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UNITED STATES OF AMERICA
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COMMISSIONERS BRIEFING ON LICENSE RENEWAL PROGRAM

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THURSDAY, JUNE 14, 2001

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ROCKVILLE, MARYLAND

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The Commissioners met in the Commission Hearing Room, at One White Flint, Rockville, Maryland, at 1:30 p.m., Richard A. Meserve, Chairman, presiding.

PRESENT:

RICHARD A. MESERVE, Chairman
GRETA J. DICUS, Commissioner
EDWARD McGAFFIGAN, JR., Commissioner
JEFFREY S. MERRIFIELD, Commissioner
KAREN D. CYR, General Counsel
ANDY BATES, Acting Secretary
CHRIS GRIMES, Chief, License Renewal &
Standardization Branch, NRR
JON JOHNSON, Deputy Director, NRR

PRESENT: (cont'd)

WILLIAM KANE, Deputy Executive Director
of Operations
SAM LEE, Senior Materials Engineer, NRR
DAVID SOLORIO, Safety Project Manager,
NRR
MICHAEL TUCKMAN, Executive Vice President,
Nuclear Generation, Duke Power Company

C-O-N-T-E-N-T-S

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

(1:32 p.m.)

CHAIRMAN MESERVE: This afternoon's briefing deals with the license renewal program. And I think as everyone in the room is aware this is a very, very significant program. We received our first application in 1998, I believe, for Calvert Cliffs.

We since then have processed now two of them. With ANO Unit I, I think it's imminent that having gotten through the Commission with just now the license -- the formality of the license to be issued. A large number of other applications are now pending.

We are aware that there are more coming. In fact, people in the industry inform us that we ought to expect that virtually all of the entire fleet of 103 nuclear powerplants will eventually apply applications, submit applications for license renewal.

This is an enormously important activity for the NRC and for our licensees. In that connection, the staff has been developing generic guidance

documents of various kinds in order to facilitate the relicensing process and to enable efficiencies. We've done remarkably well so far, and I think all of us join in complimenting the staff for their capacity to live well within the deadlines that we have set.

We hope that we'll be able to continue on that course. And one of the ways in which we believe that may be facilitated is through these guidance documents.

So we have a briefing this afternoon in which we're going to hear first from the staff. Let me turn to my colleagues and see if they have any opening comments.

COMMISSIONER MERRIFIELD: Yes. Mr. Chairman, I would say I'd like to join you in your comments about the staff. I think the most difficult thing that we have as Commissioners right now, when we have meetings on license renewal, is trying to figure out new adjectives to use for our pleasure, which the staff has proceeded in this regard.

It has been an exceedingly good effort in every single way, one that has brought a lot of distinction to the Commission, and certainly a lot of plaudits from the folks up in Congress who ultimately give us our money.

So I would -- I did want to add my congratulations, and an excellent job, and hopefully even further improvements can be gained down the road. And I think we are very impressed in that respect.

COMMISSIONER MCGAFFIGAN: Mr. Chairman, I might just add, I think as of this moment we have six applications for 12 units, assuming Arkansas Nuclear I is behind us -- before us. Is that right? Didn't we receive the Catawba McGuire today?

CHAIRMAN MESERVE: Yes.

COMMISSIONER MERRIFIELD: So we've got 12 units on the deck, and I think sometime in the not-too-distant future we may have up to 20 units simultaneously, or more simultaneously under review. So we've got to compliment them, but they've got to -- the hard part is dealing with the bow wave that's about to hit them.

CHAIRMAN MESERVE: Why don't we get underway? Dr. Kane?

MR. KANE: Thank you, Mr. Chairman, and Commissioners.

Appreciate those remarks. I'll cover part of the same ground here that you have.

We do believe that the license renewal program has achieved some really important accomplishments to date. The renewed licenses for Calvert Cliffs and Oconee, as you noted, were issued in 2000. Next week we expect to issue the renewed license for the ANO I.

The reviews for Hatch and Turkey Point continue to meet the established milestones. We received an application for Surry and North Anna units on May 29th of this year. And as you noted, we received an application from Duke Energy for their Catawba and McGuire plants today.

On April 26th of this year, the staff submitted SECY-01-0074 to the Commission, which presented improved guidance for the implementation of the license renewal program for Commission approval. Improved guidance was developed from NRC research and operational experience on aging, as well as from experience gained during the initial license renewal reviews.

The improved renewal guidance consists of a generic aging lessons learned report, a standard review plan for license renewal, and a regulatory guide. The Commission separately requested annual briefings on the status of the license renewal program. The briefing today will cover the status of the license renewal program, including highlights of the program accomplishments, our planning to accommodate the future renewal workload.

Jon Johnson, Deputy Director of NRR, is going to describe the purpose of the briefing in more detail and introduce the staff speakers. Jon?

MR. JOHNSON: Thank you, Bill.

Chairman, Commissioners, good afternoon. We're here to discuss aspects of the license renewal program, and the briefing is really twofold; first, to provide a status report on license renewal, the schedule and resource planning, and, secondly, to discuss the improved guidance documents.

We'd like to provide the basis for our request that the Commission approved publishing these guidance documents as we requested in our memo of April 26th. As part of background, in 1999, the Commission directed the staff to focus its review where existing programs should be augmented and also to provide credit for existing programs. We believe we've done that, and we'll explain how.

I'd like to make several points. The effort here has been a team effort. It has involved NRR, Research, OGC, as well as the regions. These documents, these generic documents, we believe are living documents. We do intend to keep them updated as we learn lessons.

We've prepared and initiated a demonstration project with the industry to actually test to see how we could use these documents. And also, the last point I'd like to make is that, as Commissioner McGaffigan indicated, we have a number of license renewal applications that we've just received. We have the most that we have ever received.

And in order to meet the efficiencies that we've assumed, our staff has been meeting with industry to coordinate the milestone schedule. We still are sticking to the Commission policy with 30 months and 25 months, 25 months without a hearing.

But within that constraint we feel that in order to become more efficient and effective that we have to adjust the milestones within that schedule, because we have so many that we'll be dealing with at one time.

If there are no questions, I'd like to turn it over to Mr. Chris Grimes. He's the Chief of the License Renewal and Standardization Branch. We have to get a new title for him, because we have -- in light of the future licensing applications and interest, we have split, as you know, the future licensing organization away from Chris to allow him to focus on license renewal.

Chris?

MR. GRIMES: Thank you, Jon.

If I could have slide 3, please.

It's my great pleasure to introduce the staff's presentation this afternoon by providing an overview of the program and reflecting a little bit about how we got where we are today and where we're going for the future.

Back in 1998, as Chairman Meserve noted, we received the license renewal applications for Calvert Cliffs and Oconee, and we set off on an

adventure to take Part 54 and Part 51 and implement process and procedures to achieve an aggressive but realistic review schedule for those first two applications.

We developed specific procedures in Office Letter 805 to establish the conduct of the review process, to assign roles and responsibilities to explain how the license renewal process would work. But those procedures were drawn largely from the processes that were used for original licensing, which now seems like it was an eon ago, because we discovered in implementing those procedures that this is a new world, this is a new working environment, but the procedures provided us with an effective framework.

When we presented the proposal to the Commission in 1999, developed Generic Aging Lessons Learned, even at that point our original procedures had provided a system for collecting lessons learned, for gathering the experience, and for adjusting the process as we went along to continually improve it as we were achieving the milestones and working towards our preparations that would position us for the future license renewal reviews.

We also had Office Letter 906, which established the review process for the environmental reviews, and it was largely more tested than Office Letter 805 was, but it also had the challenge of implementing the changes to Part 51 that accounted for a generic environmental impact statement for license renewal.

