

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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OFFICE OF THE SECRETARY

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BRIEFING ON TREATMENT OF EXISTING  
PROGRAMS FOR LICENSE RENEWAL

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PUBLIC MEETING

Nuclear Regulatory Commission  
One White Flint North  
Building 1, Room 1F-16  
11555 Rockville Pike  
Rockville, Maryland

Tuesday, July 13, 1999

The Commission met in open session, pursuant to notice, at 9:30 a.m., the Honorable GRETA J. DICUS, Chairman of the Commission, presiding.

**COMMISSIONERS PRESENT:**

GRETA J. DICUS, Chairman of the Commission  
NILS J. DIAZ, Member of the Commission  
EDWARD McGAFFIGAN, JR., Member of the Commission  
JEFFREY S. MERRIFIELD, Member of the Commission

**P R O C E E D I N G S**  
**[9:30 a.m.]**

**CHAIRMAN DICUS:** Well, good morning, ladies and gentlemen, and I welcome you on behalf of my fellow commissioners. Today, we will be hearing from the Nuclear Energy Institute, the Union of Concerned Scientists, as well as the NRC staff, on the topic of credit for existing programs for license renewal.

First, I'd like to recognize that this briefing is part of an ongoing and what I think is a very healthy dialogue on a very important topic for the nuclear industry. And we appreciate the input from all of our stakeholders. I'd also like to recognize the efforts of the staff, as well as the stakeholders, in the progress that they have made to date of the two applications, the license renewal, that are currently under review.

Today, we will hear first from the NEI about the credit that they believe should be given to existing programs. And next, we will hear from the Union of Concerned Scientists, regarding their views on this issue. And as I said, finally, we will hear from the NRC staff and they will provide their perspective, as discussed in SECY-99-148. Although normally, the NRC would present first, in this case, the order of presentation was reversed, since NEI specifically requested this briefing and the NRC staff paper

was in response, at least in part, to a letter from NEI on this subject. To NEI and to Mr. Beedle, as part of this presentation, I would ask that you make clear how you'd like to depart from the practices used so far in the reviews of the first applications for license renewal, and I would also ask that you make clear the basis for this departure in practice. Now, I understand that copies of the briefing material are available at the entrances to this room, and I would ask if any of my colleagues have any opening comments that you would like to make.

[No response.]

**CHAIRMAN DICUS:** Thank you. And, therefore, Mr. Beedle, you may proceed.

**MR. BEEDLE:** Chairman Dicus, Mr. Diaz, Mr. McGaffigan, Mr. Merrifield, I want to thank you for the opportunity to present our point -- points at this briefing. This panel today consists of Mike Tuckman, the Chairman of our License Renewal Working Group from Duke; Barth Doroshuk from Baltimore Gas & Electric; Tony Pietrangelo from NEI; and Doug Walters from NEI. We're here on behalf of the -- in the interest of all the potential licensees that will pursue license renewal. There's no question that the review of the two applications is going -- going well, and we complement the Commission on their oversight of these reviews and the NRC staff in meeting these milestone dates.

Our objective today is to talk to you and express views that would ensure that the 20th renewal applicant receives the same discipline review as the first two; and as the number of applications increase, so long as safety is not compromised, that it's appropriate to make the renewal process as efficient as

possible. This means incorporating lessons learned, which I'm sure is one of the objectives of both the industry and the NRC. So with that, I'd like to turn to Mike Tuckman to make the formal presentation.

**MR. TUCKMAN:** Thank you, Ralph. Chairman Dicus, it's a pleasure to be here. Commissioners, I've visited with each of you and it's a pleasure to be with you today. I've had the distinction of chairing the NEI Working Group since 1993 on license renewal and wearing my NEI hat, I will tell you that the process has been thorough for the two applicants that have been going through. It has been somewhat excruciating in detail. It has been very open to the public and we very much thank you for what has transpired, recognizing that we don't have a decision yet.

That's yet to come. But, thus far, the process has played itself out very well and we think it has been a very thorough process.

I'd also like to clarify, we're not here today to talk about BG&E and Duke's applications per se, although there are some lessons learned from those two applications that may be useful in the discussion today. But, we're not here complaining about those two applications. They're going quite well and we do very much appreciate what has transpired. As Ralph said, I'm more worried about my next applications that come along, as well as the rest of the industry, and there will be many, as you know, coming, as the result of the experience that we've had thus far.

You can go to slide two, the next one. Thank you. Why are we here? That's what I'd like to talk about. I'd like to also give you a little background on what the licensees actually do in the license renewal process, describe the issue, describe some observations on the staff's SECY paper 99-148, give you an idea of recommendations, too.

Slide three, please. The concerns why we're here is as Ralph described, we have concerns with the stability and predictability of renewal review process over time.

It's a regulatory process, and as with most regulatory processes, there are -- there is the opportunity for the scope to continue to grow in this process, and we very much want to provide that level of stability, since, as Ralph said, the 20th or the 40th client comes along for license renewal, it will be a safe plant, it will be demonstrated safe, but the process will still be within bounds. There have been examples of processes that have arisen. I think back on my original FSAR, it was this big; my next FSAR was this big; and my next FSAR was this big. We want to make sure that we get thoroughly reviewed on the things that need to be handled; make sure the lesson is learned.

You have slide four. I thought it was -- it would be descriptive -- I know that's a bit of an eye test for the folks up there; I hope your slide is a little bit larger.

**CHAIRMAN DICUS:** The same size.

**MR. TUCKMAN:** Same size. I'll try to talk you through it. What the licensees do -- but we're looking just for a rubber stamp or a three-by-five mailing, like my driver's license. I do have to take an eye test for a driver's license. We start by basically scoping everything into the process, every plant structure system or component is considered in the license renewal application. The rule then says you apply scoping and screening criteria, and that kind of whittle the things that you have to look at in license renewal down to a more manageable set and a set that is not covered in other areas. As an example, active components are not required to be covered in license renewal, because they're self-evident when they're working. So, you whittle that list of overall structure systems and components down into those that apply to the scope of the rule. You try and use those to identify what function do they perform in the operation of the plant.

You look -- as you know, they basically boil down to long passive structures and systems -- structures and components that need to be looked at.

Once that is arrived at, you take the whole plant, you've whittled it down to those structures and components that need to be looked at, you then determine what are the aging effects that are in existence or could be in existence for those structures and components; a very detailed evaluation, from a technical standpoint, of the aging mechanisms.

You then look and see what are your existing programs. How do they map to the aging mechanism for that structure or component that you have? How does -- does your program, in fact, manage that aging, or is it a new aging effect that was not presently considered that needs -- you need to modify your program or create potentially a new program? So, that's the process we use.

I would maintain that there is no requirement to do that for the 40 year life of plants today. There is an assumption that the existing license life is all encompassing. And what we have found is that, by and large, that is true, when you go into a very detailed review of your plant, a very detailed review, you find very few things that need to be considered beyond what you already have programs for. And I think that's a good confirmation for the existing plants. But, most programs you will find are covered by the existing programs. So, we're not trying to cut down any work at all on the identification of structures of components, the aging mechanisms, or mapping to the programs that we presently have or need to have.

Let's demonstrate it on slide five. Basically, what is shown here -- the large portion of the circle, it's shown as purple on the overheads, are the existing programs. Those programs are existing. They are either what we call CLB programs or non-CLB programs. They're really, as we have looked through the applications of both BG&E and Duke, have had very -- many of the programs are, in fact, covered.

There's a smaller block, that's the red block, those are modified programs. And those programs, as we look at the aging effects, potentially, they don't have the administrative controls on it. Maybe they weren't -- have a review criteria on it. Maybe they are not formalized in procedures. Maybe we have actually missed a component or two. So, those are the modified programs, and I'll give you some examples of those as we go forward.

Then, there's the narrow slice, which is the yellow slice, which are new programs, which are -- we have found that are many times one time inspections; that is, we did not find an aging mechanism; but for expediency purposes, we said, maybe we just go do an inspection one time and verify

that that program -- that that program is -- or component is actually being managed and managed well. So, many of those in the yellow slice or the small slice are one time inspection programs that we deal with.

If you go to slide six, the industry position here is that -- and I'll describe it more in a second -- on page six, the large block, again the purple block, is that those programs, which are existing CLB programs, in particular, are programs, which are very well defined in the regulations. They may be technical specifications, required programs. They may be regulatory required programs. They may be a generic letter; as an example, generic letter 89-13 on raw water. It's very descriptive in nature of what we -- what we would do with our plants. Our feeling is that a lot of the time that we have spent in the process is spent describing those programs, reviewing those programs, and we believe that NUREG-1412, which was issued in 1991, was the basis for excluding those programs, saying that they were well managed in the period of license renewal, as well as today, as the period of license renewal continues forward.

What I've done is on -- the next slide, I've asked Barth Doroshuk, just for his plant, specifically just to gain some perspective, put together a couple of slides. I don't know if they're in your book, but they are on the overhead; not particularly well done. But, let me ask Barth to talk you through what you're seeing up there.

**MR. DOROSHUK:** Good morning, Chairman.

**CHAIRMAN DICUS:** Good Morning.

**MR. DOROSHUK:** Commissioners. As Mike said, my name is Barth Doroshuk, and I'm the project director for this license renewal project. And I start out by saying that you're going to see a lot of statistics this morning, based on what we know. Everybody is going to present their spread on what existing programs exists, etc. I'm the statistics guy for the industry, so I'll be presenting some numbers.

These particular --

**COMMISSIONER MERRIFIELD:** Madam Chairman?

**CHAIRMAN DICUS:** Yes.

**COMMISSIONER MERRIFIELD:** If I may inquire, do we have copies of those slides for us to review?

**CHAIRMAN DICUS:** Okay. We have one that they're passing around.

**COMMISSIONER MERRIFIELD:** Do you have additional copies?

**MR. DOROSHUK:** There's one right here.

**COMMISSIONER MERRIFIELD:** Just as a matter of procedure, I think we should encourage licensees, when they have new slides, to present those in sufficient time, so that we can review them.

**CHAIRMAN DICUS:** Are these available?

**MR. TUCKMAN:** Yes.

**COMMISSIONER MERRIFIELD:** So there should be three slides?

**MR. DOROSHUK:** I'm only going to show one this morning for the sake of saving some time. The previous slide you just saw was just a large pie chart. This particular slide shows approximately -- in the Calvert Cliffs applications, there are approximately 430 programs out of 446 that were credited for managing the aging of the plant. These 430 programs, out of the 446, were either existing programs that we credited as is or we had to make some modifications to the program to make sure that they met the requirements that would meet a 5429 finding for the staff. Statistically speaking, this is over 90 percent of the aging management commitments that we have submitted in our application. And I think this is a strong vote of confidence on how -- at least what the licensees today are managing aging. We are doing a good job doing it.

What the breakdown of this particular slide shows is that there are about 309 preventive maintenance tasks, which are individual activities that the inspectors do that we took credit for. An example would be that the inspector would go out and inspect a particular condition of a pump casing, a piping structure, etc., and those are embodied in our preventive maintenance program. So, a good majority of those standard nine activities is the p.m. program, the one program. The other breakdown shows the surveillance tests, special tests and inspections, maintenance procedures, engineering programs, operations procedures, chemistry procedures, maintenance programs, as well. Many of these programs are based on current licensing basis requirements. Many of these programs, such as primary water chemistry, fire protection, fatigue monitoring, in-service inspection, Appendix H, surveillance programs, and others are well based on regulatory space and technology.

And there are others that are not borne out of the current licensing basis, and those are the p.m.s that the individual inspectors do, which would be go inspect a particular wall, that we are calling non-current licensing basis programs. So, there is a division out of these 430, that Mike is going to get into in more detail, that says we believe that there are some efficiencies in the process that we should give credit to, with respect the existing programs: those that are based on the current licensing basis and those that have yet to be reviewed by the staff. This is for illustration purposes only to support Mike's presentation.

**MR. TUCKMAN:** In slide seven, we -- about the issue, the issue is basically to what extent should the staff review existing programs, relied on license

renewal to conclude that the applicant has demonstrated reasonable assurance. Essentially, the programs will be effective in managing effects of aging on functionality of structures and components in the created extended operation.

