

# UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

Title: BRIEFING ON RESULTS OF LICENSE EXTENSION WORKSHOP  
AND PROPOSED CHANGES TO LICENSE RENEWAL RULE

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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BRIEFING ON RESULTS OF LICENSE EXTENSION WORKSHOP  
AND PROPOSED CHANGES TO LICENSE RENEWAL RULE

- - - -

PUBLIC MEETING

Nuclear Regulatory Commission  
One White Flint North  
Rockville, Maryland

Wednesday, December 22, 1993

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  
E. GAIL de PLANQUE, Commissioner

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STAFF SEATED AT THE COMMISSION TABLE:

SAMUEL J. CHILK, Secretary

WILLIAM C. PARLER, General Counsel

JAMES TAYLOR, Executive Director for Operations

THOMAS MURLEY, Director, NRR

JACK HELTEMES, Deputy Director, RES

WILLIAM TRAVERS, Deputy Associate Director, Advanced  
Reactors and License Renewal, NRR

SCOTT NEWBERRY, Director, License Renewal and  
Environmental Review Project

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

10:00 a.m.

CHAIRMAN SELIN: Good morning, ladies and gentlemen.

The Commission is very pleased to welcome our staff to brief us on the results of the license renewal workshop and on the proposals for revision to the license renewal rule.

As many of you have heard me say, I believe this is among the two or three most important issues that have faced the Commission at least in the couple of years that I've been here. We believe that it is essential that there be a predictable and stable regulatory process defining the Commission's expectations for license renewal in a clear and unequivocal way. I think the importance goes even beyond those particular plants that would go in for the additional up to 20 years. Just the existence of an option for license renewal would change the quality of investment and therefore of risk even during the basic 40 years of plant operation.

We believe that a clear and unequivocal stable regulatory environment would permit licensees to make well-informed decisions about license renewal and about capital investments during the basic 40 year

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1 period without those decisions being influenced in one  
2 direction or another as a result of a regulatory  
3 process that might conceivably, although of course  
4 this wouldn't happen, but might conceivably be  
5 perceived as being uncertain, unstable or not clearly  
6 defined.

7           The final rule adopted by the Commission  
8 some two years ago was based on two fundamental  
9 principles. The first principle is that with the  
10 exception of age-related degradation unique to license  
11 renewal, the current and continuing regulatory process  
12 is adequate to ensure the licensing basis of a  
13 currently operating plant, that this basis, if  
14 maintained, will continue to provide an acceptable  
15 level of safety. Thus, this focus of any review for  
16 license renewal is to be on any modifications that  
17 have to be made to the regulatory process to address  
18 those specific age-related degradation principles or  
19 mechanisms that would arise or that would otherwise  
20 undercut the safety margin during the renewal period.

21           The second principle is that mechanisms  
22 must be in place to maintain the plant licensing basis  
23 during the renewal term. Based on our experience with  
24 currently operating reactors, the Commission believes  
25 it is appropriate to allow license renewal applicants

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1 to rely to a considerable extent on existing  
2 activities and programs to ensure that a plant will  
3 continue to operate safely during the extended period  
4 of operation. Not necessarily any more safely, but  
5 certainly not below the adequate margins that we  
6 require during the basic period.

7 Consequently, the Commission directed the  
8 staff to convene a public workshop in order to  
9 evaluate alternative approaches to ensuring that the  
10 license renewal process will take maximum credit for  
11 regulatory processes and for existing licensee  
12 programs. The staff proposed that approaches be  
13 designed to help us identify any modifications to the  
14 rule which may be necessary to assure that the two  
15 principles of license renewal continue to guide our  
16 efforts.

17 This morning the staff will brief the  
18 Commission on the results of that workshop and on  
19 their proposed changes to the license renewal rule.  
20 Copies of the viewgraphs are available at the  
21 entrances to the room.

22 Commissioners, any other --

23 Mr. Taylor, we look forward to this  
24 presentation with great expectations.

25 MR. TAYLOR: Good morning.

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1 With me at the table are Jack Heltemes  
2 from the Office of Research, Tom Murley, Bill Travers  
3 and Scott Newberry from the Office of Nuclear Reactor  
4 Regulation.

5 Mr. Chairman, I would underscore the  
6 importance that the staff puts to this revised  
7 rulemaking with regard to license renewal. Part of  
8 what you'll hear later in the presentation will be a  
9 discussion of how the staff plans to conduct this  
10 rulemaking with a special working group and with a  
11 senior steering group overseeing the changes to the  
12 rulemaking process within the staff and a projected  
13 tight, but I think achievable schedule by which we  
14 could complete this revised rulemaking. I mention  
15 that because I think it underscores the significance  
16 that the staff puts on this job. Details of that will  
17 be discussed by Mr. Travers later in the presentation.

18 I'll now ask Tom Murley to continue.

19 DOCTOR MURLEY: Yes. Thank you, Jim.

20 Commissioners, good morning.

21 The aim of the briefing today is forward  
22 looking. That is, where do we go from here? Mr.  
23 Chairman, you've given the background. I'd like to  
24 just perhaps fill in a few aspects of the backdrop of  
25 where we're at and how we got here today.

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1                   After the current rule became effective  
2                   about two years ago, the staff began to implement it  
3                   and began to work with industry groups and potential  
4                   license renewal applicants. As we did that, several  
5                   obstacles arose. The obstacles appeared to be so  
6                   serious that last year at this time we undertook a  
7                   high-level staff review to see if we could clear away  
8                   those roadblocks and find a path to make the current  
9                   rule workable. We came back to the Commission in  
10                  January of this year and February of this year. I  
11                  think we were successful in that goal in the sense  
12                  that we cleared away most of the problems and we did  
13                  indeed find a workable path for this rule.

14                 But because of the language of the rule,  
15                 in particular the definition of age-related  
16                 degradation unique to license renewal, the staff's  
17                 proposed path would have unavoidably entailed a large  
18                 amount of documentation on effective programs that  
19                 would be drawn into NRC's regulatory system of formal  
20                 documentation and change control. It was largely for  
21                 this reason that the potential renewal applicants and  
22                 the industry in general thought the price of going  
23                 down the staff's path was just too high. They were  
24                 generally opposed to the proposal, although I don't  
25                 think that there was disagreement that it was legally

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1 workable.

2 But it was with this background that the  
3 Commission in June requested the staff to conduct the  
4 workshop and to receive comments on how we should  
5 proceed with license renewal, with special emphasis on  
6 how to best take advantage of existing licensee  
7 programs like maintenance programs for managing the  
8 effects of aging.

9 We conducted the workshop. There was a  
10 substantial consensus from that workshop that a rule  
11 change is needed in order to achieve a clearly defined  
12 and a stable regulatory basis for license renewal.  
13 The staff is here today to recommend a change to the  
14 license renewal rule.

15 The proposed rule retains the framework of  
16 the current rule but it changes the focus away from  
17 identification and evaluation of aging mechanisms and  
18 instead toward managing the effects of aging. We are  
19 aware that this is a substantial rulemaking and it  
20 will require a good deal of work on the part of the  
21 staff to justify this proposed approach. In  
22 particular, we know we'll have to document how the  
23 maintenance programs under the maintenance rule will  
24 manage the effects of aging and how that in turn will  
25 assure compliance with a plant's current licensing

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1 basis in the renewal term. We propose to return to  
2 the Commission in the spring with this work completed  
3 and with a proposed rulemaking package.

4 Bill Travers will talk now about how we  
5 propose to do this in detail.

6 MR. TRAVERS: Good morning. I'd like to  
7 follow-on from what Doctor Murley said by indicating  
8 in some more detail the summary of the significant  
9 results of our workshop and also to discuss, as Tom  
10 mentioned, the proposals the staff has recently  
11 submitted to the Commission in SECY-93-331.

12 I should point out that while that SECY  
13 paper includes specific rulemaking language that could  
14 serve as the starting point for efforts that might be  
15 considered by the Commission reasonable to begin a  
16 revised rulemaking process. I don't plan to discuss  
17 that language, but focus on a discussion of some of  
18 the key issues that have been the most significant  
19 focus of our license renewal efforts since the rule  
20 was first promulgated in 1992.

21 COMMISSIONER ROGERS: Does that suggest  
22 that you think that language might change as you  
23 proceed further?

24 MR. TRAVERS: I think some of that  
25 language could very well change. In the paper, in

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1 addition to discussing some of the key issues,  
2 principally the ones Doctor Murley just mentioned, we  
3 also pointed out a number of more discreet and  
4 specific changes that probably ought to be considered  
5 when we get into a rulemaking process, if that is what  
6 the Commission directs.

7 (Slide) I'd like to skip to slide number  
8 3, please, because I had prepared a background slide,  
9 but I think it's been largely covered by some previous  
10 comments.

11 The license renewal workshop was held in  
12 September and was attended by more than 180  
13 representatives from the nuclear industry, engineering  
14 and consulting firms, federal and state agencies and  
15 a few public interest groups. Those who accepted our  
16 general invitation to make workshop presentations  
17 included representative from the Department of Energy,  
18 NUMARC and the Yankee Atomic Electric Company.  
19 Written comments were received from these  
20 organizations, as well as from the Ohio Citizens for  
21 Responsible Energy and from Virginia Power Company.  
22 Copies of the workshop transcript and written comments  
23 have been provided to the Commission and made publicly  
24 available.

25 As an overview, and as Tom Murley

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1 mentioned, all presenters and commenters indicated the  
2 need to change the existing rule. The DOE and  
3 industry organizations all indicated the need to  
4 simplify the rule, to place more explicit reliance on  
5 existing licensee programs, particularly on programs  
6 which are required as a result of the maintenance  
7 rule. They argue that existing licensee programs and  
8 the NRC regulatory process, as enhanced by the  
9 requirements of the maintenance rule, are already  
10 focused on ensuring functionality of important  
11 structures and components, that these programs will  
12 continue in any renewal period and that as a result  
13 technical evaluations for this equipment should not be  
14 required to support an NRC license renewal decision.

