

UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

Title: BRIEFING ON PROPOSED RULE FOR LICENSE RENEWAL -
PART 54

Location: ROCKVILLE, MARYLAND

Date: JUNE 10, 1994

Pages: 71 PAGES

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**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

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**BRIEFING ON PROPOSED RULE FOR
LICENSE RENEWAL - PART 64**

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PUBLIC MEETING

**Nuclear Regulatory Commission
One White Flint North
Rockville, Maryland**

Friday, June 10, 1994

**The Commission met in open session, pursuant
to notice, at 10:00 a.m., Ivan Selin, Chairman,
presiding.**

COMMISSIONERS PRESENT:

**IVAN SELIN, Chairman of the Commission
KENNETH C. ROGERS, Commissioner
FORREST J. REMICK, Commissioner
K. GAIL de PLANQUE, Commissioner**

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STAFF SEATED AT THE COMMISSION TABLE:**WILLIAM C. PARLER, General Counsel****JOHN HOYLE, Acting Secretary****JAMES TAYLOR, Executive Director for Operations****WILLIAM RUSSELL, Director, NRR****WILLIAM TRAVERS, Deputy Associate Director, Advanced Reactors and License Renewal, NRR****STEVEN REYNOLDS, Leader, License Renewal Rule Working Group**

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

10:00 a.m.

CHAIRMAN SELIN: Good morning.

The Commission is very pleased to welcome the members of the staff to brief us on the proposed revision to the License Renewal Rule, 10 CFR Part 54, and on the supporting documents.

The staff proposed, and the Commission agreed, to revise the current license renewal rule to establish greater credit for existing licensee programs, to resolve ambiguities between the statement of considerations and the rule and, most importantly, to establish a more efficient, stable and predictable process.

In the document before us, the staff proposes a draft rule to be published for a 90 day comment period and to publish a draft revised regulatory guide and a standard review plan some six months after the issuance of a rule amendment in final form.

The staff has described its proposed revisions to the license renewal in SECY-94-140. Copies of both the basic documents and the viewgraphs are available at the entrances to the room.

Commissioners?

Mr. Taylor, would you proceed, please?

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1 MR. TAYLOR: Good morning. With me at the
2 table are Bill Russell, Bill Travers and Steve Reynolds
3 from the Office of Nuclear Reactor Regulation.

4 I would open by noting that the staff has
5 advised me that they did brief the ACRS yesterday.

6 CHAIRMAN SELIN: And at least three of them
7 have survived the briefing.

8 MR. TAYLOR: They came here this morning in
9 good shape.

10 With that thought, I'll turn it over to Bill
11 Russell, who will start the detailed briefing.

12 MR. RUSSELL: Good morning.

13 (Slide) Can I have slide 1, please?

14 I'm going to cover background and approach
15 to rulemaking and some of the objectives. I'll go
16 through this rather quickly so that we can really get to
17 the meat of the presentation, which Bill Travers is
18 going to go through and we're going to identify what has
19 not changed in the rule, what we've retained and then
20 also what we're proposing to change and why. Following
21 that, Steve Reynolds is going to discuss some more
22 details on the integrated plant assessment, time-limited
23 aging analysis and the standards for issuance of a
24 renewed license, and then I'll come back and discuss
25 schedule.

1 (Slide) Can I have slide 2, please?

2 Most of the background you're familiar with.
3 I'm going to skip that. I would like to highlight that
4 after receiving the SRM from the Commission with some
5 initial staff work on developing a reply and proposed
6 rule, we did have a public meeting with Nuclear Energy
7 Institute and discussed the approaches that the staff
8 was considering so that we did interact with them
9 between the SRM and coming forward with this proposed
10 rule. As Jim has mentioned, we've also met with the
11 ACRS yesterday.

12 (Slide) Can I have slide 3, please?

13 Just to establish a background, the SRM
14 identified that we should retain the principles of
15 license renewal. We'll discuss these in more detail,
16 but it's essentially the first principle is a regulatory
17 process with the exception of age-related degradation
18 unique to license renewal and some other safety issues
19 is adequate to ensure that the licensing basis for
20 operating reactors maintains an adequate level of safety
21 in the term beyond end of license, in a renewal term.
22 The second principle is that the current licensing basis
23 must be maintained through a program to manage age-
24 related degradation. These are key because it says
25 really the effects of aging beyond the initial license

1 term are the primary issues that we need to address.

2 Additionally, as the Chairman mentioned in
3 his opening remarks, the staff was directed to look at
4 providing maximum credit for current licensee programs
5 and to explicitly consider how the maintenance rule
6 interacts with the renewal rule and we'll be discussing
7 that in this briefing.

8 In order to ensure that there was a high
9 level focus for conducting this work and to complete it
10 in a timely manner, we established a steering group. I
11 was the chairman of that steering group. I also had
12 Jack Heltemes from Research, Marty Malsch from OGC, and
13 Jim Milhone, the Deputy EDO. There was extensive line
14 management involvement with Dennis Crutchfield and Bill
15 Travers who is here today to present the results of that
16 effort and the working group, which was led by Steve
17 Reynolds. That was made up of dedicated staff members
18 from NRR, Research and OGC to ensure that we got a
19 timely response.

20 (Slide) Slide 4, please.

21 Before we get into the details of what we've
22 done, I'd like to identify what were the objectives that
23 we used in trying to be responsive to the SRM. First,
24 we wanted to be clear on what is and what is not subject
25 to review. So, while we still have cast the net broadly

1 in the IPA process, we have explicitly identified the
2 types of things which would be subject to an aging
3 management review. We've simplified the rule. We've
4 taken out terms which were confusing. We no longer use
5 "age-related degradation unique to license renewal" in
6 the rule, "important to license renewal," et cetera.
7 We've tried to, in fact, identify in the rule language
8 what are the specific attributes or characteristics that
9 we were looking for rather than using such shorthand and
10 definitions.

11 We also wanted to maintain flexibility in
12 how the licensee proceeded to implement and we will
13 discuss that with some specific examples as to how the
14 process has been revised to allow different orders of
15 screening or review. So, instead of providing
16 information at each step, we're interested in the final
17 result and we feel that that has been an important
18 contribution.

19 These three, that is the clarity, simplicity
20 and flexibility that we provided we think will result in
21 a process which is stable and predictable. We think
22 that that will encourage licensees to, in fact, make a
23 decision about license renewal which is based more on
24 economics or other matters and not on the regulatory
25 stability. We do recognize that it's probably going to

1 need to be tested before licensees really believe that,
2 but that was the objective that we set out.

3 With that introduction, I'd like to turn it
4 to Bill Travers and actually go through what has not
5 changed and then what we have changed and why.

6 MR. TRAVERS: Thanks.

7 As Bill mentioned, I'd like to highlight
8 some of the key aspects of our proposed revision,
9 including how the revision would and would not affect
10 the current Part 54. Although we are proposing a fair
11 number of changes, if you go through the document you'll
12 see quite a few changes from Part 54, we think to begin
13 with, what I'd like to emphasize is what revisions would
14 not change of the existing Part 54.

15 Fundamentally, it would not change the
16 underlying regulatory philosophy established and
17 depicted in the two principles of license renewal as it
18 exists today in Part 54.

19 The essence of the first principle continues
20 to be that aging, the effects of aging in the extended
21 period of operation would continue to be the issue for
22 renewal. Except for the possible detrimental effects of
23 aging and the extended period of operation, the
24 regulatory process would continue to ensure that the
25 plant-specific licensing basis will continue to provide

1 an adequate level of safety.

2 As a result, to maintain an adequate current
3 licensing basis, the license renewal process really must
4 focus on ensuring that equipment is addressed and that
5 the effects of aging is addressed for equipment which
6 today may not be subject to adequate programs for the
7 extended period of operation.

8 Maintaining the current licensing basis and
9 the extended period of operation continues to be the
10 second principle of license renewal. This exclusive
11 focus on the effects of aging only in the extended
12 period of operation was the conceptual basis for the
13 rule's current use of the term "age-related degradation
14 unique to license renewal." And ARDUTLR and the way
15 it's used in Part 54 is really intended to be a tool to
16 focus the review exclusively in that area. Of course
17 the experience we've had since issuing Part 54 as
18 indicated, that it has, in fact, resulted in a lot of
19 confusion about how you would implement the rule.

20 As a result, in addition to approving the
21 recommendations that we put before in SECY-93-331, the
22 Commission directed the staff to delete that term from
23 the rule and we've done that and we've made a number of
24 other conforming changes. While that term is no longer
25 in the rule, it is explained, certainly the conceptual

1 basis for the philosophy of the rule is explained in the
2 statement of consideration and we believe that the
3 underpinnings of the rule and the philosophy expressed
4 in terms of managing, the need to manage aging and the
5 extended period of operation is intact. We believe that
6 the construction that we've proposed in this revision
7 will avoid, virtually eliminate the confusion that we've
8 identified in attempting to implement the rule to date.

9 (Slide) Can I have the next slide, please?

10 Some of the additional key features that
11 would not be changed as a result of the revisions that
12 we're proposing are listed here. Principally the rule
13 is still a process rule. It does not include specific
14 technical decision criteria. The heart of the rule, the
15 core of the rule remains the integrated plant
16 assessment. Within the integrated plant assessment we
17 still start with a rather broad consideration of plant
18 equipment, but the integrated plant assessment provides
19 a quick means to focus the review and we think today in
20 this revision an even quicker mechanism to focus the
21 review. A simple measure of how we've simplified the
22 IPA is that it's reduced from some six steps to about
23 three.

24 Another key issue that has been retained in
25 the existing recommendations to the Commission is that

1 the initial scope of license renewal will be retained
2 the same as it is in Part 54. Basically that scope was
3 defined as important to license renewal. That term has
4 been eliminated. But principally the beginning step in
5 the integrated plant assessment is the beginning scope
6 is safety-related equipment, equipment whose function
7 could impact the function of safety-related equipment,
8 equipment needed for compliance with certain
9 regulations, fire protection, station blackout, ATWS,
10 PTS and EQ. And lastly, equipment subject to technical
11 specification limiting conditions for operation. So,
12 that scope remains the same.