In addition, we created a brand-new inspection program and Inspection Manual Chapter 2516 to establish an appropriate scope of inspection that would verify important aspects of a license renewal application and the staff's safety evaluation report.

And with the cooperation of the regions, we successfully implemented that with an inspection -- specific inspection procedure for that manual chapter.

As part of the process, we also had the benefit of some basic process steps. We have weekly staff meetings where the license renewal team gathers and shares the status of the projects, the lessons learned, and reflections on how the process can be more efficiently implemented. And as a result of that ongoing dialogue, we have established style guides that provide aids to the staff in the conduct of the license renewal reviews and an adjunct to the standard review plan.

In addition, we have had the support of the bimonthly management meetings, and the interaction between the license renewal steering committee that was established by the staff, and the former support of the Executive Council who set out management oversight expectations and support for the program.

In addition, we've provided a system of reporting and monitoring that is now being developed in ways that we can improve overall processes, not just license renewal, but ways to more effectively monitor programs throughout the reactor licensing.

Finally, I want to mention that we've taken to heart the desire to offer ample opportunities for public involvement. During the development of the Generic Aging Lessons Learned Report and the standard review plan, we held two public workshops. We engaged public interest groups, industry representatives, codes and standards in the research community, in order to provide the broadest possible input to the development of the improved guidance.

We also set out to develop a communication plan to make sure that we were taking advantage of the best-available experience in terms of communicating with all of our stakeholders. Throughout my description of the program, I've referred to what we have done.

And when I say "we," I mean more than just the staff at the NRC who work full-time on license renewal -- the majority of the NRR staff who contributed in a variety of ways to the staff's review; the regions, who have supported us through their inspection activities and the development of the inspection program; the Office of Research, who have brought their aging management expertise and talent and a background from the national -- from the aging research program.

NMSS has even shared experience with us because they are developing license renewal for cast designs. The General Counsel's office, who supported us in the renewal review process, even the Commission, who have supported the program, but also the applicants, the industry, and their aging expertise, the international community who have shared technologies with us, and, finally, the public interest groups who have shared with us their views, their information concerning what they felt were important aging issues, and offered us suggestions on how we can communicate more clearly to our public stakeholders. Do all of those people deserve recognition for what they have contributed to this program.

And with that, I'd like to turn the presentation over first to Dave Solorio, who is a Senior Reactor Systems Engineer in the License Renewal Branch. And he's going to provide an overview of the status and how we're positioned now to take advantage of the process improvements for the future workload. And then Sam Lee is going to describe how we developed the improved renewal guidance and the basis upon which we bring it to you for approval.

Dave?

MR. SOLORIO: Good afternoon, Commissioners.

Since this is the first annual briefing, I'm going to quickly summarize a few of the past program accomplishments and quickly move to more recent accomplishments and future activities.

The first two renewal applications completed, as you've heard, were Calvert Cliffs and Oconee. Calvert was completed on March 23, 2000, and Oconee on May 23, 2000.

The staff's review of the Arkansas application, which was received in February 2000, was completed ahead of schedule. Last month we provided the Commission our recommendation regarding renewal. As a result, we're looking at completing the review seven months ahead of schedule. The efficiencies with Arkansas's review can be attributed to similarities in design with Oconee and experience gained by the applicant and the staff from the Oconee review.

We would expect the GALL report to provide similar efficiencies to those observed with the Arkansas review, in that when applicants can refer to an aging management program that the staff has previously found acceptable

both the staff and the applicant can save resources.

Another success of the program this year has been the development of the improved license renewal guidance discussed in SECY-0174, and that will be covered in more detail following my remarks by Sam Lee.

Next slide, please.

The next slide provides an update on the current and future activities. Hatch was received in March 2000 and is progressing on schedule. All milestones have been met, and the review is on schedule to be completed by March 2002.

Turkey Point was received in September 2000 and is progressing on schedule. All milestones have been met, and the review is on schedule to be completed by March 23rd. Excuse me, March 2003.

On May 29th, we received the sixth and seventh license renewal applications for the North Anna and Surry power stations. The review is ongoing. Today we received, as has been mentioned, the seventh and eighth applications from Catawba and McGuire, operated by Duke Energy.

We expect to receive one more application this year, next month, from Peach Bottom. Project managers have been assigned.

Finally, I want to just mention the remaining bullets on the slide are meant to illustrate that over the next few years we expect to be kept very busy, and it's a prelude to my next slide where I'll discuss our review planning process.

On November 14, 2000, the staff issued a regulatory information summary that identified the importance of future applicants providing the NRC with advance notice of their plans. Specifically, the regulatory information summary requested future applicants to provide the NRC with their intention to submit and provide an anticipated schedule as early as possible to improve the accuracy and forecasting of our resources and our budget planning.

Using schedule information from future applicants, and cost experience from previous reviews, and expected efficiencies of the use of GALL and the standard review plan, we have conformed our budgets for the next few years to provide sufficient resources to accommodate this workload. Also, to aid us with this high number of applications, we're enlisting the assistance of contractors.

Based on the experience with initial reviews, and because we expect more applications in-house than we've had in the past, we've developed an anticipated resource model to help us manage overlapping reviews. We have also solicited feedback on this model from applicants submitting this year to help with adjusting interim milestones, where practicable, to better balance our resource loading.

And, finally, we've established several measures for monitoring our performance, such as total application review time, environmental impact statement and safety evaluation report preparation time, review cost and quality of requests for additional information and safety evaluation report inputs.

Our expectation is by monitoring these measures we can continue to improve our program, ensure that our program continues to be effective, ensure our planning assumptions remain valid, and be able to make adjustments due to unforeseen events early enough to make necessary corrections.

And that concludes my remarks and our briefing on the status of the program. Now I'll turn this over to Sam Lee, who will speak on the improved renewal guidance.

MR. LEE: Thank you, Dave.

Can I have slide number 7, please?

During the review of the initial license review applications, the staff and industry found that many existing programs are adequate to manage aging license renewal. Thus, NEI raised a question on how to credit existing programs in a license renewal review.

The staff prepared SECY paper 99-148 providing options and a recommendation to the Commission to address NEI's question and to improve the license renewal process.

In an SRM, the Commission endorsed the staff's recommendation and directed the staff to prepare guidance documents to focus the staff review in areas where existing programs should be amended. The staff has completed the improved license renewal guidance document in accordance with the SRM.

We have submitted those documents for Commission approval in SECY-01-0074. We believe this guidance document provides a stable and predictable regulatory framework and improves the efficiency of the license renewal process.

Can I have the next slide, please?

This has been a significant agency team effort, as you have heard before. It involved the NRR staff, including staff members who are actually doing the -- conducting the license renewal application review, and it also includes the Office of Research staff, who has significant knowledge of aging studies.

Today we are here represented by Mike Mayfield and Jit Vora from Office of Research, and also the General Counsel, OGC, and experts from two national laboratories -- Argonne and Brookhaven.

We also benefitted from public interactions. Like you have heard before, we held the first public workshop back in December of 1999, and that was to get the stakeholders engaged early in the process, and then we also made early drafts of the documents properly available, and we issued a draft document for formal public comment in August of 2000.

And we followed that with a public workshop in September, and we also held a -- we also had a Commission meeting in December to discuss public comment, and we had many public meetings at NEI to discuss industry comments and technical issues, including comments they raised at a Commission briefing.

And the public also participated in the workshops, and they also provided written comments. And the Union of Concerned Scientists participated in the Commission briefings, and they also provided technical reports for staff to look at.

Can I have the next slide, please?