15 (Slide) Slide 4, please.

16 To accomplish this, the DOE and NUMARC  
17 have recommended retention of both an integrated plant  
18 assess and the concept of age-related degradation  
19 unique to license renewal, or ARDUTLR. The definition  
20 of what ARDUTLR is and is not, however, would be  
21 significantly changed. The new definition would be  
22 used to establish a license renewal review focus on  
23 certain long-lived passive SCs and on other SCs whose  
24 importance to license renewal functions would not be  
25 assured by existing licensee programs or the

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1 maintenance rule requirements.

2 Specifically, the proposal would  
3 establish, via the Part 54 revised rulemaking, that  
4 except for certain long-lived passive structures and  
5 components, all SCs subject to the maintenance rule  
6 cannot be subject to age-related degradation unique to  
7 license renewal.

8 Since the staff recommendations for  
9 proceeding with rulemaking are similar to the NUMARC  
10 proposal, I will explain this in a little more detail  
11 in a few minutes, including some of the differences  
12 that we've identified between NUMARC's proposal and  
13 the staff's.

14 CHAIRMAN SELIN: You know, I think it's  
15 just worth noting that this process is a bit unusual,  
16 but for a good reason. Generally, the Commission  
17 decides that licensees ought to do something and we  
18 listen to them so we make sure we know what we're  
19 doing and we tell them to do it and they do it. In  
20 this case, we have a rule which is designed to  
21 encourage licensees to do something which in certain  
22 circumstances we believe is desirable. So, it is not  
23 sufficient for us to think it's a good rule. If the  
24 potential applicants don't find it a good rule, it  
25 will not accomplish its objectives. So, in this case,

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1 dealing so closely with the representatives of the  
2 industry, so long as we preserve the health and safety  
3 aspects, is clearly called for since it's their  
4 activity that is to be induced rather than just  
5 commanded, as we would normally do.

6 MR. TRAVERS: I think we've had a lot of  
7 good dialogue. Certainly the workshop was the most  
8 recent example of it. But even previous to that,  
9 we've had a number of opportunities to sit down with  
10 those who would be, as you indicate, most impacted by  
11 the license renewal review and that has resulted in a  
12 lot of thinking since, frankly, the promulgation of  
13 the final rule in '92.

14 In contrast to NUMARC's proposal, Yankee  
15 Atomic and Virginia Power would eliminate ARDUTLR  
16 altogether. Both believe the term is an obstacle  
17 really to establishing a straightforward license  
18 renewal process and they view ARDUTLR as a confusing  
19 term which does not account for the fact that aging is  
20 a continuous process which does not have unique  
21 characteristics in the renewal term.

22 Yankee Atomic's proposal would also  
23 eliminate the need for an IPA. Rather, the revised  
24 rule would establish a requirement for review of  
25 programs applicable to the reactor vessel containment

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1 and other long-lived equipment to ensure that their  
2 functions would be reasonably assured in the renewal  
3 term. Yankee's proposal would also include the  
4 evaluation of all time limited exemptions and time  
5 limited analytical assumptions which are part of the  
6 plant-specific current licensing basis.

7 The only non-government or non-industry  
8 comments the staff received were submitted in writing  
9 by the Ohio Citizens for Responsible Energy, OCRE,  
10 subsequent to the workshop. The OCRE comments urged  
11 elimination of ARDUTLR in favor of a broader focus on  
12 the management of age-related degradation generally.  
13 OCRE also indicated its belief that ARD mechanisms  
14 could be different in the renewal term and then  
15 accordingly licensee programs that are adequate today  
16 might not be adequate in the renewal term. OCRE made  
17 a number of other points, but the last one I'll  
18 highlight here is a concern that documentation needed  
19 to support the license renewal application would not  
20 be contained in the application and as a result might  
21 not be accessible for public scrutiny.

22 (Slide) May I have slide 4?

23 The staff's recommendations for proceeding  
24 with renewal to revise Part 54 can be discussed in  
25 terms of a number of key issues, as I mentioned

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1 earlier. The first one, which has been addressed  
2 previously with the Commission and which has continued  
3 to receive some significant attention as recently as  
4 the public workshop is the issue of whether or not  
5 license renewal should require a detailed evaluation  
6 of aging mechanisms. The alternative to this would be  
7 a focus on identifying the effects of aging on  
8 important plant equipment in terms of degraded  
9 performance or condition.

10 Although a technical understanding of  
11 applicable aging mechanisms plays a role in current  
12 aging management program, the focus of aging  
13 management today is principally on monitoring  
14 performance or condition of key plant equipment.  
15 Performance and condition monitoring is relied upon to  
16 ensure equipment functionality against the effects of  
17 aging regardless of the specific mechanisms involved.  
18 The existing SOC, however, contains conflicting  
19 language on the need for aging mechanisms evaluation  
20 versus reliance on monitoring aging effects. This was  
21 identified previously in SECYs 93-049 and 113 and we  
22 had a chance to discuss this with the Commission. In  
23 those papers, the staff, while acknowledging the SOC  
24 inconsistencies, pointed out that the rule language  
25 does not specify the need for a mechanism evaluation

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1 and, more importantly, endorsed the technical adequacy  
2 of performance and condition monitoring as appropriate  
3 to manage aging both today and in the renewal term.

4 We continue to endorse the appropriateness  
5 of programs which focus on performance and condition  
6 monitoring and we urge that if the rule is revised  
7 that the SOC needs to be clarified to make it clear  
8 that what is not required is a specific mechanistic  
9 evaluation for all aging mechanisms.

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

12 The next key issue involves the concept of  
13 current licensing basis as it is used in Part 54, and  
14 more specifically is focused on what is required to  
15 demonstrate that the CLB will be maintained in the  
16 renewal term. The CLB concept is fundamental to the  
17 current rule and is included in the two principles of  
18 license renewal. I had planned to state what those  
19 were, but the Chairman included it in his introductory  
20 comments. So, I won't restate the principles. But  
21 importantly, it is the adequacy of the CLB, ensured by  
22 the broad range of regulatory processes that the NRC  
23 oversees which has been used by the Commission in Part  
24 54 to conclude that ARDUTLR should be the focus of  
25 license renewal and that issues previously considered

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1 when a plant is initially operated need not be  
2 evaluated for license renewal.

3 The specific issue that has been raised is  
4 whether or not a license renewal review, with  
5 exclusive focus on ensuring equipment function, is a  
6 sufficient basis for concluding that the CLB can be  
7 maintained or will be maintained. The staff proposal  
8 for modifying Part 54 endorses this focus on equipment  
9 functionality as sufficient for license renewal.

10 CHAIRMAN SELIN: Doesn't the concept of  
11 age-related degradation automatically say you  
12 concentrate only on equipment? The implication is  
13 that the you concentrate only on equipment. The  
14 implication is that the people don't age, they can be  
15 replaced or the procedures --

16 MR. TRAVERS: That's a very important  
17 point. I think once you've settled on aging as the  
18 issue for license renewal -- first of all, I should  
19 point out we recognize the CLB is broader than  
20 functionality. It includes things such as tech spec  
21 operability, design requirements, license operator  
22 requirements and so forth. But once you focus on  
23 aging --

24 CHAIRMAN SELIN: Set points.

25 MR. TRAVERS: Many of those kinds of

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1 things. But once you focus and make a decision to  
2 focus on aging, I think it's reasonable that  
3 functionality should be the focus or equipment  
4 functionality can be the focus of the specific license  
5 renewal review, particularly when you recognize that  
6 the rule endorses the notion that all other  
7 requirements of the CLB, the ones I just mentioned, QA  
8 and so forth, are as applicable in the renewal term as  
9 they were in the initial operating term. In fact,  
10 they carry over one for one.

11 CHAIRMAN SELIN: This is really a very  
12 important point. So, I'd like to make sure that I  
13 understand the staff position. The argument is that  
14 age-related -- by having a rule based on age-related  
15 degradation unique to license renewal and the  
16 management thereof of the entire CLB, we've said  
17 everything else has to continue as it would during the  
18 first 40 years, that the only locus of such aging has  
19 to be equipment, has to be functionality, first point.

20 Second point is provided that there are  
21 programs to manage this functionality or there are  
22 special programs such as you suggest for the passive  
23 components or any active components not covered by the  
24 maintenance rule that are important to safety, that  
25 assuming the rest of the CLB is monitored, as we

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1 always monitor it, and taking as given the aging  
2 principle that proving continued functionality is  
3 equivalent to proving reasonable assurance that the  
4 CLB will continue into the next 20 years.

5 The third point is that as long as the  
6 definition is carefully drawn of what components have  
7 to be checked for such aging, that compliance with the  
8 maintenance rule would be equivalent to showing such  
9 functionality.

10 MR. TRAVERS: In fact, that's what we've  
11 proposed in our recommendations. We think you're  
12 right. As I say, once you've focused on aging as the  
13 issue for the renewal term, when you combine that with  
14 the fact that all of the other aspects of the CLB  
15 carry over one for one, we think that those two things  
16 in combination can lead you to conclude, number one,  
17 that functionality of equipment is the appropriate  
18 focus for the actual act of review in license renewal,  
19 it has to recognize that we will, in the context of  
20 our existing regulatory process, continue to oversee  
21 the application and implementation of CLB requirements  
22 in the renewal term.

23 CHAIRMAN SELIN: Now, going a step  
24 further, since the staff has to make a positive  
25 finding of continued functionality into the period,

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1 not just say we haven't found anything bad yet, that  
2 puts very heavy weight on the applicant being able to  
3 demonstrate compliance with the maintenance rule at  
4 the time that the application is reviewed, that there  
5 will be a lot of inspection, et cetera. Is this  
6 correct or not?