13 Another area where we have retained
14 fundamentally what exists today in Part 54 is the
15 requirement that a review of certain time-limited aging
16 analysis will be required. Currently, a requirement for
17 reviewing time-limited aging analysis which are specific
18 to 40 years is included within the definition of
19 ARDUTLR. We've removed that. We've made it separate.
20 We think we've clarified more in this revision what is
21 and is not expected and what would have to be reviewed
22 for license renewal. In our implementation efforts
23 there was some confusion about what explicitly would be
24 included within that review and we've tried in making
25 these revisions to make that much more clear.

1 So, together with the results of the
2 environmental review under Part 51, the basis for
3 issuance of the renewed license would continue to be
4 focused on the results of the integrated plant
5 assessment and the results of the time-limited aging
6 analysis under Part 54.

7 CHAIRMAN SELIN: I'd like to stop you for a
8 second, Mr. Travers.

9 MR. TRAVERS: Yes.

10 CHAIRMAN SELIN: There's always been a
11 certain amount of tension in the license renewal between
12 the idea of summarizing 40 years of experience and
13 finding out what's gone well and what's gone badly in
14 the plant, sort of taking stock on the one hand, versus
15 saying there's nothing magic about the 41st or the 45th
16 year except in some very specific areas and therefore
17 concentrating the review on those very specific areas.

18 Is there anything left in the review of the
19 first aspect? In other words, does the IPA give some
20 kind of a summary of what we've learned about the plant
21 or does it concentrate exclusively on those relatively
22 few items that have to be continued?

23 MR. TRAVERS: Well, I think basically the
24 construct of what the rule would require needs to be
25 evaluated says something -- and our justification for

1 why that is the scope of renewal -- says something about
2 our experience or lack of it. In this case, of course,
3 we're going to be focused on passive, long-lived, non-
4 redundant equipment. There are a number of
5 justifications provided in the statement of
6 considerations for why that is the focus, the exclusive
7 focus for renewal and why other equipment, active
8 equipment, equipment which is replaced on a relatively
9 frequent basis or equipment which is redundant need not
10 be addressed for license renewal.

11 So, what we have included in the statement
12 of considerations is a recognition that for passive
13 equipment, equipment where degradation of performance or
14 condition may not be as readily observable as
15 determinable as active equipment, where our experience
16 really in long aging impacts on this equipment is not
17 very well established, that we're going to
18 conservatively, some may say conservatively, we think
19 appropriately, focus the review in those areas, to the
20 exclusion really of other areas that we think the
21 current licensing basis today adequately addresses and
22 would in any extended period continue to adequately
23 address.

24 So, really the construct of the rule that
25 sets the boundaries for what our experience has led us

1 to determine about what continuation of the CLB could
2 reasonably continue --

3 CHAIRMAN SELIN: So, the --

4 MR. RUSSELL: To specifically respond to
5 your question, Mr. Chairman, the generic analysis that
6 supports the rulemaking would be the basis for excluding
7 those matters and there would not be a plant-specific
8 review further of those matters. So, for active
9 components, for example, we've concluded that the
10 regulatory processes are sufficient. However, for some
11 passive components where we don't have that same
12 experience, we were not able to conclude generically
13 that there were adequate programs in place today.

14 If in the future we go through a rulemaking,
15 for example, and impose requirements on particular
16 passive components which would give us the basis for
17 concluding that they would be adequately maintained, we
18 would propose that as a part of that rulemaking that we
19 would at the same time amend Part 54 such that they
20 would also be excluded so that you wouldn't have to
21 continue to do case by case review where you have an
22 adequate regulatory process in place for assuring that
23 they would continue to perform even in the renewal part.

24 CHAIRMAN SELIN: From a safety point of
25 view, we're looking at those items that are not covered

1 by the current licensing basis.

2 MR. TRAVERS: May not be adequately covered
3 for the extended period.

4 CHAIRMAN SELIN: In terms of the operating
5 experience, that would really -- if a plant has had a
6 lot of problems with corrosion or whatever, that really
7 would translate into economic factors and that's the
8 proper function of the state regulatory agency to look
9 at and say, "Based on the experience of this plant, is
10 the economic basis for renewal adequately covered?"
11 That's just clearly not our business. We have no desire
12 to get into this issue. So, we concentrate on safety.
13 We have a CLB. We keep that constantly refreshed and we
14 look at those items that may not be covered by the CBL.

15 The sort of cumulative what have we learned
16 during the basic time period, if it's not in the CLB it
17 would be more of an economic than a safety piece and
18 that's clearly the function of the states and we have no
19 desire to preempt the states on their economic decision
20 as to whether a license should be renewed or not.

21 MR. TRAVERS: We're really making a judgment
22 on what, for renewal at least, should be examined. It's
23 not to say --

24 CHAIRMAN SELIN: From a safety point of
25 view.

1 MR. TRAVERS: From a safety point of view.
2 That's not to say that when we look at current programs
3 that are applied to even these passive long-lived, non-
4 redundant could be found to be perfectly adequate for
5 the extended period. But it's really the process of
6 making a judgment on what needs to be evaluated and
7 that's --

8 CHAIRMAN SELIN: So the proper answer to the
9 people who say this is the time to look at the
10 cumulative operating experience, we do that continuously
11 from a safety point of view. If it's an economic
12 question you're looking at, that's clearly the province
13 of the state regulators and that's where they should be
14 looking for it.

15 MR. RUSSELL: I think the correct
16 characterization would be we are going to ensure that
17 there are programs and processes in place that if the
18 unit operates it would operate safely. The question of
19 economics as to whether it operates or not is left to
20 others. So, we will put processes in place that would
21 require corrective action to be taken when conditions
22 occur that would require that for a safety basis. The
23 costs of those corrective actions, they'd be such that
24 they would conclude that they would not wish to continue
25 to operate.

1 CHAIRMAN SELIN: That sort of leads us to a
2 second point, which is admittedly a little off the
3 topic, but relevant to this question. That has to do
4 with the economic analysis within the environmental
5 impact statement in Part 51, not 54. We're just doing
6 what the law requires us to do there. The real economic
7 analysis will be done in the state regulatory regimes.
8 I mean ours is just sort of a scrub. If the economics
9 are so bad that they can't satisfy the EIS requirements,
10 that's fine. Most likely, they'll pass our scrub, but
11 it doesn't mean that the state regulators will be
12 content that these are good investments.

13 MR. RUSSELL: That's correct. This is
14 probably the more controversial part of the Part 51.
15 It's the need for power and alternatives. We're trying
16 to comply with NEPA as we read it and understand it.
17 There clearly are issues which relate directly to
18 economic regulation which are not in our preview or
19 authority. So, we've tried to keep that, but that is
20 the subject of a separate paper that we are working on
21 to bring to you and a separate decision. So, we're
22 really focusing today on the Part 54, what is needed for
23 safety, to ensure that if it operates it will operate
24 safely, not to address the question of whether it should
25 or not on an economic basis.

1 CHAIRMAN SELIN: Okay.

2 MR. PARLER: Mr. Chairman, if I may, this
3 context, the separate paper that Mr. Russell talked
4 about which will be forthcoming, I have been involved a
5 little bit in that and it is my judgment that as a
6 result of the revisions to the approach that we
7 initially proposed satisfy our need for a procedural
8 responsibilities, that there will be a refined focus
9 which certainly should eliminate the concerns of state
10 officials and others who interpreted what we were
11 proposing earlier to perhaps get involved in their
12 decisions.

13 As you have said, that was not the intent
14 and that economic area and decisions about need is their
15 judgment to make at the appropriate time. All that we
16 would be doing here from our standpoint in carrying out
17 our NEPA responsibilities is to make it clear that we
18 are preserving the option for one of these plants to be
19 considered at the appropriate time both by us for
20 licensing purposes and, as Mr. Russell has pointed out,
21 by the state and the public utility commission officials
22 from the standpoint of the need and the economics.

23 CHAIRMAN SELIN: Very good.

24 MR. TRAVERS: (Slide) Can I have slide 7,
25 please?

1 I'd like to turn now to discuss some of the
2 principal changes that the proposed revision would make
3 from Part 54. A number of these issues have been
4 previously addressed with the Commission in SECY-93-331,
5 but let me touch on them just briefly. The first one is
6 very important. Basically it's meant to correct the
7 situation where the current rule, at least the statement
8 of considerations, can be read to emphasize a review for
9 license renewal that focuses on the identification of
10 individual aging mechanisms versus the identification of
11 managing aging through programs that look at performance
12 or condition of the vital equipment and its function,
13 regardless of the aging mechanisms themselves that may
14 be at work

15 So, we have corrected that language in the
16 SSC. We've emphasized that performance or conditioned
17 monitoring programs, the kinds of programs that are
18 essentially used today in most maintenance efforts
19 should be recognized in the absence of a specific
20 identification of individual mechanisms as effective and
21 the kinds of programs that we would expect would
22 continue to be effective in any extended period of
23 operation.

24 The second issue has to do with a question
25 that arose as to whether or not a focus in renewal,

1 renewal or review on functionality exclusively could
2 support a Commission finding that the CLB would be
3 maintained in the renewal period. It was our view and
4 remains our view that a renewal review that focuses
5 exclusively on the functionality, the continued
6 functionality of important equipment is appropriate for
7 renewal and by virtue of the fact that other elements of
8 the somewhat broader CLB carry over into the renewal
9 term would support with the finding of functionality of
10 important equipment, the continued maintenance of the
11 CLB in the renewal term.

12 So, we've modified the statement of
13 considerations and our emphasis on the way the reviews
14 for license renewal will be conducted to focus on
15 functionality of equipment and the Commissions findings
16 has also been adjusted somewhat to recognize this fact.

17 (Slide) Bill Russell has already mentioned
18 that we have eliminated a number of terms, including
19 ARDUTLR. Slide 8 has a listing of them. I'm not going
20 to propose putting it up now, but we think the net
21 outcome of that is that we've taken a number of the
22 concerns even individual commissioners have raised on
23 this subject and simplified the rule really by
24 eliminating some terms that could result in some
25 considerable debate as you go to implement the rule.