On page eight, it's just an observation of the SECY that was provided by the staff on option one. We don't necessarily believe it conveys the industry position exactly; that is, we believe that existing programs are reviewed vigorously and we believe that the NUREG-1412 did, in fact, provide that review, document that that is the licensing basis and that it will carry forward. We believe the staff's position is that they need to reverify or validate that that program is still acceptable. We believe that the basic principle is that NUREG-1412 provided the technical basis, if you will, that the current licensing basis would, in fact, be adequate.

On page nine, it's just an observation of the GALL reporting process. To us, it seems to undermine the NUREG-1412 conclusion, in that it is trying to document the adequacy of existing programs or any extension of those programs, where, in fact, we believe that NUREG-1412 did do a very credible job of determining the existence of existing programs and why they should, in fact, be credited. We are concerned with the regulatory process and controls with

imposition of new activities. Whenever an opportunity exists for a program to be reviewed, obviously, questions arise from that review. Those questions then become, if you will, tort law, if you will, for the next applicant.

Just to give you a simple example: in the Oconee generic report on reactor and system piping, there was a concern that the small bore piping may not be adequately addressed. In essence, rather than continue to pipe that issue, it was something we could do, we went ahead and considered we'd do it. In BG&E's case, as they were preparing their application, they recognized that that was a requirement that had been levied, if you will, and, hence, they went ahead and committed the work to that before the question ever came, again, in the expediency of time. But, I think you see how the process can be played out, if the regulatory requirements will continue to grow, if you will.

On page 10, you asked, what should we do about this. Our recommendation is that the Commission should clarify the first principle of license renewal; that is, that certain plant systems and structures and components, meaning long-lived passive structures and components, where aging is not managed. That is, if there's an aging management program that falls within a very strict definition, if you will, of regulatory current licensing basis, we believe that that should be the acceptable demonstration. If the program exists, we should not have to describe the program, nor should you review it, nor should we answer RAIs. Just, again, to throw out a number, in the Duke application, about 20 percent of the RAIs that we received were dealt with current licensing basis programs that are very well covered in the regulations that we deal with -- 20 percent out of the 324 questions. It's just an opportunity for continued accretion.

On page 11, another recommendation: we believe the Commission should affirm that the concerns about adequacy of the current licensing basis should be addressed under 10 CFR Part 50, not Part 54. There is an opportunity, if you will, as an applicant comes in, in Part 54, for a question to be raised -- to be asked, if you will, because there was not the emphasis to ask it in Part 50 space. Well, our intention would be that if it's -- if it's an issue of that import, it ought to be covered in Part 50, go through those rules and procedures rather than be captured in Part 54.

And the third recommendation on page 12, the NRC staff should work to expeditiously finalize the standard review plan through the following: that is, the SRT has been a work in progress and we recognize it's a work in progress. We're contributing to it, as well as the staff. But, that, ultimately, will be the measuring stake, if you will, that is being used.

I think I need to give you some specifics to help you understand. If you turn to page 13, there are five areas, if you will, that we talk about in our recommendations. The first is an existing current licensing basis program or activity; that is something that's covered by regulations, by technical specifications, by generic letter, by regulatory commitment. In those cases, the applicant's responsibility is to map that program or activity to the aging effect and scope, to verify the aging mechanism is covered by that program. And the staff action in that case would be to verify for the inspections that they do on site that that program is still being effectively managed and will continue forward.

The second -- some examples of that are very well regulated programs, like environmental qualification or Appendix H, which is the reactor vessel, or in-service inspection programs, including the containment inspection, maybe even structural monitoring programs that fall under maintenance rule. Those are examples that I would give for existing current licensing basic programs.

Beyond that, there are modified current licensing basis programs. That is, these are programs that are well covered, but maybe you have to modify some. As an example, in Appendix H, which is reactor vessel surveillance, maybe you have to readjust the withdrawal schedule of your capsules, in order to lead and get the data that you need; or maybe you have to restructure your EQ program to provide the temperature monitoring data that you might need. Those would be modifications of a CLB program and we believe that that, again, would be something that we would map to our aging program and you would -- the NRC would verify the scope of the program.

The third category is existing non-current licensing basis program activities. These are programs that we have, but we have not submitted to you. We're not required, in many cases. And we believe that we have to describe those programs to you in sufficient detail, to allow you to make a demonstration that that program will, in effect, manage the effects of aging. Some examples of that are closed cooling chemistry or the alloy 600 program, which has no regulatory requirement for today, but it is a program that we determined, as well as you, that needs to be in place and, hence, we ought to describe that program to you.

Modified existing non-current licensing basis programs, again, if I haven't described the non-CLB program before and I modified, I have an obligation to provide that information to you and let you draw your conclusions from that. That's why the preventative maintenance and system walk downs that Barth talked about in his example fall in that category. Then, we have new programs and activities. These are things that are new and they may be things like one-time inspections, which we agreed to do, and they need to be described as well and need to be reviewed. So, I think what you see is

there's a spectrum of existing programs or new programs and how we would recommend they be dispositioned for a lot of their clarity. I believe it will provide an overall opportunity for improvements in the regulatory process. We believe it can be done under the existing rules. You take credit for the NUREG-1412 and believe it should take place.

On page 14, our conclusions, we've had the first two reviews and they basically have demonstrated that the aging effects on long-lived passive structures and components are almost entirely captured by existing programs and activities or modifications thereto. I think that's a vote of confidence in the existing plants that we -- the existing programs. We have to manage the aging within the current term. But, I believe it, also, shows you, with a very detailed analysis, that most of the programs that are necessary are, in fact, in place. This will allow the staff reviews to be much more focused on those things, which are new, unusual, an different, and, hence, be more -- get more effective than they have been thus far. We believe it will provide the opportunity for long-term stability in this process, by keeping us all within the guide post of the rules.

We thank you, very much, for the opportunity to present today to you.

CHAIRMAN DICUS: Okay. Thank you, very much. Let me ask a couple of questions and then I'll ask my fellow Commissioners to have any questions that they have.

I know that your proposal, you discussed how it might allow the staff to making findings, if there's reasonable assurance that existing programs will adequately consider the age-related effects. But, I want to probe this just a little bit. Specifically, if you could just comment a little bit, there are going to be many plant specific issues involved, such as differences in plant designs, as we get down the road with more applications coming in, that could cause differences in plant-specific existing programs. Could you address that a little bit?

MR. TUCKMAN: My -- when we answer a regulatory generic letter or have a check, invariably, we do that specific to the plant that we have. As an example, my plant is not on salt water; Barth, I think yours is. So the program content would be different for how you manage the effects of raw water fouling or corrosion in my plant than in Barth's plant. So, the regulatory responses that the various utilities have provided for meeting that regulatory requirement will differ somewhat. But, they are involving -- they are all part of the regulatory process. They have been submitted, they are inspectable, and, hence, I don't believe that the plant design differences really enter into this part.

MR. PIETRANGELO: That's why the mapping has to be done, too, to verify for that specific plant. If it's got a different design, it may have a different aging effect and mechanism, and they'll have to map it to their specific programs.

MR. WALTERS: And, also, I think that's why we have the second principle of the rules, which says the plant-specific licensing basis has to be maintained to the same extent --

CHAIRMAN DICUS: Okay. You mentioned the SRP. And let me just ask actually, really for the record, because I'm looking for a pathway for success here to resolve this apparent difference: would an SRP that lays out the lessons learned from the first reviews and is constantly kept current, as we continue with reviews, help to more firmly establish the requirements for future reviews?

MR. TUCKMAN: I believe that an SRP would, in fact, provide better stability, but we do wind up with the program of regulatory accretion. It's already occurred -- and I'm not complaining -- it has already occurred --

CHAIRMAN DICUS: We hear you.

MR. TUCKMAN: -- to some extent, as we have gone through the existing process. New requirements have been levied. If they were levied on Barth, I took them; if they're levied on me, Barth took them. And, hence, the next time --

CHAIRMAN DICUS: NA Health is probably looking at them.

MR. TUCKMAN: Absolutely. So, every time there is a new requirement that comes up, that is -- we tend to capture that in the SRP, if you will, of going through this process. My own experience would be that I would hope that with time, as some of these one-time inspections are completed, that we'll gain additional knowledge that the 20th plant to through process would say there's no point in looking at that anymore, because we have looked at it at five other plants and it's not going to be a problem.

CHAIRMAN DICUS: Okay, thank you. Commissioner Diaz?

COMMISSIONER DIAZ: Yeah. Let's see, let me first go to your slide number eight. I'd like to understand when you say, existing programs are reviewed rigorously. Could you put that in context for me, rigorously review by the licensee and then by the NRC? What is the division in there of responsibilities?

MR. TUCKMAN: The current licensing basis programs are very well reviewed by the utility, because we've developed them and we do a very detailed mapping.

COMMISSIONER DIAZ: I understand.

MR. TUCKMAN: Also, at the time that those regulatory programs are submitted to the Commission, in most cases, the Commission does a very detailed review and follow-up inspections are done at the plants. And in all cases, whatever we have in place are subject to review whenever the inspection wishes to do so at the site.

COMMISSIONER DIAZ: In license renewal space, how does the Commission know that those existing programs are reviewed rigorously by the NRC staff,

you know, together with the licensee? What is the process? I don't understand it.

MR. TUCKMAN: My concept would be that if it is an existing current license-based program, we would suggest that the staff does not have to review that for license renewal. We would say that carries forward in the period of extended operation, as NUREG-1412 alluded to, and it's certainly inspectable when you do your on-site inspections to verify that we are, in fact, implementing the programs that we had previously committed to.

COMMISSIONER DIAZ: Okay. Now, you say that modified CLB programs in slide 13, not to be rated for technical adequacy. Based on that previous premise of the rigorous review, then we have, you know, followed it through, how is that -- how do you justify not considering an adequate review of the modified CLB programs?

MR. TUCKMAN: Well, if we take an example, Appendix H, as an example, the regulations are very clear on what you have to do, in order to meet your fractured toughness requirements of the reactor vessel. I have to comply with the regulations. That's not an option and we believe the regulations do imply that if you follow them, you will provide a safe plant. So, why would I have to specify in my program exactly how I intend to implement that program, when it's very well described in the regulation?

Environmental qualification is another example. We seem to draw a line at age 40, relative to justification of either continuing to operate a piece of equipment or replacing the equipment. There are many environmental qualified pieces of equipment that have five- or ten-year lives. The program is exactly the same for those pieces of equipment as for anything that would go beyond 40. And compliance with the regulation does, in fact, validate or manage the effects of aging.

COMMISSIONER DIAZ: But demonstrated accountability is something that fits in that --

MR. TUCKMAN: Yes, sir. We have that responsibility. We have a regulation. We have to comply at all times with that regulation. And you verify that --

COMMISSIONER DIAZ: I think that's what this staff is asking. Okay, and finally, I need to understand what the differences between what I think is the staff overall position of aging and yours. And I don't see clear differences. The staff states that, you know, the licensee needs to identify the program relied upon to manage certain aging effects. You agree, you have to have that?

MR. TUCKMAN: Yes.

COMMISSIONER DIAZ: There's no difference, right. The second thing, the staff clearly states that licensee needs to state that the program manages the aging effects. Do you agree with that?

MR. TUCKMAN: Yes.

COMMISSIONER DIAZ: Okay. So, we've got two out of three.

[Laughter.]

COMMISSIONER DIAZ: Now, the next one is, describe how the program will manage those aging effects, and that's what the difference is, if I understand, right?

MR. TUCKMAN: Yes, sir, that is correct.

COMMISSIONER DIAZ: Okay. Could you briefly -- because, you know, my time is running out; I was just given only 45 minutes for this question period, you know -- where do you see the difference, to demonstrate how the program --

MR. TUCKMAN: The difference, I would say, was that the licensee has described previously a program. It's in place and it carries forward. The staff is asking us to do a full description of that program and is second guessing whether or not the program is, in fact, adequate, in essence. And in many cases, they are finding them adequate. In some cases, they are finding -- or perceiving that additional things need to be added to the program, whether that's justifiable or not. It is the process of them having to demonstrate that you're describing your program and they reach the conclusion that the program is adequate. Well, our view is that the program has been in place, is in place, and is working, and the current licensing basis carries forward and they should not have to review that current licensing basis.

COMMISSIONER DIAZ: As to how --

MR. TUCKMAN: Yes.