7 MR. TRAVERS: Yes, I think that's right.  
8 I was going to point out, and I have another portion  
9 on my talk, but let's enter into it now, the fact that  
10 we are recognizing the maintenance rule heavily in our  
11 proposal. In fact, except for certain passive  
12 structures and components, the proposal would have  
13 most plant equipment, passive, redundant passive and  
14 active equipment which is covered within the scope of  
15 the maintenance rule as identified in rulemaking as  
16 not subject to age-related degradation unique to  
17 license renewal and the requirements associated with  
18 that finding.

19 So, the maintenance rule is relied on  
20 heavily, but we recognize that we don't have  
21 experience under the rule. However, I think the kinds  
22 of arguments that we would have to make in rulemaking  
23 in the statement of considerations would recognize our  
24 expectations of what will be achieved in the  
25 maintenance rule, recognize the maintenance rule as an

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1 enhancement really of current licensing basis  
2 requirements that already in many instances address  
3 aging management issues.

4 CHAIRMAN SELIN: Well, the positive part  
5 of your argument, if I understand this correctly and  
6 it's very important, so I hope you don't mind my  
7 taking the point --

8 MR. TRAVERS: No.

9 CHAIRMAN SELIN: -- is that given that the  
10 current operating programs and our current inspection  
11 setter is as likely to assure compliance with the non-  
12 equipment functionality parts of the CLB in the next  
13 20 years as in the first 40 years, it is and are  
14 plant-sufficient to prove functionality as shown  
15 through the maintenance rule for the finding to be  
16 made of continued assurance of health and safety.

17 MR. TRAVERS: Yes.

18 CHAIRMAN SELIN: On the other hand, it's  
19 not just the maintenance rule but the licensee's  
20 compliance with the maintenance rule. So, it puts a  
21 very heavy burden on the staff to be able to certify  
22 compliance with the maintenance rule so the licensee  
23 will have had to have some experience with the  
24 maintenance rule by the time the application -- not  
25 necessarily today, but by the time the application

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1 comes in and the staff will have had to do sufficient  
2 inspections, et cetera, to say yes.

3 MR. TRAVERS: I think that's right.

4 CHAIRMAN SELIN: Not only do we have the  
5 maintenance rule which if complied with will give the  
6 assurance, but this particular licensee has, in fact,  
7 given us the assurance that they are complying with  
8 the maintenance rule at that time.

9 MR. TRAVERS: I think that's right,  
10 particularly for the first license renewal applicants  
11 that will become an issue because as time goes on, of  
12 course, we'll have more experience and have had a  
13 chance to carry out the kind of inspection programs  
14 that are going to be focused on determining  
15 implementation with the maintenance rule requirements.  
16 But the key, I think, in first applications will be in  
17 combination with paper information that we would  
18 expect to receive in an application are the site  
19 audits that we would anticipate would in parallel  
20 serve as a part of the confirmation process for  
21 license renewal.

22 For example, we would expect to go out to  
23 plant sites who have applied for license renewal and  
24 make some independent confirmatory evaluations, audits  
25 if you will, of things like compliance with the

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1 maintenance rule, things like the kinds of programs  
2 that they would have relied on in their license  
3 renewal application. So, I think this is a pivotal  
4 ingredient in the justification that the maintenance  
5 rule can be relied upon to make this kind of a  
6 judgment.

7 CHAIRMAN SELIN: And to go a step further,  
8 if the concept of age-related degradation unique to  
9 license renewal were thrown out, even though its role  
10 there is fairly severely limited, but the theory, if  
11 that were thrown out, then we couldn't rely on the  
12 maintenance rule. We would basically have to take all  
13 parts of the CLB and at least look at that to say, is  
14 there any reason to believe that these will change in  
15 the next 20 years compared to the first 40? In other  
16 words, a much wider range of issues might have to be  
17 dealt with at license renewal than is currently  
18 conceived.

19 MR. TRAVERS: Perhaps. I think ARDUTLR  
20 can serve as a mechanism.

21 CHAIRMAN SELIN: No, I'm saying as long as  
22 we can ARD. But several of the commenters recommended  
23 that we just throw out that concept and define a  
24 specific --

25 MR. TRAVERS: I think there are some

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1 arguments to be made for a rule which does not include  
2 ARDUTLR, which identifies up front a set of plant  
3 equipment which is particularly important, which is  
4 outside perhaps the scope of the maintenance rule or  
5 even if it is within the scope of the maintenance rule  
6 has certain characteristics that lead us to a  
7 judgment, a technical judgment that some additional  
8 evaluation ought to be made for the renewal period.  
9 But the current rule does contain this concept and we  
10 think a revised definition that more clearly  
11 establishes what we believe is the intent of relying  
12 on existing programs can be used and effectively used  
13 in the context of renewal.

14 But by that I don't mean that we couldn't  
15 make a rule work reasonably efficiently without the  
16 ARDUTLR concept. I think perhaps we could.

17 COMMISSIONER ROGERS: There is another  
18 aspect of this that I hope you would touch on and that  
19 is the margins, the safety margins question that while  
20 one is talking about functionality, just how you're  
21 dealing with that, how that is preserved in the post-  
22 40 year period and to what extent the implications of  
23 safety margins in the current licensing basis are  
24 preserved and maintained through a functionality  
25 approach here. I think that has to be addressed.

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1 It's an issue that's been discussed. It's come up  
2 before and I would hope that you'd be able to say a  
3 little something on that today because I think that is  
4 an important issue.

5 MR. TRAVERS: Yes. As you point out,  
6 Commissioner, the current licensing basis includes  
7 certain design requirements. Of course, design  
8 requirements are either followed or not by in-service  
9 inspection requirements or reverification  
10 requirements, what have you. Sometimes they're not.  
11 Sometimes the design requirements explicitly consider  
12 a 40 year plant life. Sometimes they don't. In terms  
13 of this proposal, the license renewal applicant would  
14 have to establish in instances where a 40 year life  
15 was explicitly assumed in the design of the plant and  
16 certain key design parameters that those parameters  
17 could be extended for another 20 years.

18 In instances where there is not an  
19 explicit tie to 40 years, the current licensing basis  
20 which either includes reverification requirements such  
21 as ISI IST, would apply to the same extent and in the  
22 same manner that they exist today. So, there would be  
23 really nothing special other than the current  
24 requirements that already exist to reverify or assure  
25 that the functionality of key plant equipment will be

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1 maintained today and that would continue to apply in  
2 the same manner through the additional renewal period.

3 COMMISSIONER ROGERS: Well, I don't want  
4 to interrupt too much your presentation because I  
5 think it's fairly --

6 CHAIRMAN SELIN: I've already done that.

7 COMMISSIONER ROGERS: Because we might  
8 start going off too far in another direction. But I  
9 think the question, as one moves from a mechanisms  
10 identification to a functionality verification frame  
11 of reference for ARDUTLR, that there is, it seems to  
12 me, a question of preservation of safety margins  
13 because if you are looking at mechanisms you have and  
14 understand those. Presumably you can anticipate  
15 something that might begin to develop if you know  
16 enough about the mechanism. That's one of the  
17 comforting factors of identifying mechanisms.

18 The problem with mechanisms is that they  
19 may be totally unknown and one certainly shouldn't be  
20 putting license renewal on the basis of carrying out  
21 a basic scientific investigation of possible  
22 mechanisms that may or may not have yet been  
23 discovered. So, I personally feel that the move  
24 towards functionality is a much more practical  
25 approach than a requirement of identification of yet

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1 unknown mechanisms which could potentially arise.

2           However, I do think that when one does  
3 that, that then you have to address this aspect of it,  
4 that if you did no mechanisms you would have a  
5 predictive capability and could anticipate a failure  
6 or a significant degradation in a system that must now  
7 be covered by your functionality program. So, that  
8 has to be kept in line in evaluating how effective the  
9 functionality tests are, that they must be something  
10 that provides some anticipation of failure when you  
11 have the possibility of multiple failures in different  
12 systems.

13           DOCTOR MURLEY: Bill, could I respond?

14           Commissioner, that is absolutely a key  
15 question and a central question to this approach. For  
16 purposes of today's discussion, I'd have to say we  
17 don't have the complete answer. We've recognized it  
18 and that's why in my opening remarks I said the staff  
19 recognizes this as a substantial rulemaking, because  
20 we have to address questions like that in the  
21 statement of considerations. Frankly, it's going to  
22 take us several months to do the work and explore the  
23 ramifications of all this. We've done enough thinking  
24 and talking among ourselves to be satisfied we can do  
25 it, but we just have not done it today.

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1 COMMISSIONER ROGERS: Yes. Right. Okay.

2

3 CHAIRMAN SELIN: May I add something?

4 COMMISSIONER ROGERS: Sure. Sure. By all  
5 means.

6 CHAIRMAN SELIN: Actually, one of the  
7 things that bothers me a little bit about this  
8 document is we don't take credit for the years of  
9 aging research that we have done. One could write the  
10 same words without having done that basic work. But,  
11 in fact, by laying off the responsibilities on the  
12 maintenance rule, we are saying that the maintenance  
13 rule will provide effective information on a lot of  
14 very important systems and components. The only way  
15 we can be confident if that is the case is that we  
16 understand the aging mechanisms behind those systems  
17 and components in the maintenance rule, because it  
18 would be folly to say we're going to test a whole lot  
19 of things to see how often they break down if we don't  
20 know where we should become alarmed or what we're  
21 looking for.

22 So, someplace in that discussion, on the  
23 one hand it can be buttressed by referring to our  
24 aging program and how that aging program is reflected.  
25 The second is, if I understand your mechanism, it sort

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1 of shifts -- in most cases, except for these passive  
2 systems, it shifts the understanding of aging from a  
3 direct evaluation of the systems and components to a  
4 justification about why the maintenance rule is  
5 adequate to provide continued functionality with the  
6 predictions that Commissioner Rogers is talking about.