1 (Slide) The next slide, please.

2 By far the most significant change though
3 that we've made in Part 54 revision would be to narrow
4 the focus of the equipment that would require a specific
5 aging management review for license renewal. The key
6 concern here has been that existing programs really have
7 not been recognized in the construct of this rule to the
8 extent that they should be. This has certainly been the
9 industry's principal concern and the efforts we've had
10 to interact with them. Clearly our workshop results
11 pointed out this concern in some detail.

12 The rule revision would propose to narrow
13 that focus by recognizing that for certain equipment,
14 existing activities and the regulatory process,
15 including things like the maintenance rule, can and in
16 fact should be relied upon to continue to manage the
17 detrimental effects of aging. This proposed change is
18 based on a consideration of the types of activities
19 which are currently being conducted by licensees to
20 mature the functionality of plant equipment and it's
21 also based on additional consideration of our existing
22 regulatory requirements in the maintenance rule. This
23 revision focuses the license renewal aging management
24 review exclusively on passive, long-lived and non-
25 redundant equipment. This change is intended to require

1 the review of only that plant equipment for which
2 activities and requirements today may not be sufficient
3 to manage the effects of aging in the extended period of
4 operation, and I emphasize may not be.

5 The statement of consideration provides
6 justification for this categorical exclusion of active
7 and other equipment and we've modified the discussion to
8 include these justifications at some length.

9 Bill Russell has pointed out, but let me
10 emphasize again that we've indicated specifically in the
11 SSC is that as we get additional experience with aging
12 on passive equipment and as we promulgate new
13 regulations we intend to revisit whether or not even
14 this scope for license renewal could be further reduced
15 and we intend to take that on explicitly.

16 COMMISSIONER ROGERS: I don't know if this
17 is a good place to ask it or not, but at some point I
18 wonder if you could just elaborate a little bit on your
19 choice of the term "time-limited aging analysis" rather
20 than just aging analysis. You have something specific
21 in mind there and I wonder if you could make that clear.

22 MR. RUSSELL: We'll come to that and give
23 you some specific examples during Steve's presentation.

24 MR. TRAVERS: (Slide) Next slide, please.

25 Some of the other principal changes are

1 listed on this slide. We have simplified the integrated
2 plant assessment. Steve Reynolds is going to cover this
3 in some detail. Previously it was a rather prescriptive
4 set of steps. It had to be done in a particular order.
5 We think that the ultimate outcome of what we've done is
6 to provide a measure of flexibility, appropriate
7 flexibility to really quickly focus on the passive long-
8 lived non-redundant equipment. It, for example,
9 eliminates the need to provide intermediate lists of
10 specific components as you work through this process.
11 So, we think there's a considerable measure of savings
12 and effort involved. Certainly the methodology by which
13 you carry out this review would still be required in
14 connection with the application.

15 Additionally, we have changed the rule to
16 require a greatly reduced amount of information in the
17 FSAR supplement. Currently the entire application would
18 be submitted as part of an FSAR supplement. We've
19 revised the rule to provide that most information which
20 supports the results of the IPA and time-limited aging
21 analysis could be provided in the application and only
22 really a summary description of the outcome of the
23 results of those evaluations would be included in an
24 FSAR supplement. We think that fundamentally that's
25 more consistent with the kinds of information that are

1 currently required to be in the FSAR and it should
2 actually eliminate burdens associated with updating that
3 document periodically.

4 The last thing I'd like to point out before
5 turning it over to some more detailed look at IPA and
6 time-limited aging analysis is the fact that this
7 revision would greatly reduce reporting and control
8 requirements that were established especially within
9 Part 54. This says minimized, but it virtually
10 eliminates the special requirements that were
11 incorporated in Part 54 for changing the information
12 that would have been submitted in the application.
13 Fundamentally we believe as we go through our reviews
14 that we have an opportunity if something is so
15 significant to incorporate that within technical
16 specifications or license condition and that the
17 existing regulatory process already provides appropriate
18 controls for the kind of information that would be
19 submitted in both the application and the supplement to
20 the FSAR.

21 With that, I think Steve Reynolds has some
22 additional information.

23 CHAIRMAN SELIN: Before you go on, is there
24 any downside to slimming down the FSAR as opposed to the
25 supplement, including just the summary. Is there any

1 loss to the general -- particularly from the point of
2 view the general public? Do they still have the same
3 essential information available?

4 MR. TRAVERS: The information would still be
5 available in the application even if it's not called an
6 FSAR supplement and, as I understand it, would still be
7 open in any hearing that might result. The key comes
8 into play as to the specific regulatory controls that
9 are applicable to that information. Since a summary of
10 the results, the important results, would continue to be
11 included in the FSAR supplement, we think the thrust of
12 what we are trying to achieve in Part 54 would still be
13 captured, albeit with a little less formality.

14 CHAIRMAN SELIN: Okay.

15 MR. REYNOLDS: What I want to spend the next
16 couple minutes on is talking about some of the specific
17 changes we made to what we consider the heart of the
18 rule. Hopefully you will see how by changing the rule
19 we made it simpler and clearer. I'll also go through
20 some of the flexibility that we proposed to allow an
21 applicant. I'm going to talk about integrated plant
22 assessment, time-limit aging analysis and the finding we
23 made.

24 I want to point out in the current rule the
25 technical rule was really done under just the IPA. In

1 our proposed rule we have a technical review on an
2 integrated plant assessment and time-limit aging
3 analysis issues. So, it's two pieces. I think when I
4 go through it you'll see how they're necessary but
5 they're separate for a good reason.

6 (Slide) If I could have slide 12, please.

7 This is the first step in the integrated
8 plant assessment. As Bill Travers said earlier, we've
9 simplified the integrated plant assessment one way, just
10 by simply reducing the number of steps. We had six
11 steps. We reduced it to three. This first step here
12 that you see used to be three steps and it was very
13 prescriptive. You had to do step one, then step two,
14 then step 3. We looked at it and we said, "Well, all
15 we're really interested in was step three. We're only
16 interested in what is going to be subject to review for
17 license renewal." We looked at that and giving maximum
18 credit for the maintenance rule and giving maximum
19 credit for existing activities and programs, we said,
20 "What we're willing to look at for license renewal is
21 just those structures and components that are passive,
22 long lived and non-redundant. I'll spend the next
23 couple of minutes trying to walk through what we mean by
24 passive, long-lived and non-redundant.

25 (Slide) If we could have the next slide.

1 With our reliance or giving credit for
2 existing maintenance activities and in the maintenance
3 rule, we decided or concluded that we can exclude from
4 review active equipment. We also determined we need to
5 focus in on passive. When you compare active to
6 passive, passive equipment doesn't readily reveal
7 itself, the effects of aging, through performance and
8 condition monitoring that we had a lot of experience
9 with, so we said we need to focus on passive.

10 One of the things we looked at was do we
11 want to stick the term "passive" in the rule. Based on
12 a comment that you made at a previous Commission meeting
13 to look at some existing standards, we did that. We
14 ended up doing a detailed review of over 40 definitions
15 of passive. Some of the definitions worked real well to
16 capture mechanical equipment, some of them worked real
17 well to capture electrical equipment. There wasn't one
18 that we really liked to capture everything we want, so
19 we ended up taking an ANS definition and modifying it
20 slightly to say what we want for license renewal.
21 Basically the definition we came up with is equipment
22 that performs intended function without moving parts or
23 without a change in configuration of properties is what
24 we're after.

25 Also realizing that this still may not be

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1 real clear, we decided to actually put in the rule
2 language itself examples of what we mean, what is
3 passive and examples of what is not passive for our
4 case.

5 In addition to some of the examples in the
6 rule language, we have examples in the statement of
7 considerations. They include things like the
8 accumulator, storage tanks, steam generators, spent fuel
9 racks, and some examples of what we consider is not
10 passive in addition that's in the rule, things like
11 cooling plans, switch gears, snubbers, diesel
12 generators.

13 I want to point out though, just by
14 including these components in the rule language doesn't
15 necessarily mean that they will finally be subject to
16 aging management review because it has to be a
17 combination of passive, long-lived and non-redundant.
18 These are just examples of what's passive. They may, in
19 fact, be screened out later because they're not non-
20 redundant or they're not long-lived.

21 (Slide) I'll go on now to talk a little bit
22 about a long-lived and we have the next slide.

23 Here we propose to give generic exclusion to
24 all equipment that's not long-lived because it's
25 replaced on a specified time period or based on a

1 qualified life. We're comfortable with that process
2 that exists today, so we don't need to look at it. But
3 we do need to look at structures and components that
4 aren't replaced on that specified time period.

5 Also again here, just like passive, we
6 decided not to stick the term "long-lived" in the rule.
7 There was no question of what we meant by it. We
8 actually stuck in the words "equipment that's not
9 subject to replacement based on qualified life or a
10 specified time period."

11 COMMISSIONER REMICK: What does equipment
12 mean?

13 MR. REYNOLDS: Equipment? We're talking
14 about structures and components.

15 COMMISSIONER REMICK: Okay. I'll bring that
16 up later. It's not defined. You generally talk about
17 structures and components, systems sometimes. But in
18 the document on a number of occasions suddenly equipment
19 occurs and it's not clear what equipment refers to.
20 I'll come back to that.

21 MR. REYNOLDS: Okay. That's a good point.
22 Okay.

23 One of the things we looked at for a
24 replacement was should we give generic credit for
25 replacement based on a performance or condition

1 monitoring program. We said no. If you realize in the
2 passive equipment, based on our experience, doesn't
3 readily reveal the effects of aging through existing
4 performance condition monitoring, it seemed we couldn't
5 apply the reverse logic to exclude it based on
6 performance condition monitoring generically. However,
7 a licensee does that the option if they want to come in
8 on a plant-specific basis and say, "Yes, I do have this
9 performance conditioned monitoring program and it will
10 work well for this passive equipment," and we can review
11 it. We just didn't know enough today to give that
12 generic exclusion for replacement based on performance
13 or condition.

14 (Slide) I'd like to go on to non-redundant
15 in the next page, please.