MR. WALTERS: I'll just offer that I see the difference as we go into the process perhaps with the assumption that if the aging is managed today, like it is on environmental qualified equipment -- environmentally qualified equipment, because the regulation talks specifically about aging, if the program we use to implement our regulation is managing the aging today, our going in assumption is it's going to be adequate in the renewal period. And what the mapping will do will tell us if there is something different, whether it be a new aging effect -- and I'll stay on that point. And so, I think the staff's going in assumption is, no, even though it manages the aging today, it may not manage it in the renewal period; and that, in fact, the only way we will know whether it is adequate is to have a review of it; is for the applicant to provide sufficient information so we can draw that conclusion that, yes, it's adequate today and will be adequate in the future.

But, there is somehow some step change, when you go from renewal -- or excuse me, when you go from current operating term into the renewal term. And I think the concern there and the difference is that we don't know what that threshold is.

MR. PIETRANGELO: A perfect example is the ASME Section 11 one that's been bandied back and forth in the correspondence. I mean, that effect is no different an area than it is tomorrow. The staff has made a conclusion and relayed a SECY on the rulemaking. It says that Section 11 provides adequate protection. What's different about renewal for that cracking? We haven't identified any difference. Yet, there's a -- they're saying that cracking isn't managed by Section 11, that you've got to do something extra for renewal. That's a current licensing basis program. Why isn't -- why aren't we asking that question in Part 50?

COMMISSIONER DIAZ: Okay. But, of course, aging is a time dependent phenomenon and, eventually, you're going to have to have some assurances that as time goes on, that the -- not only the management of the actual phenomenon, itself, is being taken into consideration for safety purposes.

MR. BEEDLE: I don't think we disagree with that, Commission. But, I think his point is that if you have a program that manages the aging today, it ought to be adequate to manage the aging tomorrow. You know, nothing miraculous takes place at the 40-year point.

MR. TUCKMAN: There is nothing unique to license renewal.

COMMISSIONER DIAZ: But that presumes that there is an adequacy, you know, that continues as a function of time, and that's what I think is how -- the how comes to play into the issue.

MR. BEEDLE: But the question is: is it adequate of year 39 and then not adequate at year 41?

COMMISSIONER DIAZ: I don't know.

CHAIRMAN DICUS: It's a sliding scale.

MR. PIETRANGELO: But, is the current regulatory process robust enough to deal with those things? It has been in the past. If there's an issue that comes up, there's means to deal with it. And the finding wasn't just about CLB; it was about the regulatory process that ensures that the CLB is adequate. So, even if let's say this became a concern in year 55, even under the existing Part 50 rules, there are ways to deal with it.

COMMISSIONER DIAZ: Thank you, Madam Chairman.

CHAIRMAN DICUS: Thank you. Commissioner McGaffigan?

COMMISSIONER MCGAFFIGAN: Let me just go to slide 13 and stay on it. The programs that you suggest that the staff look at, the adequacy of program or activity and evaluate it, are the last three. For the first two applicants, how many programs would that be? If I go back to those charts of the industry position, is that the very narrow wedge, those three, or is that part of the bigger wedge?

MR. PIETRANGELO: It's part of the bigger wedge.

COMMISSIONER MCGAFFIGAN: It's part of the bigger wedge, plus the narrow wedge?

MR. TUCKMAN: Yes.

COMMISSIONER MCGAFFIGAN: Approximately what percent would you guess those three categories constitute? I'm just trying to see how big the difference is between the staff, in terms of numbers of programs that would be evaluated.

MR. TUCKMAN: Within the Duke application, we thought the current licensing basis programs and modified current licensing basis programs, which is the area that we would say, that's about -- we thought about 20 percent of the questions that we received --

COMMISSIONER MCGAFFIGAN: So, you're arguing about the 20 percent, not the 80 percent?

MR. TUCKMAN: That's correct.

COMMISSIONER MCGAFFIGAN: Okay. And is that the same for Calvert?

MR. DOROSHUK: We -- our breakdown on CLB or non-CLB was along the same lines as Duke.

COMMISSIONER MCGAFFIGAN: What happens to these non-CLB programs, the new programs, do they get captured in the CLB post --

MR. TUCKMAN: Yes.

COMMISSIONER MCGAFFIGAN: -- post-licensing rule?

MR. TUCKMAN: They become CLB requirements, part of our licensing rule requirements.

COMMISSIONER MCGAFFIGAN: So the last three categories, even the existing non-CLBs, all become part of the --

MR. TUCKMAN: That's the new license

COMMISSIONER MCGAFFIGAN: That's the new license, okay. I look back at the -- I mean, we are arguing about the same thing that we were arguing about in 1995. I look back at those statements of consideration, long-lived structures and components, and one commenter stated the Commissioner should consider dividing long-lived passive structures and components into two categories: those that have a less rigorous approach to oversight and maintenance, and those that have a sufficiently higher level of regulatory licensee programs and regulatory oversight. The commenter suggests the rule should recognize the quality, etc. The staff reaction was not to do it. However, as the Commission gains more experience with industry activities for management of tests of long-lived structures and components, it may consider further narrowing the scope of those structures and components requiring an aging management review.

That's what we're talking about, right? We're talking about how much of the narrowing occurs. And it seems to me that your real issue has to do with fears of a slippery slope into a much larger review. Is that not the case?

MR. TUCKMAN: That is exactly the case.

COMMISSIONER MCGAFFIGAN: And you're calling for Part 50 rather than Part 54. Part 50 gives you back protection. Is that -- is that what you're looking for?

MR. TUCKMAN: That's correct.

MR. PIETRANGELO: Well, it, also, provides -- focus more on safety; make sure that the action has some safety significance.

COMMISSIONER MCGAFFIGAN: It's a substantial benefit?

MR. PIETRANGELO: Yeah. There's two parts. There's the part -- the what if and why not scenario. And those are the aging management programs that I think the future licensees want to avoid, is the what if and why not.

MR. WALTERS: Could I just make a comment on -- you know, I'm not sure that we're necessarily arguing that the scope needs to be winnowed down. And I -- and at the start of your question, you indicated in our chart on slide 13, that the first two rows, I guess, were -- are areas where the staff would not look. That's really not what we're saying. We believe and -- we believe that the staff has the right to look at any program. I think the point you just made about do they look at it under 54 or Part 50 is one of the issues with the first two rows here. We don't object to them questioning the existing CLB program or the modified CLB program.

MR. TUCKMAN: And certainly verifying during inspection that those programs are in place and are effective.

MR. WALTERS: Right. So, I'm taking those off the table.

COMMISSIONER MCGAFFIGAN: So, it's the standard for whether there will be a change required. I mean, verify effects of scope are mapped to program activities, pretty much, you know, check and go on. That seems to be what you're suggesting.

MR. WALTERS: Right, because we believe --

COMMISSIONER MCGAFFIGAN: The current licensing basis is adequate.

MR. WALTERS: Right.

COMMISSIONER MCGAFFIGAN: And, therefore, we should -- that all I have to know is that it's covered by the current licensing basis or minor modifications of current licensing basis and I can go on. And what you're saying is, if the staff, at that point, wants to require something more, a different rule should apply, mainly the substantial benefit test in Part 50?

MR. WALTERS: Yes. I mean, if we can agree -- if the staff and the industry can agree that the mapping is done and, in fact, the program is managing the aging today, it's our view that a question, then, regarding the manner or the -- let's say the adequacy of the way that program is managing the aging, has to be a question that you would ask today.

COMMISSIONER MCGAFFIGAN: One last question, if I could. You mention NUREG-1412 and I'm honestly not familiar with the document. It's a 1991 document that was issued four years before this, or presumably with the previous rule. What do you believe its status is?

MR. PIETRANGELO: This was a supplement to the original rule statement of considerations, and this was what the principles license renewal are founded upon. The second rulemaking affirmed those principles. They didn't undermine them; they confirmed them and reiterated them. So, we still think this is in play. This is part of the SOC of the first rule. And it went through things like -- it was limited to active versus passive components. It looked at all the programs.

MR. WALTERS: There was --

MR. PIETRANGELO: There was a thorough review associated with it.

MR. WALTERS: There was some debate, when we -- I think when we first looked at developing a rule -- or the agency looked at developing a rule for renewal, as to whether licensees would need to compile their CLB, and that was a long debate with the staff. And the final conclusion of that was that the applicants did not have to compile their CLB. And that was a debate that occurred before the '91 rule and NUREG-1412 provided the foundation for



the conclusion that -- the Commission found in the '91 rule that the CLB didn't need -- did not need to be compiled, and that, then, turned into the principles.

CHAIRMAN DICUS: Thank you.

MR. TUCKMAN: Could I make one quick statement?

CHAIRMAN DICUS: Uh-huh.

MR. TUCKMAN: One, I'd like to thank the Commissioners for their -- the opportunity to present this. Secondly, you, as well as we, have only one goal in mind and that's to have a safe plant, not only today, but in the future. I mean, that's key. Some would look at the fact that 75 percent are existing programs and 30 percent are newer modified programs incorrectly. I would say that we found the vast majority of everything we do manages the effects of aging very, very well. All we're trying to do is claim some regulatory protection and efficiency for future plants on those areas that are very well documented. And that's really all we're looking for. We do very much appreciate your consideration for this.

By the way, words are written in the regulation. Reasonable people both read them and read them a little bit differently. We have been meeting very effectively with the staff and the Executive Steering Committee monthly or bi-monthly basis. We've basically agreed to disagree and came to the fountain of knowledge, if you will, in this part, and that was the reason we're here.

CHAIRMAN DICUS: Thank you. Commissioner Merrifield? A fountain of knowledge.

COMMISSIONER MERRIFIELD: I demure from that characterization. I'm just -- I want to go back to slide three, sort of the why we are here, just so I can frame, in my own mind, on clarifying. It seems to me that there are two issues primarily that we're concerned with: the first one is regulatory creep, we have a fixed program and we don't want that to backslide or forward slide, however one characterizes that; and the second one really is the extent that we review existing programs. And I'm wondering, are there -- do those two statements frame essentially your basic concerns?

MR. TUCKMAN: Yes.

COMMISSIONER MERRIFIELD: I guess I've got a couple of -- a couple of thoughts really to those. I certainly understand and appreciate the issue of regulatory creep. There's a fine line that we have to balance, as an agency. You mentioned that you had some additional things to do at Duke, based on the experience that Baltimore Gas & Electric went through and vice versa.

There's a balance between regulatory creep and fixing oneself at a given point in time. And I think we, as an agency, have to be very careful. Well, I am very concerned about regulatory creep and have spoken about it frequently. We, also, are concerned that we don't lock ourselves in and not be able to take advantage of things that we learn. I mean, it would be shocking to me that if we go 20 plants in this -- assuming that there are 20 plants that want to go through this process, if we went 20 plants in the process and the way in which we review the 20th plant is precisely the same as we reviewed the first one, that would -- that would seem to me to characterize an agency that doesn't work. And I don't think that's -- I hope that's not where your --

MR. TUCKMAN: Commissioner Merrifield, in most of our programs, there's also the opportunity for learning; that is, we have all corrective action programs and that takes lessons learned from a new aging effect or whatever we come across and we plough that back into the new -- existing program. The agency does, also. The agency issues new generic letters or new information and they eventually come part of these current licensing basis. I would certainly expect that to continue.

COMMISSIONER MERRIFIELD: I think -- so for the most part, I think the regulatory creep issue is one which is a management issue. It's one which I see the Commission has to be engaged in. And I agree with Commissioner -- Chairman Dicus, that the standard review plans to go a long way to helping ensure that we do that and have sufficient regulatory discipline.

The second issue regarding reviewing existing programs, clearly, that's a policy issue. It falls within what's considered within SECY-99-148 and one that certainly, I think, comes to -- will help us tremendously.

I'm interested in exploring a little bit more the specific examples. I know you want to come up and talk about your own issues, so many I can frame this to Ralph and the folks at NEI. But, it would be instructive to know the concrete kind of examples that you've gone through in these first two renewals, which engender the concerns that we have today, in terms of information requested or particular requirements placed on these renewal applications, as we've gone through.

MR. TUCKMAN: We found early in this process that when we're talking the abstract, it doesn't make as much sense as when we talk to concrete examples. Maybe, I'll ask Barth to give an example and I'll give one.

COMMISSIONER MERRIFIELD: Okay.