7 I guess the Commission has sort of made  
8 that finding already in approving the maintenance rule  
9 in the past. It's saying that the maintenance rule  
10 will suffice to provide continued functionality or  
11 tell us by the condition monitoring aspects if the  
12 functionality is going to fail that we must have had  
13 some confidence in our understanding of these  
14 mechanisms because we would never have done something  
15 that wasn't justified.

16 COMMISSIONER REMICK: Before we allow you  
17 to go back, Bill, recognizing that we don't have  
18 experience under the maintenance rule, but before the  
19 maintenance rule there was maintenance and we have  
20 many years of experience that proper maintenance does  
21 maintain the functionality of equipment and it does  
22 maintain the current licensing basis. So, I think we  
23 should keep that in perspective. Maintenance is not  
24 something new. We have a rule now that describes some  
25 of the better formalities that we should follow. We

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1 have many years of experience that maintenance  
2 maintains functionality and current licensing basis.  
3 So, let's not get hung-up on the fact we have a rule  
4 that's not in effect yet.

5 MR. TRAVERS: I think that's an important  
6 point and it really serves to underscore the argument  
7 I think we would use, and that is that the maintenance  
8 rule is really an enhancement of the existing  
9 regulatory process. We expect it will provide some  
10 additional confidence in addition to managing aging  
11 effects today, programs that monitor performance or  
12 conditions will continue in the renewal term to be  
13 effective.

14 CHAIRMAN SELIN: But Commissioner Rogers'  
15 point is very important, that one can't just glide  
16 over that point. One has to show that the inspection  
17 programs for the passive components of the maintenance  
18 rule, we do understand the aging mechanisms well  
19 enough to believe that they do maintain functionality  
20 even into an extended period. Or if not, we would  
21 know from the condition monitoring that trouble was  
22 brewing.

23 This is a long slide, Mr. Travers.

24 MR. TRAVERS: (Slide) It is. Let's move  
25 to slide 6 then.

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1 COMMISSIONER ROGERS: We're going very  
2 slowly.

3 MR. TRAVERS: I've got a number of key  
4 issues and the next one --

5 COMMISSIONER REMICK: Excuse me, Bill. On  
6 slide 5, why did you drop the S out of SSC, or the one  
7 S on your fourth bullet? Are we dropping structures,  
8 the functioning structures?

9 MR. TRAVERS: I'm sorry.

10 COMMISSIONER REMICK: On slide 5, the  
11 fourth bullet.

12 MR. TRAVERS: Why don't you take it?

13 MR. NEWBERRY: SSC is systems, structures  
14 and components, and the SC there is structures and  
15 components. We're down to that level.

16 COMMISSIONER REMICK: Okay. I thought you  
17 were dropping structures.

18 MR. TRAVERS: No, sir.

19 COMMISSIONER de PLANQUE: Just since  
20 you're mentioning that issue, and I realize the  
21 wording in all of this is just to give us a flavor for  
22 what you're intending to do, I saw that problem  
23 through the wording as well and I wasn't sure why the  
24 systems part was excluded in some areas and included  
25 in others. So, it's something that you may want to

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1 pay attention to in the next version.

2 MR. TRAVERS: We certainly will. In  
3 part -- I'll just point out very quickly. In part  
4 it's a remnant of the existing construct of the  
5 integrated plant assessment which begins at a higher  
6 level and ends at a structure and component level.  
7 But it's a good point and we'll certainly look into  
8 that as we go forward.

9 The next key issue that I'd like to  
10 discuss is the concept and definition of ARDUTLR.  
11 It's really been the most controversial issue in  
12 license renewal to date. It was introduced relatively  
13 late in the Commission's final rulemaking action and  
14 it was intended to better establish a focus, an  
15 exclusive focus really, on aging issues uniquely  
16 relevant to the renewal period. As an under  
17 statement, I think, the current definition however has  
18 not been viewed as a successful mechanism for focusing  
19 the license renewal review. We've certainly had a lot  
20 of discussion at the workshop about that.

21 The current definition results in a  
22 relatively large portion of the plant as at least  
23 being subject to the possibility of ARDUTLRs, as  
24 Doctor Murley mentioned. Although previous staff  
25 proposals have indicated how such equipment could be

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1       dispositioned with relatively little information based  
2       on existing programs, the industry has expressed  
3       fundamental concern with this approach. While some  
4       industry commenters would have eliminated ARDUTLR  
5       initially or entirely from the rule, the NUMARC  
6       proposal would retain it as a vehicle to focus the  
7       license renewal review. They would, however,  
8       significantly, as we've discussed, modify the  
9       definition to more directly credit existing programs  
10      and thereby greatly reduce the amount of plant  
11      equipment identified as subject to or even possibly  
12      subject to ARDUTLR.

13               In developing our staff position on  
14      license renewal, we took a hard look at both the  
15      concept and definition of ARDUTLR. As a concept,  
16      ARDUTLR has a number of advantages and a number of  
17      disadvantages. On the plus side, it can be useful, we  
18      believe, as a mechanism to focus the license renewal  
19      review and thus limit the issues to those stipulated  
20      by the Commission. On the negative side, the term  
21      "unique aging" can be confusing and can be viewed as  
22      inconsistent with our technical understanding of aging  
23      as a continuous process.

24               CHAIRMAN SELIN: Before you get -- I'd  
25      just like to make two sort of procedural comments.

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1 The first is when you finish the final definition, I  
2 do think you need a generic statement about what  
3 ARDUTLR is because a definition by enumeration opens  
4 the question that we left something out. If you say  
5 we consider this to be aging which might show up in  
6 the next 20 years that didn't have an impact on  
7 important to safety and we believe that it's limited  
8 to these components, that that would be more  
9 satisfactory than just enumerating the components.

10 The second part on the definition, I think  
11 it should be clearly understood that the reason for  
12 having this principle, as you've said, is that the  
13 Commission decided a long time ago and sees no reason  
14 to reopen that question, that this is not a new  
15 license application for 20 years. There is a desire  
16 not just to focus but to keep the analysis in those  
17 particular areas that are concerned with us and the  
18 whole basis for using this ARDUTLR is that it's broad  
19 enough to make sure health and safety issues for the  
20 next 20 years are covered and narrow enough to exclude  
21 what the Commission found to be not germane to the  
22 issue.

23 MR. TRAVERS: On balance, our proposal  
24 recommends retention of the ARDUTLR as a concept, as  
25 a vehicle really to focus the license renewal review.

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1 It's a fairly close call, however, and we do believe  
2 that a rule could be developed and effectively  
3 implemented potentially without ARDUTLR. As Doctor  
4 Murley mentioned earlier, our proposal to retain  
5 ARDUTLR does recognize that NUMARC representing the  
6 industry, particularly those industry organizations  
7 which are actively involved in license renewal  
8 activities, has endorsed retention of this concept.

9 Another factor in our recommendation is  
10 that since ARDUTLR is a principle element in the  
11 current rule and is, in fact, linked to the first  
12 principle of license renewal, its retention could,  
13 I'll underscore could, represent a somewhat more  
14 efficient rulemaking change.

15 Our proposal recommends a significant  
16 redefinition, as I mentioned, of the term for the  
17 principal purpose of more explicitly recognizing our  
18 expectation that existing licensee programs which  
19 manage aging effects will continue to be effective in  
20 the renewal term.

21 The staff proposal which is similar but  
22 not identical to the one submitted by NUMARC would  
23 result in the following. First, a principal focus on  
24 certain passive long-lived structures and components  
25 would be specified in the rule. The rule would

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1 require an applicant to carry out a relatively  
2 detailed evaluation of plant equipment which is not  
3 normally replaced and which performs a passive ITLR  
4 function. Important equipment such as the reactor  
5 vessel and associated primary system piping in the  
6 containment, whose failure would result in a  
7 functional system failure, would be specifically  
8 evaluated and the evaluation results would be included  
9 in the license renewal application. If additional  
10 programs are determined to be needed to manage the  
11 aging effects, the SC would be identified as subject  
12 to ARDUTLR.

13 COMMISSIONER REMICK: I hope we understand  
14 the meaning of the words. If you take containment  
15 penetration seals, where would that fall? Would it be  
16 ARDUTLR or not?

17 MR. NEWBERRY: Yes, sir. I think any --  
18 let me assume there are subcomponents, say, of the  
19 containment boundary. They would receive an  
20 evaluation according to this process. They would be  
21 considered part of the containment, I believe.

22 COMMISSIONER REMICK: But you do do  
23 performance testing of it when you can test a  
24 containment under Appendix J, right?

25 MR. NEWBERRY: Yes, sir.

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1 COMMISSIONER REMICK: Presumably not  
2 subject to maintenance rule, but you do performance  
3 testing. So, wouldn't it be screened out?

4 MR. TRAVERS: First of all, what's been  
5 proposed is for certain equipment, particularly the  
6 equipment we've just mentioned, an evaluation,  
7 including an evaluation of programs that are already  
8 in place would be done. We wouldn't exclude those or  
9 the licensee or the applicant wouldn't exclude them,  
10 but rather they would have to be done versus an  
11 argument in the rule for a categorical exclusion.

12 So, this establishes a certain set of  
13 important plant equipment for evaluation, even if it's  
14 a reevaluation of the adequacy of existing programs.  
15 The previous rule would have required that more  
16 generally, of much more plant equipment.

17 COMMISSIONER REMICK: So, they would go  
18 into the funnel?

19 MR. TRAVERS: They would come into the  
20 funnel, be evaluated and consideration would be given  
21 to existing programs. If those existing programs are  
22 adequate, they would go out as no ARDUTLR.

23 COMMISSIONER REMICK: Okay.

24 MR. TRAVERS: The second practical effect  
25 of the proposed definition would be an explicit

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1 allowance that active SCs and redundant passive SCs  
2 which are within the scope of the maintenance rule  
3 cannot be subject to ARDUTLR. This is a position that  
4 provides maximum credit really for licensee programs  
5 which are or will be in place to meet the requirements  
6 of the maintenance rule. We recognize that it will  
7 require considerable justification in the statement of  
8 considerations and we've had a chance to discuss that.  
9 This is particularly true since it's a prospective  
10 determination and we haven't had experience under the  
11 maintenance rule.

