIE: Let me ask a couple of questions before I turn it over to this panel. I'm left over from this morning, so I don't get a little name thing. I have to stand. That's my punishment, I'm told, for not being argumentative enough this morning.

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Let me ask a couple of things that would really help us out. We hashed a couple of questions over at lunch, and I want to make sure I understand what you understand so I can understand it.

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The last three speakers in this morning's session spoke to the current licensing basis, and let me separate the current licensing basis into two pieces. One is the paper basis, the list, the bookshelf full of paper that says here is the current licensing basis. No one really wants to xerox that bookcase full of stuff and send it in.

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Well, in issuing a renewed license, it was generally our belief that we would have to somehow reference or to make valid or to bring it up to date all of the old requirements, and that was kind of the genesis for wanting the wording of the rule the way it is, so that in the renewed license, there would be a definite reference. I think we can take under consideration the need for analysis of that, but we definitely felt that we needed the reference in there to reference it back

1 as a starting point.

2 Yes.

3 MR. BURSTEIN: I am concerned with your reference to
4 a new license. I would like you to tell us why you think this
5 is not an amendment to the existing license, in which all of
6 that garbage does not have to be revalidated.

7 MR. GILLESPIE: I didn't say revalidated. I said
8 listed, but let me try to answer you.

9 Larry, do you want to -- I can take a shot at it.

10 [Laughter.]

11 MR. GILLESPIE: Let me take a shot. I'll take a shot
12 at it, and I don't feel bad, because only OGC can interpret.

13 MR. BURSTEIN: You issued all that stuff initially.
14 You should have it all.

15 MR. GILLESPIE: It's a matter of whether we make up
16 the list and give it to you or you make up the list and give to
17 us for referenceability, but in any event, we feel we have to
18 reference it. Let me take one step back and say the Atomic
19 Energy Act itself uses the term "renewed license". It doesn't
20 say amendment. It doesn't say new. It says "renewed".

21 So, we call this a "renewed license". Now, to a
22 degree, that's calling it "George" to eliminate the pitfalls of
23 either one, but we'll try to be fairly consistent in that, and
24 I believe, in the Atomic Energy Act, there is a limit on the
25 length of time a license can be issued for. A license can only

1 be issued for 40 years.

2 MR. BURSTEIN: The initial license.

3 MR. GILLESPIE: The initial license can only be
4 issued for 40 years. What's the exact wording, Gary? It just
5 says "a license".

6 It then goes on and talks about "a renewed license".
7 So, we feel we're in renewed license space, and I'm probably
8 splitting hairs. I don't know if that's a whole lot different
9 from a new license. It's something in the middle.

10 MR. BURSTEIN: You are equally justified in assuming
11 it's an amendment to an existing license or a continuation of
12 that existing license.

13 MR. GILLESPIE: No.

14 MR. BURSTEIN: Why not? Tell me why not.

15 MR. CHANDLER: It would not be a continuing license,
16 because the Act puts a 40-year limit on that license. You,
17 arguably, could talk in terms of amendment. I think, based on
18 our review of the legislative history of the Act, though, we
19 fairly well satisfied ourselves that a renewed license is
20 probably a better way of looking at it and, even more
21 specifically, looking at virtually as a new license. It is not
22 simply an amendment, in conventional terms, of a license.

23 Now, I think one of the things that we would like to
24 elicit from you-all is any help that you have on that that may
25 persuade us otherwise. You know, if there is some argument to

1 be made for treating this as a somewhat routine license
2 amendment or somewhat more than a routine license amendment, we
3 certainly would be interested in knowing what the basis for
4 that view would be, but right now, we're satisfied that the
5 better way of viewing it, given the constraints of the Atomic
6 Energy Act, are to treat it as a new license, a renewed
7 license.

8 MR. BURSTEIN: What's the basis for saying it's a new
9 license, as opposed to a renewed license?

10 MR. GILLESPIE: Could we have, the gentleman in the
11 back, your name and organization, just so we have it on record?

12 MR. BURSTEIN: My name is Sol Burstein, and I am
13 representing here ASME.

14 MR. SILBERG: I'm Jay Silberg from Shaw, Pittman.
15 Can you tell us what's the basis for saying that this should be
16 treated as a new license?

17 MR. CHANDLER: I am not sure I can distinguish -- let
18 me back up. I am not sure I know what a "renewed" license is.
19 There is no help that we were able to find in any of our
20 research that suggests that there is an initial license or a
21 different license that's called a "renewed license" that is
22 issued sometime down the road, after 40 years, which would have
23 any different limitations or have any different standards for
24 its issuance than an operating license.

25 MR. GILLESPIE: I guess, more importantly, despite

1 what we call it, it wouldn't make any difference, would it?

2 MR. BURSTEIN: It may, yes.

3 MR. CHANDLER: Well, as a practical matter, we did
4 not see it, and as I suggest, if you-all have a thought on
5 where there would be a distinction, if it were viewed as a
6 renewed license, it would be helpful for us to know what that
7 would be.

8 MR. GILLESPIE: Generally, an amendment can go to
9 hearing, also. So, once you notice it, it didn't seem to
10 really matter a whole lot what we called it.

11 MR. SILBERG: It's the findings that carry over or
12 don't carry over. If you treat it as a new license, something
13 that's fresh, something clean, then you ought to have a new
14 document and everything has to be resubmitted all over again.

15 If it's a license amendment for a renewed license,
16 something that isn't a whole new document, then it seems to me
17 you're entitled to take credit for all those things that you've
18 put on the document over 40 years and you don't have to refile,
19 you don't have to submit a new list.

20 The Commission ought to have the list of all the
21 things that are on the docket. I don't know why anything more
22 would be necessary. You ought to be able to take credit for
23 the findings that the Commission has made, provided that those
24 findings are not undermined by age-degradation.

25 MR. CHANDLER: I'm not sure, Jay, that treating it as

1 a new license changes the ability to rely on matters of record.

2 In other words, I'm not sure that, even though the
3 staff would be looking for a current licensing basis, that
4 certain credit can't be taken for that which is already a
5 matter of record. Again, if you've got a better way of
6 skinning a cat, let us know. I'm not sure, practically, it
7 makes much of a difference, though.

8 MR. GALLO: Joe Gallo, Hopkins and Sutter. Do you
9 see a problem with simply extending the term of the particular
10 operating license from expiration date to whatever it is, to a
11 20-year period?

12 MR. CHANDLER: By amendment? Yes.

13 MR. GALLO: What is that problem?

14 MR. CHANDLER: The 40-year limitation that's imposed
15 in the statute.

16 MR. GALLO: Why? Because that would create a 60-year
17 license?

18 MR. CHANDLER: Yes, something that wasn't
19 contemplated when the Act was passed, recognizing that that
20 period wasn't necessarily imposed for health and safety
21 reasons.

22 Don?

23 MR. EDWARDS: Don Edwards, Yankee Atomic.

24 Suffice it to say that we have an unusual creature
25 here. It's not necessarily amendment and it certainly isn't a

1 new license. We've been looking at this for quite a while, to
2 come up with a way to treat it. We want to carry information
3 forward. We want to recognize that the plan exists, it is
4 running, it has records, it has established itself. It is not
5 an uncertain question about the facility.

6 So, all of that information is readily available. We
7 ought not to have to reconstitute it and resubmit it at this
8 point.

9 What you are really concerned about is the hardware
10 degradation that you can segregate out if you analyze it
11 carefully and systematically and make sure that that's
12 mitigated. That is really where our focus has been in the
13 development of the methodology of that whole approach. I guess
14 what we have read doesn't seem to go in that direction.

15 MR. GILLESPIE: I think it was our intent to submit a
16 list for referenceability that was a defined quantity that
17 would carry forward.

18 Go ahead, Larry.

19 MR. CHANDLER: Let me just add, it's more than simply
20 so that matters can be referenced down the road but today, if
21 you look at an operating plant and one of our inspectors is out
22 there, there's a defined base against which one can inspect and
23 one can establish compliance against a given set of
24 requirements and designs and procedures.

25 It's necessary to carry that base forward. Now I

1 don't disagree with what Jay was suggesting before. Those
2 things ought to continue forward and we're proposing,
3 suppose, one way of carrying it forward and if there are
4 others, fine.