MR. DOROSHUK: The Appendix H program is a good example, where it's a very well founded program technically and regulatory-wise. And we took credit for the Appendix H program for managing in the Calvert Cliffs reactor vessels. The staff reviewed the program and their line of questioning was not -- this is a success story -- was not at the adequacy of the Appendix H regulation, but was there an adequate number of surveillance capsules in the renewal period. And as a result of that exchange, we considered implementing Appendix H to something would do and we would put those capsules in place. What the staff said was, no, we'd like you to agree with us up-front that those capsules ought to -- the withdrawal sequence ought to be modified. And we agreed to that. So, there's a success story, where an existing program -- CLB program was properly interrogated by the staff. It was -- there was no regulatory creep and there was a successful closure on it.

We do feel in the EQ program area that although we ended up concluding that the EQ program was acceptable, we had to go and explain how we were implementing the EQ program to extraordinary lengths -- unextraordinary lengths and, specifically, how we actually did day-to-day operations. Now, we questioned that path we took to get to the answer, where it was an acceptable program.

Where the concern is, I think, from the industry is if not that -- the current staff and the staff management are trying to pursue regulatory creeps, the management oversight has been very strong. The concern is, is when everybody leaves and 10 years from now and there's a whole new Commission, there's a whole new set of staff, a whole new group of licensees, are we going to remember that EQ was an acceptable program and we shouldn't be wondering way out here. That's the concern there is. So, there's a success story, but there's an indication, and I think that's where the industry is concerned about.

MR. TUCKMAN: We've all that experience, where the end result we finally got to was acceptable. And I'll give you the example of IWEI, which is containment inspection programs. Again, they're very well defined and the segment of considerations for that rule and the 50.55(a), you gave credence to the inspection program as being valid in the period of extended license renewal. But, we wound up with quite a number of questions to deal with in that area. So, we wound up with no additional requirements. There was a long circuitous process to get -- I'm sorry, they're not all resolved yet, but we wound up with a lot of questioning that was, in my view, a lot of wasted motion.

Did that help?

COMMISSIONER MERRIFIELD: Uh-huh.

MR. WALTERS: I would just comment, if I may, that the standard review plan, even though it's a working draft, has a number of examples, I think, that go to this issue, because that is the guidance that is being used by the staff to review the applications. So, there are a number of -- we'd be happy to provide that to you, as a follow up to this meeting.

COMMISSIONER MERRIFIELD: Okay, please. One last quick question. On slide six, in the efforts that our staff has been taking and we're talking about today, we talk about sufficient detail to show program manages aging, talking about managing aging effects. The last bullet on this slide, slide six, says "sufficient detail to show link to aging effects." There seems to be a difference between link and managing aging effects. I'm wondering if you could explain for me the difference between link --

MR. TUCKMAN: Link would say there's an aging effect and we believe that the program covers that particular aging effect; demonstrated, you would say, okay, now, it manages -- show me that it is, in fact, managing it. What we're doing is showing our link from the aging effect to the place in the program, and they're saying show me that the program, itself, is effective in managing the aging.

COMMISSIONER MERRIFIELD: Okay. Thank you.

CHAIRMAN DICUS: Okay.

MR. BEEDLE: Which, in fact, is something that could be done, whether or not you're in license renewal application review or not -- you know, how are you managing that program today.

COMMISSIONER MERRIFIELD: Yeah. I'm still -- I mean, it's like anything else. I can have -- as we do right here, you have a set of procedures saying how well you're going to do something. In the end, to quote our former chairman, results are those that matter. And I think, you know, to show the link -- you know, does that really demonstrate the fact that that's affected.

CHAIRMAN DICUS: Okay. Thank you, very much. We have people next here from the Union of Concerned Scientists, through the voice of Mr. Lochbaum. Thank you.

MR. LOCHBAUM: Good morning.

CHAIRMAN DICUS: Good morning.

MR. LOCHBAUM: Slide two, please. UCS reviewed the SECY paper. Basically, we don't think any of the three options should be followed. We're proposing option four, which is to continue doing what's been done for the first two applications. The reason we think that is that the license -- the current license renewal rule was based on the assumption that the current licensing basis are adequate.

I think recent experience or the lessons learned since NUREG-1412 came out, which showed that that's not necessarily a valid assumption, Millstone, Salem, Haddam Neck. If that assumption were correct, D.C. Cook wouldn't be shut down today. Several U.S. General Accounting Office reports show that the current licensing basis is not a precisely understood issue and that several plants may or may not be operating consistent in conformance with that

licensing basis.

With that foundation, the industry now wants the NRC to give it credit for the adequacy of existing age management programs. As I understand -- if I understand the argument correctly, anything that's covered under an existing rule should not -- should be outside the scope of NRC's license renewal. If one extended that logic to the illogical end, so even the new things wouldn't have to be covered, because they were required by 10(c)(4) or the Part 54 license renewal rule. So, therefore, everything is essentially covered by a regulation. And I don't -- hopefully, that's not what the industry wants, but it's definitely not what UCS wants to see happen either.

Slide three basically provide the three options, which have been covered previously.

Slide four. The SECY paper -- in the SECY paper, the staff said, "The public may view the license renewal process as unjustifiably narrow in scope and could perceive the Commission as granting renewed licenses without a sufficient technical basis." I think we would agree with that staff's interpretation of the public's mind set, at least segment of the public's mind set.

In addition, the staff said, "The staff and the initial license renewal applicants have found that about 30 percent of the aging management programs for license renewal required some modifications of existing programs or new programs." I think USC believes that 70 percent is not a passing grade when it comes to nuclear safety. I think the evidence to date suggests that the staff's reviews of age management programs needs to continue, as it has in the past, at least until we have more than two data points on which to base our solid conclusion.

Slide five. In addition, the two applicants to date are both pressurized water reactors. We don't have any data that shows that the lessons learned apply to boiling water reactors. Unless no boiler water reactors go through the license renewal process, then that data may or may not be valid or acceptable. In addition, the current applicants don't see license renewal until the year -- at least the year 2013. The 20 or so license applicants that have been discussed previous -- by the previous panel will probably already be concluded, upper bound, before the first plant reaches those past 40 years. So, essentially, we're conducting a grand experiment, the results of which -- or the proof of which cannot be shown until after all those processes have gone through. So, if the process is unsound, we may not know until it's too late to make corrections. So, I think we need to proceed with due diligence and prudence, and not proceed on reducing regulatory burdens just for the sake of reducing regulatory burdens.

An example I'd like to show where that has happened in the past, extremely desirous of avoiding in the future, was Grand Gulf. In 1982, the NRC issued an operating license to Grand Gulf, which was also known as "Grand Goof," at the time. In July of 1984, the NRC admitted to Congress that it had approved a license containing hundreds of errors. I know from personal experience, because I worked as a consultant on a tech spec review project at Grand Gulf in '83 and '84, the operating license contained a permit that wasn't even in the plant.

Basically what had happened, the architect engineer and others had taken the technical specifications for a boiling water reactor four and just changed the name, to make it a boiling water reactor six, the Grand Gulf type. So the equipment for boiling water BWR-4 was contained in the BWR-6 tech spec and vice versa, BWR-6 contained equipment that wasn't in their tech specs. It wasn't captured. The FSAR for Grand Gulf contained as many, if not more, errors, including descriptions of non-existing equipment. Grand Gulf's owner reported that it took 5,600 man-hours to identify and correct all these problems, and I spent more than my share of that 5,600 man-hours working on that.

COMMISSIONER MCGAFFIGAN: Fifty-six hundred or fifty-six thousand?

MR. LOCHBAUM: Fifty-six thousand, I'm sorry. The slide is correct, but my testimony is wrong. The NRC attributed its inability to catch even one of the hundreds of problems to a large number of plants being licensed concurrently and "excessive informality by both the applicant and the NRC staff."

Slide eight. The current schedule -- or the forecast shows that the NRC will be -- may be receiving a large number of license renewal applications concurrently. Options one, two, and three, in the SECY paper, to us represent varying degrees of informalities in NRC's demonstration that age management programs are adequate. Therefore, we feel that none of these options are -- should be pursued, because they would risk repeating the Grand Goof mistake.

Slide nine. Options one, two, and three -- our conclusion is that options one, two, and three do not provide adequate protection of public health and safety and, therefore, should not be adopted. Instead, we think the staff should continue to determine all license renewal applicants have adequate age management programs.

I think one of the things that was discussed was ASME-11 and some of the existing programs. Our concern is that some of those programs and inspections may be based or predicated on the assumption of a 40-year life time, as far as how often you go out and look at something, how often you inspect something. If you go beyond 40, for another 10 years, there is nothing magic about year 41, but there may be something magic about year 59. So, there needs to be some review, to make sure that the frequency of testing is adequate for an additional 20 years. If that can be done generically, that would be one thing. But to do it on a frame based on two license applicants is probably not the right way to do it.

Thank you.

CHAIRMAN DICUS: Okay, thank you. I have one question I'd like to bring up with you. You used the example of Grand Gulf and the issues that -- issues that you raised with regard to that. Would, in your opinion, a periodic updates to the staff's SRP reduce the likelihood of a Grand Gulf sort of situation in license renewal?

MR. LOCHBAUM: A strong argument could mean that it would. But at the same time, the Grand Gulf was licensed with the benefit of a SRP that was being updated along the way. So, we had that mechanism before and it didn't prevent the Grand Gulf, so having an equivalent mechanism again may not prevent another Grand Gulf.

CHAIRMAN DICUS: That would be obviously on the quality of the SRP and how it was used, I would think.

MR. LOCHBAUM: It would be better than not having, I definitely concede that.

CHAIRMAN DICUS: Mr. Diaz?

COMMISSIONER DIAZ: Yeah, I think in following the same argument, I mean, I believe we need to learn from the lessons of the past. But that was many, many years ago. I would probably state, you know, unequivocally, that we all have learned, on all sides of the fence, that --

MR. LOCHBAUM: Since I was there, I'm going to say it seemed like yesterday.

[Laughter.]

COMMISSIONER DIAZ: I was also on a team there at the time. But, you know, specifically, since, you know, we have seen these things happen and we are taking steps to avoid repetition of those areas. The questions keeps coming down to, you know, not that people are not going to look at the programs, everybody agrees that everybody is going to be required to map what the structure systems and components that require management. They're also going to be requiring that those structure systems and components that require management have to clearly state what those, you know, programs are and how they're being managed.

The issue, then, comes back to, you know, the how. And the how is where the distinction comes in between things that could fall through the cracks. Because, I think you're more concerned -- or maybe you're not, maybe I'm putting words in your mouth -- with things that will fall through the crack, rather than those that are really actively managed and continue to be managed and continue to be, you know, not only by the licensee, but continue to be, you know, regulated in an active manner. And the question is: what can we do to assure -- what is your recommendation to assure that things will not fall through the crack?

MR. LOCHBAUM: I think -- our concern is a little of both. It's not only things that might fall through the cracks, but also the adequacy of existing programs. There are a number of different licensees and their performance is a spectrum. We view the NRC's goal to make sure that the most -- the least well-performing licensee going through license renewal is at or above the minimum standards. So, we think the NRC's obligation is to review some of the age management programs, to make sure that they are adequate before we go into another 20 years of operation.

That's separate from looking for things that might fall through the cracks. I think the review of new or modified programs needs to be done, to make sure that they cover those areas that might be cracks or things that might fall through that. So, I think, really, both things need to be done and our recommendation would be continue to have more dated -- five or ten plants go through this. And what we're seeing -- like the earlier panel said, that it doesn't -- they don't need to look at this area anymore, then it might be time to scale things back and only do a cursory review of licensee's performance in that area. But, based on only two, that's not a big enough data set to reach that conclusion, at this point.

COMMISSIONER DIAZ: And by falling through the cracks, I don't mean -- I mean, in the overall context of the adequacy of those programs, whether something is not being addressed properly or not. Because, that's really the issue, that you address the existing, the modified or the new programs in a proper fashion, then I think you would be satisfied. Is that correct?

MR. LOCHBAUM: Well, satisfied may not be the right word, because we fought license renewal once. Satisfied probably never applied.

[Laughter.]

COMMISSIONER DIAZ: That's acceptable. Less upset with it, then.

MR. LOCHBAUM: Right.

CHAIRMAN DICUS: Commissioner McGaffigan?