12 We believe, however, that --

13 CHAIRMAN SELIN: Say that again?

14 MR. TRAVERS: We think that justification  
15 will be somewhat -- will need to be detailed and it is  
16 a prospective one because we don't have experience  
17 with the implementation of the maintenance rule.

18 CHAIRMAN SELIN: But I think you're being  
19 too hard on yourself. What we're saying is we believe  
20 that the maintenance rule will be implemented in a  
21 way. We are prospectively guessing that the  
22 maintenance rule, once we have all the reg. guides,  
23 can be implemented. But it will have been implemented  
24 before the application comes through. We're not going  
25 to look at a licensee's maintenance plans and say

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1 they're okay, we're going to look at his maintenance  
2 experience and say that it does, in fact, comply with  
3 the maintenance rule, aren't we?

4 MR. TRAVERS: Yes. Yes, we will have had  
5 that opportunity, we believe, by that time.

6 CHAIRMAN SELIN: So, we're making a  
7 prospective judgment now that a concurrent regulation  
8 can be realistic, but we're not judging that a  
9 particular licensee will probably comply with the  
10 maintenance rule. He's going to have to show  
11 compliance before he gets --

12 MR. TRAVERS: I agree. And there are  
13 other arguments, I think, that bear on this. While we  
14 don't have experience under the maintenance rule, we  
15 have a lot of experience with issuing regulations and  
16 their implementation by licensees, our follow-up, our  
17 ability to react when we don't think our requirements  
18 are met.

19 CHAIRMAN SELIN: I mean we're basically  
20 doubling our bet. When we passed the maintenance rule  
21 we said we believe this rule can be implemented  
22 through reg. guidance, inspection guidance to carry  
23 out its objectives. And now we're saying, assuming  
24 that that can be done, one can make a second rule  
25 depend on that. But in the case of an individual

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1 program, we're going to have experience under the  
2 maintenance rule before they renew those.

3 MR. TRAVERS: I may be hard on myself, but  
4 I think a lot of people are going to be a lot harder  
5 as we --

6 DOCTOR MURLEY: I think you're right, Mr.  
7 Chairman. To turn it around, though, let me just  
8 mention that, because this is such a fundamental  
9 cornerstone of our proposed approach, namely  
10 prospective reliance on the maintenance rule, we have  
11 to ask the question, suppose during a proceeding or  
12 during an application review we find problems in our  
13 inspection program where maintenance is not being done  
14 well? Then the whole foundation of the rule comes  
15 under challenge for that particular application.

16 CHAIRMAN SELIN: Right.

17 DOCTOR MURLEY: So, we have to make the  
18 detailed technical and procedural argument, which we  
19 have not done yet. We just outlined it in this paper.  
20 We also have to recognize that it could very well  
21 become an issue of contention in any proceeding under  
22 this rule. But, nonetheless, we don't think those are  
23 insuperable obstacles. We just have to go into it.

24 CHAIRMAN SELIN: Are you saying that the  
25 maintenance rule itself would come under challenge or

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1 the particular licensees carrying it out would --

2 DOCTOR MURLEY: The licensee's execution  
3 of it and therefore --

4 CHAIRMAN SELIN: And therefore his  
5 application --

6 DOCTOR MURLEY: -- the basis on which we  
7 went ahead with this rule would come under question.  
8 But I think we can, as I said, I think we can deal  
9 with it.

10 CHAIRMAN SELIN: I don't think that's  
11 quite right. I think what would come under challenge  
12 would be his application relying on his execution of  
13 the maintenance rule, in which case his application  
14 wouldn't go through until he could satisfy us and, if  
15 necessary, the courts that we had been thorough in  
16 doing that and that's why it's so desirable that there  
17 be a timely renewal process in the rule.

18 MR. TAYLOR: We agree.

19 MR. TRAVERS: The next effect of our  
20 proposed definition of ARDUTLR is the specification  
21 that equipment which is replaced to preclude a service  
22 life greater than 40 years would also be identified as  
23 not subject to ARDUTLR. This is a position we took in  
24 SECYs 93-049 and 113 and we've had a chance to discuss  
25 it with you. I think it's pretty straightforward. We

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1 don't view it as a substantive change from the  
2 position we took earlier.

3 CHAIRMAN SELIN: Let me try something out  
4 on you, Mr. Travers. What you're basically proposing  
5 is changing the definition from aging unique to  
6 license renewal to aging after maintenance unique to  
7 license renewal. In other words, we're not saying  
8 there aren't aging processes. We're saying those  
9 components which even when maintained still have aging  
10 related degradation unique to license renewal, those  
11 are the ones that we have to look at.

12 MR. TRAVERS: Yes. I've never been  
13 entirely comfortable with the term "age related  
14 degradation unique to license renewal" and I think  
15 others share that view even more --

16 CHAIRMAN SELIN: We're building a castle  
17 on sand as far as --

18 MR. TRAVERS: And that's why when I talk  
19 about it I try to point out its usefulness as a  
20 mechanism regardless of what the words say. And as a  
21 mechanism, I think we can accommodate the position I  
22 think the Commission intends in license renewal, and  
23 that is to focus on a judgment about important  
24 questions that need to be either revisited or  
25 rethought or newly thought at the time of license

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1 renewal.

2 So I think the term, even as we are  
3 proposing it, has certain potential problems in its  
4 plain English.

5 CHAIRMAN SELIN: So, it is what you  
6 enumerate it to be, basically?

7 MR. TRAVERS: Yes, it's pretty much that  
8 thing and it's a technical judgment of what we think  
9 really ought to be considered in the license renewal  
10 process.

11 The last point is that the revised  
12 definition would permit SCs which are not subject to  
13 the maintenance rule to also be determined not to be  
14 subject to ARDUTLR. This is not, however, a  
15 categorical exclusion as we have proposed it, but  
16 would require some information in the application as  
17 a minimum, for example a reference to the existing  
18 program being credited. This is one of two areas  
19 where we have identified differences between our  
20 approach and what NUMARC has proposed. NUMARC would  
21 have revised the rule to justify a categorical  
22 exclusion for all performance or condition-monitoring  
23 programs which, while outside of the maintenance rule  
24 scope, are part of the existing CLB.

25 I should point out that, because of the

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1 fact that the license renewal and maintenance rule  
2 scopes are very similar, the maintenance rule we think  
3 being a little bit larger, that the number or the  
4 amount of plant equipment that falls into those bins  
5 is relatively small. The overall effect of all of  
6 these changes to the definition is to explicitly  
7 establish credit, more explicitly establish credit  
8 within the license renewal process for existing  
9 programs and particularly for the requirements and our  
10 expectations from the maintenance rule.

11 The new definition, in practical terms,  
12 would result in a much reduced amount of plant  
13 equipment being identified as either subject to or  
14 even possibly subject to age related degradation  
15 unique to license renewal.

16 COMMISSIONER REMICK: Bill, if I  
17 understood what you said, the difference between the  
18 proposed approach by NUMARC and the staff approach is  
19 that NUMARC would want a categorical exclusion and the  
20 staff wants justification before exclusion. Is that  
21 basically it?

22 MR. TRAVERS: That's correct.

23 COMMISSIONER REMICK: So that, going back  
24 to the containment penetration seal, if one could  
25 justify that Appendix J testing is adequate as a

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1 performance monitor, then one would have to go through  
2 that justification process. Is that right?

3 MR. TRAVERS: Yes.

4 (Slide) Next slide, please.

5 The next key issue that I'd like to talk  
6 about involves time limited analyses which are  
7 explicit and which are contained in a plant CLB. For  
8 example, certain plant-specific safety analyses may  
9 have been based on an explicitly assumed 40 year plant  
10 life. Two examples include reactor vessel fracture  
11 toughness and surveillance requirements which are  
12 typically evaluated for 40 years, the normally assumed  
13 life of the facility.

14 To support operation beyond 40 years,  
15 these evaluations would need to be carried out by the  
16 utility and approved by the NRC for the extended  
17 period. I should point out here that we've taken a  
18 look at how many of these kinds of issues might exist  
19 in a particular plant's current licensing basis and  
20 we've identified relatively few.

21 In its proposal for revised rulemaking,  
22 however, NUMARC has indicated that, although they  
23 agree that technical resolution and staff approval  
24 would be required to support operation beyond the time  
25 limited analyses set point, they don't believe that

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1 these issues ought to be part of the license renewal  
2 process. Our proposal, as a policy issue more than a  
3 technical one, would include them within our  
4 consideration of a license renewal application.

5 Additionally, we believe that the current  
6 rule includes these time limited analyses within the  
7 definition of ARDUTLR and, as a result of the  
8 construct of our new definition, they don't really fit  
9 in there very well. And so, the new or revised rule  
10 as we've proposed it would separately identify the  
11 need to evaluate and resolve these issues in  
12 connection with license renewal.

13 COMMISSIONER REMICK: Help me understand  
14 why you picked exactly 40 years. I think I can  
15 understand if it's less than 40 years it's going to be  
16 replaced or something is done if the analysis  
17 indicated that it would not survive 40 years. Maybe  
18 I understand the 40 years, but suppose something is  
19 analyzed okay for 45 years?

20 MR. TRAVERS: Then I think the  
21 justification is straightforward.

22 COMMISSIONER REMICK: But that would not  
23 be subject to ARDUTLR?

24 MR. TRAVERS: No. Let me make clear. I'm  
25 outside of the definition now of ARDUTLR and we're

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1 dealing now with the issue of whether or not these  
2 kinds of analytical assumptions which have in some  
3 cases been made explicitly for 40 years, whether or  
4 not for license renewal, within the process of license  
5 renewal, they ought to be captured.