5 MR. SILBERG: Why do you need to have anything? I
6 mean in the year 39, you don't need a new list. Why in the
7 year 41 all of a sudden do you need a new list to carry out the
8 same inspections that you were doing yesterday without the
9 list?

10 MR. CHANDLER: It's not a new list.

11 MR. SILBERG: A list that didn't exist before.
12 You're asking us to submit something new.

13 MR. CHANDLER: No, I think Frank said what it is. We
14 can do the list or you can do the list. Our proposal says you
15 do the list.

16 MR. SILBERG: Why do you need a list at all? You
17 don't have a list today. You don't have a list in year 39 and
18 everyone recognizes that you can inspect a site. We have
19 commitments and we abide by those commitments. Why in the year
20 41 do you --

21 MR. BOSNAK: There are things in the current
22 licensing basis, particularly in the initial design that expire
23 at year 40. They were designed for 40 years and what happens
24 to those when you go beyond the 40 years? Somebody has to take
25 a look to see if the initial design basis is adequate for 50,

1 60, perhaps more, but until you do that there is this
2 uncertainty.

3 MR. SILBERG: That is the analysis which would be
4 done, degradation time, dependency --

5 MR. BOSNAK: Right. Exactly.

6 MR. SILBERG: And that's the list that we get
7 submitted, not the list of everything.

8 MR. BOSNAK: I think we recognize that. That is the
9 list that we all want to see.

10 MR. SILBERG: You won't find it.

11 MR. GILLESPIE: I think we're not going to probably
12 argue it out here. The comment is good. We could put a
13 comment in the rules rather than a list.

14 One alternative would be to reference everything on
15 the docket since CP submission as being applicable and then no
16 one needs a list. You just say everything submitted under
17 docket umpty ump remains 100 percent in effect. But then
18 someone has to give us a list of superseded things or we'll
19 develop the list of superseded things, but we generally right
20 now feel and the reason it's in there was referenceability and
21 completeness.

22 Gary, do you want to add anything to that? You're
23 the one we were working with -- or Larry?

24 MR. CHANDLER: I would hope, and this even ties to
25 the question of certification, that the industry and the

1 individual utilities have as good and likely better knowledge
2 of their facilities than does the staff and I think that's
3 where it becomes particularly important to have the most
4 current -- I'll use the word "licensing basis" -- but not as
5 used in the straw man regulation. That's why it becomes
6 important to have that compilation, irrespective of what you
7 call it and that's why in a sense the industry is in the best
8 position to provide it.

9 MR. GILLESPIE: Let me go on to the next thing and
10 see if this can be -- at least evoke some questions.

11 The last three speakers this morning raised the
12 second part of the issue with the licensing basis. That's the
13 paperwork side of the licensing basis. Who writes the list.
14 Do we need a list?

15 I'm not sure that I was hearing him correctly because
16 it kind of drifted through my mind at lunch and I tended to
17 lose it and I talked to a couple of other people -- I won't
18 mention their names but they lost it too.

19 If a component is in fact already covered by a
20 program we say we're not now going to review and ISI is one of
21 those programs, the intention of the wording and the conceptual
22 rule we have written would be that that component still has to
23 be looked at for its material characteristics, the environment
24 it sees and the judgment made as to which degradation
25 mechanisms are in play and if those mechanisms are made up for

1 or accounted for by the test already being performed then
2 that's okay. You don't have to do anything more with that. If
3 it's not, then you have to either increase the frequency of the
4 test or do another test.

5 Now what I thought I heard and I might have misheard
6 it. I might have not had it come across right, was if a
7 component was currently covered by a current program, it
8 shouldn't have to be looked at again at all. Now, that's what
9 I thought I heard. Would anyone like to -- is that what I
10 heard? Is that what everyone else in the room heard or is that
11 what you meant?

12 [No response.]

13 MR. GILLESPIE: It's not what you meant?

14 I was groping for the exactness of what I heard.

15 MR. BURSTEIN: Let me say it again if nobody else
16 will. I hope that's what you heard because that does indeed
17 represent what we do periodic inspections and tests for. Why
18 else do we do them? We know that things begin to age from day
19 one and the whole period of doing these inspections and
20 revalidations of ability to perform during the initial
21 licensing period is to take care of those things. Unless you
22 define because we haven't been able to, a new mechanism that
23 begins to show itself in year 40, then the existing ISI's and
24 tests and all the other things we do to validate equipment and
25 apparatus performance should continue to apply beyond the

1 initial licensing period.

2 MR. GILLESPIE: Okay, and be satisfactory.

3 MR. BURSTEIN: Unless there is some new phenomenon
4 that so far as I know has not been elicited from either side of
5 these items, if that's the case, I think you heard it
6 correctly.

7 MR. BOSNAK: I would just like to make one comment on
8 that. Both ISI and IST programs and other programs continually
9 change. So if we're talking about keeping up with a program
10 that does change and for instance, with respect to the
11 containment ISI, now it's just looking at wells but there are
12 things coming forward which would require that the base
13 material be examined to look for things like gross corrosion.
14 So there are things that are going on in existing programs and
15 I would expect that those would be included.

16 MR. BURSTEIN: I think to make this a dialogue, would
17 that not apply to existing licenses?

18 MR. CHANDLER: Exactly.

19 MR. BURSTEIN: So what's the difference? You're
20 reinforcing my argument.

21 MR. GILLESPIE: We're not disagreeing with it. I just
22 wanted to make sure because that's not the way our conceptual
23 rule is written and I wanted to make sure I understood the
24 exact context of the comment, because there are other programs
25 and components which are now included in various maintenance

1 programs from anything from just looking at it and doing an
2 observation to tearing a valve down and I don't know that right
3 now I'd have to look to Bob to say we feel comfortable that
4 those requirements and those commitments were put in place
5 necessarily to cover the spectrum of degradations that are
6 listed in the conceptual rule.

7 We have to go back and think about that a little
8 more. In the conceptual rule, it was asking for a match up of
9 those components with degradation mechanisms before you say the
10 test is still all right, but in keeping with the philosophy we
11 had, if it's a problem with today's rules, then today's rules
12 would be changed and they consistently would apply.

13 So it's a good comment and I've got to think about it
14 a little more because it's just not as straightforward as stuff
15 that's covered by codes.

16 Don?

17 MR. SILBERG: Let me take an extreme example of the
18 way I think the rule was written which says that you have to
19 list only the design conditions and assumptions, only
20 environmental conditions and so forth and then you decide
21 whether or not --

22 MR. GILLESPIE: I don't disagree with that. A
23 specific comment this morning was on components that get
24 changed out and I think the implication was it was changed out
25 at a relatively high frequency compared to 40 years.

1 I can't argue with that at all. I agree totally with
2 that. That's a matter of needing to put more detail or
3 criteria possibly within the rule itself to fit some classes --
4 some instances where there's classes like that that says,
5 something like "any component changed out at a frequency
6 between empty ump and empty ump or significantly less than the
7 life of the license, you don't have to do anything further
8 with" and that's a good comment.

9 That's a class that's not quite as generic as the
10 other one.

11 I'm just saying, we've got to think about it a little
12 and digest that. We had a reason we put the other way in but
13 we kind of have got to go back and we'll take a look at it.

14 MR. EDWARDS: That principle applies, although there
15 are problem. If you are concerned about pressure boundaries
16 and integrity, and monitoring pressure boundaries, then you have
17 a program that takes care of the item of concern.

18 If you have an operation, you may need to augment.
19 That is the difference.

20 MR. GILLESPIE: But as components age, they will have
21 less and less margin in them. I think the general thought was
22 that you may actually have to look at testing even more and
23 more and it was the words -- you know, I see him throwing his
24 hands in the air. If the code changes; that would do it.

25 But the code won't change by February, and we're

1 probably going to have the words of the rule down to submit it
2 through, you know, our chain. That is why I have to go back
3 and think about that.

4 When you look at pipe wall thinning rates, when you
5 look at the technology that is coming out of the research
6 program, I am not sure, standing here, that the current rates
7 of testing, the current types of tests, aren't types of tests
8 done.