COMMISSIONER MCGAFFIGAN: Let me just explore the regulatory creep issue with you, because you have been on the licensee side of the fence, at one point. You heard folks talk about the concern that when you look at the current licensing basis and they suggest we verify that the effects and scope of the map are mapped to the program activity, that that's the extent of our review for some of these CLB programs. The concern is when a staffer, at that point, starts asking REIs and the -- and the requirement that it will not pass a test and if it were considered in Part 50 space, what is your reaction to that, that when you deal with current licensing basis -- it may well be that this matter of what standard is for making an augmentation to the current licensing basis, rather than whether we should be looking at it, if I listened to them -- where do you come down in their sympathies, with regard to what the standard should be for adding a new bell or whistle to the CLB?

MR. LOCHBAUM: I think it's a very valid point. However, I think the proper response to that would be instead of the first two applicants just accepting everything, in order to get the thing done within 30 months, if they would fight some of those things they feel are abuses and establish a precedent for all subsequent applicants would be better than to take the questions away from the staff. If they feel those abuses, they should fight those abuses when they come up, not frantically take away that ability to question down the road.

COMMISSIONER MCGAFFIGAN: My understanding from talking to some of these folks about the staff, and I don't go to these public meetings they have every month, so they have some vigorous conversations, as I understand it, during these meetings. This IWE/IWL issue, I'm going to raise with the staff later, and Mr. Tuckman says he gets questions on that, yet the statements of consideration only did it -- specifically said it's good enough for aging management. So, it's -- and there, you start to wonder, you know, do we have -- the staffs are at war with each other or not, and they'll get the answer in a few minutes. But, it does strike me that the issue is one of standard.

I agree we may not be ready, at this point, to declare a victory on all these things. But, if we said something, we can take a generic determination somewhere and presumably we shouldn't be reopening it.

MR. LOCHBAUM: I would agree with that.

CHAIRMAN DICUS: Mr. Merrifield?

COMMISSIONER MERRIFIELD: Yeah. Mr. Lochbaum, my first question revolves around slide five of your presentation, okay. In the second bullet, you talk about the fact that Calvert Cliff and Oconee licenses don't expire until 2013 and 2016. You said, "Thus, proof that existing age management programs are adequate will not be available for over a decade."

I guess I'd like to understand a little bit of what your position means. At what stage of the original 40-year term that you believe that the licensees and the NRC will have sufficient information to determine the plant's existing age management programs are adequate? Do we have to wait 40 years before we can make such a determination? That's what this bullet seems to indicate.

MR. LOCHBAUM: It's one of those catch 22s. You never -- until you go beyond 40, you'll never get that proof, and none of the plants will be in that position. But by having the plants apply more than a decade early -- I mean, virtually all the plants lined up will follow that. The process in which the NRC determines that the age management programs are adequate or not, will not be really tested until all of them -- all the license applicants are granted or are not granted, whatever that process will be done. So, we won't have any proof of whether the reviews and the frequencies are adequate, until it's too late to do anything about it.

COMMISSIONER MERRIFIELD: So -- but, again, it begs the question: at what point is it sufficient? You're saying it's insufficient now; we need more time to really determine it is sufficient. What point do we determine is sufficient, to have the ability to go through this process?

MR. LOCHBAUM: I think if you look at PWRs and BWRs, you know, on more than two and you looked at the frequencies that things were looked at, vessels, piping, whatever, and you had a larger data set to say that the frequency we have for a 40-year life time will cover the remaining 20 years with or without modification or whatever the conclusion is, then you have a reasonable sample size on which to say for the next ones that come through, we don't need to do this.

COMMISSIONER MERRIFIELD: So, you're saying it's more -- it's more the issue of the breadth of the sample, necessarily, than the time period?

MR. LOCHBAUM: Yeah, I think it's more of a timing; not that this approach won't work, it's just that right now being a little premature to do it.

COMMISSIONER MERRIFIELD: Okay. Second and final question I have goes to slide nine. You say, "Options one, two, three do not provide adequate protection of public health and safety and therefore should not be adopted. Recommendation: the staff should determine that all license renewal applicants have adequate age management programs." Now, you further underscored this a little bit at the very beginning of your oral testimony, basically saying, you ought to just keep doing what you're doing. And that -- you know, for the purposes of trying to direct where we're going to go, that is a little vague.

I'm wondering if you could focus for us a little bit. There's things that we aren't covering in option three, for example, which is the broadest of the three, that we, otherwise, you feel, that what we're doing now, what you term option four, the current baseline. What are the differences you think we're missing in between those two?

MR. LOCHBAUM: Let's go back and look at option three. I think, for example, the difference between option three and our recommendation would be option three would be based on the assumption that we knew where the areas of importance are. We know where things can be streamlined. That's what option three is basically -- seems to be headed. Based on the review of two applicants, we know where the fat is and we just focus elsewhere.

Our point is two applicants, none of which being boiling water reactor, may not be the data set that truly defines the fat. If we're to do these two applicants over again, yes, this would work. But to apply those lessons learned from only two applicants to future applicants doesn't seem to be -- this approach seems to be pen struck by that.

COMMISSIONER MERRIFIELD: Well, again, this seems to -- this seems to relate to your issue of the breadth of the sample that we're taking. And so, I guess that spurs my follow-up questions: how broad a sample would you, under your proposal, take? I mean, should it be -- should it be three boiling water reactors and three pressured water reactors? Should it be 20?

MR. LOCHBAUM: I think the actual answer to that question won't be any specific number. I think there will be certain things after two or three, with all them from the same fact that you might say a good argument for reducing in the future. If you've looked at 10 and certain things show up in some and don't show up in others, then you'd have to look at a few more to get a larger sample size.

COMMISSIONER MERRIFIELD: With the standard of review plan, as Chairman Dicus has mentioned, where you're going to have periodic resamplings of that by the Commission, in the fine tuning of the way the staff is going, can we get there with that? You know, we're saying we're going to streamline, to a certain extent, the lessons we've learned from the first two. But, presumably, as the staff moves forward and we do four and five and six, presumably if they come in, there will be additional lessons to be learned. We're not going to do this immediately. Presumably, it will be a gradual processes.

MR. LOCHBAUM: Our concerns with that approach would be if any of those retching -- not retching -- but if any of those evolutions went to far and the lessons seems to suggest we need to back up a little bit, that that wouldn't happen. The history has been one direction. We never back up and make things safe again.

COMMISSIONER MERRIFIELD: I don't mean -- this is sort of interesting, just one last thing, in that -- as you can imagine, that is entirely contradictory. I don't mean this in a derogatory. But, we've just heard from the licensee and their fear is, oh, good gosh, we're going to have this regulatory creep on our staff. It's just going to keep going and going and going. And what you're saying here is, you know, once we ratchet up, we're not going to do anymore. The ratchet only goes one way. We'll only narrow the areas that we're looking at.

How -- as Commissioners, how do -- do you understand where I am right now? I'm getting it from both ends, how do we balance that act?

MR. LOCHBAUM: I don't think safety --

COMMISSIONER MERRIFIELD: Maybe, we've got it right; I don't know.

MR. LOCHBAUM: I don't think safety is measured by the number of RAIs, so just having 30 or 40 RAIs doesn't mean you have a safe process. So, if you can cut that back down to 10, we can still have a safe process. I don't think we're as contradictory with the industry as it seems. I recognize there does seem to be a conflict. But, I think our position -- if you look traditionally to things where UCS has looked at something in NEI, we pointed out things that were excesses and things where there was -- for the industry, there was a shortfall and there was an excess.

The industry only sees one-half of the ledger -- well, they see both; they only talk about one side. And I think that you can look at who influences NRC policy and regulations. It's not UCS and the public; it's the industry right now. So, we're concerned that if we get an SRP and we get revisions, what we see as the shortfalls will not be -- there won't be balance between some of the regulatory uses that the industry reports.

COMMISSIONER MERRIFIELD: Well, I would not, in any way, want to characterize what the licensees do. I do have to say, you have been fair, I know, since I've been a Commissioner, in pointing out the areas where you think it goes both way, so I'm going to score you right on that. I think you discourage yourself needlessly. I think this -- you know, this -- you know, at least from the part of this Commissioner, and I think the others would agree with me, that the positions of UCS do influence the decisions we make.

MR. LOCHBAUM: Well, I appreciate that. I do appreciate that.

CHAIRMAN DICUS: I have a follow-up comment, then I think Commissioner McGaffigan has a question, and perhaps Commissioner Diaz, as well. You made a comment that we're trying to make decisions now that will be 10 or 15 years before we know whether those are good decisions or bad decisions. I think in the comment, we might find ourselves in trouble, or something of that nature. I think we have to keep in mind that this is a process that's a moving process. And should we discover, at some point down the road, after we've made a decision that that is a decision to get a license, that some issue has surfaced, I think the Commission and staff has the ability to identify that and to successfully deal with it. So, I think we have to keep that in mind. It's not a decision and then you walk away. It's an ongoing process. That's the point I have. Commissioner McGaffigan?

COMMISSIONER MCGAFFIGAN: I just want to follow up on this generic aging lessons learned effort that the staff has underway and which is the heart of option three. Would you have more confidence in it, if -- and I suspect it's what the staff intends, that it be a public report? You get a public comment, and I'm sure you would get the comment, the industry would get the comment. This report, to my knowledge, doesn't exist, unless they're going to tell us it does and it certainly hasn't received comment. I've never seen it. But, if we go through a process where this report constantly is updated, it's going to be referenced in the standard review plan. The SRPs typically do go out for some comments; but if it can be referenced, maybe it, also, goes out for comment and it's something where it's very transparent what we're doing.

Would transparency and the ability to comment on what we're doing, help the process?

MR. LOCHBAUM: I don't think so, at least from our standpoint, because we've got allegedly an opportunity to comment on the 2206 process that was recently advised, and none of those -- virtually none of those comments were incorporated into the final version or even responded back why they weren't. So --

COMMISSIONER MCGAFFIGAN: Well, let me -- let me -- I mean, I think you've raised some interesting points in the 2206 process, and I'm sure we're going to be hearing more about it. That was something Mr. Lochbaum and I had a discussion about last Friday. But, that's the exception, I think, compared to, say, the oversight process, where you have been integrally involved, where you're on a panel now that's going to review the pilot efforts, etc., and where there has been --

MR. LOCHBAUM: I would argue that that's the exception and not --

COMMISSIONER MCGAFFIGAN: Well, what if that were -- what if that were -- I understand your concerns about the 2206, that there were comments you made and others made and apparently, you were given an opportunity for a private viewing and you refused it, because it was not going to be a broad public viewing, etc.

MR. LOCHBAUM: Right.

COMMISSIONER MCGAFFIGAN: But, if we fix that, if we pursued something closer to the oversight process of involving the public, as opposed to a 2206 process involving the public, would that -- would that transparent -- that degree of transparency and having your comments commented upon, so that you knew why, if they were rejected, they were rejected, would a process of that sort, which may be an idea we're working towards, work?

MR. LOCHBAUM: It would, because I don't expect the Commission and the staff and industry to always view -- to agree with our position. But, I do -- we, generally, try to keep an open mind, and if I can see why something can't be done, why something else is better, then we could at least agree that that seems to be the way to go. But, just when we provide comments and we get nothing back, that's --

COMMISSIONER MCGAFFIGAN: And the other thing that I think you've enjoyed in the past and want to be a part of the process is some ability to appeal, to -- I mean, if the comment is dealt with, it's not dealt with well, a paper comes from the Commission, it's out there and you're basically saying, here's why I think the comment wasn't dealt with properly, and we may disagree with you, and I guess you would take us to court or something. But, it's a transparent process for your appeal rights, etc. That's what you're looking for?

MR. LOCHBAUM: I think going back to the Millstone restart last year, we didn't agree along the way, but we were -- our concerns were clearly entertained by the Commission. We thought that was fair. Even though we didn't necessary get the outcome, we thought the process was fair.

COMMISSIONER MCGAFFIGAN: Thank you.

CHAIRMAN DICUS: Commissioner Diaz?

COMMISSIONER DIAZ: Just very quickly on that statement, that, you know, we work towards what I would call a negative safety slope. We work always to make our goal -- you're probably older than I am, but --

[Laughter.]

MR. LOCHBAUM: I feel that way.