The improved license renewal guidance documents consist of the Generic Lessons Learned, the GALL report, like you've heard before. This is basically a catalog of aging management evaluations. It builds on previous extensive Office of Research aging studies. It reveals aging effects, identifies the aging management programs, and it evaluates the adequacy of the

programs to manage the aging effects.

If a program is found to be adequate, then the GALL report -- you indicate no further staff evaluation is needed for license renewal. Otherwise, you will indicate that the program should be amended for license renewal and it be part of the review.

The standard review plan provides guidance to the staff on how to review a license renewal application. It refers the GALL report as the technical basis to focus the staff review in areas where the existing programs should be augmented. And it also provides explicit instructions to the staff on the appropriate use of the GALL report in conducting the review.

We also have the Regulatory Guide for license renewal, which proposes to endorse NEI Document 95-10, Revision 3, that provides guidance to an applicant in preparing the license renewal application. NEI 95-10 also provides the standard format of a license renewal application and, thus, you standardize future applications.

The improved license renewal guidance is a consistent set of documents, and the staff is well positioned to meet the challenging workload, to review multiple applications, like what you have seen in the previous slides.

Can I have the next slide, please?

The staff prepared a report, NUREG-1739, that documents the staff evaluation of the public comments received on the draft documents. It includes the comments we received at a public workshop, and that was attended by over 100 people. And it also includes written comments submitted by about 130 commenters. That includes individuals, public interest groups, NEI, and industry, and it also addresses the five technical reports provided by the Union of Concerned Scientists and comments by ACRS and their consultants.

Together the staff evaluated over a thousand public comments, and the stakeholder involvement has resulted in improving the quality of the reports. And throughout this process we have been monitored by the NRC Steering Committee.

Can I have the next slide, please?

The staff is recommending Commission approval of the improved license renewal guidance document; that is, the GALL report, the SRP, and the Reg. Guide proposing to endorse NEI 95-10. For the future activities, in the SRM associated with 99-148, the Commission also directed the staff to provide a recommendation on whether the license renewal rules should be revised to address technical issues such as credit for existing programs.

We are in the process of developing the staff's recommendation. We are also evaluating a rulemaking petition submitted by the Union of Concerned Scientists proposing to add the rad waste system in the scope of license renewal.

At this time, based on the experience of reviewing license renewal applications, the staff has not identified a need to revise the rule in the near term. We are planning a public meeting at the end of the month to gather public comments, and we will provide our recommendation to the Commission by the end of August.

On the demonstration project, NEI is using the GALL report to demonstrate the preparation of future license renewal applications. NEI has submitted sample application sections for staff review. We plan on completing the demonstration project by the middle of October in order to support next year's applicants who are planning to use the new guidance documents.

Like Jon has said before, we perceive the improved license renewal guidance documents as living documents. After the documents are issued, the staff plans routine maintenance to refine them, to keep them updated, to capture lessons we learned from the demonstration project, and the review of future license renewal applications.

And, in addition, NEI has identified five technical topics for further staff dialogue, and then, by -- resulting in enhanced guidance in a future update. The update schedule would depend on the significance of changes that we will identify.

And this concludes the staff's formal presentation.

CHAIRMAN MESERVE: Good. Thank you very much. You covered a lot of territory.

Commissioner McGaffigan?

COMMISSIONER MCGAFFIGAN: Thank you, Mr. Chairman.

I'm going to go back to slide 5. My memory is fading, I think, now that I've been here 25 years, or been in government 25 years. But my recollection is that these numbers on this chart -- we've got three applications in 2000. We're leaving our Arkansas Nuclear I because we're already finished with it.

We have five this fiscal year, and we have five, then six, then five, then four. Our recollection is we had a lot lower numbers in projecting forward, say, a year ago. So we have been surprised on the up side, have we not?

MR. GRIMES: Actually, the total number over a longer timeframe has been relatively constant. We've seen schedules moving forward in most cases. But at one point I would say about a year ago, you may remember that we had a -- we were talking about filling slots to try and achieve -- to work up to a level of eight applications a year. And so it's not as demanding as some of the projections that we've had in the past.

COMMISSIONER MCGAFFIGAN: Most of his people have slid forward and sort of smoothed things out at the moment, but if some of those other folks slide forward you could be back up to eight in a peak year, depending on what happens.

Okay. The resources -- we did not budget to have five applications by June of this year when we were doing the FY2001 budget. Did we?

MR. GRIMES: I believe we did.

COMMISSIONER MCGAFFIGAN: We had --

MR. GRIMES: I believe that when we went back and reviewed the fiscal 2001 budget once the figures were approved that we accounted for these applications -- Dominion, Duke, and Peach Bottom.

COMMISSIONER MCGAFFIGAN: Arriving in the June timeframe and getting appropriate attention in June, July, August, presumably whatever you do the first three months of receiving an application.

MR. GRIMES: Yes. I remember specifically when --

COMMISSIONER MCGAFFIGAN: Because as I recall it, we were expecting these in September. And so you're saying, "We don't have to do much in fiscal 2001. They're just going to be here for a few days that year." Now they're here for three months.

MR. GRIMES: That's correct. I specifically remember when we formally changed the projection to account for the fact that Dominion had moved up almost a full quarter into fiscal 2001. And so my recollection is that the 2001 budget right now -- actually, the 2001 budget right now shows an underspending in license renewal applications because it assumes the resources are level.

We expect that we're going to pick up at the back end of the year and compensate for that, but I believe we have --

COMMISSIONER MCGAFFIGAN: So you have the resources you need.

MR. GRIMES: -- enough resources budgeted.

COMMISSIONER MCGAFFIGAN: Okay. You talked about adjusting milestones, or Mr. Johnson did. You know, we had this for the first few applicants. Was it 571 or 581 days for the stuff that was in your control? It was one of those numbers.

MR. GRIMES: 585 days.

COMMISSIONER MCGAFFIGAN: 585, okay. 585 days was what it -- when the SER and the EIS would come to fruition, including the ACRS -- I think for the later ones that included the ACRS review period. Or did it not?

MR. GRIMES: It did not.

COMMISSIONER MCGAFFIGAN: It did not. So the ACRS review period was another 30 to 60 days on the 585.

MR. GRIMES: That's correct.

COMMISSIONER MCGAFFIGAN: These adjustments that you're now talking about with the applicants, what are the typical periods that you're talking about for the stuff that's under your control?

MR. GRIMES: We're still maintaining the 585-day limit on the production of the safety -- final safety evaluation report and the final environmental impact statement. We're looking at the front end of the process more because of improvements in the handling of the application.

For example, we want to allow the staff to have more time to actually begin preparing a safety evaluation before we finalize the request for additional information. That provides a better quality of information request. It also provides for more effective communication.

Similarly, if we've got -- when we've got three applications competing with staff attention at the same time, if we move milestones around so that we don't have them competing with each other for attention in the designation of open items or in the conduct of inspections, those details of the schedules --

COMMISSIONER MCGAFFIGAN: And you're able to do all of that and still keep the 585 total?

MR. GRIMES: Yes, sir.

COMMISSIONER MCGAFFIGAN: Okay. I hope you're not using too many mirrors, but that's fine.

There is one item that came up recently that I had some concern about I'll raise, and that's that part of this scheduling these new applications -- I guess starting with Turkey Point -- you're -- the rule in Part 51 says that it will provide for a minimum of 45 days for the comment period on the draft environmental impact statement.

But for the first four applications we -- through Hatch we allowed for a 75-day public comment period, which is obviously above the minimum of 45. But the thought was that you all would want to go back to 45 days, starting with Turkey Point, on the grounds that this was helping effectiveness and efficiency.