9 MR. EDWARDS: Excuse me again.

10 Take the pipe wall and you have a minimum thinning.
11 If you are going to catch that in that period, then you have a
12 problem. The margin is at minimum thickness. What else was
13 left there, or to throw it away is operations. It is a
14 problem.

15 MR. GILLESPIE: I am saying that I have to go back
16 and think about it. I'm not going to promise anything,
17 standing here, because a lot of hashing around went around
18 exactly on that topic. I have to go back and revisit with all
19 of the experts who were revisiting with at the time as to what
20 way we go.

21 But it's -- I accept the comment and I agree totally
22 with the one on replacement. If you are replacing with that
23 frequency, it's crazy to have to do a lot of analysis on it.
24 As we work through the other classes, I have to think about it
25 more.

1 So, I now have a clear understanding. I had the
2 right understanding of what was said, and that helps me out a
3 lot.

4 One other comment on -- this came out after the first
5 sessions in the hall, and I'll throw it out -- and that was on
6 doing all this analysis on components that are even already
7 covered. This is somewhat analogous to reconstituting or a
8 piece of reconstituting the design of the plant.

9 If we're not happy with the current constitution of
10 designs of plants, or if we are, why couldn't we continue to be
11 happy with that. I was told that I ought to at least mention
12 the view that SSFIs have been finding on the ability of some
13 utilities to know the reason their plants were designed the way
14 they were.

15 The part of that was part of the thought that went
16 into requiring all that analysis. Right now, as a here-and-now
17 problem, we are working on design reconstitution guidance in
18 NRR and that may become a here and now problem and I have to
19 think about the phasing of that also. We might have been
20 fixing a current problem with a future rule.

21 I've got to give that some thought because the rule
22 may be out before the guidance is, in which case I'm not sure
23 which fixes the problem. I thought I would mention that, and
24 we will give that some consideration also, because that goes
25 into the mix of the same database we'd be asking for.

1 With that, that clears up my problem. Does anyone
2 else have something left over from the morning?

3 MR. WARD: I have one followup question which you
4 just talked about, referring to the docket as a means of
5 getting at the Current Licensing Basis. If one were to do
6 that, would that preclude the need for any type of
7 certification?

8 MR. GILLESPIE: Larry, do you want to --

9 MR. WARD: Since the cumulative effect of all the
10 corporate officer signatures along the way --

11 MR. GILLESPIE: Is the equivalent of certification.

12 MR. WARD: What would it gain you to certify it in
13 bulk?

14 MR. GILLESPIE: I think Larry already agreed that
15 we'd go back and look at that this morning. Do you want to add
16 anything?

17 MR. CHANDLER: I think we will look at certification
18 again, but I go back to the comment I made a few moments ago,
19 and that is, I guess I don't fully appreciate the reluctance of
20 the industry to sign off on what their plant is all about. I
21 recognize these are very major and complex creatures out there,
22 but they've been operated for many years now and they will have
23 been operated for many more years as we get down the road and
24 closer to actual renewals.

25 I would think that corporate officials ought to have

1 sufficient confidence in their plant that they -- you know,
2 after due review, be willing to sign on the bottom line, so to
3 speak.

4 MR. WEISEMAN: With regard to that last remark, this
5 is Bob Weiseman, Westinghouse. There is a board decision and
6 the Calloway proceeding that says the NRC regulations do not
7 require inspection. In the building of a plant there are going
8 to be a lot of things that don't come out exactly the way they
9 should.

10 If you have an adequate QA program, you will find the
11 most important; maybe not right away, but later on. I think
12 every utility will have no problem if it's certifying a plant
13 designed and built in accordance with Part 50, Appendix B. But
14 it becomes another matter to certify that everything in the
15 plant satisfies the regulatory requirements, because Part 50,
16 Appendix B did not require you to provide that kind of
17 assurance.

18 I can speak for one who has been involved in trying
19 to help utilities provide certification in other areas. I will
20 tell you that it requires practically a one hundred percent
21 check, rather than a Part 50, Appendix B check which is very
22 expensive and on the basis of the kinds of thing that we found,
23 no one could ever justify the expense based on the nature of
24 the discrepancies that were found and the potential effect they
25 might have on safety.

1 MR. CHANDLER: I don't disagree.

2 MR. WEISEMAN: I can't speak for the utilities. But
3 from my own view that is why people are reluctant to certify
4 that something is a hundred percent all right.

5 MR. CHANDLER: Sure, I understand that.

6 MR. WEISEMAN: There is no basis on which to base
7 that certification.

8 MR. CHANDLER: Recent history suggests that one ought
9 to be most careful about certifications and assertions of
10 compliance. I think it may be a question of what the
11 certification calls for; in other words, what is required by
12 that certification.

13 In other words, are you going to require
14 certification that every nut, bolt, and color of paint is just
15 as billed, or is there some lesser standard? As I also
16 mentioned early this morning, there is 50.9 which is one of the
17 requirements in our regulations now, which deals with
18 completeness and accuracy of information.

19 If you put that together with the oath or affirmation
20 that presumably will be required for the submission of an
21 application that was suggested a moment ago, it's something
22 that's worth considering.

23 MR. GILLESPIE: Jim?

24 MR. SNIEZEK: Jim Sniezek, NRC; I think one of the
25 philosophical underpinnings of our thought in this is an

1 appropriate assumption of the current licensing basis with
2 sufficient and adequate assurance of public health and safety.
3 That's an underlying premise flowing into this program. That
4 is our underlying premise.

5 If you're going to use that as an underlying premise,
6 I believe it's very important that the utility and the NRC have
7 a mutual understanding of what constitutes that Current
8 Licensing Basis. That's the premise we're going in under. We
9 should be in a agreement on what constitutes license basis.

10 Secondly, we hold utility first, as responsible for
11 the safety of their plants. That's why we've asked for a
12 certification that, in fact, the plant does meet the Current
13 Licensing Basis. There is nothing more to it than that. That
14 is the rational why we wrote what we wrote.

15 MR. BURSTEIN: May I ask why that is necessarily the
16 year 41 and not in year 39?

17 The same questions come back about our treating this
18 as a different license, as a new license. You don't need it
19 for anything sooner than the expiration of the current license
20 term. Why is it necessary beyond that?

21 MR. SNIEZEK: Well, I'd say it's because that that
22 we're treating this as a super-session type license.

23 MR. BURSTEIN: Again it comes back to your definition
24 of what the license is and I think that's the rub.

25 Please revisit that, gentlemen.

1 MR. GILLESPIE: Okay, one other question came up in
2 the hall. That was the disincentive that may be built into
3 this rule. Let me throw this out.

4 We have got to figure out how to put an incentive in
5 because both we and you want to get this over with as soon as
6 possible -- not the meeting necessarily but getting the rule on
7 the street and getting some applications in so we can both do
8 some orderly planning.

9 The disincentive that was pointed out was that if
10 someone comes in at year 20 and we issue a new license, he's
11 probably going to have identified many, many components which
12 will be folded in into his maintenance program or which he is
13 going to do trend analysis on or take some kind of measurements
14 where if he waits until three years before his license expires
15 he gets away with not knowing that information for 17 more
16 years and therefore not paying for that to be done.

17 The question was, well, how can you allow that? No
18 one will ever come in early, given that they are going to have
19 to go through all that extra expense for all that 10 or 15
20 years.

21 I have to admit we hadn't thought about that.

22 We'll figure some suitable punishment out.

23 [Laughter.]

24 MR. GILLESPIE: So --

25 MR. BURSTEIN: Again, there must be some naivete that

1 exists out in the halls.

2 [Laughter.]

3 MR. BURSTEIN: Let me just point out the reality of
4 what the utilities face. If it gets to continue to operate its
5 existing nuclear plant, it does not have to seek to build a
6 replacement generating facility. If it doesn't get such a
7 license amendment or extension, then it certainly has to go out
8 and construct, pre-license, design, finance, get all the
9 regulatory state and Federal permits necessary to do that,
10 which unless it's a combustion turbine type thing will probably
11 take six to ten years.

12 There is no way that anybody can wait until three
13 years before the present nuclear plant license expires to find
14 out whether it is going to be able to continue to operate that
15 plant or not.

16 MR. GILLESPIE: Well, that's what I said, but it's
17 funny because we'd still have, you know -- the effects would
18 still be of a timely renewal so the plant would not be shut
19 down.