COMMISSIONER DIAZ: But, you know, I remember when the government took qualifications that were imposing on the industry. I was -- when Grand Gulf was being built, that certainly added a significant -- and we added a few quirks, like station blackout and -- the maintenance rule very recently added. So, I think we work both ways. And I do not want to characterize the Commissioner, but from my viewpoint, we're trying to do both things. We're trying to add safety when it's needed and we're trying to reduce that that is not needed. But, I think the main thing, the point is that that process, we're trying to make it open, so there can be, you know, clear discussion on the issues. Thank you.

COMMISSIONER MERRIFIELD: I would agree enthusiastically with my Commissioner.

CHAIRMAN DICUS: Okay, thank you, Mr. Lochbaum.

We will now get a very succinct presentation by the staff.

MR. MIRAGLIA: Good morning, Chairman Dicus, Commissioners.

CHAIRMAN DICUS: Good morning.

MR. MIRAGLIA: The license renewal process has been an agency priority for quite some time. It's involved a significant amount of Commission attention, as well as senior management attention. As you've heard today, the staff review for the two applications that are underway at Calvert Cliffs and Oconee, we've completed significant milestones. And the issue that you hear discussing today haven't impacted that decision, but is focused on applications in the future.

Lots have been said about the SRP. The staff's intent has clearly been -- always been, and we've articulated to the Commission, that these pilots, we took draft SRPs and the reg guides that are out there as is, used them as is, and to inform the process, and our intent is to capture those lessons learned and improve the SRP. And that is, as the Commissioner -- the Chairman said, is going to be a living process.

With me today is Roy Zimmerman, to my left, Deputy Director of the Office of Nuclear Regulation and also the Chair of the License Renewal Steering Committee; Chris Grimes is the Chief of the License Renewal and Standardization Branch; and Sam Lee, a senior engineer in that branch. We'll move properly along to Roy for a few remarks and then we'll get on the presentation with Chris.

MR. ZIMMERMAN: And I'll be short, as well. Before Chris begins our presentation, I'd like to take just a couple of moments to talk about the staff's License Renewal Steering Committee efforts. There are several aspects that committee performs and we began those efforts back in the spring of 1998. The committee monitors the staff's review of the initial applications in house. We dialogue with Chris's staff about the status of Calvert Cliffs, the status of Oconee.

The committee, also, makes recommendations to improve the license renewal process, and this goes hand and glove with what we're talking about, with regard to the standard of review plan and looking for opportunities to gain efficiencies and predictability in the process. The committee, also, identifies issues that it feels should be conveyed to the Executive Council and to the Commission. That background supported the development of the Commission paper, as well as this meeting.

The committee consists of senior managers from NRR, from Research, from the Office of General Counsel, and we, also, have a senior manager from Region 4 as part of the committee. We, also, invite managers from the other regions to participate, as an observer and dialogue with us, but not necessarily as a member of the committee. We've been meeting about monthly internally with Chris's staff and, as Mike Tuckman indicated, we meet about every other month with the Peer Industry Executive Committee in NEI. And we've also been meeting routinely with the Executive Council, to provide a status on license renewal activities.

Today's issue that we're talking about on credit for license renewal programs has been a centerpiece discussion over the last three or four meetings. And there has been considerable dialogue, considerable energy that we bring to the table. But very candidly, we have struggled, in terms of trying to identify the areas of common ground and the areas -- the difference that we're trying to get into -- get into focus. We've done that for a number of hours. NEI

has worked to provide examples to help facilitate the discussions, provide written documentation. And I think that that helps us frame the discussion today, which Chris will lead us through. So with that, Chris?

MR. GRIMES: Thank you, Roy. Could I have slide two, please. I'd like to start off by saying my issue statement is exactly the same issue statement that NEI presented. NEI explained their concern, in terms of how the NRC staff has been challenging the adequacy of existing programs and practices that the NRC has deemed acceptable by regulation, license provision, regulatory guidance, or the current licensing basis. In January -- on January 13th, when we discussed regulatory improvement programs with the Commission, NEI opposed the policy question, is it the intent of the rule to reverify existing CLB programs and activities. And, hopefully, today, we're going to address that question, as completely as we can.

This issue statement, as amplified by the NEI letters, dated March 3 and May 4, 1999, might also be stated, should the staff review existing programs to any extent, given the regulatory footprint that exists on almost all of the existing programs. This formed the basis for SECY-99-148 and how we develop recommendations and options to address this issue.

Could I have slide three, please?

COMMISSIONER MERRIFIELD: Madam Chairman?

CHAIRMAN DICUS: Yes.

COMMISSIONER MERRIFIELD: I don't have a question, but I do want to frame something.

CHAIRMAN DICUS: Okay.

COMMISSIONER MERRIFIELD: I think this issue statement frames probably only half of the issue. The other half is the issue, which has been raised by NEI -- by NEI, the issue of remaining discipline in our process, so we don't have regulatory creep. And, subsequently, Mr. Lochbaum is concerned that we don't have such a high degree of informality in the public's confidence in what we're doing. So, I just -- as Mr. Grimes and the others go through their presentation, I hope we'll pick up on some of those and leave that in your --

CHAIRMAN DICUS: Keep it in mind.

MR. MIRAGLIA: I think you made the observation, Commissioner Merrifield, that that's a management issue and the paper that we're here to discuss is the policy -- is the policy issue. That management issue exists, not only for license renewal, but every activity of the staff, and in our processes underway by which we manage those kinds of issues, as well.

CHAIRMAN DICUS: Okay. Let's move on. We'll come back to this, because there is an issue with management that we will bring up at the end.

COMMISSIONER MERRIFIELD: My clarification, though -- I mean, are you going to weave that in or --

MR. MIRAGLIA: Yes, and I believe we have -- we have installed processes in place, even above the normal process, in the context of the Steering Committee reports to the Executive Committee. So, I mean, those processes are in place very definitely. And I think Chris can tell you the number of times he's met with various management within the office of NRR, within the Steering Committee, and the Executive Committee. So, that is a management issue and I think it's -- we'll try to address that in very much more detail than normal processes, so we won't --

MR. GRIMES: Commissioner Merrifield, and I, also, intend to get to that point, in terms of what -- what it holds for the future, as well, in terms of what are the appropriate ways to deal with both the aspect about the appropriate scope and also the issue about discipline. So, I hope to pick up on that later on in this presentation.

MR. ZIMMERMAN: One last piece along the lines from the Steering Committee standpoint, is the Steering Committee is very focused on the predictability and consistency of the process. The aspect of regulatory creeping is very much on our minds. We've had these frequent dialogues with the industry and that serves as a lightning rod. If there are issues where the industry wants to bring to our attention that they feel that they're seeing creep, that's an opportunity to do it. And, again, right now, we're meeting at least every couple of months. MR. GRIMES: Slide three. We go back to these direct quotes from the statements of consideration for Part 54 in the 1995 amendment. NEI, also, quoted the statements of consideration in their letter, dated March 3rd, and they have referred to NUREG-1412, as those documents describe the basis for extending the current licensing basis through the period of extended operation and the basis for excluding accurate components from a direct review, as part of license renewal, but not the important exception of the detrimental affects of aging and the functionality of system structures and components in the period of extended operation, which we will refer to more simply as aging management for passive stuff. We believe that the purpose of the rule is clearly stated: safety is maintained by the existing regulatory process, except for the possible detrimental affects of aging on passive long-lived system structures and components.

Could I have slide four, please? The license renewal rule provides for a focus on managing aging effects. Part 54 ensures plant safety, by ensuring aging for important system structures and components, will be maintained through the period of extended operation. Part 54 credits existing programs, particularly the maintenance rule, by excluding active components. We believe that the Commission specifically addressed this policy issue in the 1995 amendment to the rule, when it recognized that there are no aging effects that are unique to the renewal term. We, also, believe that anything different than a review of the programs that are relied upon to manage aging effects, the scope of system structures and components defined by the rule, that anything different than a review of those programs during the period of extended operation would be a reinterpretation of the rule. We're asking this Commission to reaffirm or decide anew what is the appropriate review scope for license renewal.

Slide five, please. I'm now going to turn over our presentation to Dr. Sam Lee, who is the principle author of, and now the responsible engineer for the



standard review plan, of which you have heard so much about. Sam is also responsible for managing the feedback of lessons learned and to improvements in the standard review plan. And I don't think that you need to ask NEI for -- to identify the areas where they have problems with the SRP. We're tracking 109 issues associated with potential changes to the SRP, including things like improving the guidance on how to -- how to review EQ, how to account for IWE/IWL, the five or six issues associated with that. So, all of the comments and concerns about where the SRP might go beyond what the industry believes is an appropriate scope and review are being addressed by managing the resolution of those issues and incorporating other feedback from the first two reviews. And Sam is going to start by identifying the review cast, as it relates to how the staff has been instructed to explore existing unmodified, modified, and new programs, for the purpose of aging management. Sam?

MR. LEE: The staff sees his job to be review of the applicant's demonstration of managing aging, and that's on slide five. The NEI describes the staff rule of the existing program as a reverification of the current licensing basis. The staff is not challenging the adequacy of the current -- or the existing program, in meeting the CLB requirements. The staff is reviewing the existing program of the effectiveness to manage aging, as made by the applicant. I would predict the staff -- the situation, where the -- where we are identifying additional information on activities after year 40 that are not required before year 40. And the staff is using the process to address these additional activities, to see if they fit for the long-term, before the year 40.

Can I have the next slide, please? This is a pie chart you have seen before, from NEI. This shows the aging management program for license renewal. It's identified by the initial applicants. The Calvert Cliffs pie chart on the left shows that -- in the blue area, it shows about 70 percent of the license renewal program are existing programs before modification; and the other 30 percent are modified and new programs. And Oconee has, similarly, 60 percent of existing programs before modification and 40 percent are modified and new programs. And the staff have reviewed the applications and have identified open items and confirmatory items across all these programs.

I guess, Commissioner McGaffigan asked the question early on, in terms of how many CLB existing programs. The March letter from NEI provided an example of 22, they call the CLB existing programs, and they were submitted to the Oconee programs and they do compare them -- it's like 40 or 50 percent of the -- of the built programs, what they call the CLB existing programs. I guess the observation we're trying to make here is that if you just look at this pie chart, this confirms NEI's statement earlier that most of the license renewal programs are existing programs. However, we do identify 30 percent or so that are modified and new programs, and this is what we see as the contribution of the license renewal effort.

MR. ZIMMERMAN: The way I tend to look at this is, in the first panel, it was indicated that the agency has looked at the CLB under Part 50. And we agree with that, so that's common ground there. The first panel also said that we shouldn't necessarily need to look at the CLB, if it's adequate the first 40 years. But to me, we need to look at the CLBs for Part 54 to know where we are, so we can ask the question to look forward. If we don't look at the existing programs, then how will we determine what needs to be augmented, what's satisfactory? How do we independently make that call that it's been adequately demonstrated? So when we look back at the CLB, it's not to apply it to Part 50; it's to get the information we need, to be able to make the Part 54 call. And if we stay out of that regime, then we have little information available for us to help us make that determination.

MR. MIRAGLIA: I think in the discussion with NEI, it came up in a number of instances. In fact, I believe Commissioner McGaffigan went back to the slide 13 of NEI. And the answer was, is that the scope of all of those programs are fair game to ask the question, and it goes to what Commissioner Diaz talked about two out of the three, and it's a question of how. The scope is not in question; it's the depth that one goes to. And I believe Commissioner Merrifield pointed out the fact that it's not only to say it's linked to managing, but you have to making the finding that it's adequate for the renewal period.

The exception that's in the rule, the unique difference here, in terms of looking at this as a technical issue, you can come to one kind of common understanding. But this technical issue needs to be implemented within a process framework. We are issuing a new license and the rule requires that there be a demonstration that we've applied the rule, such that we can grant another 20 years. And so, we are making those decisions, what is required beyond 40, and it is a different -- a different license.

So, we have a process issue and a technical issue. And I think that's perhaps why we're having a hard time understanding and articulating what that difference is. Because, I think as Roy said, there's a lot more common ground here than uncommon ground.

CHAIRMAN DICUS: Okay. Let's move on.

MR. LEE: I just want to add when we review the existing programs, the 70 percent in the pie chart, we do identify additional inspections that's to be performed for license renewal in some areas.

Slide seven shows some examples of acceptable programs, based on the review of the initial applications. Environmental qualification, you have this earlier from NEI. This is an example that have live issues. It's not extensive interaction with the applicants on how the 5049, you can program manage aging effects. And in the end, it's not concluded this is an acceptable program before modification.