6 Technically, I think we all agree. The  
7 industry and we agree that the regulations require and  
8 in the past we have approved technical justifications  
9 for up to 40 years in some of these instances and that  
10 to operate for one more day beyond that would require  
11 them to justify and us to approve the basis for the  
12 extended period of operation, whatever it is, they'd  
13 like to justify.

14 COMMISSIONER REMICK: Maybe I didn't make  
15 my point clear. Here I come, I'm asking for 20 years  
16 and I had previously analyzed something for just 45  
17 years. As I understand this, you would exclude it,  
18 that analysis?

19 MR. TRAVERS: I didn't appreciate your  
20 fine point. That may be something we need to look at  
21 in the context of rulemaking. Clearly the intent is  
22 to assure that wherever these assumptions have been  
23 made that they're justified for whatever period of  
24 extended operations.

25 COMMISSIONER REMICK: I think that's the

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1 important point, rather than the way it's stated, the  
2 40 years.

3 MR. TRAVERS: It's something we'll look at  
4 closely.

5 We don't view this as a substantive  
6 change, by the way, I should mention, from the  
7 requirements that the existing rule would impose on an  
8 applicant.

9 COMMISSIONER REMICK: How many items do  
10 you think would fall into that? How many analyses  
11 would fall into that category? Do you have an  
12 estimate?

13 MR. TRAVERS: We've found on the order of  
14 a dozen.

15 COMMISSIONER REMICK: I see.

16 MR. TRAVERS: Our proposal for revised  
17 rulemaking would also retain the integrated plant  
18 assessment. Most importantly, we believe, the IPA can  
19 be used to systematically determine which plant  
20 equipment should require additional review for license  
21 renewal. As with the existing rule, the IPA would  
22 begin with essentially the entire plant. Following  
23 that and combined with the revised definition of  
24 ARDUTLR, we believe that the IPA can provide an  
25 effective and efficient mechanism for focusing the

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1 renewal review and that's why we've endorsed its  
2 retention in our proposal.

3 (Slide) May I have the next slide,  
4 please?

5 In addition to the rule changes I've  
6 already discussed, we have also proposed or are  
7 considering a number of other changes to the rule and  
8 the SSC. Other changes identified in SECY-93-331 are  
9 focused on obtaining efficiencies in the application  
10 and particularly in the amount of information which  
11 needs to be included in the FSAR supplement and as a  
12 result subject to change processes and reporting  
13 requirements.

14 The proposal would permit much of the IPA  
15 information to be submitted in the application but  
16 outside of the FSAR supplement. For example, the  
17 lists of equipment identified at each IPA step would  
18 not be included in the FSAR supplement. The FSAR  
19 supplement would contain information related to new or  
20 enhanced programs required to mitigate ARDUTLR and it  
21 would also contain a description of the methodology  
22 used in preparing the application for actually  
23 conducting the integrated plant assessment. It is  
24 this information which we believe should be subject to  
25 stipulated change processes and reporting

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1 requirements.

2 In addition, if rulemaking is undertaken,  
3 there are a number of other areas in the rule and the  
4 SSC which we think need to be addressed. For example,  
5 we've included a draft definition in our rule package  
6 of passive SCs. We recognize that this is an  
7 important definition and will need some additional  
8 consideration in our rulemaking, if that's what the  
9 Commission directs.

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

12 Our recommendations as presented in the  
13 SECY paper --

14 COMMISSIONER REMICK: Excuse me, Bill,  
15 before you leave that.

16 MR. TRAVERS: Yes.

17 COMMISSIONER REMICK: I had -- your  
18 current definition, I realize you're saying, that  
19 that's subject to continued review. But as I read  
20 that, I thought that that did not account for things  
21 like the containment penetration seals because it just  
22 refers to performance characteristics that can be  
23 monitored to reasonably indicate. Now, I don't know  
24 if you call Appendix J test monitoring or it's  
25 performance testing because you use both words. It

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1 wasn't clear to me that that definition would capture  
2 what I was trying to point out in the penetration --

3 MR. TRAVERS: One of the most difficult  
4 things we had to do in this paper was to decide on  
5 what we might put down in this very area. So, I think  
6 you're right and you've hit on an issue that is going  
7 to require some considerable thought.

8 (Slide) The next slide presents our  
9 conclusions. We've already touched on them. But  
10 basically we've endorsed rulemaking in our SECY paper  
11 and we recognize that it includes a substantial  
12 rewrite of the statement of considerations for the  
13 rule and it's fundamentally directed at a more  
14 explicit credit for existing programs that we think  
15 would continue to be effective in the renewal period.

16 As previously noted, we would retain the  
17 concept of ARDUTLR, even though the definition would  
18 be significantly altered and that we would also retain  
19 an integrated plant assessment approach to screening  
20 important plant equipment.

21 The last slide recognizes that if the  
22 Commission does endorse rulemaking, we've made an  
23 estimate that a proposed rule could be forwarded to  
24 the Commission within about four months and that a  
25 final rule could be published within about 12 months.

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1 Given the nature of the proposed changes, we recognize  
2 that this is an ambitious schedule, but we think we've  
3 identified an approach to make it happen.

4 Working through the Executive Director for  
5 Operation in coordination with OGC and Research,  
6 Doctor Murley has established a dedicated team, led by  
7 NRR with OGC and Research support, to complete all  
8 elements of the rulemaking package. Additionally, to  
9 assure priority management attention, Doctor Murley  
10 will chair a steering group, including Jim Sniezek and  
11 Jim Milhoan, Jack Heltemes and Marty Malsch.

12 The last thing I'd like to point out is  
13 that in addition to rulemaking, if that's what the  
14 Commission decides to do, we are planning to continue  
15 efforts to work with the industry organizations to  
16 identify where generic technical resolutions can be  
17 reached. With rulemaking as our top priority,  
18 however, some of that work might be impacted or at  
19 least the scope originally envisioned might be  
20 impacted to some extent.

21 That's the end of the prepared remarks  
22 that I have.

23 CHAIRMAN SELIN: Commissioner Rogers?

24 COMMISSIONER ROGERS: Well, I thank you  
25 very much. I think this was a very useful briefing.

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1 I'd like to make a few comments.

2 One is somehow I didn't really get a  
3 flavor in the SECY or at all today here of the  
4 reaction to Mr. Snizek's proposal for rulemaking on  
5 this matter. I found his suggestions very interesting  
6 and I would like to know a little bit more about what  
7 the specific reactions were to them, to his approach,  
8 particularly in view of the desire to make rulemaking  
9 here predictable and so on and so forth because I  
10 think that his general approach there seemed to be one  
11 towards simplicity, towards a simpler approach. I  
12 find that very appealing for some strange reason.

13 I haven't heard what the reaction to his  
14 proposal was or I didn't see it in the SECY and I  
15 didn't hear anything about it today. I don't know if  
16 you want to say anything on that or not, but that is  
17 something I'd like to hear a little bit more about.

18 I'm just going to give you the list of  
19 things that I'd like to hear something more about,  
20 either here or as a follow-up.

21 The eleven questions that appeared in the  
22 Federal Register notice of the workshop, I understand  
23 that you have collected public comments on those.  
24 When do you expect to have those together in a form  
25 that we might look at and do you expect that they will

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1 perhaps give us any insights that might be important  
2 here in our deliberations on how to proceed at the  
3 Commission level with respect to approval of the SECY?

4 For example, I'd be very interested to  
5 know what the written public comments were on the  
6 ARDUTLR retention question. I can't say all those  
7 other letters today, so I've got to abbreviate. To me  
8 that's a very important issue. I plead guilty to  
9 being one of the people who thought that the  
10 introduction of that term into the original rulemaking  
11 might provide a useful tool and a useful adjunct. I'm  
12 not so sure about that anymore, particularly every  
13 time I see some effort to write down what we mean by  
14 that. I have the view that the problem with that term  
15 is that it's neither fish nor fowl. It talks about  
16 age-related degradation, which is a mechanism, a  
17 physical mechanism that takes place in materials and  
18 systems and so on and so forth, to a regulatory  
19 process, license renewal. It's trying to marry two  
20 things together that are really quite distinct.  
21 Either you're talking about physical mechanisms or  
22 you're talking about a regulatory process. But when  
23 you try to construct a new term or new collection of  
24 words that's supposed to mean something, it fuzzes up  
25 because what is the objective here? Is it to

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1 understand something and deal with it or is it to get  
2 through a formal process of license renewal?

3 I think that what happens when we try to  
4 write down what we mean by this, these two conflicting  
5 objectives of the term are not well -- are well  
6 integrated together. They give very severe problems  
7 and I think that in the table, the attachment to the  
8 SECY, where there was a new definition of that, I  
9 found very, very confusing and very difficult to feel  
10 comfortable with. So, I think if ARDUTLR is retained,  
11 I think it must be clarified beyond where it is right  
12 now in terms of language. That has been precisely the  
13 difficulty. Every time somebody sits down and writes  
14 a new version of English of this concept that we  
15 somehow think we understand, it's got certain aspects  
16 to it that give problems. Somehow that seems to me to  
17 suggest that maybe there's something fundamentally  
18 wrong with it.

19 But at any rate, I think that the  
20 definition of that term has to be very carefully  
21 examined because I don't think we've gotten there yet  
22 myself in what was supplied in the package that's not  
23 going to give us some problems. It still seems pretty  
24 confusing.

25 So, I feel that we're making very good

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1 progress here. I like the approach that we've taken  
2 and I think the briefing was very good, of course, but  
3 I still feel that this issue of keeping that term,  
4 ARDUTLR, or not, I don't feel I've seen a very good  
5 justification for keeping it. I think there are  
6 difficulties with it and if it could be somehow or  
7 other redefined in a way that makes very good sense in  
8 a literal reading by anybody, then that might be okay.  
9 But at the moment, I'm still uncomfortable with how  
10 we've approached that.