20 MR. BURSTEIN: I submit to you it'll probably be a
21 lot earlier rather than later.

22 MR. GILLESPIE: Well, that was the question. I felt
23 that the certainty of knowing 10 or 15 years in advance that a
24 plant would operate would more than offset the added cost of
25 coming in early and folding all these extra components and

1 trend analysis in.

2 If this was an industry person who asked me had I
3 thought about it and it was in the vein of if someone's coming
4 in and therefore at the end of their 40 year license they've
5 been under the renewal program for 10 or 15 years and have
6 developed a lot of trending information on corrosion, on wear,
7 on thinning, what would there be to induce someone to know that
8 that same quantity and type of information for that same type
9 of time frame should be available for the plant that comes in
10 at the last minute, and I just wasn't to answer the question
11 and I thought I'd ask it here to get it on the record since I
12 was asked in the hall.

13 I would hope the economics would say the earlier, the
14 better but it was a question that was asked.

15 Would anyone like to comment on that? Anyone else?
16 Or is there general agreement that the view is the economics
17 would cause the utility to want to get that certainty in their
18 license?

19 [No response.]

20 MR. GILLESPIE: All right. With that lack of
21 response --

22 [Laughter.]

23 MR. GILLESPIE: Maintenance does become a key to this
24 whole thing. Our second principle was that the plant is
25 maintained in a condition commensurate with the first 40 years.

1 Cecil Thomas is from our Division that is dealing in
2 NRR with the maintenance policy statement and its interfaces.
3 He does have a list of questions that we published.

4 Bob Bosnak I think is going to be interested in how
5 this is going to be done, what types of tests will be committed
6 to, so let me turn it over to them to get into the more
7 detailed and maybe technical areas in question on maintenance
8 and how the plants will be maintained.

9 Cecil?

10 MR. THOMAS: Thank you, Frank. This morning we heard
11 that our proposed regulatory approach to license renewal is
12 founded on two key principles.

13 The first one is the current licensing basis provides
14 an adequate level of safety for operation during the renewal
15 period, and secondly that that level of safety will not degrade
16 during the renewal period.

17 We believe that the licensee's programs for
18 maintenance, surveillance and record-keeping are going to play
19 very important roles in assuring that the level of safety will
20 not degrade during the renewal period.

21 To stimulate discussion, we have proposed a list of
22 13 questions which you all received and we encourage you as you
23 make your statements and go through the discussion period this
24 afternoon you'll focus on them, we really want to hear your
25 views on those questions.

1 With that, let me turn it over to Bob.

2 MR. BOSNAK: This might be a good time for those
3 persons that have indicated that they'd like to make a
4 statement for the session and we have listed apparently the
5 same individuals that spoke this morning.

6 I'd like to ask the first gentleman who spoke for
7 NUMARC if John DeVincentis is here he'd like to make a further
8 statement in this area for Session 5.

9 MR. DeVINCENTIS: I'm here and I don't have a
10 prepared statement.

11 MR. BOSNAK: Okay. Is there anybody else, because we
12 also have Northern States Power, Terry Pickens.

13 Any of the other individuals? EPRI? John Carey?
14 Joe Gallo for Hopkins, Sutter? Again we have Yankee Atomic and
15 Pennsylvania Power & Light? Douglas Walters?

16 Are there any of those individuals or any other
17 individuals that would like to make a statement in this area of
18 maintenance or trending recordkeeping?

19 Obviously it is very important that there be programs
20 and that there be programs obviously for the existing 40 years
21 but to identify the degradation mechanisms that we have listed
22 in the rule and to be able to know what's going on with respect
23 to trending information is to me quite important.

24 One of the things that we talked about and I have --
25 at the risk of putting it up on the screen I'll still do so is

1 the difference between short-lived and long-lived components.
2 It's an important aspect.

3 Let me illustrate what I mean.

4 [Slide.]

5 MR. BOSNAK: This has a lot of things associated with
6 it. And first of all, I'm talking about the long life of the
7 component design. And we showed it going all the way into 40
8 years. But you could go just before or could go just
9 afterwards.

10 If you trend what is going on with respect to the
11 component, you will know exactly what you have to do with age-
12 related degradation. The short-lived components, as you can
13 see, are being replaced periodically. And those are the ones
14 that I think we can both agree on, if they are done with some
15 sense of perhaps reliability in mind, there are no problems
16 with respect to license renewals. It is the long-lived
17 components I think that we are all concerned about.

18 And by the way, some of the terms that we have on
19 there are perhaps not the best choice of words. "Fragility
20 level" means to me a point at which the component, system or
21 structure will fail. The "safety margin" that you see, and it
22 is a variable term, the horizontal term, the constant licensing
23 basis, can be higher or lower depending on the plant that you
24 are talking about. It is a variable for plants. But again,
25 for all the plants, wherever you are, it is safe operation for

1 the first 40 years and beyond.

2 So what we are trying to get at here in the
3 maintenance area is how do we decide what is adequate for the
4 short-lived components? And I think perhaps that is much
5 easier to do. But what do we do for the long-lived components,
6 those that have a life perhaps greater than 40 years, 50 or 60?
7 Some of the vessels that are out there, depending on how they
8 are operated, can go much longer than the 40 years. But unless
9 you have the information available, unless you are doing your
10 surveillance testing, trending, you won't know where you stand.
11 And that is the purpose of showing you this.

12 Does that generate any comments, any discussion?

13 [No response.]

14 MR. BOSNAK: There is a lack of response.

15 MR. THOMAS: You better respond, or Frank will get
16 back and give some hall talk.

17 What should be required in a rule for maintenance?
18 Anything? What about trending? How are you going to provide
19 the assurance that we need that things won't degrade during the
20 renewal period? Any views? You don't care?

21 [No response.]

22 MR. THOMAS: I warned you.

23 MR. GILLESPIE: I know he was kidding. But I am
24 going to ask Guy Arlotto -- Would you care to say anything,
25 Guy?

1 MR. ARLOTTO: I would like to ask Bob just one simple
2 question. Where would you place steam generating recirculating
3 piping for BWRs on that curve? Long-term component, or short
4 term?

5 MR. BOSNAK: They are somewhere in between, Guy, I
6 believe.

7 [Laughter.]

8 MR. GILLESPIE: Let me throw one last item out --
9 Okay.

10 MR. COWAN: Bart Cowan. Did I read that slide
11 correctly, that you assume that the safety margins are set for
12 the long-term components at 40 years?

13 MR. BOSNAK: Some of the safety margins, if they are
14 defined in a code, are standard. This was similar to the
15 question that we had this morning. Fatigue. You have a usage
16 factor of 1. And that is defined. But as you use up your
17 fatigue life, you are going to be somewhere between the zero
18 and one. The one is the requirements that the design standard
19 has. And obviously, you are not going to fail if you reach the
20 level of one. So that is the, if you will, the safety margin,
21 for that particular parameter. If you are talking about some
22 other parameter or some other inherent property, again you have
23 a variable safety margin. But it is very difficult to try to
24 cartoon here in one diagram things that can vary for different
25 component systems and structures.

1 MR. GILLESPIE: Let me raise a question about backfit
2 again.

3 There are problems and limitations on the backfit
4 rule. And if I understand what I heard on the comments this
5 morning, counter to the way it would stand right now, the
6 comment was that the backfit rule should apply to this rule.
7 It should apply to anything extra -- I will call it extra for
8 now -- above and beyond what is currently in place as part of a
9 license application.

10 And the Staff would have several options for putting
11 that extra on. One would be to call it, under 5109 there is a
12 paragraph under "Adequate Protection," to say this is necessary
13 for adequate. People understand when we say something is
14 necessary for adequate, there's no exemptions, hence, into the
15 future on it.