16 Before I jump into what I really mean here,
17 I want to remind everybody that the license renewal, our
18 requirements on the integrated plant assessment and the
19 timing aging analysis, in addition to the current
20 requirements we have today. It's not in place of. So,
21 whatever programs the licensee have today, requirements
22 they have today, they have to continue to meet them.
23 The second principle carries forward.

24 So, we looked at this, again giving maximum
25 credit to what we're doing today, maintenance rule. We

1 determined that for the integrated plant assessment we
2 don't need to look at redundant equipment. However --

3 CHAIRMAN SRLIN: Yes. I've had a little
4 question about this in the non-redundant. If you have
5 two items, each of which has a reliability of 75 percent
6 and one fails, you still have a second item, but your
7 overall reliability has gone down quite a bit. I don't
8 think that was what you meant by excluding redundant
9 devices. If they're not truly redundant, they just are
10 devices that back each other up. You basically would
11 get increased risk if one of these failed, even though
12 you wouldn't be sure that the device would fail.

13 MR. RUSSELL: What we looked at, clearly the
14 degradation continuing in a non-redundant, passive,
15 long-lived component, that's typically reactor coolant
16 pressure boundary, for example. That kind of equipment,
17 we believe, has clearly a much higher safety
18 significance and risk associated with it. For those
19 which are redundant, even though they may be passive,
20 ECCS system piping where you have redundant trains, the
21 conclusions we came to would be that the affects of
22 aging would not likely occur at the same time in the
23 same system.

24 So, from a failure standpoint, considering
25 the kinds of things we did in the maintenance rule and

1 the fact that required corrective action would be taken
2 to address this, we felt that the risk associated with
3 those was, in fact, smaller and that that was an
4 acceptable level given that there are processes in place
5 to require corrective actions for failures which did
6 occur independent of whether they're passive or active.

7 CHAIRMAN SELIN: I mean what I didn't
8 understand -- I understand about -- if you're saying
9 it's a passive device, you're saying it's a device in
10 which failure might not exhibit itself. So, if it's
11 passive and redundant is the assumption that somehow --
12 I mean the idea of redundancy, of not excluding the
13 redundant advice is that if it failed and we knew it
14 failed, we'd have time to fix it and we still would have
15 the other device to depend on.

16 But what I'm missing is in a passive
17 redundant device, are you assuming that failure of the
18 passive redundant device would make itself known and
19 therefore there'd be time to fix it?

20 MR. RUSSELL: Yes.

21 CHAIRMAN SELIN: Why would it make itself
22 known? I thought the passive nature might obscure the
23 fact that it had failed.

24 MR. RUSSELL: No, that's not -- for example,
25 it could reveal itself with through-wall leakage or

1 could reveal itself through in-service inspection that's
2 required pursuant to the code for piping systems, could
3 reveal itself through erosion, corrosion and leakage.
4 So, we believe that there are a number of ways that it
5 may reveal itself. Given that that does occur, we've
6 sort of put it into the same context we did the
7 maintenance rule. That is, you may have a preventive
8 maintenance program and it may be functioning
9 satisfactorily. The evidence of that is an absence of
10 failures. If you have a failure, we require that there
11 be an in-depth evaluation of that failure with the
12 corrective action taken and it's not until the second
13 failure that we conclude that it is significant enough
14 to give it treatment under A-1 of the maintenance rule.

15 So, in this case, we felt that these were of
16 lesser safety significance and that the safety net, per
17 se, is that you don't expect these to occur at the same
18 time, that they would reveal themselves either through
19 programs or through time and that there would be in in-
20 depth evaluation of the root cause of that failure and
21 corrective action taken. So, that was principally the
22 basis for excluding the redundant long-lived passive.
23 When you're talking about structures, they are typically
24 not redundant. So, you're typically talking about
25 piping, fluid systems, potentially cabling, things like

1 this which may be in effect in more than one train.

2 So, that was the logic that we used and put
3 forth in the statement of considerations for excluding
4 redundant, passive, long-lived components. It's
5 predicated upon having processes that would require
6 those failures be evaluated because these are still
7 within the scope of the maintenance rule so that
8 failures would be evaluated and corrective action taken.

9 CHAIRMAN SELIN: Okay. I'm not convinced.
10 The hole I see is the assumption that even though it's
11 passive, the failures would manifest themselves. Given
12 that they would manifest themselves, the redundancy I
13 see protects you. It gives you time to fix the one
14 train. But to me that's a point that's not proven. It
15 may be true, but it's not proven. We say, "Let's
16 inspect the pressure vessel at 40 years because we don't
17 normally inspect it along the way." Well, that's not
18 because it's non-redundant, it's because it's an
19 inspection we don't routinely do. So, I think you have
20 to satisfy me that for passive redundant items there are
21 procedures in place that would normally detect the
22 failures. Otherwise, in my opinion they would have to
23 be inspected as part of license renewal, redundant or
24 not.

25 Clearly, if they're non-redundant, the

1 manifestation of failure would itself be a problem.
2 You'd have to close down the system while you fixed it.

3 MR. TAYLOR: Let us look at it. We'll
4 clarify it.

5 CHAIRMAN SELIN: Okay.

6 MR. REYNOLDS: I'd just like to finish up on
7 redundant, non-redundant. Again, to avoid some
8 confusion, we're not going to use the term in the rule.
9 We're going to say structures and components whose
10 failure would result in a loss of system function.

11 COMMISSIONER REMICK: I have a question on
12 that. It says, "structures and components whose failure
13 would result in loss of intended system or structure
14 function." I understand that much of it, but you define
15 components as such things as primary piping, pressure
16 vessel, et cetera. It seems to me that you could -- if
17 a component failed, it's not a structure and it may not
18 be part of a system, from the examples I've given you.
19 It seems to me that you would want to add -- let me read
20 it, "structures and components whose failure would
21 result in loss of intended system, structure or
22 component function. It's not only result in the loss of
23 a system or structure, but, as I say, the pressure
24 vessel or the primary system, if that is a component,
25 and I think you defined them as components. The

1 component might lose its function too.

2 MR. REYNOLDS: Right. We wrestled with that
3 a little bit because some plants do count their vessel
4 as a component, some as a system. We meant if they call
5 their vessel a component, they'd have to maintain that
6 component function. So, maybe our language needs to be
7 fixed there. I understand your point.

8 MR. RUSSELL: To just stay with intended
9 function, this was one that came up earlier when Bill
10 was discussing it and I think it's an important point to
11 make. That is we've phrased the intended function.
12 Instead of going to the process we had before where you
13 looked at the scope activities and you came up with a
14 list, you end up then with structures, systems and
15 components, or structures and components on the list,
16 some of which are on that list because they had intended
17 functions, others of which are on the list and they have
18 other functions because they had a dual activity. So,
19 you may have a system that performs a safety function
20 and a non-safety function that ends up on a list. We
21 had an elaborate process before for screening those out.
22 What we've done is we've tied this to intended
23 functions, which basically gets back to what is the
24 safety purpose of that particular component or
25 structure.

1 So, we may be able to resolve or clarify the
2 point by just sticking with intended function and that's
3 what we are using.

4 COMMISSIONER REMICK: Or maybe you said
5 intended safety function perhaps.

6 MR. RUSSELL: There may be non-safety -- we
7 specifically stayed away from the safety, non-safety
8 division because there are non-safety equipments that
9 can perform safety functions that become very
10 significant. So we wanted to keep it to intended
11 function and not differentiate between safety and non-
12 safety.

13 COMMISSIONER REMICK: But, I agree, I think
14 system and structure should not be there. As I'll point
15 out later, I'm still having trouble understanding when
16 you use system, when you use structure, when you use
17 component or combinations of those three. I get very
18 very confused and I think I can point out some
19 inconsistencies to you.

20 MR. REYNOLDS: I can try it now or I can do
21 it when I go to findings, because I --

22 COMMISSIONER REMICK: No. Go ahead.

23 MR. REYNOLDS: It jumps right out at you
24 when I go over the findings.

25 COMMISSIONER REMICK: Whenever it's logical.

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1 MR. REYNOLDS: Okay.

2 CHAIRMAN SELIN: That's what they meant by
3 increasing flexibility.

4 MR. REYNOLDS: (Slide) If we go to page 16.

5 On page 16 is the last two steps of the IPA.
6 The first step here on the page is basically the step
7 where we've allowed a lot of flexibility. Here we want
8 the licensee or the applicant to justify and describe
9 their methodology for coming up with the list of
10 structures and components that are subject to aging
11 management review. We haven't been prescriptive here.
12 However they decide to get down to those pieces of
13 equipment, structures and components that are passive,
14 long-lived and non-redundant, that's what we're
15 interested in. We don't care really so much as every
16 step in the way, just their methodology for doing it and
17 what's the bottom line. On the last step here they're
18 going to have to describe how their aging management
19 programs are going to be effective in maintaining the
20 intended functions.

21 CHAIRMAN SELIN: You know, this comes back
22 to Commissioner Remick's question. We don't want to
23 call them safety functions, but we are only interested
24 in things that contribute to the PRA. In other words,
25 we don't expect them to review their rad waste facility

1 or something. Does the language someplace say that
2 these are functions which contribute to safety?

3 MR. REYNOLDS: What we did and what used to
4 be the definition of SSC and ITLR, we changed that now
5 to be a scope step, 54.4. It's still the same type of
6 equipment, but we've added a new Part 54.49(b) that
7 talks about intended function. Those functions that
8 cause the safety-related equipment, equipment that's in
9 by tech specs or in by regulations. So, it's functions
10 that that equipment meets to satisfy those requirements.

11 CHAIRMAN SELIN: Okay. So, if people are
12 foolish enough to have tech specs that cover things,
13 they either have to go to our standard tech specs or
14 they have to be hoist by their own petard basically,
15 right?

16 MR. REYNOLDS: Right.

17 MR. RUSSELL: That's one of the, hopefully,
18 motivating factors to get people to take things out of
19 their tech spec either by proposing line item
20 improvements or going through tech spec conversion to
21 eliminate that which would not meet the Commission's
22 policy statement or, as you're aware, we've proposed a
23 rule to take it from a policy statement to actual rule
24 language to better, more sharply define what is
25 necessary to be in tech specs and what can be removed

1 from tech specs.