If you're taking the full 585 to do this, and if the environmental impact statement, as I understand it, wasn't the long pole in the tent for Arkansas Nuclear I where we did it in even less time, why do we have to shorten the comment period?

MR. JOHNSON: Well, Commissioner, one of the things we need to understand is that the comment period is not the only period we rely on to get public comments.

COMMISSIONER MCGAFFIGAN: I know there's a scoping session early.

MR. JOHNSON: We --

COMMISSIONER MCGAFFIGAN: That's the first time the public sees a document produced by us.

MR. JOHNSON: Well, we start off early when we get an application and announce that we have the application, so that anybody who is interested can have that information. We put it on our website. We provide announcements in public newspapers about meetings. We have meetings on the scoping process. We have meetings during the comment period.

So we feel that it's the best thing for engaging the public is to engage them early and not wait for the end of the period where this federal notice period would take place. So --

COMMISSIONER MCGAFFIGAN: But the federal notice period usually you will -- the notice will read, "The draft environmental impact statement is now available, and you have 45 days to comment on it. During this period we will conduct public meetings in towns X and Y to discuss it." And the public is welcome to attend those meetings, which will be the subject of a separate Federal Register notice.

So that's what the notice reads. The first time the public has a chance that they -- they have a chance to come to the scoping meetings early on and say, "I'd like to have X, Y, or Z addressed in the EIS." But the first time they see whether you have chosen to address those points is when they see the staff -- what the staff has committed to paper. And 45 days is -- it's the minimum. I think it's the statutory minimum.

We have had -- you know, we've been using 75 here. When we did the PFS environmental impact statement I think we did 90, because that's what some of the other federal agencies who were co-writers typically used in their EIS process.

So what -- the question: what do you buy in terms of -- I'm giving up some public confidence here. What am I buying in terms of effectiveness and efficiency?

MR. JOHNSON: Well, first of all, we don't think we are giving

up public confidence. But what we do -- what we do believe is when we first started off we didn't know how long it would take, whether we would need 45 days or need to grant exceptions or extensions. And so we assumed the 75-day period.

But what we've learned after doing some of these applications is we really didn't need it, we didn't need the 75 days.

COMMISSIONER MCGAFFIGAN: All the comments came in within the first 45?

MR. JOHNSON: I don't know that exactly, but it --

MR. GRIMES: The comments normally come in right before the end of the comment period, and I --

COMMISSIONER MCGAFFIGAN: How do you know they didn't need the full 75, whoever submitted the comments?

MR. GRIMES: Because the measure of public confidence is not just the time that's available for them to comment. I want to emphasize the interested -- all of the interested parties, anyone who participated in the scoping meetings, actually sees the draft EIS earlier than the time that we notice, that we've started the comment period.

COMMISSIONER MCGAFFIGAN: Is that right?

MR. GRIMES: That's correct.

COMMISSIONER MCGAFFIGAN: So you make the draft EIS available --

MR. GRIMES: It's available a week or two before the notice goes out. And another point is -- that I want to emphasize in terms of process, we have this public meeting. We also engage the commenters more directly in order to understand what their concerns are and to make sure that we're being responsive.

And as Jon mentioned, what our experience has been is they don't need the whole 75 days. We don't need the whole 75 days. And particularly with the combined applications, the expertise that we're relying on is going to be trying to do two sites at the same time.

COMMISSIONER MCGAFFIGAN: Right.

MR. GRIMES: And so rather than have this extended public comment period, we felt that we would use a scheduling change along with more direct involvement with the interested public in order to make sure that we do not lose public confidence in the process.

COMMISSIONER MCGAFFIGAN: Well, the contractors -- it strikes me if -- I don't know whether -- say we have the North Anna, the Surry, the Duke and Catawba applications, you're going to have to schedule those some way. But if you have a 45- versus a 75-day comment period, you're going to be working on Surry in January rather than December, North Anna in February rather than January. Everything just slips 30 days. I don't see why the contractors, you know --

MR. JOHNSON: We can provide a lot of the details, but I think from a big picture standpoint there's a lot that has to be coordinated by the teams. We have several teams of contractors from several national laboratories.

COMMISSIONER MCGAFFIGAN: What if you get -- I mean, if you have a 75-day comment period, obviously, we're more reluctant to give extensions. But you said in the note to us that you'd be willing to give 15-day extensions and perhaps two of them, if necessary.

You know, your contractors then face the possibility one place they ended up with a true 45-day comment period, and another place they ended up with 75, because we had to give extensions. And they are suddenly working on the same application -- I mean, theoretically, everything has come together at the same time.

With the 75 days you may have more predictability as to when people are actually going to have to be working as opposed to 45 days with extensions. I won't belabor it. I just have concerns about the recommendation.

Last question I want to -- the ACRS made some recommendations to you, and you wrote back to them. One of the recommendations was that the staff should encourage applicants to include the results of the scoping process in their applications. The availability of these results will facilitate the review process significantly and make license renewal applications more understandable.

I won't read the whole response from the staff, but the staff more or less says in this response that we -- it isn't required by rule, but we agree that it -- you know, that this is useful. The staff believes future applicants understand the importance of voluntarily providing scoping information to improve the public credibility and efficiency of the review process.

That's sort of a promise they're going to do it without a rule. Nevertheless, the staff will continue to work with industry representatives to develop improvements to the guidance, and the staff will note this recommendation response to the Commission's request for the staff to evaluate the need for any renewal rule changes.

I think you've gotten four applications in the last week, and you haven't read them all yet. But have they all included the results of the scoping process, so we don't really need a rule because we're already getting it?

MR. GRIMES: Your first observation is the most germane, and that is we just got -- we haven't even had Dominion for a week. But I can tell you that as we've met with the industry and talked about standardizing the contents of the applications, and improving the presentations and material, the industry has agreed that there is a need to present the information in a context so that the public can understand the application.

And so when we talk about voluntarily providing information, we're really talking about presenting the results of the scoping, as the rule requires, in a context that makes it useful and meaningful information.

We're going to pursue this question a little further, because it -- we could resolve this issue by changing the rule requirements to be more explicit about information that's presented in the application. But our experience with the applications thus far suggests that the ACRS's interest in seeing more of the scoping information could be resolved simply by providing more style, guidance to the future applicants. This is one of the features that we can test during a demonstration project.

COMMISSIONER MCGAFFIGAN: My sense was that the ACRS -- that

this was, you know, based on their experience reviewing what you all were doing, and that they felt -- I mean, it was, you know, a recommendation that they felt reasonably strongly about, that you all needed this information in order to put this -- put everything in context, and that it helped facilitate -- I mean, from the industry's perspective, if it is helping to facilitate your, and, more importantly, ACRS's review at the end of the process, then I would think that that's a useful thing. NEI -- I assume NEI 95, whatever, Rev. 3, does not include what the ACRS recommends.

MR. LEE: Yes. I'd just like to add -- the Regulatory Guide endorses 95-10 and also the SRP. They have language in there that provides guidance to the staff and the applicant to encourage this confirmation. Okay? And what we did was -- I guess that got the ACRS's attention was through the public comment period, okay, the public comments -- this is not required by the rule. So what we did was we've gone through the document and explicitly stated --

COMMISSIONER MCGAFFIGAN: Well, this is done as part of their --

MR. LEE: Okay. But they are -- you know, like "should," we use, you know, should provide, may provide. They are still in there.

COMMISSIONER MCGAFFIGAN: Okay.

MR. LEE: Okay? But we actually acknowledge that this is not required by the rule. That was the only change.

MR. GRIMES: I'd also -- I'd like to add there is a mutual gain here, because, as you pointed out, if it takes more effort for the staff to understand the scoping results, and they may have to pry with more questions, the applicants, in the end, end up expending an equal amount of energy. If they put the information at the front end and can avoid questions about scoping, then we're both motivated toward the same desired outcome.