16 That means if you don't meet that particular criteria
17 for adequate, you shut down.

18 I don't know that you really want that. I don't know
19 that we really want that. Because when we think of adequate,
20 we think of an integral set of requirements. And if we have to
21 start looking at every single individual requirement and
22 labeling it, it can present, I will call them bureaucratic
23 problems later, where you work yourself into a hole. So it is
24 very important to think about how you are saying the staff
25 should use the word "adequate." We are very careful of how we

1 use it any more. We have lots of fights about how to use it.
2 When some parts of the Staff want to call something "adequate"
3 on the regulatory side we try to protect our flexibility
4 because we can't tell in the future where we will need to grant
5 an exemption. So, very difficult. It is a concept to grasp.
6 And I would ask that when you are preparing some comments on
7 this, think about that, that if the Staff says this is
8 necessary for adequate, be it for welds, pipe thinning or
9 components, there is no exemption from it, from the time it is
10 issued.

11 The other part is we would end up doing some kind of
12 FRIST effectiveness or cost-benefit analysis on other changes.
13 We are hoping, although it is maybe a tiger getting unleashed,
14 that the NRC has developed enough discipline within its own
15 ranks that it is not our intention to go forth and unmercifully
16 ratchet. But I will say that, from the way the rule reads, in
17 the perspective of the people reading this morning, it does
18 give the impression of the option being there, although it is
19 not our intent.

20 So let me leave those two thoughts there on backfit
21 and please ask you to think about those as you are submitting
22 comments.

23 Does anyone else have a comment they would like to
24 make on backfit? It evoked some emotion this morning.

25 MR. COWAN: Bart Cowan. Let me make a preliminary

1 comment on one of your questions.

2 Reasonable assurance, or adequate protection, are
3 statutory standards. From a time concept, what is reasonable
4 assurance at one point in time may not be reasonable assurance
5 ten or 20 years later. And what is reasonable assurance at one
6 point in time may not be reasonable assurance if you are going
7 to extend the life of the plant for 20 years. So that you can
8 have requirements that are necessary for adequate protection in
9 the context of plant life extension and not shut current plants
10 down. In fact, some current regulations, when they were put in
11 as requirements recognized that time concept because they
12 phased in instead of having to have this done by a certain
13 date, or so much of this done by a certain date.

14 So it is not a cliff, you will.

15 MR. GILLESPIE: No, it is not a cliff. But when it
16 becomes effective, then it is effective.

17 MR. COWAN: That is right. But it depends on how the
18 rule is written as to those things that are needed, if you are
19 raising the level of what is needed for adequate protection, in
20 that category.

21 MR. GILLESPIE: It applies to both the rule and the
22 individual licensing submittals themselves, on the individual
23 backfit basis.

24 That's all I have. No one else talk to me in the
25 halls. I mean, that consumed my lunchtime.

1 John?

2 MR. DeVINCENTIS: John DeVincentis. And I am wearing
3 my Yankee Atomic Electric hat.

4 I feel a little guilty that we didn't go into
5 discussion a little further with Bob on the maintenance and
6 what we are really, how we see maintenance changes being
7 required.

8 And part of this is, we have a session going on now
9 on screening. And where this really impacts the process is,
10 the screening process itself identifies those issues that
11 require some sort of action to be taken, some sort of
12 evaluation or further analysis.

13 And until you have participated in the screening
14 process itself, and have done that binning and funneling to
15 identify those components that require something in addition
16 to what they have, you don't have a good enough understanding
17 of what you are really trying to accomplish.

18 I said this morning that what we were looking for
19 from NUMARC with maintenance was anything that had to be
20 addressed we would address with our existing programs. And we
21 ourselves on our screening process evaluated some 600
22 maintenance procedures. And we bumped up the particular
23 components that were covered by the maintenance program by the
24 adequacy of those procedures. And if the procedure needed a
25 little enhancement like, and since I didn't participate I can't

1 describe what the enhancements were.

2 But say, for example, it was a sticky issue, and we
3 looked at it with our PRA, and it looked a little uncertain.
4 We might change the frequency of testing it from semiannually
5 to quarterly. Now, we can handle that in our existing
6 procedures.

7 And subsequent discussion with Frank was, how do we
8 make sure we are not going to change that again? Then we've
9 decided we'd flag those procedures.

10 So we are not talking a whole new system, we are
11 working within the current guidelines and practices that we
12 have currently. And to date we haven't really run up against
13 anything substantial that would have us even consider a new
14 program or changing our philosophy with respect to maintenance.

15 MR. DEVINCENTIS: I am not sure if that is adequate
16 for discussion. Maybe this afternoon. Maybe if our people in
17 the bottom end of our screening process free up, they might
18 give you more concrete examples.

19 MR. BOSNAK: I think we recognize that the screening
20 session on this one had some overlap, but it was one of the
21 questions that we had here. I think it's number 13 on the
22 list.

23 In reviewing the NUMARC screening document, one of
24 the big problems was those components that are routinely
25 maintained. How do we define that? Is that set by some basic

1 reliability goals? What is routine maintenance?

2 On the slide we had up here, we talked about the
3 short-lived components. Guy has something about it, things
4 that are somewhere in between, like steam generators and other
5 components. How do you decide whether or not age-related
6 degradation is important and may give you a surprise if your
7 routine maintenance is not adequate and doesn't trend, for
8 instance, and tell you what you should be concerned with or
9 what you don't have to worry about?

10 So, it was that kind of aspect that we were trying to
11 get at with question 13.

12 MR. DeVINCENTIS: Well, I think we would be looking
13 at the functional capability of that piece of equipment, and if
14 that equipment function would be diminished in the renewal
15 period, then we'd take some sort of action. If the pressure
16 boundary was going to be maintained and we could predict it
17 would be maintained for an additional 40 years, then it would
18 be continued to be covered under our existing program.

19 MR. BOSNAK: But that is based on trending and
20 prediction, what you say. In other words, say we had a
21 particular plant which had not been doing any work in the
22 trending area and now decided it wanted to come in for license
23 renewal, and I think we had a question like that in one of the
24 other sessions -- it was probably 2 or 3, but should you not
25 have any idea of a long-life component -- could be the vessel,

1 could be something else, but you had no idea of where you were
2 in time, what do you do for license renewal?

3 MR. DeVINCENTIS: Well, you either do further
4 analysis or change out the piece of equipment. We're not
5 advocating shirking our responsibility. I think that our
6 position is we'll do an evaluation, and if it isn't clear from
7 the evaluation what the corrective action is, then we'll either
8 change it out or refurbish it or redesign it.

9 I think there are many options available other than
10 trending every parameter in the plant, and whether you've been
11 trending it for 40 years or trending it because now you know
12 you've got to trend it, I think the engineers are capable of
13 identifying where you go forward with the trending and how far
14 back you can responsibly take credit for, but I think the
15 analysis will be very comprehensive. If I'm going to sign
16 under oath and affirmation, then I'll be sure as hell that we
17 can stand behind the analysis that was provided.

18 MR. GILLESPIE: I think, John, since you've got your
19 Yankee hat on, I'll talk to you like you're a Yankee person and
20 not a NUMARC person.

21 You just describe exactly the situation which gives
22 me hesitancy earlier in answering the question on if it's
23 covered by a current program, because I've been to Yankee a
24 couple of times, because you were almost to the point of
25 sending in some submittals, some initial work, and in fact, in

1 those cases where you had things that were already being
2 maintained, you did look at them and say is this procedure good
3 enough? Do we have to do anything more to fix it?

4 MR. DEVINCENTIS: Yes, we did.

5 MR. GILLESPIE: We definitely are not telling anyone
6 to initiate a new program. Our general expectation is that we
7 fold it under what exists now, but that's exactly what we saw
8 being done there. It looked like a good job being done, which
9 gives me hesitancy to say if it's already in a maintenance
10 program, you don't have to do anymore, because there were some
11 tweaks that you were making on it.

12 MR. DEVINCENTIS: We were. We are, in fact.

13 MR. GILLESPIE: And there's maintenance and there's
14 maintenance. So, I can't view with broad generalities quite
15 yet until I go back and talk to people, because there's certain
16 components that you might walk by and do just a visual
17 surveillance on, or there's certain components that you're
18 going to strip down, but you're going to add a step into a
19 procedure that makes sure that the guy checks off or initials
20 off that he's observed that the seat doesn't have any cuts in
21 it. Now, you'd say, well, a good mechanic is going to see
22 that, and if he sees a cut, he's going to bring it up, but
23 we'll add the step in just to make sure he knows he's supposed
24 to look down at that seat and make sure there isn't.