2 CHAIRMAN SELIN: That's good because it
3 keeps the license extension and the current licensing
4 basis on the same basis. If it's in the tech specs
5 today, it's effectively in the tech spec for license
6 renewal. If it shouldn't be there, it shouldn't be
7 there today. Let them fix it or live by it basically.

8 MR. REYNOLDS: Right.

9 MR. RUSSELL: That's the approach.

10 MR. REYNOLDS: One of the things I want to
11 go through in integrated plant assessment overall is
12 some of the flexibility we think we've added. We don't
13 mean for a licensee and applicant to have to determine
14 what's passive first, then long-lived and then non-
15 redundant or whatever. They can go long-lived first and
16 then non-redundant or passive or any combination, just
17 so -- however they get it to the final list it's passive
18 along with non-redundant. They can do that whichever
19 way is best for them.

20 We also intend that -- say a licensee
21 doesn't want to spend the time to determine what's non-
22 redundant and what's redundant. If they want to tell us
23 what's just passive and long-lived, they have that
24 flexibility. Or if they want to tell us just what's
25 passive, that's fine. Just so long as the list they

1 give us includes the complete. So, it can be bigger.
2 If they want to give us bigger, that's fine. Actually,
3 for some licensees, the way they have their databases
4 and systems set up, it may actually be easier for them
5 to give us a bigger scope. Their programs may cover the
6 broad issues. So, if we're not being so prescriptive,
7 they have to cut it finer if that's not worth it for
8 them.

9 CHAIRMAN SELIN: In other words, if they
10 have programs that cover redundant --

11 MR. REYNOLDS: Right, exactly.

12 CHAIRMAN SELIN: -- that's maybe easier to
13 show that the system is covered than that it's --

14 MR. TRAVERS: Than spending the time to
15 redefine system boundaries.

16 CHAIRMAN SELIN: Okay.

17 MR. REYNOLDS: Right. That's all I was
18 going to say on integrated plant assessment. We'll go
19 on to timely aging analysis.

20 (Slide) Go on to page 17.

21 Bill Travers talked about earlier -- we
22 skipped page 8 where all the definitions we deleted for
23 clarity and simplicity. Here's one case where we
24 thought we needed to add a definition to be clearer and
25 simpler and I want to point that out. There appeared to

1 be some confusion by exactly what we meant by timely
2 aging analysis.

3 In the current rule it was subsumed or it
4 was part of the definition of ARDUTLR. In SECY-93-331,
5 we highlighted it special and now even more so with
6 deletion of ARDUTLR, we need to point out that we need
7 to review it. What we mean by it is the calculations,
8 analysis that a licensee relies upon himself to
9 determine that there are systems, structures and
10 components will perform their functions and for what we
11 mean for timely aging analysis has to consider effect of
12 aging, has to be aging-related, and has to be explicit
13 assumptions based on a 40 year life.

14 To give you some examples of what we mean by
15 timely aging analysis, reactor vessel embrittlement, in-
16 service flaw growth, projections like concrete
17 containment, pre-stress tendon analysis. We think the
18 number -- based on our review so far of the number of
19 timely aging analysis is fairly small and I think our
20 short list in our statement of considerations is our
21 comprehensive list, that we've gone through a fairly
22 good review. It was a small list. I know people saying
23 it's got to be bigger. That's as many as we've
24 identified so far. There may be some plant-specific
25 ones, but on a generic basis we do think it's a small

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1 number of timely aging analysis.

2 COMMISSIONER ROGERS: Well, I'm just taking
3 the term itself literally. The time limited, that
4 suggests a specific time for everything or a limited
5 time appropriate to a particular system, structure or
6 component? Is the time limited period the life of the
7 plant, the entire life, including the extended period,
8 or is it different from that?

9 MR. REYNOLDS: Okay. Let me walk through
10 two examples and I'll explain it. At the end of the 40
11 year license is what we're after. Like reactor vessel
12 neutron embrittlement. When they do the initial
13 licensing, they evaluate it for 40 years. So, at the
14 end of 40 years, it all has to be reanalyzed at going
15 beyond that. For in-service flaw growth projections,
16 the time limit is when you identify the flaw you project
17 it out to the end of the license. So, if you identify
18 the flaw at year 15, you project it out for 25 years.
19 So, it ends at 40 years. For license renewal, you'll
20 have to project it out for the additional period of
21 extended operation, for another 20 years.

22 So, the time limit is the end of the current
23 operating license. It may not be a 40 year period, like
24 for in-service flaw growth. If it is, 25 years. But
25 what we mean by time limited is 40 years, for the end of

1 the current operating license.

2 Did that clear things up?

3 COMMISSIONER ROGERS: Not entirely. But go
4 ahead. That will be part of your answer? I have a
5 little problem with it.

6 COMMISSIONER REMICK: Excuse me, Ken.

7 I have a different question. As I
8 understand -- and by the way, I'm not differing with
9 what you have, I'm trying to understand. As I
10 understand the aging management review process in 54.21,
11 I guess, is primarily aimed at structures and components
12 is the word. The one exception is where you introduce
13 systems is in time-limited aging analysis. I tried to
14 understand why we switch -- first of all, I tried to
15 consider why it's only structures and components that
16 are primarily in aging management review and I finally
17 rationalized, well, systems are made up of structures
18 and components, so okay. But now when we come to time-
19 limited aging analysis, we include systems and I say --
20 I'm still having this problem of when systems,
21 structures and components, when structures and
22 components and it's just purely a matter of trying to
23 understand.

24 MR. RUSSELL: Let me give you an answer. If
25 we say grant that an exemption for a particular system

1 to not meet a regulation because the time frame that
2 that system was going to operate was relatively short to
3 the end of life of that particular facility, say they
4 had eight to ten years remaining and we concluded in
5 doing an analysis that the cost and the benefits of
6 upgrading that were not justified, that could change if
7 you were to look at that for an additional 20 years of
8 operation and it may justify upgrading that system.

9 So, there could be some cases where we have
10 granted exemptions based upon the remaining life of the
11 plant where looking at that time frame we would come out
12 with potentially a different answer if we were to look
13 at it for an additional 20 years of operation. So,
14 there could be some systems where we have granted that
15 based upon system performance and that's the exemption.
16 That's the time-limited analysis that needs to be picked
17 up, but that's not necessarily tied to aging, but that's
18 tied to performance and we captured that within the
19 exemption process.

20 CHAIRMAN SELIN: The unit is the system,
21 right?

22 MR. RUSSELL: That would be a unit of a
23 system.

24 CHAIRMAN SELIN: Therefore you need system
25 in the definition because time-limited for a component

1 might not make any sense.

2 MR. RUSSELL: Correct. Time-limited for a
3 component may be an aging aspect. As the example given
4 earlier, you've done an examination, you're projecting
5 what the flaw growth rate is and you're saying that it
6 would be good for this amount of time. You may have to
7 either do more inspection or project it would be for a
8 greater amount of time. That would be a component that
9 would be aging. But since we tried to combine the two
10 together, then there may be some systems for which there
11 is a time-limited aspect. We tried to capture that as
12 well.

13 COMMISSIONER REMICK: No, that's
14 understandable. But why then in most of the aging
15 management review it's structures and components -- for
16 the reason of my conjecture, that every system is made
17 up of structures or components?

18 MR. RUSSELL: Yes.

19 COMMISSIONER REMICK: And/or components. Is
20 there any reason why if in general we talked about
21 systems, structures and components, in every case
22 there's a disadvantage in doing that or does everybody
23 understand why? I'm the only one who doesn't see why we
24 flip-flop back and forth and I will try to demonstrate
25 later I think inconsistently.

1 MR. TRAVERS: We ultimately focus the
2 integrated plant assessment on the identification of
3 parts of systems, structures and components and carry
4 out, at least for passive, long-lived, non-redundant, an
5 aging management review on those portions of systems.
6 So, it's --

7 COMMISSIONER REMICK: On those portions,
8 what do you mean by portions?

9 MR. TRAVERS: The structures and components,
10 right. So, the screening that we've done or established
11 under Part 54, even if it's somewhat muddled by some
12 confusion, depending on the terms, we tried to clear
13 that up here and the intent has been the same, to
14 ultimately get to structures and component level
15 determinations of functionality for license renewal
16 ultimately, by doing the aging management.

17 COMMISSIONER REMICK: And there is a
18 distinct disadvantage of including the term "systems" in
19 that.

20 MR. TRAVERS: If the intent is to go to the
21 structure and component level, I think there is.

22 COMMISSIONER REMICK: Okay.

23 MR. TRAVERS: It's not clear.

24 MR. REYNOLDS: You may get a lot more
25 structures --

1 COMMISSIONER REMICK: Yes.

2 MR. REYNOLDS: -- that really need to look
3 at or thinking about or --

4 MR. RUSSELL: But I've not precluded
5 combining like components. So, if you have a number of
6 pieces of piping segments and they're treated the same
7 in a licensee's program, we would expect that they would
8 describe what that program is for treating those
9 segments. It may cut across systems. So, what we were
10 really focusing on is components age or structures age.
11 Systems are made up of pieces of those and we may have
12 different focuses.

13 MR. TRAVERS: And the other aspect of that
14 is we intended to eliminate at the structure and
15 component level structures and components that are not
16 required for a system to carry out its function. So,
17 when you screen, you can actually eliminate those when
18 you carry out the integrated plant assessment.

19 COMMISSIONER REMICK: Is there any place
20 that it makes sense to talk about systems and structures
21 and not components? SSs.

22 MR. RUSSELL: I don't think we looked at it
23 that completely. Based upon the comments, I think it is
24 appropriate to go back and relook --

25 COMMISSIONER REMICK: You referred to it

1 that way and that just adds to my confusion and I'd
2 point that out.

3 COMMISSIONER de PLANQUE: That's a non-
4 redundant definition, the system and structure, which we
5 just said maybe should go out.

6 COMMISSIONER ROGERS: Just along the same
7 line, the answer you just gave, is that the reason that
8 you eliminated the term "systems" from the definition of
9 the IPA in your definitions? It's not in -- systems not
10 there. Structures and components only and it's for the
11 reason that you've just given.