COMMISSIONER MCGAFFIGAN: This is one of these -- I asked the question a week or two ago in some other context as to whether this was really a rule or it wasn't a rule, and I'll -- it sounds to me that this is sort of a quasi-rule that had best be honored or else applicants may have longer review processes, which they don't want to have.

And if it is in that sort of limbo state, there's something to be said for amending our rules to be compatible with the de facto situation. But we'll see what you all have to say in a month or two.

CHAIRMAN MESERVE: Commissioner Merrifield?

COMMISSIONER MERRIFIELD: Thank you, Mr. Chairman.

I would -- Commissioner McGaffigan talked a little bit about the 75 days versus the 45 days. And I would comment more than anything else sort of a conflict that I think all of us share around here. On the one hand, there's a desire to really provide sufficient opportunity for the public to comment on these matters.

And when there's some balance here, you say, well, you know, we want to make sure that we provide a full and vibrant opportunity for the public to do that. On the other hand, there's a notion of, well, our rule says 45 days.

COMMISSIONER MCGAFFIGAN: A minimum of 45 days.

COMMISSIONER MERRIFIELD: Minimum of 45 days. You know, human nature being what it is, with a lot of cases while you might work on something for the entire period, it's really the last two weeks that you're working on it, relative to whether it's 45 days or 75 days.

So, you know, you can go back and forth either way. I think it is something that the staff needs to reflect on some more. Is it a matter that our public has taken that full amount of time? Do they need that amount of time? Would 15-day waivers account for it?

I'm not certain, but I think it's -- I think, like Commissioner McGaffigan, I struggle with making sure that we are balancing it appropriately. And I certainly urge the staff to take a second look at that in that respect.

On page 5 of SECY-01-0074, the staff writes the following.

"When applicants state that their aging management programs are bounded by the GALL programs, the staff's review will shift from reviewing each program in detail to verifying the applicant's assertion."

Could you give me a little bit more meat on that and what -- from an implementation perspective what that really means?

MR. GRIMES: In practice, this whole concept of credit for existing programs was one -- an ability to refer to an accepted practice for managing aging effects in such a way that the -- instead of spending substantial effort in reviewing how that is done, just simply go out and verify through inspection that that's the practice that's being used.

And so GALL, as the Commission I think eloquently stated, GALL focuses on those things for which the staff needs to concentrate its energies in establishing the effectiveness of the aging management practice, separate from all of those typical aging management practices that we would find and we would rely on to develop a safety evaluation conclusion. And so this is intended to explain that distinction.

COMMISSIONER MERRIFIELD: Okay. As was pointed out on page 3 of the same SECY, when we had our December 2000 Commission meeting NEI indicated there were several areas that it believed the GALL report was establishing unjustified requirements for aging management programs.

Would you comment a little further on what you've done to address these issues since we had that Commission meeting?

MR. GRIMES: I'll ask Sam to describe that in more detail.

MR. LEE: Yes. In the GALL report, what we did was we go through the -- the GALL report evaluation basically is a license renewal review. We go through the license renewal requirements to ensure the intended function will be maintained for license renewal, you know, for aging management.

Okay? So that's why we didn't go. Okay? So we explained to NEI, we are not purposely going beyond the rule requirement. Okay. We are trying to enforce Part 54. And in that case we look at the component of the aging effect, look at the program to see if the program is adequate or not. Okay? Once you've done that, then NEI starts pointing out places where they think we are requiring too much in terms of aging management.

And then for those, we talk about them individually, you know, like program by program. Okay. And then we resolve them on a program basis. Okay. And there are a few that are still pending, we haven't quite resolved, and those are the five remaining, you know, public -- you know, topics.

MR. GRIMES: Commissioner Merrifield, I'd like to add to that by saying this -- the perceptions about what might be unjustified requirements, in practice what we found was the staff had attempted to try and describe all of the attributes of an effective aging management program.

And in looking across the industry, there may be some programs that do more prevention and less mitigation or more mitigation and less prevention in terms of the aging effects. And so we ended up actually having -- we bounded it in a way that really exceeded what was needed for the purpose.

And so the exercise that Sam described in terms of going through the specific comments, we were able to separate out what are the specific requirements necessary for an aging management program from optional ways to achieve an effective aging management program. And I believe that that's what was fundamental to the question about whether or not there were unjustified expectations.

COMMISSIONER MERRIFIELD: So you would characterize it the gap in the perception of that has narrowed between ourselves and NEI?

MR. GRIMES: Yes. As a matter of fact, I think in the sheer numbers I would say that we -- we addressed this -- over a thousand specific questions concerning aging management programs, and we're left with five topics where we need further dialogue. So I would say that we achieved a substantial alignment between the industry and the staff on what the standard of acceptability is.

COMMISSIONER MERRIFIELD: One of the issues that I think you're going to have to deal with from a management perspective -- and I wanted to get your comments on this -- we've gone from a point at which we had a relatively smaller number of plants under review to, obviously, we've got a lot on our plate now with all of those that have come in recently.

Issues such as the GALL report and the standard review plan become more critical as you have presumably a larger number of staff who are part of this review process. And how -- are you comfortable with the program that you have underway to make sure that we've consistent, that we -- in dealing with all of these different reviews, that we're not, because of that wider number of staff and the possibilities for greater variance, that we're not -- that variance isn't going to creep into the program in our reviews?

MR. GRIMES: Yes. I'm very confident, because, as I mentioned, we have weekly team meetings where all of the participants, those that are well versed in license renewal and have been involved for a long time, down to the new folks just out of the orientation session, are all sharing experience.

And so the teambuilding that we've gone through I think provides a process for making sure that everyone is working essentially to the same expectations. I also mentioned before that we've developed these style guides in order to try and minimize innovation and creativity and trying to do it different. That has maintained a focus on what the desired outcome of the review is, and it has provided us with measures that we can use to monitor the effectiveness of the program.

MR. JOHNSON: I'd like to add that we also -- the Steering Committee continues to meet, and we meet with not only our own staff internally, but we have meetings with the industry representatives. And they are not shy about bringing up questions or concerns about consistency, and we've dealt with a number of those.

We also have teams of contractors that we use, and, as an example, the environmental reviews that these teams have -- we've taken from different laboratories, so that there is a mix of people. They're not just one isolated group off doing some, and they don't talk. They actually get the experiences from each other, so we get management overview of that, too, to make sure that those reviews are being done consistently.

COMMISSIONER MERRIFIELD: One quick last question. In the SECY, you talk about the staff evaluating the resource needs associated with the demonstration program. And I'm wondering if you completed your analysis of what that staff requirement is, and describe it briefly in terms of where you think you're going on that.

MR. GRIMES: Yes. We completed it. As a matter of fact, we've briefed the leadership team in their PBPM process, in terms of we've overspent in infrastructure, budget area, because the original 2001 budget did not provide for the level of activity.

We had assumed that after we presented the Commission paper that we would drop down to a maintenance level, and we now see that it's -- you know, it's going to tail off into next year, but so far as we can tell we'll be done in September, so we're not going to impact the next fiscal year's budget.

But we have sufficient resources. We have people who are working on that aspect of the project right now, and so we don't view those resource demands as limiting us in any way.

COMMISSIONER MERRIFIELD: Thank you, Mr. Chairman.

CHAIRMAN MESERVE: Thank you.

Let me follow up on the resource needs issue. It occurs to me that a large number of these applications that you have pending are ones that are in Region II. And you're going to be calling on inspection resources there, or you have. Are they going to be in a crunch?