25 Those are the kinds of things, in many cases, we

1 expect are going to take care of the concerns that come up.
2 We're not advocating a massive new program, but also, on the
3 other hand, I can't use a vague generality and say everything
4 that's already having something done to it is good enough.

5 So, I'm groping for a middle ground, and that's why I
6 couldn't respond earlier. It's exactly some -- what look like
7 successful application at a pilot plant -- and that's what
8 pilot plants are for, to demonstrate how to do things -- that
9 gives me pause in reacting to that, and when Don brought up
10 about the short-lived components, I totally agree. I've got no
11 problem with that, and as a class, I can cope with that, and
12 there's probably some other classes I can cope with in the
13 rule, but I don't know that I can put it all together in one
14 class. That's what I've got to go back and talk to the
15 engineering guys and -- we have to beat it around a little
16 more.

17 MR. DEVINCENTIS: Well, maybe after we submit the
18 pilot studies, the pilot system screening results, we'll be in
19 a better position to come up with some suitable appropriate
20 wording that we can understand and can find acceptable.

21 MR. GILLESPIE: The only problem I have with that is
22 that we're trying to get a rule out by April and you told me
23 your report was coming in in April.

24 MR. DEVINCENTIS: Our report is coming out --

25 MR. GILLESPIE: The screening report was coming in

1 this month, I thought.

2 MR. DeVINCENTIS: This month, right.

3 MR. GILLESPIE: Yes, but the actual list of systems
4 was sometime in the spring.

5 MR. DeVINCENTIS: The pilot report is all the system
6 level screenings.

7 MR. GILLESPIE: Okay.

8 MR. DeVINCENTIS: The component screening for a fluid
9 system and electrical, structural, and INC.

10 MR. GILLESPIE: We'll see what kind of insights we
11 can get from it, but --

12 MR. DeVINCENTIS: No, no. Maybe we can take the lead
13 --

14 MR. GILLESPIE: Okay.

15 MR. DeVINCENTIS: -- and follow it up with some
16 insights from our side.

17 MR. GILLESPIE: If you could suggest some wording,
18 how would you cut these things into classes? We're open to
19 suggestions. I'm not disagreeing with the concept. I just,
20 right now, don't have the words. So, if there's classes and
21 you can suggest some wording, I'm more than happy to take it
22 and give it real serious consideration.

23 MR. DeVINCENTIS: Okay.

24 MR. BAILEY: Tim Bailey, Northern States Power.

25 I think one of the things that's going through the

1 maintenance area is that we are taking a look at the different
2 safety functions of a component, and what we may find is that
3 it may take more than one effective program, such as an IST
4 program, and to appropriately cover all of the safety
5 functions. So, I would like to submit to you that maybe this
6 the reason, but it's not possible just to say that since we
7 have a Section 11 IST program on this valve that we have all
8 the necessary programs.

9 MR. GILLESPIE: It would cover the functionality of
10 it. That's why the rule -- the concept we put in there is the
11 way it's there, but for short-term replacement, again, that's
12 an easy class to deal with, maybe that class. Is there other
13 classes you could come up with? We'd be very receptive to the
14 help in that.

15 I think Northern States also found that they have put
16 in place a lot of trend programs to start collecting data to
17 build the case for why you don't have to do more, and as I
18 recall, you said you were putting them in place at other than
19 Monticello, or considering it anyway, to design the programs to
20 ensure there was enough information available to make the case
21 on what you had to or not have to do.

22 MR. BAILEY: The point I'd like to make about
23 trending is that trending is just one aging-management option
24 for those components that have been determined to have
25 potentially-significant degradation, and therefore, I'm not

1 sure that it makes a lot of sense to have very post-scripted
2 rules on trending, where I think it basically up to the utility
3 to determine where trending is to be the best option for a
4 managing agent.

5 MR. GILLESPIE: We've got to two extremes. I'll go
6 with something Joe Gallo said this morning. A very general
7 rule is open to very general interpretation; a very specific
8 rule is very specific; and somewhere in the middle is what we
9 are shooting for.

10 Right now, in the maintenance and trending area, we
11 have something that's very general. Is there anything any
12 better we can do? Is there a topical report kind of something
13 that can be written on classes of plants, types of degradations
14 for given environments, or classes of components which could
15 then be referenced, which is kind of a middle ground, and the
16 staff goes on record with an SER saying we agree with this?

17 You know, maybe it's an extension of what NUMARC is
18 already doing in the component area, and the component report
19 we got on containments was, in our first looking at it, very
20 good. We might not have agreed with all the articulation that
21 was in there, but the topics covered were the right topics, and
22 we felt we wanted to change some "shoulds" to "shalls", but in
23 general, it was a very good report. It was pretty
24 comprehensive, and that kind of good work, extended into
25 generic maintenance practices, would be a big help for us,

1 reference-ability-wise, and maybe helpful to you.

2 Right now, it's left plant to plant. We have a vague
3 generality in there that says you're going to do maintenance
4 and recordkeeping.

5 MR. GILLESPIE: How much is enough? We are hoping to
6 get information today on how much is enough. Otherwise, you
7 are kind of leaving it to us to determine how much is enough.

8 Does anyone have any other questions?

9 [No response.]

10 MR. GILLESPIE: The priority session is in the room
11 we all started in this morning, but it's got a door halfway
12 across that closed off. So if people would like to catch the
13 tail end of the screening process, it is in that same room,
14 with maintenance as the two key elements of the rules.

15 Any other questions?

16 MR. GRIFFING: Ed Griffing from NUMARC.

17 I would just like to say that our intentions were to
18 respond to your questions after we had a chance to at least
19 deliver them our working group.

20 MR. GILLESPIE: Okay.

21 MR. GRIFFING: That is one of the drawbacks that we
22 had in preparing this workshop. So it is not that we don't
23 want to answer. But we are going to at least attempt to get
24 them before the working group to develop our normal consensus
25 approach. We are not trying to avoid you.

1 [Laughter.]

2 MR. GRIFFING: We are looking at maybe one week away.

3 MR. GILLESPIE: That's fine. We are operating on a
4 pretty tight schedule. The important part for us to get out of
5 today was any feedback we can get, but for you to be able to
6 ask us what did we intend by a particular set of words, so that
7 we are talking in the same context?

8 Inevitably we start talking past each other, because
9 we are not articulating very well what our intention was.

10 With all the questions that we listed out in
11 maintenance, I think it was 13 to 14, I think where we are
12 coming from is reasonably plain. Yes.

13 MR. WEISEMAN: Bob Weiseman from Westinghouse. I'm
14 not involved directly in the maintenance. However, I see part
15 of this problem as being most of what has been talked about is
16 surveillance, where we establish certain requirements that
17 safety equipment has to meet in order to be able to perform a
18 safety function, and then you do surveillance to determine when
19 you must take some action to correct the situation. And that
20 could be a lot of different actions. But I don't view that as
21 being maintenance. But I see you people are looking at that as
22 maintenance. I see that as a thing that we have always had in
23 the licensing process, a set of surveillance requirements, so
24 that there will be, so we would know that the equipment was in
25 the operating mode that it needs to be for the plant to be

1 safe. And then there was some kind of an action that would be
2 taken if we found that it wasn't, there would be time for some
3 action to be taken before it would be necessary to alter the
4 mode of operation of the plant.

5 But it seems to me from what I have listened to here
6 that the concern seems to have to do with implications that the
7 NRC is going to require certain kinds of actions to be taken
8 once you have identified the need to do something. There is
9 not so much a disagreement as the need to make sure that in the
10 surveillance requirements you have taken into account -- I
11 think the comment was made that you might have to do
12 surveillance more frequently involving certain items, for some
13 age-related effect.

14 If you go back to experience on steam generators,
15 steam generator surveillance requirements were established
16 taking into account the rate at which degradations occur in
17 steam generators.

18 Limits were placed on the, acceptance limits place
19 on the ability to demonstrate that the equipment was able to
20 withstand accident forces, in a loss-of-coolant accident or
21 steam-break accident.

22 So I think it may be helpful if we were to
23 differentiate between that or talk about it as surveillance and
24 not talk about it as maintenance.

25 MR. GILLESPIE: We generally are not differentiating

1 when we use maintenance between maintenance and surveillance.
2 It is all together.