12 MR. TRAVERS: What's the ultimate outcome or
13 the result of the integrated plant assessment. It's a
14 judgment on structure for component level functionality.

15 COMMISSIONER ROGERS: This particular point
16 has come up before, I know, when we've discussed this
17 some time ago. I now remember it, now that you've made
18 your point. But I think the fact that it's easy to
19 forget what your emphasis is here and what your
20 philosophy is, I think that somehow maybe some words
21 someplace, maybe in the statement of considerations or
22 something, would be helpful to explain that point. I
23 think we all kind of heard it at one time and forgot it
24 and we don't reconstruct it automatically ourselves when
25 the question comes up. So, I think there needs to be a

1 little bit more --

2 MR. TRAVERS: We've spent a lot of time
3 thinking about it and it probably is fair to say that we
4 could have explained --

5 COMMISSIONER ROGERS: Well, it's burned into
6 your brains at this point, but not ours. That's the
7 problem.

8 MR. TRAVERS: I understand.

9 COMMISSIONER ROGERS: Yes. Right.

10 MR. REYNOLDS: (Slide) I'll go on to page
11 18.

12 This is the actual part of the application
13 where they have to provide a list of those timely aging
14 analysis. Again here in the rule language, we think
15 we've provided substantial flexibility because we give
16 them a variety of options of how they can demonstrate
17 that the system, structure or component will continue to
18 perform its intended function. They can demonstrate
19 that the analysis that they had for 40 years is still
20 good and it covers extended period of operation, or they
21 can redo their analysis and project it out longer. Here
22 when we talk about projecting out the analysis, we
23 intend it to be either use their current licensing
24 basis, not current standards. If they don't have the
25 latest -- if their CLB doesn't have the latest revision

1 of a code and they committed to an early version, that's
2 the same version of the code they'll be using to extend
3 their analysis.

4 Then we gave them another option of saying
5 instead of extending the analysis or explaining it's
6 valid, if you can come up with some aging management
7 programs or activities that will ensure that the system,
8 structure or component will perform its intended
9 functions, that will be acceptable too.

10 So, you can do any one of these three or any
11 combination. We added some flexibility for the licensee
12 on how they do it. Our bottom line was to ensure that
13 the system, structure or component would perform its
14 intended function.

15 Before I leave timely analysis, I want to
16 point out that we're going after any system, structure
17 and component that has timely aging analysis, not just
18 those that are passive along with non-redundant. So,
19 when we get to cable and the timely aging analysis under
20 EQ, we will be reviewing the redundant cable.

21 COMMISSIONER de PLANQUE: Just to make this
22 clear, are there any SS or Cs that fall under the
23 passive long-lived non-redundant category and the
24 category that requires time-limited aging analysis? If
25 so, like the pressure vessel, I would think.

1 MR. REYNOLDS: Oh, yes.

2 COMMISSIONER de PLANQUE: Okay. Does that
3 cause you any complication because they fall in both
4 categories?

5 MR. REYNOLDS: No.

6 COMMISSIONER de PLANQUE: Okay.

7 MR. REYNOLDS: We're focusing the time-
8 limited aging analysis, like the vessel, we want to
9 focus on neutron embrittlement.

10 COMMISSIONER de PLANQUE: Right.

11 MR. REYNOLDS: And they may be able to use
12 whatever they do in the surveillance programs, their
13 shelf energy, how they project that out, whatever they
14 use for timely analysis, they can reference that for
15 their aging management of that. But we want them to
16 distinguish time-limited aging analysis. As special
17 distinct issues in our standard review plan right now,
18 aging management activities are not spelled out
19 specifically in our current standard review plan.

20 (Slide) The last thing I want to talk
21 about, page 19, is the finding that the NRC will have to
22 make to issue a license.

23 Due in part because we deleted the term
24 "ARDUTLR," and we added or we split the technical review
25 up into the IPA and timely aging analysis we had to

1 modify the standard. The standard now goes whatever
2 actions the licensee have taken or will have to take
3 with respect to structures and components subject to
4 aging management review, we're going to have to make
5 that finding. We'll also make the finding that they
6 will take or have taken actions to ensure the
7 functionality of our systems, structure and components
8 subject to timely aging analysis.

9 Due to some confusion that we had or we
10 perceived that existed on current term issues versus
11 license renewal issues, we added two new sections to
12 54.29(b) and (c) and it's intended to say that a current
13 operating issue will be handled as a current operating
14 issue, not as a license renewal issue.

15 I think you can see from the specific
16 changes we made to the rule language itself and with our
17 examples and the discussions that we have in our
18 statement of considerations that our proposed rule will
19 be simpler and clearer and will provide a substantial
20 amount of flexibility for the applicant. I think we
21 feel that this proposed rule which does give maximum
22 credit to the maintenance rule and maintenance programs
23 and activities will provide a substantial stability,
24 predictability for -- allow a licensee to determine
25 whether or not they want to pursue license renewal.

1 COMMISSIONER de PLANQUE: In the text of the
2 rule, in that part, is there something wrong with the
3 designation of the reference in 54.29?

4 MR. TRAVERS: Yes, there is.

5 COMMISSIONER de PLANQUE: Okay.

6 MR. TRAVERS: Instead of (b)(2) it would
7 be --

8 COMMISSIONER de PLANQUE: Lead you to the
9 wrong place. It goes to --

10 COMMISSIONER ROGERS: Okay. I've got the
11 same question.

12 MR. TRAVERS: It should be (c).

13 COMMISSIONER de PLANQUE: (c).

14 MR. TRAVERS: Apologize for that.

15 COMMISSIONER de PLANQUE: It's also in the
16 table of comparisons.

17 MR. REYNOLDS: If you look at 54.29(b)(1),
18 we refer you to (b)(2) and it should be (c).

19 COMMISSIONER ROGERS: It should be (c), but
20 I think you have the same problem with (c) though that
21 I have. But you say that 54.29(b)(1) should refer to
22 (c)? I don't know. I'm going to ask the question when
23 my turn comes, so maybe we can wait until then. But
24 there seems to be some confusion in what you really mean
25 in 54.29(b) because it seems to be referring to itself.

1 I mean (b)(2) --

2 COMMISSIONER REMICK: Yes, circuit.

3 COMMISSIONER ROGERS: Yes.

4 MR. TRAVERS: And that's exactly the
5 problem. Let me see if I can point out exactly --

6 COMMISSIONER ROGERS: So, how do you --

7 MR. TRAVERS: If you look at 54.29(b),
8 there's a reference to (b)(2) there.

9 COMMISSIONER ROGERS: Right.

10 MR. TRAVERS: That should be a reference to
11 (c) and not (b)(2).

12 COMMISSIONER ROGERS: So, that would just be
13 (c).

14 COMMISSIONER de PLANQUE: Yes.

15 MR. TRAVERS: Correct.

16 COMMISSIONER ROGERS: And what about (c)?
17 That seems to me to have the same kind of a problem.

18 COMMISSIONER de PLANQUE: You're looking at
19 the table.

20 COMMISSIONER ROGERS: "As determined by
21 paragraph (b)(1)."

22 COMMISSIONER de PLANQUE: Okay. It's in the
23 table.

24 COMMISSIONER ROGERS: Yes, I'm talking about
25 the table in the --

1 MR. TRAVERS: Oh, I'm sorry.

2 COMMISSIONER de PLANQUE: You've got a
3 different problem in the table because --

4 COMMISSIONER ROGERS: Page 12.

5 COMMISSIONER de PLANQUE: -- it should just
6 refer to (b) there.

7 MR. TRAVERS: Okay. Yes. May I commit to
8 correct that?

9 COMMISSIONER ROGERS: All right. Well,
10 there seems to be some circularity in both of -- in (b)
11 referring to --

12 MR. RUSSELL: We have an error in the table
13 and an error in the rule.

14 COMMISSIONER de PLANQUE: And they're both
15 different.

16 COMMISSIONER ROGERS: Yes.

17 COMMISSIONER de PLANQUE: It's just editing.

18 COMMISSIONER ROGERS: Okay. All right.

19 CHAIRMAN SELIN: Two rights make a wrong.

20 COMMISSIONER de PLANQUE: It keeps you in
21 the same circle.

22 COMMISSIONER REMICK: Is Mr. Taylor looking
23 for that sage I talked about yesterday?

24 MR. RUSSELL: Before going to slide 20, I'd
25 like to go back to a question that the Chairman raised

1 regarding the discussion of redundant to make sure that
2 I understand it and we can follow up. It appears that
3 the concern is that the staffs analysis is based upon a
4 premise that failures in the non-redundant -- failures
5 in the redundant components would be revealed either
6 through operation or through some program that is being
7 implemented. The question is -- and what we have not
8 done is articulated the basis for that conclusion in the
9 statement of considerations. Whether there is a
10 sufficient basis to conclude that generically or not or
11 whether that is something that should be reviewed on a
12 case specific basis as to whether a licensee has a
13 particular program that would identify failures before
14 they reveal themselves.

15 For example, degradation that might be
16 related to a capability to withstand a seismic event,
17 clearly you don't have seismic events that often. But
18 if it were degraded, two trains could be degraded, the
19 seismic event could occur and you would find that both
20 would be impacted. So, the issue really focuses on the
21 ability to detect the failure and take corrective action
22 as compared to having a non-detectable failure which
23 continues.

24 (Slide) Slide 20, please.

25 This was mentioned in the Chairman's opening

1 remarks. We are looking at a schedule that would be
2 based upon a 90 day comment period with an assumption
3 that in July we go out with a proposed rule, we propose
4 a 90 day comment period that would take us up to
5 October. We would then evaluate those comments,
6 complete ACRS, CRGR review and develop a final package
7 to have back to the Commission by March of '95. We
8 would propose to work the standard review plan and
9 regulatory guides in parallel with the end of that
10 process such that that would be completed about six
11 months after issuance of the final rule.