MR. GRIMES: I talked to Luis Reyes. The vast majority of license renewal is in Region II. And as we've budgeted, Luis has recognized that -- you know, that he has a larger burden to carry. But at the same time, he has an advantage.

The other regions that are looking at spotty license renewal activity in the future years have a difficult time trying to maintain a cadre of experience. Luis has a steady workload, and so the --

CHAIRMAN MESERVE: They can be happy. He has all the --

MR. GRIMES: Right.

CHAIRMAN MESERVE: I see. Okay.

MR. JOHNSON: Also, Chairman, the inspections we've done to date have used staff from different regions, so they could learn. So if there is someone available in Region I or Region IV that has already conducted an inspection, we would expect possibly to use those resources to assist in Region II also.

CHAIRMAN MESERVE: Okay. Flexibility.

I have just one other question. Dr. Lee, at the end you had indicated that there are these five technical issues that are still outstanding. Could you say something about where we are on the path to the

resolution of those issues, how significant they are, and if they fail to be resolved in a generic basis, and whether they're going to slow us down.

MR. LEE: For those, the staff already identified programs as adequate to manage aging. Okay? And in this case -- and, yes, I want to continue to exchange more information in terms of, you know, trying to understand why the staff want that level of program.

And we had, you know, several meetings with NEI on those topics already. And now I guess just about two weeks ago or so we sent NEI a letter on what we believe, okay, NEI's concerns with those issues are. And then we are going to work on a schedule and attempt to address them and get it into a future update.

MR. GRIMES: Yes. I'd like to emphasize I sent a letter to NEI outlining not only our understanding of the issue, but also in the letter we specified the schedule that we wanted to work to. And the way that we characterized those issues, we do not see any that would hold up continued progress on license renewal reviews. These are clarifications and opportunities for further efficiencies.

CHAIRMAN MESERVE: I presume you haven't had a chance to have a response to that letter yet?

MR. GRIMES: No, we have not.

CHAIRMAN MESERVE: Okay. Commissioner Dicus?

COMMISSIONER DICUS: I have a resource question as well. It has to do with the fact that I think you're aware we have a large number of staff across the NRC eligible for retirement. Are you vulnerable to some retirements in your resource situation? And would that create a problem with gearing back up, if you were to lose people?

MR. JOHNSON: Well, I think one of the things the leadership team does is they meet periodically, they're meeting right now, to look at our approach for future reactor licensing if that were to come true, and how we would staff that up.

The resources that are used in license renewal, in Chris' branch, are primarily from a project standpoint. But the majority of the NRC resources are in the technical staff. And so they are spread out in the Division of Engineering, and so forth.

And so it's not all in one -- all our resources and expertise in license renewal are not concentrated into one specific group, but we are looking in general, not only just for license renewal, but across the board at our aging staff. And that's why I think you see in some of this room here a number of our summer interns and people that we're looking forward to bringing in for the future.

COMMISSIONER DICUS: Okay.

MR. KANE: The issue is a general one and not unique to this area. I did want to say one thing in follow up to Commissioner Merrifield's point. Don't take the comments we've made as dismissive of the point. I think it is a major management challenge to make sure that we have programs in place to make sure that we do get consistency from -- as we take on more work.

And there have been some -- some areas, as Jon has mentioned, where we've found that. But where we need to apply additional controls as time goes on we will. That's a good point.

COMMISSIONER DICUS: Okay. So I'm taking your answer to say, no, you don't feel you're vulnerable to retirements.

MR. JOHNSON: Well, I don't think we are vulnerable right now, and specifically for license renewal, but in general that we are -- the agency is --

COMMISSIONER DICUS: Sure. We're aware --

MR. JOHNSON: -- looking at this across the board.

COMMISSIONER DICUS: Some of the high visibility reactor activities -- for example, I'm referring to the cracking of Oconee -- would this impact the priority -- your priorities that you have for the license renewal program? Does this change anything, is what I'm saying?

MR. JOHNSON: Well, I -- we've discussed this, and this is an issue that we see right now that we need to deal with for the current operating plants. It's not a license renewal issue per se.

COMMISSIONER DICUS: Okay. So it doesn't change priorities.

MR. JOHNSON: It has not, no.

MR. GRIMES: As a matter of fact, I would like to add, I thought that the ACRS did a very good job of characterizing how it was appropriate to rely on the existing programs that revealed this particular problem, and at the same time recognize that the lessons that will be learned from the CRDM cracking are -- will be folded into future program changes.

And that's consistent with the Commission's philosophy in license renewal that relies on processes that are self-correcting and learning processes.

COMMISSIONER DICUS: Okay. Research's role -- what -- give me some idea of what Research is doing, particularly now that the guidance documents are essentially finished, some of the things that they're involved in.

MR. GRIMES: The Office of Research is still undertaking -- for example, there are ongoing research activities related to structural aging issues. They recently completed a report in that area, and we're -- and a group of experts is looking at how to build on those results.

There is research on materials issues, materials reliability program that the industry is sponsoring. The Office of Research is interfacing with the American Society of Mechanical Engineers and the IEEE on process improvements that will benefit the aging management programs that we rely on.

COMMISSIONER DICUS: Okay.

MR. GRIMES: That's the best I can do off the cuff.

COMMISSIONER DICUS: Okay. Thank you.

CHAIRMAN MESERVE: Good. I'd like to thank the staff. You're doing great work. Keep it up.

We're now going to have a chance to speak with Michael Tuckman, who is the Executive Vice President, Nuclear Generation, for Duke Power Company, and has had the privilege of being engaged in our license renewal process.

Let me --

MR. TUCKMAN: I've been wedded to the process.

(Laughter.)

CHAIRMAN MESERVE: Let me say before we get started -- and I should have announced this before the staff briefing -- is that Commissioner Diaz had something come up that required him not to be here, and he did express his regrets that he couldn't join us this afternoon, that an emergency arose.

Please, why don't you proceed.

MR. TUCKMAN: Mr. Chairman, Commissioners, it's a pleasure to be with you. My name is Mike Tuckman, Executive Vice President for Duke Energy.

I have three hats that I think I wear in this particular industry. One, I've been leading the NEI working group on license renewal and have had numerous opportunities to engage with each of you since 1993 as we have been working toward license renewal.

I'm a past customer of the Commission and having received the renewed license for Oconee in May of last year. And I was a satisfied customer, and I'm coming back again. And that's the reason --

(Laughter.)

-- I'm here and still interested in this process. You received our application for McGuire and Catawba this morning, all 296,000 words, at roughly \$12 per word as I calculated our cost.

(Laughter.)

1,340 pages, 11 volumes. It has been a massive learning process for us, and I'll talk some about what we've learned in efficiency, if you will, in the process of going through it again.

Can I have the first slide?

I'll cover four areas today -- the industry perspective on renewal as a program, license renewal guidance documents, I'd like to address the class of 2001 -- we tend to talk in terms of class of 2001, class of 2002 -- and then kind of forecast the future for you just a little bit.

Next slide.

From the beginning, the industry has felt inherently that our plants were safe and they could operate beyond 40 years of time. Our analysis through the license renewal process to us has confirmed that. The unknowns in the process, quite frankly, were, how would the NRC be able to document and reach a conclusion that the plants were safe and demonstrate that not only to yourselves but to the public?

We were also obviously concerned relative to where the review could go, that it might meander for a long time in areas that were not specific to license renewal. The schedule would be unkept. The cost would be not predictable, and the outcome was not very predictable. So those were concerns that I had as an executive as we put our Oconee program forward.