11 So, I think that's a key issue that I  
12 personally feel we need a little more clarification  
13 on. I think the basis for what we do should be as  
14 technical as possible on everything and this concept  
15 of ARDUTLR seems to me that it's got this difficulty  
16 of mixing a technical and a legal set of  
17 considerations or a regulatory set of considerations  
18 and that's partly what's at the heart of the  
19 difficulty with it.

20 So, I had a collection of points that I  
21 don't think I'll try to go through right here, but I  
22 do think that you've made very good progress. I think  
23 we are coming together on something, but this question  
24 of the retention of ARDUTLR seems to me to touch on a  
25 number of fuzzy issues that we've been trying to

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1 grapple with over the years and I'm not sure we've  
2 really wrestled them to the ground yet.

3 Thank you.

4 DOCTOR MURLEY: Okay. Could I respond to  
5 a couple of your points, Commissioner?

6 We share, I think, your uneasiness with  
7 the definition of ARDUTLR. Well, it has a history  
8 that was kind of introduced at the last minute to  
9 limit the scope of things that needed to be looked at.  
10 Our problem with it, at least mine I guess, is that it  
11 assumes that there is some aging that is unique to  
12 years 40 to 60 and in a physical world that's not  
13 true. Aging starts the day the plant is actually  
14 build. So, it's a construct, I guess you could call  
15 it a legal construct, that we have maintained in this  
16 rule to also limit the scope of what has to be looked  
17 at. But I think we ought to recognize that there's a  
18 certain artificiality to it.

19 That gets to your second point, which is  
20 eliminating the definition I think is the real  
21 attractiveness of Jim Sniezek's proposal. There were  
22 other proposals also. We listed his and one other  
23 similar proposal as one of the options that we  
24 discussed at the workshop. There was -- and I would  
25 say within the staff there's a great deal of sentiment

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1 toward that kind of proposed simpler rule, but it's  
2 going to take more work because we're going to have to  
3 go back and virtually scrap everything that's been  
4 done on the current rule and getting to where we're at  
5 today. It can be done.

6 But I think the real answer is -- and  
7 perhaps the Commission may want to hear from NUMARC  
8 and the industry. The real answer is the industry has  
9 said at the workshop that they do not want such a  
10 radical change, that they think that we should keep  
11 the structure of the current rule. Since we're going  
12 through this exercise, as the Chairman said,  
13 primarily, as long as we're maintaining the health and  
14 safety protection, which the staff believes we are,  
15 we're largely doing this to produce a stable and  
16 usable rule. So, I think that's the reason. It's not  
17 totally satisfactory, but I think that's --

18 COMMISSIONER ROGERS: Well, it does seem  
19 to me that the approach that we're taking seems to be  
20 retaining the term but, in fact, defining it by  
21 example. You are now defining those systems and once  
22 you've gotten to that point, unless you start to add  
23 another little thing at the end that says, "And other  
24 items of concern," that is open ended and can give you  
25 a lot of trouble, I'm not sure that you've gained a

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1 lot unless you just simply say, "Well, this is really  
2 what we mean by ARDUTLR." To some extent, that is  
3 what you have laid out, I think, in your proposal.

4 Now, I know the Chairman has suggested  
5 that maybe that should be broadened out. I have to  
6 express some real reservations about a lack of  
7 precision here in this because I think our problem has  
8 been that it's just -- this thing has opened up on us  
9 when we didn't expect that it would do that and I'm  
10 very uncomfortable about it providing any new ways in  
11 which it can start to unravel and become much more  
12 extensive than we really intend it to be.

13 CHAIRMAN SELIN: I'd just like -- I'm  
14 sorry. Commissioner de Planque?

15 COMMISSIONER de PLANQUE: Just a comment  
16 on that. It seems to me that what you really need is  
17 a box, a convenient box that you can refer to that  
18 captures all these things. Perhaps the exercise that  
19 the Chairman is suggesting of looking for a self-  
20 contained definition will really help to shed some  
21 light on what the problems are versus the list of  
22 things that are included. That exercise alone of  
23 trying to do a self-contained definition may do it and  
24 maybe part of the problem here is that we now have  
25 words attached to the acronym that don't exactly

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1 describe the box we're trying to describe.

2 I'm not sure where you go from there, but  
3 I sense the discomfort to --

4 CHAIRMAN SELIN: Let me just follow up.

5 First of all, I didn't vote on this, I  
6 wasn't part of it, but the unique doesn't modify  
7 aging. It modifies degradation. It's not aging  
8 unique to license renewal, it's degradation that comes  
9 through during the period of license renewal that  
10 doesn't lose impact, is not felt in the first course.  
11 It's not such an illogical construct as it might at  
12 first look.

13 But my main point is we can't just  
14 enumerate a couple things and say, "This is what we  
15 mean by aging unique to license renewal," because that  
16 would be arbitrary, capricious. It would never  
17 withstand a court challenge. We have to say, "This is  
18 the concept and we believe it is realized in this  
19 list," but we can't just put the list without defining  
20 what we mean by the concept if we keep up the idea.

21 Commissioner Rogers, did you want to add  
22 anything?

23 COMMISSIONER ROGERS: No, that's fine.

24 CHAIRMAN SELIN: Commissioner Remick?

25 COMMISSIONER REMICK: I certainly agree

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1 with many things Commissioner Rogers said and I agree  
2 with Tom's characterization. I have felt consistently  
3 that aging degradation starts at day one and  
4 maintenance is important at day one, not just in the  
5 extended period. Maintenance is important throughout  
6 to make sure that we maintain the functions of  
7 equipment. If we were to start over and knowing what  
8 we know now, I would be very sympathetic for the  
9 Sniezek and some of the Yankee arguments for a simpler  
10 approach. But at the same time, I am sensitive to  
11 some of the tactical considerations that I think the  
12 staff has in mind and perhaps the industries, but I'm  
13 open on it and I wish we had an easy solution, but I  
14 think we have to think carefully about the tactical  
15 situation and what it might mean on a rule, effective  
16 rule.

17 Has the staff given any consideration if  
18 somebody came in for a request less than 20 years,  
19 would that in any way change the rule? I can't see  
20 that it would, but --

21 DOCTOR MURLEY: We've talked about it and  
22 thought about it. But since this is a process rule  
23 and not a technical rule, the processes to go through  
24 for five years are just as onerous as for 20.

25 COMMISSIONER REMICK: Well, that's my own

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1 personal conclusion, but I didn't know if there were  
2 reasons that I could be wrong.

3 I like your approach to rulemaking if  
4 there is rulemaking. I think it's a good concept, Mr.  
5 Taylor, that we should keep in mind for our major  
6 rulemakings in the future. It looks like a good tight  
7 managed process and so forth, but it appeals to me.

8 I go back again and say I'm a little  
9 concerned that we're stressing so much that we don't  
10 have experience with the maintenance rule. We do have  
11 experience with maintenance. I agree with Tom that  
12 there are indications out there that from time to time  
13 there's poor maintenance and some equipment loses its  
14 functionality and I hope, however, we're maintaining  
15 the current licensing basis today which I think we  
16 are. With a maintenance rule, the maintenance rule  
17 won't be perfect. Hopefully it might improve some of  
18 the maintenance problems, but it won't be perfect and  
19 with the maintenance rule some equipment will lose  
20 functionality even in good programs.

21 So, I think we have to be careful we  
22 aren't thinking of something magical about a  
23 maintenance rule that's going to assure these things  
24 in the future. It's going to help, but it's -- and  
25 so, I still say that before there was ever something

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1 called a maintenance rule, there was maintenance, some  
2 good, some bad. I think that has maintained the  
3 current licensing basis. It better have or we'd  
4 better take action.

5 MR. TAYLOR: Maintenance rule undergirds  
6 what's been going on.

7 COMMISSIONER REMICK: Yes. Right. Okay.

8 MR. TAYLOR: And improves it to the degree  
9 we're --

10 COMMISSIONER REMICK: I also agree that  
11 the briefing has been very helpful. I really  
12 appreciate the effort the staff has undertaken in this  
13 whole effort. And the workshop, I attended that. I  
14 thought that was very constructive, very well  
15 conducted and I appreciate your efforts. They've been  
16 very helpful and I hope the Commission can give you  
17 guidance in short order.

18 CHAIRMAN SELIN: Commissioner de Planque?

19 COMMISSIONER de PLANQUE: I would also say  
20 I think the way you've handled all this is excellent  
21 and the briefing paper is extremely well done. I  
22 especially appreciate the chart showing the old and  
23 the proposed and then the complete layout of the  
24 proposed. It was extremely useful to have it done  
25 that way.

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1 Just going back a minute to the difference  
2 between the use of SC and SSC, I do think it's  
3 important that you look at that very carefully. I  
4 noticed it was used differently in certain parts of  
5 the NUMARC construction compared to ours and I don't  
6 know if what you were suggesting was different  
7 deliberately or whether it just needs a little more  
8 care in terms of where it's used and where it's not.  
9 I think it may sound trivial, but whether a system is  
10 included or not could have a big impact on the  
11 implementation.

12 MR. TRAVERS: I think it's important.  
13 That's absolutely right now.

14 COMMISSIONER de PLANQUE: Okay. Another  
15 more simple one. I think you're struggling with the  
16 term "passive." I strikes me, if my memory is  
17 correct, that this is the kind of term that's defined  
18 in international standards documents and IEC, ISO,  
19 ANSI standard dictionaries. I don't know if you've  
20 looked at any of those definitions, but there may be  
21 something there that's helpful to you.