12 That completes the staff presentation and
13 we're ready to respond to questions.

14 CHAIRMAN SELIN: Commissioner Rogers?

15 COMMISSIONER ROGERS: Well, first I want to
16 say that I think you've done a very fine job. I'm very
17 pleased with the whole approach that's been taken in
18 this redoing of the rule. I really want to compliment
19 you for taking it on and simplifying it the way you
20 have. It certainly meets a number of the concerns that
21 I had. So, basically I'm very positive on what you've
22 done.

23 I think there may be a little further
24 corrective action may be needed on some of these
25 details, but it seems to me that the way you've

1 approached it is really very fine.

2 I just have -- most of my questions you've
3 answered along the way. I did have one though, a little
4 detailed question. It goes beyond perhaps just whether
5 the wording is quite right or something. It relates to
6 the proposed definitions that are in Appendix 5 of the
7 SECY on page 7 of that appendix relating to 54.4. "The
8 plant systems, structures and components within the
9 scope of this rule are," then there are several
10 sections, 1, 2 and 3. The question that I have is
11 whether the systems, structures and components listed in
12 section 3 aren't really implicitly covered under 1 and
13 2, why they are specifically broken out and then this is
14 a little more philosophical point of view, that 1 and 2
15 are quite general statements, 3 is very specific, item
16 by item, and there's always a danger when you try to
17 give an itemized list that there's some item you didn't
18 put on the list that should be on the list.

19 So, can you say something about why section
20 3 is such a detailed list and why those items aren't
21 implicitly covered under 1 and 2?

22 MR. REYNOLDS: First of all, this is the
23 same scope we've had since the final rule. We're not
24 proposing to change it. In the proposed rule before the
25 current rule, we had a scope step that basically said

1 all equipment or systems, structures, components relied
2 upon our safety evaluations. The Commission said that's
3 a little too broad and we should focus it down on just
4 a subset on there. We looked at that and we came back
5 and we said, well, these things, even though parts of
6 them may be covered in one and two above, these are
7 regulations where a good part of them may not, in fact,
8 be caught by 1 and 2, and we wanted to review them
9 specifically.

10 COMMISSIONER ROGERS: So you don't believe
11 that --

12 MR. TRAVERS: They're not covered.

13 MR. REYNOLDS: There may be some.

14 MR. TRAVERS: The philosophy here was to go
15 beyond an examination of classically safety-related
16 equipment, recognizing that the equipment that would be
17 needed to comply with a number of the Commission's
18 regulations that are stipulated here would not
19 necessarily be safety-related. The inclusion of the
20 tech spec limiting condition for operation was, I
21 believe, at the Commission direction. I think that was
22 included to recognize the importance of tech specs and
23 the equipment that is referenced within tech specs,
24 particularly equipment that's related to limiting
25 conditions for operation.

1 So, as an attempt to go beyond safety-
2 related most fundamentally and then to draw some
3 boundaries on it, this was the set that was chosen in
4 consult with the Commission.

5 MR. RUSSELL: We did debate this within the
6 steering group because there were arguments on both
7 sides as to whether we wanted to come back and suggest
8 dropping number 4 out, particularly in light of what
9 we're doing with respect to tech specs. If you look at
10 tech specs, you generally capture the safety-related
11 stuff which is item 1, plus those things which are risk-
12 significant and that's generally ATWS, station
13 background, et cetera. So, it appeared to be redundant.
14 We debated that back and forth. We felt it was better
15 to have the potential redundancy and the rationale for
16 why it was in rather than to exclude it and potentially
17 miss something.

18 Plus, frankly I was interested in a little
19 incentive for folks to square away their tech specs and
20 eliminate the unnecessary stuff. So, if there's
21 unnecessary stuff in their tech specs and they don't
22 implement either the tech spec improvement or the line
23 item improvement, then they have potentially a larger
24 scope of stuff to address for renewal. So, there may
25 have been a little Machiavellian approach there.

1 COMMISSIONER REMICK: Bill, I can't help the
2 question if that's adequate basis, keep it in. But
3 another thing that concerns me, it's inconsistent with
4 the maintenance rule. We're talking about SSCs, same
5 plants, everything and it's inconsistent. I was going
6 to have a question, if Commissioner Rogers will allow
7 me, at this point.

8 COMMISSIONER ROGERS: Sure.

9 COMMISSIONER REMICK: Does the staff think
10 that it's really important to keep that in there? Would
11 we miss anything of significance? So, the question is
12 really is it worth keeping it in, and once again
13 pointing out that it's inconsistent with the definition
14 of SSCs in the maintenance rule? Do we buy it by
15 keeping it in?

16 MR. RUSSELL: When we debated that, I guess
17 we looked at it from the standpoint of not taking
18 something out that the Commission had previously said to
19 put in rather than otherwise. Giving you the candid
20 answer to the question, we did look at it and there are
21 not strong reasons particularly in light of the policy
22 statement on tech specs and what should be in tech
23 specs.

24 COMMISSIONER ROGERS: I don't know why that
25 should concern you when you ARDUTLR out.

1 MR. RUSSELL: That was in the SRM to
2 consider.

3 COMMISSIONER ROGERS: I have no more
4 questions. I think you've done a fine job.

5 CHAIRMAN SELIN: Commissioner Remick?

6 COMMISSIONER REMICK: Yes. Let me just --
7 following up on that, just to make sure I understand,
8 you're basically saying that if it was taken out, you're
9 not aware of any significant loss of system, structures
10 or components? Okay.

11 MR. RUSSELL: The maintenance rule. It
12 would be from a logical standpoint nice if they were
13 identical definitions, but we believe that once you go
14 through you'll find that it's essentially the same
15 important equipment, particularly if you have a set of
16 tech specs that are consistent with the policy
17 statement.

18 MR. REYNOLDS: There may be some older tech
19 specs, custom tech specs that would actually screen in
20 additional systems, structures and components, but they
21 wouldn't be those ones that we would consider today to
22 be as safety significant. But I just wanted to make the
23 distinction.

24 COMMISSIONER REMICK: I understand. That's
25 consistent with my view back when the Commission so

1 ruled too.

2 I join Commissioner Rogers in his comments.
3 I think that this proposed rule is a definite
4 improvement over the existing rule. My only comments
5 that I have are, and they're intended to be
6 constructive, are trying to understand what words mean.
7 And your explanation of your philosophy, I have no
8 problem with as you explained it this morning. Why
9 you've done it, I did not understand coming into the
10 meeting. So, it isn't the philosophy. So, my emphasis
11 will be to try to point out where I think there might be
12 inconsistencies in the words that still cause me some
13 problems and I think others.

14 First, under the scope, 54.4, it points out
15 that plant systems, structures and components within the
16 scope of this part are: safety-related systems,
17 structures and components which are those relied upon to
18 remain functional during the follow design-basis events.
19 So, systems, structures and components which are those
20 relied upon to remain functional and that makes sense to
21 me. But if I go back to earlier in the Federal Register
22 notice on page 6, it talks about the intent of license
23 renewal and I'm not sure you have to flip-flop back and
24 forth, but it says that this change would ensure that
25 important structures and systems -- structures and

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1 systems, not components now -- will continue to perform
2 their intended function in the period of extended
3 operations.

4 So, in one place you're saying systems,
5 structures and components to maintain their function and
6 in another place we're saying structures and systems.
7 The question comes up in my mind now why. The only case
8 I know of, maybe Commissioner de Planque has found
9 another, where you talk just about structures and
10 systems.

11 COMMISSIONER de PLANQUE: That was in the
12 non-redundant definition.

13 MR. REYNOLDS: Here we meant components
14 also.

15 COMMISSIONER REMICK: You meant components?
16 Okay.

17 Now, I have -- I don't want to get too much
18 diverted from that, but that same definition, safety-
19 related systems, structures and components raised the
20 question in my mind, is this license renewal rule, will
21 it be applicable to passive plants and if it is there
22 are -- there we're talking about risk significant non-
23 safety systems. Now, maybe the answer is it's too early
24 to start worrying about passive plants in the license
25 renewal rule.

1 MR. RUSSELL: I have worried about it and
2 that's why the regulatory treatment of non-safety
3 systems as it relates to the passive plant in the paper
4 we have before the Commission is so important, because
5 if it turns out that there are non-safety systems which
6 are risk-significant, the policy statement and the
7 proposed rule would result in those being covered by
8 technical specifications and have other aspects of
9 regulatory control.

10 The issue there is what degree of pedigree
11 is required for the systems and what degree of
12 regulatory oversight, not the functions they perform.
13 So, by keeping it to intended functions, I believe that
14 this would cover both. And as you're aware, we are
15 intending to look at these in our reviews for a longer
16 period in the initial review. So, we are not limiting
17 these to an arbitrary 40 year review.

18 COMMISSIONER REMICK: I understand what
19 you're saying, but the words are "safety related
20 systems" and I think there presumably might be non-
21 safety related systems that have safety significance,
22 and, as I read those words, if the Commission decides
23 there is such a thing, that would not be covered. Now
24 maybe the answer to that is it's too early to cover it
25 and, if the Commission so decides that way, it can be

1 added, and maybe that's it.

2 My only question is, has the staff thought
3 about that?

4 MR. RUSSELL: I believe that's captured,
5 though, in the scope under --

6 CHAIRMAN SELIN: Number 2.

7 MR. RUSSELL: -- item 2, where we say "all
8 non-safety related systems, structures, components whose
9 failure to prevent satisfactory completion of any of the
10 functions identified in paragraph A(1)(iii) of this
11 section." We'll look at this carefully, but our intent
12 was to be able to capture this for those facilities.

13 MR. TAYLOR: I think we'll have to study the
14 complete rule in that sense because I don't believe we
15 had that in mind.

16 MR. REYNOLDS: At the forefront of our
17 minds.

18 MR. TAYLOR: No, certainly not.

19 COMMISSIONER REMICK: Well, on page 93 then,
20 I read this. It's under 54.33(b). It says, "Each
21 renewed license will be issued in such a form and
22 contain such conditions, limitations, including
23 technical specifications as the Commission deems
24 appropriate and necessary to help ensure that systems,
25 structures and components subject to review in

1 accordance with 54.21(a)." If I read 54.21(a), it does
2 not mention systems, it only talks about structures and
3 components.