3 MR. WEISEMAN: I think it is two different things.
4 Maintenance is what you do to correct things and keep them in
5 the condition you need. Surveillance is what you do to
6 determine when you need to do something.

7 MR. GILLESPIE: I am not disagreeing with that. I am
8 just, in our use of it I think generally we include maintenance
9 and surveillance as virtually the same category.

10 In fact, we are not going to tell you how to fix a
11 valve, if you find it broke. You are going to have an LCO on
12 it, which is going to give you so much time to fix it and get
13 it back in or shut the plant down.

14 So in fact, it does stem more on surveillance, or a
15 great deal on surveillance, rather than maintenance. Because
16 if you can detect it and you know it is not right, then you can
17 fix it.

18 So I just, I am agreeing with you.

19 Yes, Joe? He's the man that knows where the
20 microphone is.

21 MR. GALLO: Right. My name is Joe Gallo from Hopkins
22 & Sutter.

23 One of the questions that was submitted, and you
24 raised it this morning, had to do with whether or not
25 additional programs should be added to the exclusion list. And

1 I took a look at them. And as you know, NUMARC submitted a
2 document that addressed that subject.

3 It struck me that there are a number of regulations
4 that were addressed in the NUMARC document that are not on your
5 exclusion list, that ought to be considered for inclusion in
6 your exclusion list. An example is hydrogen control.

7 As you know, 50.44 contains different measures for
8 dealing with hydrogen generating as a result of an accident.
9 And the measures differ depending on the containment design.

10 I view those as performance requirements. And an
11 expert, an engineering expert could well find that those
12 performance requirements, if met, are good enough for the
13 renewal period as they were for the original 40-year period,
14 and therefore you need not revisit that for license renewal.

15 I think there are others on the NUMARC list that, if
16 looked at from that perspective, might also make your exclusion
17 list.

18 MR. GILLESPIE: Okay. We are in the process of
19 building our exclusion list. And the difference between our
20 approach and the NUMARC document is, I call it one of research.

21 Going back and finding that the old statement is
22 considerations that the rule had in it, says for a license. It
23 doesn't say what kind of license. And we are needing to do a
24 whole lot more research than just saying, you know, this one --
25 I agree. And what we are going to have to do is, we will be

1 going back and looking at the exclusion list, looking at those
2 rules, going into their statements of consideration, seeing if
3 there anything that can catch us in there, that we have to
4 counter with this statement of considerations.

5 But clearly, if something is dependent on a
6 flammability limit, then the science isn't changing. And if
7 the science doesn't change, it sticks. No argument there.

8 If you want to help us, tell us what we missed.
9 We're going to go back and do the comparison, anyway. But the
10 kind of backup we need for it is more in the sense of
11 developing that legislative history to make sure that we
12 encounter it all. And that level of detail was missing out of
13 what we got. So we didn't just take that list and use it. The
14 list we have there actually has that legislative history built
15 already and we have to report about, it must be about three
16 quarters of an inch, half or three quarters of an inch thick
17 now, as we are building this thing, excluding different
18 sections. It is not all-inclusive. So we will go back and we
19 will be relooking at that.

20 MR. GALLO: All right. I know NUMARC intends to
21 address that question in more detail. I just presented an
22 example. Yes

23 MR. GILLESPIE: Yes.

24 MR. GALLO: Let me just suggest to you that the
25 exercise has a byproduct result. Not only do you enhance or

1 increase your exclusion list, but the exercise of determining
2 whether or not a particular regulation should be on your
3 exclusion list seems to me to represent a judgment, if it does
4 make your exclusion list, that that regulation is adequate for
5 the renewal period. And that is part of your justification for
6 relying on the current licensing basis.

7 MR. GILLESPIE: No, I am not going to use the word
8 "adequate." I'm going to say that the regulation does not need
9 any supplemental activity to go on with it. I'm not going to
10 use the word "adequate," just because I am the biggest advocate
11 of never using the word "adequate" in our office.

12 MR. GALLO: Well, "sufficient," or any one of the
13 other synonyms.

14 MR. GILLESPIE: "Sufficient."

15 MR. GALLO: "Sufficient."

16 MR. GILLESPIE: It does. I agree.

17 Anything else? Yes.

18 MR. COWAN: Bart Cowan. There seems to be an
19 underlying assumption on the maintenance, surveillance, and
20 recordkeeping questions, at least on some of them, that some
21 form of maintenance rule is needed as part of plant life
22 extension.

23 In view of the fact that the Commissioners recently
24 dropped the idea of having a maintenance rule and said in
25 various forms that it is not required for reasonable assurance,

1 what is the basis for now suggesting that a maintenance rule or
2 a partial maintenance rule be adopted as part of plant life
3 extension?

4 MR. GILLESPIE: Okay. It is not a maintenance rule,
5 but it is the partial piece. And you can definitely read that
6 into the questions.

7 Part of extending the license, part of the basis for
8 that extension is going to be a commitment of some kind that we
9 have done this screening, these components came out the bottom,
10 it needed this kind of augmentation on each of those
11 components, we are committing to doing that, and therefore we
12 should now have a license.

13 That commitment now becomes a requirement, a
14 requirement somehow that needs to remain valid now through the
15 additional term of the license. And it is that increment that
16 we are dealing with.

17 MR. COWAN: What changes the requirement after your
18 reporting but not required for plants that don't go in for
19 plant life extension?

20 MR. GILLESPIE: That the component was never analyzed
21 to go past 40 years, that we have evidence that there are
22 cracks showing up more rapidly than we thought in welds.

23 MR. COWAN: Once you have that analysis done, what
24 changes the requirement with respect to the maintenance rule,
25 that it is different after your reporting than was present in

1 year 35 when you discovered that there were more cracks than
2 you had thought?

3 MR. GILLESPIE: If we didn't have confidence that the
4 component would make it from year 35 to year 40, nothing. But
5 if we have reasonable belief that it will make it to 40, and
6 then the plant is going to be shut down, then it has everything
7 to do with it. Because that commitment to do that upgraded
8 maintenance on that component becomes part of the basis upon
9 which we are renewing the license.

10 MR. GILLESPIE: Another part is how do you maintain
11 the vitality of that commitment?

12 MR. COWAN: Let's look at it in a different way. How
13 do you define the commitment today for a plant that's 30 years
14 old with respect to maintenance?

15 MR. GILLESPIE: What do you mean "define the
16 commitment?"

17 MR. COWAN: There has to be a commitment on present
18 plants that they will be maintained in such a --

19 How is that commitment any different than the
20 commitment with respect to plants that have a renewed life
21 because a plant --

22 MR. GILLESPIE: In order to carry that out, right
23 now, certain components and systems are being maintained and
24 they're being surveilled. So I'm not --

25 MR. COWAN: That's without a maintenance list.

1 MR. GILLESPIE: I didn't advocate a maintenance rule.

2 MR. COWAN: Why is the rule needed as part of the
3 plant life extension for an extension of the plants beyond 40
4 years, it's not required now.

5 MR. GILLESPIE: It may end up not being there. The
6 current rule -- the conceptual rule we have written doesn't
7 have a maintenance rule in it. It's got a sentence. So I'm
8 not -- you're trying to read it into the questions. Whether
9 you call it a rule or whether you do it independently at every
10 plant in the country -- we can try to do it either way so when
11 we ask the questions, the questions were to evoke, should this
12 be in the rule? Should it just be in the rule or in fact, it
13 may be so plant-specific that you can't cope with it any other
14 way than on a plant-specific basis. Those questions are not
15 advocating or unadvocating a maintenance rule. They were
16 questions to evoke discussion. So far, no one has raised a hue
17 and cry that says we should put more maintenance requirements
18 into the rule we currently have written. Jim?

19 MR. SNIEZEK: Jim Sniezek, NRC. Let me mention why
20 the words are in that purported working group language. About
21 three months ago, four months ago, we had a group of four or
22 five engineers from NRR, Research, along with OGC, sit down and
23 say, what can we exclude from the maintenance rule. They
24 looked at all the programs, regulatory programs, industry
25 programs that were in place, formal programs.