I'm happy to report to you today that those concerns have been resolved. We believe the program is running smooth, and it's a well-managed program. As you pointed out, five reactors have been completed. The sixth one is on the doorstep. You have a number of applications in front of you, and 10 applications or 10 reactors, three licensees, are submitting their applications within basically a two-month period of time.

I would like to tell you that -- I will tell you, all scheduled dates have been met by the NRC and the applicant. I view this process -- the 585-day schedule that you just talked about -- as being, in essence, sort of an unwritten contract sort of a contract.

It was not just the end date that was specified. Every milestone along the way, whether it be when the first round of RAIs would be out, when the sufficiency review would be out, when the applicant had to get their RAIs back in, when the supplemental environmental impact statement would be out. Every single date for the -- both the industry and the Commission has been met or exceeded. I think that has done an awful lot for us.

You've been lucky -- not lucky, that's the wrong term -- we've taken advantage in the ANO case of the moons kind of aligning and the schedule being able to be accelerated. I think that was great that the staff was able to do that, and potentially at times that same -- the moons will align similarly, and that will work.

We've worked very -- the three applicants for the class of 2001 are working very closely with the NRC staff to see if we can't lay out the dates for the concurrent review of these three utilities, five sites, to make sure that it can be done in an efficient way.

So some of the milestones will be moved one way or the other, the end date is the same, and, again, once the -- once we've agreed to the milestone dates, we'll both achieve them.

But that's necessary for the efficiency. You can't do five environmental scoping meetings simultaneously. It just would be chaos. So we very much appreciate the staff's openness to work with us and actually ask our input and advice on the process. So that has been very good.

The NRC staff work is thorough. I think all you have to do is read an SER or read the request for additional information and you'll see this is not a slam dunk. It is not something that is given. There are questions asked. There are hard technical questions to answer, and it has worked very well.

The process is reasonably stable and predictable. I say reasonably stable and predictable -- when I've talked to you before, one of the concerns was regulatory accretion. Will each application get harder, because everybody has to ask the next 50 questions, more depth?

By and large, the industry has learned from each applicant. We have worked together. We review each other's applications. We learn from the preceding guy what's on the test, so to speak.

The NRC continues to find new areas to delve. Sometimes it's an industry event. You referred to the Oconee reactor vessel head cracking. That was, to me, a sterling example of success. We had committed to a program of aging management. We implemented the program, and it found something in corrective actions.

So as issues continue to evolve in the industry, we believe there will still be accretion, and it's probably justified to some level. But we have checks and balances in the process to make sure that we stay within the guardrails of license renewal.

Next slide, please.

There's a structured appeal and resolution process. It's not used very frequently, but the staff is amenable to when we raise an issue saying, "This has gone further than we think it should," or "We think it's not justifiable." They'll sit down and have a formalized process for mediating,

and it also gives us an opportunity, if we feel uncomfortable, to go to the Steering Committee, the next level.

We've not had to bring anything to the Steering Committee. Most things are getting resolved at the staff level, at Chris Grimes' level, and I would say it's working quite well.

This process has had senior NRC management and utility senior management involvement, and I think that has been key to the success of the process.

It's been very open to the public. Jon Johnson described the many opportunities the public has had to comment on license renewal in one shape or another, and we believe it has been a very open and transparent process.

The program is viewed very positively by the plant owners. Why? Because the technical scope is bounded, the schedules are being adhered to. It is predictable. That doesn't mean you can predict that you'll be successful, but the process is predictable and that's what's important.

Can further enhancements be possible? Obviously, the answer is, yes, further enhancements are possible. My own learning is from going from Oconee to McGuire to Catawba. The cost of doing the two applications for McGuire and Catawba were less than half the cost of doing the Oconee application.

The amount of time -- calendar time and work hours was less than half that we've put together. Clearly, the staff is learning -- you saw through the ANO application -- as they become more familiar with the various plant vendors and more familiar with the process, there are improvements that can be made.

I will make a comment that I know that staff is due to bring back to you a recommendation relative to the rule change. The industry has learned how to use this rule. The NRC staff has learned how to use this rule. There are efficiencies that can be gained in a risk-informed matter.

The predictability of what we have learned is the most important thing to us today, so we would not urge changes to the -- excuse me -- we would urge that there not be changes to the rule as we presently are using it to go forward with license renewal at this time.

That doesn't mean sometime in the future you couldn't do something else, but we've just got the GALL process and everything laid out. Let's learn how to use that process in it and pick up the efficiencies that way. We believe the rule does provide for a safe license renewal process.

Next slide, please.

Let me talk about the generic documents. Obviously, it was discussed -- the genesis for SECY-99-148 was the issue of credit for existing programs. I sat in this chair in 1999 and asked you to take a real hard look at existing programs, because we felt that the license renewal rule basically said if you are doing something under the existing regime, that's acceptable, and you should just go on.

In your wisdom, you said, well, new programs or additions to programs really ought to be looked at. That's the focus. And, obviously, the guidance that is out there needs to be clear, understandable, to both sides, so that there is some efficiency. And you told the staff and us to involve stakeholder participation, and that was what was done.

Next slide.

The Generic Aging Lessons Learned report is now created. Interestingly enough, I laid my application, just the text part of the application and the text part of GALL, and they're about equal thickness. So we have about as much guidance as we have application thickness.

The documents -- the GALL report does document the industry compendium, if you will, of acceptable programs. In some cases, and I think I've had some discussion with some of you in the past, the GALL goes a little further than any one utilities program in an area might go. And that was a concern that the industry had, so we've had lots of dialogue with the NRC staff on this issue.

I expect there are still some areas that go further than any one utility will go. And through the process of license renewal applicants, the class of 2001 and '02, that will be identified, and we'll have opportunities to adjust. But we believe that, by and large, the compendium of documents and justification that's been put together will be very useful to both the NRC staff and to the utilities.

Next slide, please.

Generic Aging Lessons Learned report is a learning document. Much like when it was put out in August of last year there were 14 mechanical programs; now there are 34 mechanical programs that are documented. We will continue to learn through the GALL process, as various utilities or applicants are reviewed, and we -- we very much want the staff to quickly put out any revisions to the guidance in a way that is easy for the next guy to pick up and use.

My comment -- the documentation/disposition process in this case was probably the most thorough that I've seen on any NRC document that has gone out for comments. Comments were laid out clear, who wrote the comment, what the comment was, the basis, and their resolution for it. And it was very easy to track the comments you sent in or other people sent in to see how they were done. So I just wanted to commend the staff for that.

We talked about the industry project on the use of GALL. And on the next page, the class of 2002 basically got together and said, "Okay. GALL is out here. Now, how are we going to use it? How are we going to use the SRP?" And that process was started a few months ago and was submitted about two weeks ago, to try and lay out several sections of the application, how you would either reference or take exception or -- or write your own program.

We would like -- the staff indicated by the October or November timeframe -- that they would give us feedback on it. That will be a good way to see how effective the GALL program could be used in the future.

Everything we ever do settles on what's the level of detail required. So that will be a good test for us.

The next page?

Between the GALL, the SRP, NEI 95-10, which was approved by -- or referenced by Reg. Guide 1.188, we believe there's a pretty good set of documents out there that ought to provide even more stability to the process than we've had thus far. So we feel pretty good.

Next page?

Our conclusions. From the industry's perspective, the documents should be issued for use. And, again, it's imperative that the update -- that they be updated periodically to incorporate the lessons learned as we go forward and use these documents.

Next page.

The class of 2001, very briefly, three applicants, five stations, 10 units. As I review my own application for two units, I believe you will see significant efficiency on the multiple applications. They are virtually identical and just point out differences.

And I believe instead of -- at a level of effort of two for the plant, I think you should probably expect an effort of 1.4 or something like that. Environmental is still different. So I think that will help the resource issue also.