However, there are existing programs that require modification. As NEI indicated earlier, this covers a big spectrum. It's not simply enhancing administrative controls. The more technical, I have some in here, like the in service inspection program. In some areas, it does not address aging of certain components. I give an example of this piping. The next example is the surveillance program, and that is based on a 40-year program now and need to be modified after 60 years. And there's an example of a new program, which is the management of corrosion of piping.

And I guess the industry concern is what's the standard for deciding what program needs to be modified and new programs. I would say this is a management discipline issue.

MR. GRIMES: At this point in the examples, I would like to point out that this gets into the area where we talk about management discipline. We originally approached EQ, in order to determine how it managed aging effects. It wasn't clear what we would do with the findings. It could have gone

either way. We might have gone back and said, well, you don't need to change the EQ rule. And both applicants describe our exploration in EQ as scary. When I went -- took the issue about, well, how does the Federal Energy Regulatory Commission manage aging effects for dams, that was scary for us. I was -- it wasn't quite sure what we would do, if we concluded that FERC did not have an adequate aging management program for dams. So, to a certain extent, there's this natural fear of the unknown. But, as Frank mentioned before, there are processes by which we take the results that we come up with and then we have to make decisions about should we change the existing rules, should we back the requirements, and what's the appropriate standard for aging management.

Those areas where the applicants propose modifications to these existing programs presents a challenge to us, in terms of how are we going to decide whether that's good enough. And to that extent, we intend on capturing that experience and putting it in a standard review plan. Stan?

MR. LEE: As we have seen, a lot of this -- most of these license renewal programs are existing programs. So, we believe we can improve efficiency of the license renewal process, by crediting existing programs. So, we agree with NEI on that. And the SECY paper describes certain options and Chris Grimes will talk about these options.

MR. GRIMES: Based on the -- you know, this question about, well, what should be the appropriate scope and depth to be. We developed three options on where the Commission should specifically address this policy issue. We respectfully disagree with NEI's assertion that a selective review of the existing programs could be conducted under the existing review, which is why option one does not represent NEI's view. But, we do believe that a variation on that could be that we could codify the concept and revise Part 54, in order to explicitly provide that an applicant can come in and declare an existing program and we take that and then verify that under the existing license process, and limit the scope of this test with use for the purpose of license renewal through their -- those things that are modified now.

The staff does not favor this approach, because you're bound, that at least with the first two applicants, that 30 to 40 percent of the existing programs warranted some change and are questions to cover all three areas. So, we end up with a question about trying to verify -- the adequacy of aging management is not going to be mixed between Part 54 and Part 50.

Slide nine, please.

MR. ZIMMERMAN: Before you go on, Chris, I think the other point that needs to be made is the reason why we don't want to go that route has to do with safety. As been mentioned, there's only a couple of plants that have been done. We don't have enough experience yet to move away from reviewing existing programs to get that knowledge, to be able to apply the track record over a period of time, in the case that that may be appropriate. Down the road, we may be able to do more. But, right now, to maintain safety, it doesn't appear that that's the step that we want to go.

MR. MIRAGLIA: And what Roy has just articulated, Commissioner McGaffigan, is that the staff's position was articulated in the SOC, the revised rules, it's just that we'd like more experience before we take that step, and we've looked at our experience and then reexamine them.

MR. GRIMES: Slide nine. Option two is a variation of option one; basically, that option two would grab the obvious existing programs, like EQ, that are well established and fairly common, and articulate those in the rule and say that those are outside the scope, which is what we think the sense of the characterization and the NUREG-1412, in terms of how far the Commission intended to go in the 1995 amendment. In light of this approach, programs that might need to be augmented to affectively manage aging effects would be reviewed, but there would still be a situation where there are differences between the current licensing basis and the programs for the renewal period of extended operation.

Slide 10. Option three is -- basically represents a continuation of the review practice years for the first two applications. It, also, represents an expansion of the scope of the improvements to the standard review plan and an expansion of public involvement, including whatever comments UCS would like to make on the scope and the review, as part of a more elaborate update to the standard review plan. The staff agrees with NEI that there should be a graduated review for existing programs, and this approach provides for a structured and systematic way to achieve that outcome.

Slide 11, please. During the development of the 1995 amendment to the license renewal rule, the staff worked with the industry to develop the generic aging lessons learned, or the GALL report, which catalogued applicable aging effects for specific structures and components. In this -- in the proposed option three, the staff would expand the catalogue to include aging management attributes for particular existing programs and include that information in the standard review plan, basically to provide a template for all of the existing programs, to identify what areas are commonly recognized and which areas are possible areas for modifications or changes.

We had intended an approach like this, when we sent our office letter 805 that explains the feedback process for developing changes to the SRP. Safety would be maintained in this approach, as well as the desire, stability, and predictability, by focusing on those programs that might warrant changes to effectively manage aging effects and identify those areas in the standard review plans of the staff review. We would expect NEI to make corresponding changes to the industry guide, NEI-95-10, on the license renewal application content, so that applicants would include both the necessary, but only sufficient detail of program descriptions in their renewal applications.

Slide 12, please. Option three would achieve a graduated approach that NEI and the NRC staff consider too important -- consider important, to optimizing the effort needed for a license renewal review, while still achieving a critical review effort and appropriate focus of the staff's efforts. In addition, the catalogue of program attributes that this effort would produce will identify areas where further generic efforts might be helpful to develop more standardized approaches for aging management, including areas where further research might be useful to develop improvement processes.

Slide 13, please. I guess you're not surprised that we're going to recommend that you approve option three. The staff recommends that you recognize that you could change Part 54, in a different review, but we believe that the Commission in 1995 shows the right scope of review and that is to focus on aging management for passive long-lived system structures and components. We want to emphasize that the purpose of a license renewal review is not

to challenge the adequacy of the CLB, the existing programs, or the existing regulatory process. We agree that NUREG-1412 established that principle and that that carries forward.

The industry is fundamentally concerned about the justification for any requirements and the enlargement of the renewal review and documentation requirements, the expansion from three volumes to 20 volumes, like what happened with the FSARs. We believe this is a management issue that can and should be controlled by appropriate review guidance; that is, adding more detail to the standard review plan, and NRC discipline, and that is basically holding managers accountable to doing the right job.

Although the review process is working well for the first two applicants, we, also, need more experience. As Roy mentioned before, we assume two PWRs, but we expect that we're going to also need to incorporate some BWR lessons and the other PWR design into the standard review plan. Inasmuch as this fundamental question about the purpose of the renewal review has endured since 1995, it's unrealistic to expect that the standard review plan can be brought to the final condition before more lessons are learned and more improvements can be developed from the process. That was the last we had to develop important lessons that we can incorporate and will incorporate into the standard review plan, as soon as they finish addressing this issue about credit for existing programs.

The staff tends to routinely reflect on the effectiveness and the outcomes of the program, to determine whether further process improvements and changes are warranted. And we will also expect that in the future, when we come back and recommend a rule change, we'll have sufficient experience to justify it. That concludes our presentation.

MR. MIRAGLIA: It might be -- I might ask Chris to address the issue that was raised, in terms of the transparency of this SRP process. We have gone out to comment on documents and receive comments, and that certainly would be done here. And maybe Chris can amplify to that.

The other -- there's been lots of discussion of 1412, and 1412 did provide technical foundations with principles of the license renewal. And the 1412 established the robustness of our process, in terms of learning lessons. Madam Chairman, you indicated it's a dynamic process. And in 1412, it says, if information is received, in terms of research, in terms of operating experience, a process is one in which we can enclose additional requirements following -- following the renewal process. So, that's part of the robustness of the process. So, it's not a stagnant process. But, current licensing basis, if you don't take it as is and forever, that the process does have opportunities to change, if you apply the processes in like manner.

Maybe Chris, you can talk a little bit more about the -- how we would interact, in terms of making changes to the SRP.

MR. GRIMES: We've only had a little -- we've had less experience with feeding back lessons learned to the SRP than we have with the first two applicants, and I think it's important to recognize. We've just started going to keep those milestones -- keep up the milestones for the first two applicants. But, we have sent NEI proposed positions to address our changes. For nine of the issues, we've finished one with a complete cycle, and that was an issue related to human effects on aging managements.

But, we have developed some positions on others. For example, we took the position that credited FERC as an aging management program for the control of dams. And we would expect that -- we would get NEI responses to those issues, and I will intend on enlarging that to include a broader interested public to comment on the proposed changes for the SRP and get feedback on how well we've articulated what the appropriate scope and depth of the staff reviewers and then start folding those into a formal update of the SRP. We had envisioned that we would start something in the fall, when we have completion of the first three applicants, and I still think that that's a reasonable time frame.

MR. GRIMES: That completes the staff presentation, Madam Chairman.

CHAIRMAN DICUS: Okay, thank you. I want to address one of the -- go back to the management issue that Mr. Merrifield brought up. You described -- you know, obviously, we're all probably going to be talking about regulatory creep. This is something we're very concerned about. We've made statements -- this Commission has made statements that we think, as we continue the process with additional renewals, we should be able to shorten the time necessary, without any negative impact on safety, obviously. And we should be able to make the process even more efficient and effective and so forth. And we're hearing a great deal of concern from the industry that they may be going -- the potential, at least, of going in the opposite direction. You've defined the management process that the staff has, the feedback, how you're trying to address this issue of creep, and that you are in conversation with the licensees on this issue.

I guess my question goes to whether -- whether you've identified ways to improve, from staff's perspective, your management of this issue. I note from the Commission's point of view, we're clearly very interested in it. We're clearly watching it very closely. Five years from now, will there be a Commission that will do the same thing. So what do we need to consider putting in place now to address this issue?

MR. ZIMMERMAN: I think there's a number of things. Chris mentioned the internal structure within NRR, and the office letter, and the management expectations there. And then what gets to the Steering Committee, in terms of the issues, I don't know if one can say how many will be resolved at the staff level and within the Office of NRR and what came to the license renewal, but I know there's lots of dialogue that doesn't come to the committee and then very little comes to the -- comes to the EC, other than this issue certainly bubbled up. And that's the process; it's a layered process, and perhaps Roy can talk about some specifics that came to the Steering Committee.

MR. MIRAGLIA: The way I look at it is it's more of a potential, than something that actually has occurred. I think the issue that was raised by the first panel, with regard to the small bore piping, I think that we have a slightly different view on that, in terms of what may come for existing licensees in that area. So, we don't put that in the category of creep. And I'm not aware of any other issues. And the dialogues we've had in the Steering Committee have been along the lines of potential. Both the Oconee and the Calvert licensees are satisfied with the initial plant reviews in progress. There may be some aspects where there are certain RAIs that they may request additional information, that were not necessary.

And one of the things that we've put in place is that after we complete the applications for those facilities, to do a lessons learned. And I think that's going to help, as one of the aspects, to try to make sure that we stay a learning organization. So that's a formal process that we intend on going through with those applicants.

MR. MIRAGLIA: In terms of the review process, as well, Madam Chairman, realize early on, in terms of generating the request for additional information, a clear understanding of the issues and questions. Some issues were looked at and did come through management and some actually came -- well, I don't know if any came to the committee. The committee received reports on that process, I guess, so there's a discipline imposed with the review process with respect to the RAIs. They try to focus on issues of potential concern.

MR. GRIMES: Mr. Tuckman and Mr. Doroshuk both mentioned examples of where they felt that their staff, you know, have been probing an area where we didn't need to be probing. EQ was the large example. That issue went to the Steering Committee on three separate occasions, just trying to frame this problem. But, there are other areas, where we essentially put into place the same procedural controls that we've established for RAIs on license amendment applications. That basically is to ensure that the staff is staying focused on the purpose and make sure that managers are checking to make sure that the questions are going to serve some purpose.

CHAIRMAN DICUS: It's just that we do not want this potential to become an unnecessary reality. We're running short on term, so we'll give it to Commissioner Diaz.

COMMISSIONER DIAZ: Okay. The GALL report, can you tell me a little bit about how complete or thorough is it going to be and when you expect to finish it.

MR. GRIMES: Sam, do you want to comment about how much territory it covers?