1 They came up with many of the things that you see we
2 can exclude from the rule. They ran into components that had a
3 40-year design life. They said, all right. It's adequate for
4 40 years of design life but what's in place beyond that? They
5 came to the conclusion that for some type of periodic
6 surveillance, predictive maintenance, trending, things of that
7 nature that we generically exclude things from the rule to hang
8 our hat on, we could exclude a lot more things from the rule.
9 It didn't exist. We couldn't hang our hat on it.

10 That's why that type of language basically is in the
11 rule -- the proposed language. It's as simple as that. No
12 hidden agenda.

13 MR. GILLESPIE: Anything else? Okay.

14 MR. RIDER: [Inaudible.]

15 MR. GILLESPIE: Would anyone in the audience like to
16 respond?

17 [No response.]

18 MR. GILLESPIE: I think what we've got and let me
19 reference -- I've read through the NUMARC screening criteria
20 that we're currently looking at. In the NUMARC screening
21 criteria, there's two types of screening mechanisms in there
22 which cover the same basic block diagram and same steps. One
23 is somewhat deterministic and one is probabilistic.

24 I can cope with deterministic pretty easily. We
25 probably have questions as I think anyone who goes to the

1 screening process meeting or looks at the questions under
2 screening process. There's a number of questions in there on
3 the use of the probabilistic.

4 It's not prohibited. I'm just not sure right now how
5 we would cope with it in regulatory space. For example, one of
6 the criteria in there is -- and someone from NUMARC can correct
7 me on this if I don't quote it right -- if a particular
8 component does not increase the risk more than a factor of
9 three or cause the core melt frequency to be greater than 10 to
10 the minus 4th, then the component is not safety significant.

11 Is anyone from NUMARC here? Did I say that
12 correctly?

13 [No response.]

14 MR. GILLESPIE: It's pretty close. Something like
15 that. How do I cope with a number that's not an engineering
16 number because the PRA now does not have a normalized human
17 being in it. So now I've got every facility in the country
18 being able to use a different operator model with different
19 recovery reactions and I don't have it baselined on the
20 operator end.

21 So I can now mask what's going on in the engineering
22 plant with the operator. Also, it was not necessarily our
23 intent to review 110 PRAs as part of life extension. Now could
24 they use the IPE one? If it was done in sufficient detail and
25 they could answer some of the questions that are listed in

1 there to everyone's satisfaction, we'd probably negotiate it or
2 discuss it but those are tough questions to answer.

3 The IPE is looking for outliers and when you start
4 getting down into the refinement of which components or systems
5 are in or out and making regulatory decisions on it, it's a
6 much tougher decision and there was a lot of concern this
7 morning about dragging the current licensing basis into
8 litigation.

9 Well, I think there would be just as much concern I
10 would think about dragging a PRA into litigation and litigating
11 the numbers because it seems like everyone's expert and says
12 something different with the same thing. So we don't
13 anticipate right now the IPE necessarily being used but it's
14 not prohibited and NUMARC has taken that as one of two ways of
15 fulfilling their approach and we're going to review it and
16 comment back to them on it.

17 MR. WEISEMAN: I would just like to direct your
18 attention to what the Commission is doing with respect to
19 prioritizing generic safety -- that nothing needs to be done.

20 MR. GILLESPIE: 0933.

21 MR. WEISEMAN: That's right. I think that there is a
22 methodology that has been adopted, successfully, by the NRC --
23 whatever problems there are -- generic -- using a methodology
24 of that type to exclude things, basically excludes those things
25 that do not rise above a significant level of risk.

1 MR. GILLESPIE: Well, I'm going to fall back and the
2 0933 document deals with things on a generic basis. Similarly,
3 the safety goal deals with it on a generic basis. In making
4 that leap of faith from generic to plant specific, that's a
5 technological leap. Someone may convince someone of it but no
6 one has convinced me of it yet.

7 MR. WEISEMAN: Do you talk about how you deal with
8 numbers? You do it all the time with express limits and so
9 forth. This is something that you do every day in licensing
10 process. You have a stress number. How can you be sure that
11 all these different plants are going to come up with the right
12 number? You have to review how they do the direct analysis.

13 MR. GILLESPIE: Yes. I don't think it's our position
14 right now to want to do that depth of review of every PRA.

15 MR. WEISEMAN: I don't know that it necessarily
16 requires that but I think --

17 MR. GILLESPIE: Well, okay. That's a valid comment.

18 MR. WEISEMAN: What's the alternative? Include a lot
19 of things that don't need to be included?

20 MR. GILLESPIE: I am not all that convinced that the
21 -- in seeing how the two methods might work, that the
22 deterministic approach includes that many extra items that the
23 probabilistic wouldn't.

24 MR. WEISEMAN: I guess if you can't do it, you don't
25 know.

1 MR. GILLESPIE: In the one application I did see of
2 the probabilistic, it screened out core spray and the utility
3 itself said, core spray, that's important. You can't screen
4 that out. So they put it back in within their process because
5 they had a review check at that point. Defense and depth gets
6 lost on a PRA because you've got multiple systems doing it and
7 it's those questions, it's that -- going from generic to plant
8 specific is a leap of faith that I don't know that we're quite
9 ready to make yet but we're looking at it.

10 If all the questions we've asked could be
11 successfully answered, it's probably okay. So we know we're
12 looking at apples and apples from plant to plant.

13 MR. WARD: Pat Ward, Engineering. I had talked about
14 the Final Safety Analysis Report, FSAR. We talked about -- did
15 you mean that in the sense of a normal Final Safety Report, or
16 a safety analysis report for renewal?

17 MR. GILLESPIE: We picked that up after we got it up.
18 I'm surprised it took this long for somebody to come up with
19 it.

20 We've got to noodle the wording a little more. The
21 intent really is an incremental FSAR; in other words, another
22 chapter on the end.

23 Because actually that's in conflict to what it says
24 in the beginning of the rule when it talks about
25 referenceability. Clearly, referenceability is what we intend

1 and it's not to generate a whole new document for the sake of a
2 new document. So we would picture some addendum to the current
3 SFARs to cover it. The minimal documentation that we could
4 have and fit it in -- limited rewriting.

5 MR. BELL: Frank Bell, Baltimore Gas and Electric
6 Company.

7 I just had a thought I'd like to give you all. One
8 of my hobbies through the years is to track the issue of
9 important safety equipment. I've noticed that in the
10 beginning, it seemed like there wasn't a whole lot of
11 agreement between the industry and the NRC on just what
12 important safety meant.

13 Through the last several years, until Admiral Zech
14 recently left the word "safety" kind of took a low profile.
15 You didn't see it a whole lot with the generic writers and
16 stuff.

17 Now, it seems like the word "safety" has raised its
18 ugly head again in this proposed rule.

19 I also noticed that the definition provided in the
20 notice had a striking resemblance to the definition for
21 environmental qualification of electrical equipment, 50.49.

22 So it's not really a question. It's just that I'm
23 still not sure what "important safety equipment" means. I'm
24 not sure rehashing the old 50.49 definition does anything for
25 me either, so I am still looking for a better definition of

1 what the safety equipment means in the context of license
2 renewal and why that has no effect on our current, day-to-day
3 business.

4 MR. GILLESPIE: Okay. I very seldom come up short
5 for something to say.

6 It, in fact, is not a coincidence that it mimics the
7 Q rule. That's virtually by design.

8 Our general feeling is that people had finally
9 figured out what that meant. Therefore, it was probably a good
10 thing to take on. I'm not sure that I want to put more
11 definition in the rule or not.

12 If it still appears ambiguous, I think we have to go
13 back and do something to clear it up, be it in the rule or
14 putting examples in a guide or having a typical example list
15 for a B and a P or something. We will re-look at the lack of
16 clarity in the definition, though.

17 Any other questions?

18 [No response.]

19 MR. GILLESPIE: Thank you very much.

20 [Whereupon, at 2:47 p.m., the workshop was concluded.]

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REPORTER'S CERTIFICATE

This is to certify that the attached proceedings before the United States Nuclear Regulatory Commission

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were held as herein appears, and that this is the original transcript thereof for the file of the United States Nuclear Regulatory Commission taken by me and thereafter reduced to typewriting by me or under the direction of the court reporting company, and that the transcript is a true and accurate record of the foregoing proceedings.

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