4 MR. REYNOLDS: That's correct.

5 COMMISSIONER REMICK: Okay. And these all
6 added to my confusion over what's the philosophy. Okay.

7 And then the other on -- let me just give
8 you the pages -- there are probably others -- 12, 13,
9 14, 20. After I tried to understand structures and
10 components and systems, equipment appears. I assume
11 that is being used for structures and components, but
12 it's not clear, but I'm not sure it should be in there.
13 If it's in there, I think it should be defined that's
14 what you mean as an easy way of saying it. But whatever
15 it means, it suddenly sticks out like a sore thumb and
16 further confused me.

17 I think that's it. I did have a question on
18 that 54.29(a), the same thing. I was running around in
19 circles. But all in all, I really think that this is an
20 improvement and the staff does deserve a lot of credit
21 for listening to a lot of different input and so forth
22 and coming up with, I think, something that appears to
23 be much more workable.

24 COMMISSIONER de PLANQUE: Well, the SSC, the
25 SS and the SC variations were a problem in the previous

1 one. I assume you're just going to go through and look
2 in every place --

3 MR. REYNOLDS: Right.

4 COMMISSIONER de PLANQUE: -- to make sure
5 you got what you intended.

6 MR. RUSSELL: In these days of work
7 processing --

8 COMMISSIONER de PLANQUE: Yes, it's easy.

9 MR. RUSSELL: -- we will search for and find
10 and make sure that they are appropriately used in each
11 case.

12 COMMISSIONER de PLANQUE: I may have one
13 specific question. On page 27 of the SOC you talk about
14 excluding the active fire protection components and
15 giving credit for the fire protection program. But it
16 refers in here only to the active components. What
17 about the passive ones? Do they fall within --

18 MR. REYNOLDS: They'll be within the IPA
19 subject to review.

20 COMMISSIONER de PLANQUE: Okay. Okay.

21 MR. TRAVERS: This was just included in the
22 discussion to point out that even though some fire
23 protection equipment might not be within the scope of
24 the maintenance rule, there were requirements that exist
25 today that parallel those and would act, in the case of

1 active components, to reasonably assure their
2 functionality continued in the extended period of
3 operation.

4 COMMISSIONER de PLANQUE: That's all I have.
5 I think you've done an excellent job.

6 CHAIRMAN SELIN: There's at least one
7 licensee that would like to come in with fewer than 20
8 years experience. What's your view on that 20 years?

9 MR. TRAVERS: Well, what we've done in this
10 package is to note that and point it out, ask a
11 question, ask for any comments that others may have and
12 evaluate it. Right now I can say that the 20 years as
13 it's incorporated in Part 54 didn't have a strong basis.
14 We did look on it as a reasonable time frame within
15 which licensees could plan for their decisions on
16 renewal, a time frame when generally enough experience
17 might be viewed as having gone by such that you could
18 carry out the kind of integrated plant assessment based
19 on the experience achieved to date. But I think as
20 there's nothing magic about 40, there's probably nothing
21 magic about 20.

22 MR. RUSSELL: It may only make the review a
23 little more difficult from the standpoint that you're
24 going to be projecting that a longer remaining life on
25 some components where you have aging effects going on.

1 You may not have as much of a database to extrapolate
2 from if you come in earlier. So, other than the
3 complication of making the review potentially harder,
4 there's not a strong basis for picking a time.

5 CHAIRMAN SELIN: I think even Commissioner
6 Curtiss would be pleased with the work that you've done
7 on this. I really think this has really carried out the
8 work that had been foreseen and intended very, very
9 well.

10 So, thank you very much. It was an
11 excellent presentation.

12 (Whereupon, at 11:30 a.m., the above-
13 entitled matter was concluded.)
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CERTIFICATE OF TRANSCRIBER

This is to certify that the attached events of a meeting
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TITLE OF MEETING: BRIEFING ON PROPOSED RULE FOR LICENSE RENEWAL -
PART 54

PLACE OF MEETING: ROCKVILLE, MARYLAND

DATE OF MEETING: JUNE 10, 1994

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*United States
Nuclear Regulatory Commission*

Commission Briefing

**Proposed Amendment to the License Renewal Rule
(10 CFR Part 54)**

June 10, 1994

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Background

- ◆ Final Part 54 effective January 1992
- ◆ Industry and NRC experience implementing the rule
- ◆ Senior NRC management review of issues
- ◆ September 1993 public workshop
- ◆ December 1993 staff recommendation to revise rule
- ◆ February 1994 Commission SRM to revise rule
- ◆ March 1994 public meeting with Nuclear Energy Institute (NEI)

Approach to Rulemaking

- ◆ SRM used to develop proposed rulemaking package --
retain *Principles of License Renewal*

- ◆ Steering Group and Working Group established to give priority attention to this rulemaking.
 - Steering Group: NRR, RES, and OGC senior managers, and Deputy EDO

 - Line Management

 - Working Group: NRR, RES, and OGC senior staff

Objectives of License Renewal Rulemaking

Clarity

- ✓ Be clear on what is and what is not subject to review.

Simplicity

- ✓ Simplify rule by not using terms like ARDUTLR, ITLR, SSCs, and by minimizing the use of definitions.

Flexibility

- ✓ Allow applicant the flexibility to develop methodology for determining the review scope.

Stability / Predictability

- ✓ Be straight forward and clear such that an applicant can make a timely decision whether to pursue license renewal.

Retained in Proposed Revision

◆ Principles of License Renewal

- Regulatory process is adequate to ensure the current licensing basis (CLB) will continue to provide an acceptable level of safety --- with the possible exception of aging effects in the period of extended operation.
- The plant-specific CLB must be maintained during the period of extended operation.

Retained in Proposed Revision (cont'd)

- ◆ Integrated Plant Assessment (IPA)
 - Initial broad consideration of plant systems, structures, and components.
 - Quickly focuses review.

- ◆ Initial Scope of License Renewal.

- ◆ Review of Time-Limited Aging Analyses.

Principal Changes

- ◆ Focus on Aging Effects vs. Aging Mechanisms.
 - Performance and condition monitoring.

- ◆ Focus on Ensuring *Functionality*.
 - Regulatory process ensures all other CLB aspects.

- ◆ Eliminates the Term ARDUTLR
 - Other definitions also deleted.
 - Concept of ARDUTLR retained.

Principal Changes (cont'd)

◆ Definitions Deleted from Current Rule.

- ARDUTLR.
- Age-related degradation.
- Aging mechanisms.
- Effective Program.
- SSCs ITLR.

Principal Changes (cont'd)

- ◆ Narrowing the Focus of the Aging Management Review
 - Current rule results in unnecessarily broad review.
 - Proposed revision credits the effectiveness of the regulatory process and existing programs and activities as adequate for certain structures and components.
 - Resultant review focuses on
 - 1) Structures and components that are "passive," "long-lived," and "nonredundant" and
 - 2) Systems, structures and components that are subject to time-limited aging analysis.

Principal Changes (cont'd)

- ◆ Simplified Integrated Plant Assessment (IPA).
 - Deletes requirement to list *Systems, structures and components important to license renewal*.
 - Flexibility to develop methodology for identifying "passive," and "long-lived," and "nonredundant" structures and components.

- ◆ Reduced Information in Final Safety Analysis Report (FSAR) Supplement.
 - Proposed revision would require only a summary description.
 - Currently entire application submitted as FSAR supplement.

Principal Changes (cont'd)

- ◆ Reduced Reporting and Control Requirements.
 - Minimizes special requirements for license renewal.
 - Relies on existing regulatory process.
 - Approach for treating and controlling information is consistent with treatment of similar information during the current operating term.

§54.21(a) Integrated Plant Assessment

- ◆ "Identify and list those structures and components subject to an aging management review."
 - "Passive" and
 - "Long-lived" and
 - "Nonredundant"

"Passive"

- ◆ Term not used in proposed rule.
 - Extensive review of existing definitions and standards.
 - No one definition captured all the equipment judged to warrant review.
- ◆ Structures & components that "perform an intended function, without moving parts or without a change in configuration or properties."
 - "These structures & components include, but are not limited to, pressure retaining boundaries, component supports, reactor coolant pressure boundaries, the reactor vessel..."
 - "Excluding, but not limited to, pumps (except casing), valves (except body), motors, batteries, relays, breakers, and transistors"

"Long-lived"

- ◆ Term not used in proposed rule.

- ◆ Structures and components not subject to replacement by either:
 - Qualified service life, or
 - Specified time period.

"Nonredundant"

- ◆ Term not used in proposed rule.
- ◆ Structures and components "whose failure would result in loss of intended system or structure function as described in §54.4(b) during the period of extended operation."

§54.21(a) Integrated Plant Assessment (cont'd)

- ◆ "Describe and justify the methods used..."
- ◆ "Demonstrate that the effects of aging will be managed so that the intended function(s) will be maintained for the period of extended operation."

Time-limited Aging Analyses

- ◆ Definition in proposed rule.
- ◆ "[L]icensee calculations and analyses that form the basis for a licensee conclusion regarding the capability of systems, structures, and components within the scope of this part to perform their intended function(s) that --
 - (1) Consider the effects of aging; and
 - (2) Are based on explicit assumptions defined by the current operating term of the plant."

§54.21(c) Time-limited Aging Analyses

- ◆ Provide a list of time-limited aging analyses.

- ◆ Demonstrate that --
 - The analyses remain valid for the period of extended operation; or
 - The analyses have been projected to the end of the period of extended operation; or
 - The effects of aging on the intended function(s) will be adequately managed for the period of extended operation.

§54.29 Standards for Issuance of a Renewed License

- ◆ "Actions ... have been or will be taken with respect to ---"
 - Structures and components subject to an aging management review, and
 - Systems, structures, and components subject to time-limited aging analyses.

- ◆ Not current term issues.

Schedule for Completing the Rulemaking

- ◆ Proposed amendment published for public comment. 07/94
(Environmental Assessment and Regulatory Analysis are also available for public comment)
- ◆ End of public comment period (90 days). 10/94
- ◆ Final rule to Commission for review and approval. 03/95

Will keep Steering Group / Working Group approach to meet the aggressive schedule for completing the final rule.