MR. LEE: Actually, the GALL report, we intend for it to cover the whole part, if you remember the pie chart, and it will cover PWRs, BWRs. And they go from -- you identify the components, you identify aging effects associated with the components, and identify any programs -- existing programs otherwise managing the aging effects. And then, the you weight the elements of the programs, see if they actually affect -- manages that aging effect. And then the purpose is to try to identify that program, in the 70 percent, if it's adequate for modifications or if it's in 30 percent, where some modifications is needed. And then the extent of the group, capture and focus on the 30 percent, and establish that that process is not easy. We had two contractors working on that -- working on the core effort, and we got the first bid and we dropped the contractors. And the staff hasn't provided another contractor.

COMMISSIONER DIAZ: Will you think that that report finally will have some bearing in one of the further process efficiencies that need to be achieved? Will it be something that it's -- be needed to refine the process?

MR. GRIMES: I would expect that it would -- that its value to the process improvement would be evident, as we're trying to find a way to fit it into the standard review plan, and at the same time, dialogue with NEI and the interested public, in terms of how it might fit into improving the guidance for standard -- for a standard renewal application content.

MR. MIRAGLIA: It would improve the regulatory guidance, as to what needs to be in an application, and then also establish the basis for acceptance criteria for the specific issues. And, again, that would provide focus, as to what the acceptance criteria and what the standard for renewal and support of those issues.

COMMISSIONER DIAZ: Okay. In this issue of further process efficiencies, I hope the staff will keep that issue very clearly and above board, because it will send chills both to the industry and Mr. Lochbaum, having different matters, one upside down, one upside up. MR. GRIMES: Mr. French has routine offered him an opportunity to both defend enough or less. So, it's a very delicate balance.

MR. MIRAGLIA: It's a top agency priority. I think the staff recognizes it and the management recognizes it.

COMMISSIONER DIAZ: And just a final comment, I think the -- you know, the issue of stability, of course, is an issue that we are all concerned with. I think, you know, proceeding stability is the issue of predictability. So, people can be engaged and then, you know, closure, and those two things would be very important to the stability of the rule. Thank you, Madam Chairman.

CHAIRMAN DICUS: Commissioner McGaffigan.

COMMISSIONER MCGAFFIGAN: Let me try to go through a few questions fairly promptly. Let's go back to this GALL report. When will it be available for public viewing -- NEI and interested public?

MR. GRIMES: Probably in a couple of months, because we still have to -- we have to get the experienced staff away from these first two applicants, long enough to sit down and reflect on the GALL report. And then, we would want to go out for public comment or perhaps even a workshop.

COMMISSIONER MCGAFFIGAN: Why are labs working on it? I mean, I would think that the experience on this, unless these are labs that are helping you with the review process, would not be -- would be with the people, who are actually doing the review.

MR. GRIMES: These are labs, who have experience in the aging effects that contributed to the original effort. We originally lined them up as a resource to tap, to support the license renewal reviews. And early last year -- the middle of last year, I decided to shift the labs to working on lessons learned activities, so that our technical staff could concentrate on doing the production work.

COMMISSIONER MCGAFFIGAN: And does the GALL report intended to resolve claims? I mean, is that two data points, as was pointed out earlier, and you pointed out? So, is it just a template on which we will resolve these 109 generic issues that are currently out there or -- and you will have a lot of open items in it that will get resolved over a period of years? Or is it something that's meant to bring closure rapidly, so that you get a uniform application and NEI amends its document and you start to get uniform applications within two or three years? What is the goal?

MR. GRIMES: It's more the latter. We know that there's a lot of common ground out there and that this -- this issue was stimulated primarily by the -- you know, there's -- I think Sam mentioned this to me a number of like five percent, you know, where there's a -- where we tend to cross over the line -- the comfort line. And so, this is suppose to bring closure to as many areas, like EQ. We've poked with that enough to know what's the standard that we're working to, what's our expectation, and the applicants ought to be able to produce less information about how they do EQ than the first two applicants.

MR. MIRAGLIA: And we dialogue -- correct me if I'm wrong, we dialogue with the industry, in saying what are their issues that they've identified and what are their priorities for resolution. And so, we prioritize, they prioritize, and keep the common understanding that these are the issues that have the biggest impact and we focus on them first. And that's part of the process that we're using. So, the issue is, Commissioner McGaffigan, we hope to move on the big issues and get some of those out of the way and get to the points that you indicate, and so we get a predictable --

COMMISSIONER MCGAFFIGAN: I'm going to try to get back to transparency then, that the -- there are have been several attempts at transparency in recent years and Roy convened a meeting last Friday that talked about public communication and transparency and making sure everybody sees things at the same time. And Mr. Lockbaum talked about the 2206 process, as opposed to the oversight process, as two different experiences he's had. Is the intent that this be more like the oversight process that we're really going to seek to involve and make sure that the interested public does see these documents as soon as the industry does? Chris mentioned earlier these nine issues had been sent -- letters have been sent to NEI. Are those all on the PDR?

MR. GRIMES: All in the PDR.

COMMISSIONER MCGAFFIGAN: Has the public attended any of the meetings -- these Steering Committee meetings with the executive committee? Are those now routinely attended by the public, or at least somewhat --

MR. ZIMMERMAN: They are attended by the public. We want to do exactly what you're suggesting, in terms of making the process as transparent as we can, to get the meetings notices early, as we can. We have meetings at the site, to talk about the individual issues. It's important that we travel there, rather than have all of the meetings here. And we want to continue to make sure that it requires the standard review plan and we work through the GALL report, that there is good transparency at the various steps, and what different documents be expected to be available to the public.

COMMISSIONER MCGAFFIGAN: And the comments of the public and industry will both be -- there won't be just received, they'll be comments as to whether you took them or didn't take them. I mean, it just strikes me there's a good process that you can go through here that will build some public confidences. As Mr. Lockbaum said, he might not agree with us; as Mr. Pietrangelo and others would say, they probably won't agree with us either. But, if it's transparent, if it's out in the open, if everybody gets to see how this GALL report is developed, at least no one will know -- there won't be any back room deals or anything. It will all be out there. And that's the --

MR. MIRAGLIA: The intent would be to issue that, issue it for public comment, receive the public comments, analyze it -- the public comments, as we would do in the normal type of process.

COMMISSIONER MCGAFFIGAN: Thank you.

CHAIRMAN DICUS: thank you. Commissioner Merrifield?

COMMISSIONER MERRIFIELD: Well, first of all, I want to make a comment. I appreciate the line of questioning that Commissioner McGaffigan has made. I think it's important to have a full public participation, in both the GALL report, as well as the Steering Committee. I hope that the staff will work hard on that issue.

Two questions, the first one relates to attachment two of SECY-99-148. That is a list of examples where existing programs should be augmented. And my question is: I'm wondering how you intend to provide discipline to the process of determining which programs should be augmented and how have you factored in an ability for disagreement, whether it be by a licensee or by stakeholders in your determination here?

MR. GRIMES: The simple answer to that question is that the monthly management meetings provide the forum by which we dialogue with the applicant and we try to find out where -- as Mr. Lockbaum mentioned, we would expect that if the applicant feels like we're ratcheting into the resolution of an issue, that that should be brought to the monthly management meeting, so that we can escalate it, so we can decide whether or not we're doing the right thing.

COMMISSIONER MERRIFIELD: Have you found any hesitation on the part of the licensees to raise issues in that meeting and challenge the agency for things that were requested? Is there any reticence there?

MR. GRIMES: Mr. Tuckman describes an expediency that tends to drive the resolution of issues, which leaves -- which leaves me with the sense that although we feel liked we're challenged at these monthly management meetings, perhaps they're holding something back, and we will intend on exploring that at the next monthly management meeting.

MR. MIRAGLIA: Well, there's another -- there's another avenue to that, and that avenue is being explored and an evidence of that avenue being

explored. That's why we're here today. In terms of Baltimore Gas & Electric and Duke Power, they have a vested interest in moving the process. And as Chris indicated, there's an expediency. We are also working in the license renewal steering committee and the staff meetings with the NEI working task group, and that was made very clear to us by the industry that if agreements are reached on either, it doesn't necessarily -- might not necessarily constitute resolution for industry, and that they wanted to have a role in playing in that kind of arena. So, recognizing there may be some expediences there, the industry is looking at it in a more global sense. And I think they made that clear, when we established the task force. And that's another point, when we have the meetings, we meet not only with the two applicants, but also with the NEI. Now, it turns out that Mr. Tuckman is also the chair of the industry group, and that's what he alluded to.

COMMISSIONER MERRIFIELD: Have you seen any reticence on the part of the NEI, on issues that they believe are important?

MR. MIRAGLIA: I would say not.

MR. ZIMMERMAN: No. I've not detected any hesitation on the part of the NEI or the representatives that come from the applicants. The frustration that I think that's occurred on this particular topic is just the fact that there's a lot of -- there's quite a lot of energy going into it, to try to get the other party to understand the view, and we've struggled with that. But, there's been no hesitancy to engage the issues.

COMMISSIONER MERRIFIELD: That is certainly -- I would hope we wouldn't have an atmosphere where it would have any kind of chilling effect. The last issue, I'll give you an opportunity, there were a number of recommendations raised by both Mr. Lochbaum, as well as NEI, and a number of comments. Were there any other issues that we haven't asked about that you would like to touch on?

MR. MIRAGLIA: Well one issue, that the small bore piping is one that was raised. In terms of -- I think in the staff paper we sent the Commission, that said that why aren't we looking at the existing Part 50, and that's an issue the staff is physically looking at, do we need to do something within the context of that. So, those questions are being asked, as well. And I think we've hit the four cornerstones and the four performance goals, that we're measuring all our programs, maintaining safety and reducing unnecessary burden, effectiveness and efficiency, and increasing the public confidence. And those four cornerstones are paramount to us, in everything we do, and very high priority, within the context of the license renewal program.

COMMISSIONER MERRIFIELD: Thank you.

CHAIRMAN DICUS: Commissioner McGaffigan, you will be able to ask two more questions. And I'm sure they're short. I'm sure they can be very short answer.

COMMISSIONER MCGAFFIGAN: The standard earlier, the question of what the standard should be, if you look at the CLB program that's effectiveness for aging management, decide EQ -- you decided that it hadn't been, what is the standard for deciding that it hasn't been? Mr. Lee, when he talks, gives us -- you know, look at whether it warrants -- part 40 -- before the 40 years, that would be 51.09, that would be a substantial increase. But what is the standard in Part 54, if you let the CLB program and decide there needs to be a modification? Is this an exception?

MR. GRIMES: The standard in 54.21 is to demonstrable effectiveness of managing the aging effect. And we have -- we've applied that standard, is it demonstrably effective, either through operating experience or routine inspection. And I think that those are your two features that the advisory committee on the active safeguards also pointed to as basically the telling feature. As operating experience indicated, it has been a problem or it hasn't -- is there an inspection activity that will reveal that the problem is going to have an impact on intended function. And so those are the basic features that we look for. There are 10 elements describing the standard review for an effective aging management program and GALL is going to attempt to expand the catalogue to identify those 10 elements for all programs.

CHAIRMAN DICUS: I think Mr. Tuckman wanted to make a comment, in response to this discussion.

MR. TUCKMAN: Madam Chairman, I just wanted to respond to your question, was the industry reluctant to bring up issues at the executive steering committee meetings, and that categorically, we're not. They are public meetings. The staff has entertained questions and there's actually no reluctance.

COMMISSIONER MERRIFIELD: I hope you continue to raise these issues with vigor. I make the same plea to Mr. Lochbaum, as well.

CHAIRMAN DICUS: Okay, well, I would like to thank NEI, UCS, and of course the staff for this rather frank, I think, and though provoking discussion of the issues that we've heard about today, but clearly very significant to the future applicants for license renewal. I have to reemphasize the need for predictability. Certainly, we are very interested in the transparency of the process and clearly meaningful, as efficiently and effectively as we can, but without any negative impact on safety.

I would like reinforce my appreciation for the progress made today in the first applications for license renewal and encourage all the parties to continue this rather worthwhile interaction. And I think that's the long way toward the resolution of the issues that we have before us. So, unless my colleagues have any other questions -- MR. WALTERS: I have a comment. I would like to thank Chairman Dicus, especially my lower back, for conducting a two-hour meeting in almost two hours.

[Laughter.]

CHAIRMAN DICUS: We're working in that direction.

Therefore, this meeting is now adjourned.

[Whereupon, at 11:45 a.m., the briefing was concluded.]