22 That's all. Thank you.

23 CHAIRMAN SELIN: Commissioner Rogers?

24 COMMISSIONER ROGERS: Yes. There was just  
25 one other observation I wanted to make. It's a very

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1 general one. That is you've noticed a discrepancy  
2 between the statement of considerations and the rule  
3 itself and the need to bring those into better  
4 conformity with each other. I just want to say that  
5 we have had this kind of a problem crop up in the past  
6 on several occasions where the statement of  
7 considerations says one thing and the language is a  
8 little bit different from the rule. The little bit  
9 different sometimes give us very big problems. I  
10 think it shouldn't happen and there's got to be some  
11 way in which the folks who write the SOC's and the  
12 folks who go over the rule are the same people because  
13 there should be no difference between what the SOC  
14 says and what the rule says in terms of the  
15 significance of words or the use of words as they  
16 refer to particular concepts. There should be no  
17 difference, in my view. When there is a difference  
18 that may be seen to be simply another way of saying  
19 the same thing, you get into trouble. There it seems  
20 to me a very rigorous control of the use of language  
21 is absolutely critical. There should be no  
22 terminology in the SOC that cannot be found in the  
23 rule and vice versa. There should be no difference  
24 between those, because when there is, there's all  
25 kinds of room for possible interpretations.

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1 CHAIRMAN SELIN: First of all, I think it  
2 was an absolutely first rate job and I am stunned by  
3 the amount of progress the staff has made in the last  
4 year. This is really getting, in my opinion, to be  
5 very close to something that can be implemented and  
6 can be followed.

7 As Yogi Berra would say, at the risk of  
8 repeating myself, deja vu all over again, I don't  
9 think the concept of age-related degradation unique to  
10 license is, in fact, that complicated. I think you've  
11 got a good start. I would suggest you might even not  
12 use the words "active" and "passive." It seems to me  
13 there are four sets of components, things covered by  
14 the maintenance rule, things not covered by the  
15 maintenance rule which are redundant, things not  
16 covered by the maintenance rule which are not  
17 redundant, and things that in some sense aren't  
18 important to license renewal but have to be looked at.  
19 You could use more of the maintenance rule definitions  
20 by reference, but that's a fairly low level point. I  
21 just want to avoid traps that are not central to the  
22 object that's at hand.

23 As I said, I think you do have to have at  
24 least a general concept description of what we mean so  
25 that when we enumerate what components and systems and

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1 structures are in and what are out, we have a basis  
2 for it.

3 The third is that I enthusiastically  
4 attach myself to Commissioner Remick's remarks about  
5 the maintenance rule. A, we've done maintenance for  
6 a long time. B, maintenance rule doesn't guarantee  
7 functionality. It really does two things and we've  
8 only discussed the first one. The first is it tells  
9 us that the equipment is remaining functional or it  
10 gives us indicators that it's not going to remain  
11 functional, in which case if we saw some stuff  
12 deteriorating at the year 50 that couldn't  
13 economically be repaired, then the plant shuts down at  
14 year 50.

15 So, the key point is not that we can  
16 predict with 100 percent confident that there are  
17 manageable aging mechanisms and ways to manage them,  
18 but that we have reasonable confidence from our  
19 research program and our experience and we have very  
20 high confidence that if the condition did not maintain  
21 in function, we would know it before it became a  
22 problem.

23 So, I personally put as much emphasis on  
24 the condition monitoring part of the rule as the  
25 maintenance part of the rule. I don't think it's

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1 necessary to overstate our expectations of the  
2 maintenance rule to have such a rule as license  
3 renewal and there is a lot of aging research behind  
4 that.

5 The fourth point is that, as I said  
6 earlier and as Doctor Murley echoed, the test for a  
7 good rule is not internal elegance or are we proud to  
8 be authors. It's, A, does it protect health and  
9 safety over the time period and, B, assuming A, which  
10 is the question that takes a lot of attention, do the  
11 customers accept the product? So, would we have  
12 written age-related degradation in the rule or not I  
13 think is secondary to can we come up with a rule that  
14 protects health and safety and which doesn't put an  
15 unreasonable burden on the people who come after us  
16 that have to carry it out, which is desired by the  
17 people that would have to go through it.

18 I don't think this is anymore complicated  
19 than a lot of other things that we've done, at least  
20 not after all this hard work that you've put in to get  
21 this clarified. So, I support my colleague's  
22 statements. I particularly support Commissioner  
23 Remick's statements about the fact that we call  
24 something we've done for a long time by a new name  
25 doesn't make it new and that there's a lot of

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1 reliance, but there's a lot of maintenance history  
2 even if there's not a lot of maintenance rule history.  
3 I think you've done a really good job in many ways,  
4 but particularly of not relying more on the  
5 maintenance rule implementation and experience than is  
6 likely to be available at that time. Maintenance rule  
7 structures our rule. Maintenance implementation  
8 structures our inspection and review process.  
9 Maintenance experience structures the finding that the  
10 staff would make on a particular application. I think  
11 that's responsible. I don't think that's overly  
12 concurrent development.

13 In other words, I'm really quite  
14 enthusiastic about what you've done. I look forward  
15 very much to seeing what comes next.

16 Commissioners, any other remarks?

17 Thank you very much.

18 (Whereupon, at 11:26 a.m., the above-  
19 entitled matter was concluded.)  
20  
21  
22  
23  
24  
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TITLE OF MEETING: BRIEFING ON RESULTS OF LICENSE EXTENSION WORKSHOP  
AND PROPOSED CHANGES TO LICENSE RENEWAL RULE

PLACE OF MEETING: ROCKVILLE, MARYLAND

DATE OF MEETING: DECEMBER 22, 1993

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# **Commission Briefing on License Renewal**



**December 22, 1993**  
**Rockville, Maryland**

# PURPOSE

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- Summarize the significant results of the September 30, 1993 license renewal workshop.
- Provide staff conclusions and proposals regarding an approach to license renewal that
  - (1) allows greater credit for existing licensee programs, and
  - (2) integrates the provisions and focus of the maintenance rule in the license renewal process.
- Discuss key license renewal issues.

# **BACKGROUND**

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- **Industry and staff experience with final rule.**
- **Senior management review.**
- **SECY-93-049 and SECY-93-113 proposed interpretive implementation without rulemaking.**
- **Workshop to solicit comments.**

# WORKSHOP SUMMARY

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- **Conducted on September 30, 1993, in Bethesda, Maryland.**
- **Over 180 representatives from utility, organizations, consulting firms, engineer and architect firms, nuclear industry organizations, public interest groups, and state and local governments.**
- **Written comments received from the Department of Energy, the Nuclear Management and Resources Council, Yankee Atomic Electric Company, Virginia Power Company, and the Ohio Citizens for Responsible Energy.**
- **Consensus view that the license renewal rule needs to be revised to establish appropriate credit for existing licensee programs.**

# **AGING MECHANISMS AND MANAGEMENT OF AGING EFFECTS**

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- **The current SOC emphasizes the need to evaluate specific aging mechanisms and contains conflicting language regarding the acceptability of an "effects" approach.**
- **SECY-93-049 and -113 endorsed the concept of managing aging effects via performance or condition monitoring.**
- **SOC should be clarified to remove the inconsistencies.**
- **Revised rule will establish an "effects" approach.**

# **CURRENT LICENSING BASIS**

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- **CLB is the foundation for the two principles of license renewal.**
- **Intent of maintaining the CLB is to ensure continuation of an acceptable level of safety.**
- **The CLB encompasses operational, functional, and design aspects.**
- **License renewal process should focus on ensuring SC functions in the renewal term.**
- **Reasonable assurance that function will be maintained, together with other CLB requirements and the regulatory process being brought forward, are sufficient to conclude that the CLB will be maintained.**
- **Rule, SOC, and associated documents require revisions to reflect this position.**

# DEFINITION OF ARDUTLR

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- **Broad range of interpretations: difficult to implement.**
- **Concept explicitly linked to first principle.**
- **Proposed definition:**
  - (1) principal focus on certain passive, long-lived SCs (e.g., vessel, containment, non-redundant portions of systems);**
  - (2) categorical exclusion of active SCs and redundant passive SCs subject to the maintenance rule;**
  - (3) categorical exclusion of SCs replaced within 40 years; and**
  - (4) SCs not included in provisions of the maintenance rule, but subject to existing performance or condition monitoring programs, could be dispositioned as not subject to ARDUTLR with justification in application.**

# **TIME-LIMITED ANALYSES**

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- **The CLB contains certain explicit time-limited provisions or analyses.**
- **Time-limited analyses are considered to be within the definition of ARDUTLR in the existing rule.**
- **Revised rule clarifies time-limited analyses requirements.**



# **INTEGRATED PLANT ASSESSMENT**

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- **The IPA, together with the definitions of SSCs ITLR and ARDUTLR, provides a process which begins broadly and then focuses on significant SCs to determine the need for additional aging management programs in the renewal term.**

# **ADDITIONAL AREAS FOR RULE CHANGE**

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- **Proposed changes to the rule:**
  - **Clarify level of detail in the application**
  - **Separate the details of the IPA from the FSAR supplement**
  - **Clarify change processes and reporting requirements**
- **Other areas the staff is considering for potential rule/SOC change include:**
  - **Defining the term "passive" as it applies to ITLR SSCs and functions**
  - **Clarifying ITLR screening requirements for support systems**
  - **Clarifying licensee evaluation requirements for passive long-lived structures and components.**

# CONCLUSIONS

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- Rule and SOC should be changed to:
  - (1) appropriately credit existing programs and the maintenance rule,
  - (2) resolve ambiguities between the SOC and the rule, and
  - (3) establish a more efficient, stable, and predictable license renewal process.
  
- Approve the general approach discussed in SECY-93-331 for revising the license renewal rule.

# **RULEMAKING**

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- **Dedicated interoffice rulemaking team with oversight from an interoffice senior management steering group; NRR lead.**
- **Ambitious schedule which will forward a proposed rule to the Commission within 4 months after Commission directs the staff to proceed with rulemaking.**
- **Final rule published 12 months after Commission direction.**
- **Continue, as practicable, to work with industry organizations to identify and resolve license renewal inspection, technical, and implementation issues which are outside the scope of rulemaking.**