The generic documents were not extensively used by the three applicants that are just coming in. They were not available, not ready to use at that time. We had to do our application the latter part of last year and the first part of this year. We used what we could, but we -- you will not find anybody referencing aging management program and GALL in these documents.

We did, obviously, if it's there we took advantage of it, we took advantage of ANO and Hatch and Turkey Point as they've gone through the process also. We used previous applications and questions.

We expect technical questions and feedback on the GALL. In other words, if we didn't address something that's in GALL, we expect that the reviewer will probably ask us the question. We've tried to anticipate that in our application, but the -- the GALL test, I guess, how effective the whole process is, will probably start with the class of 2002.

Lastly, forecasting the future. We believe that most, if not all, nuclear units will extend their operating licenses. We expect review times and work hours to reduce. I say "review times." I was really referring to the work hours that go into license renewal by the staff. Originally, on Oconee, it was 22 person-years of effort by the staff. We see that decreasing to 15 and potentially 12 or -- or whatever. But we expect that the total hours to be spent reviewing to be reduced as a result of the generic documents that are being used.

Obviously, if the moon is aligned and you can get it done in six months or eight months, or a year and a half, that's appreciated by the plant owner, because that's plant staff that we don't have to have "standing by ready to answer questions." But we understand the juggling act of trying to look at many applications simultaneously.

The process requires continued NRC and senior utility management oversight. We feel good about where we are, and it's a large credit to the folks that work in the trenches, both in the NRC and the utilities. But I think, assuming the program is in automatic and/or cruise control is probably not a good assumption.

And certainly until we get the GALL and everything moving, and we see how well it works, we intend to stay involved.

Thank you for the opportunity to make comments.

CHAIRMAN MESERVE: Thank you very much.

Commissioner Merrifield?

COMMISSIONER MERRIFIELD: Thank you, Mr. Chairman.

I started off in the first panel commenting about the staff and the terrific job that they've done in the review process. And it would be inappropriate not to recognize the fact that I think in some ways our staff's review has been easier as a result of the lessons the industry has learned. Obviously --

MR. TUCKMAN: We've been trying to make it that way.

COMMISSIONER MERRIFIELD: Yes. I mean, I think, obviously, there's credit on both sides of the house, which is certainly the message I would want to leave.

I don't want to let you off the hook. On slide 3, you talked about reasonably stable and predictable. Obviously, we strive for excellence around here. What are those areas which aren't quite as stable and predictable from the standpoint of either Duke or NEI?

MR. TUCKMAN: About the only thing that I would say is not "stable and predictable" is the new wrinkle that comes up when a system is looked at by a new reviewer. Occasionally, you'll get some questions that were accepted on a previous application, and either something new has been learned or the reviewer looks at it a little bit differently, and you'll wind up with a question on that particular area.

That goes a little further than what you're used to seeing. And that's what I meant by the "stable and predictable." We understand; we don't expect the same questions every time.

COMMISSIONER MERRIFIELD: Right.

MR. TUCKMAN: But that's probably the only area that I see.

COMMISSIONER MERRIFIELD: Well, you know, like everything else, we strive for balance around here. Obviously, you know, our staff needs to ask the questions that are necessary to answer the issues.

MR. TUCKMAN: The five issues that Chris mentioned, several of those have taken longer to resolve than I think either side would like. Things like environmentally-assisted fatigue is an area that we have been struggling with as an industry, inspection of small bore piping, and that sort of thing. Those are the sorts of things that I guess I would say add a little instability to the process. We need to get them resolved.

COMMISSIONER MERRIFIELD: Are they resolvable, from your standpoint?

MR. TUCKMAN: Yes.

COMMISSIONER MERRIFIELD: Okay. What was the -- just help me understand, what was the motivation for deciding you need to have a demonstration project on the use of the GALL?

MR. TUCKMAN: When we started with the GALL -- and, again, prior to seeing what finally got issued here in April -- it was unclear how the NRC staff would use GALL. And when I say that, the first draft of GALL, as I indicated, any one -- not any one program -- several of the programs had the best features of all of the programs from the various applicants that had applied.

And we didn't think that was the appropriate yardstick to hold

up against any single applicant. Maybe it should have been this or this or this rather than this and this and this.

So we said it did not look to us that the GALL would be used a lot, and specifically referencing program reports exactly. So we thought it would be useful to set up a pilot program to try and see how we would use the guidance, and how we would reference it, and what the staff would find acceptable. That was the reason, the genesis for it.

COMMISSIONER MERRIFIELD: It strikes me -- and that's fair, and I think there is a recognition about that being the goal of the GALL report. One of the things that we always are concerned about, and I think this is jointly between the Commission and the NEI members, is the issue of insularity, and that utilities or individual plants are so ingrained on a way of doing things that perhaps they're not opening themselves up to other opportunities.

Do you think that going through the GALL process and seeing how other utilities are doing their programs is providing a sideline of having some introspection on the part of individual utilities to see maybe there's a better way of doing things in our programs?

MR. TUCKMAN: Yes. Clearly, if you have not thought about license renewal, and you're coming into it for the first time, you might say, "Gee, how do you guys do buried pipe inspections?" or that sort of thing. So you talk to your -- the guy who went before you, or you look in GALL, and here's -- if you don't happen to have a program, this is a good way of kind of sharing that experience.

Or if you have a program, you might learn something from it and alter your program for the period of extended operation. So I'd say it was -- it is what it was set out to be -- a compendium of good practices on how to manage aging.

COMMISSIONER MERRIFIELD: Thank you, Mr. Chairman.

CHAIRMAN MESERVE: Thank you.

I'd like to pursue a little bit on your slide 4, where you -- make sure I pin you down on -- make sure we understand all that you intended to say when you said "further enhancements are possible."

I understood you to say that rulemaking is not something you would encourage right now, that we ought to be updating all of the documents, including the GALL, as we go forward. So that's an enhancement. Perhaps we ought to have some -- nudge it along in the direction of stability in the reviews.

Is there anything else?

MR. TUCKMAN: Well, the -- could the license renewal be risk-informed and, hence, eliminate a lot of things that are presently being looked at in license renewal? I would say, yes, it could. The rule could further limit the things that are looked at in license renewal.

I will tell you, the way we do our scoping review and everything, it does not eliminate that much work for us. But it could -- it could. So what I'm saying, further enhancements in the rule is an example. That's one example of how you could achieve -- get more efficiency.

CHAIRMAN MESERVE: But I understood you to say that was not something you were encouraging us to do right now.

MR. TUCKMAN: I am not encouraging you to change the license renewal rule.

Another example -- the back end of the license renewal -- you know, after you have received your license, and the way you incorporate all the requirements for license renewal into the ongoing process, that was something that was not looked at very hard because nobody had any experience with it.

As several plants start getting experience with making sure that we implement all our programs in an auditable fashion, etcetera, that might be something in the future that we might want to gather some experience.

The environmental area is another one. You've now had a number of cases where we've done the environmental reviews. Basically, the environmental reviews have not shown that they were having a negative environmental impact.

A number of the items that have to be examined today could go to category 1 if you chose to do so, and just eliminate a little bit more work.

So that's another opportunity that we have to make the process a little easier.

CHAIRMAN MESERVE: Thank you. That's helpful.

For the most part, you are delivering good news here.

MR. TUCKMAN: This is a happy talk.

(Laughter.)

CHAIRMAN MESERVE: And so I don't have very many questions for you. Usually we are trying to probe into what things we're doing wrong. We appreciate your coming today and helping us.

MR. TUCKMAN: Yes, sir.

CHAIRMAN MESERVE: Commissioner Dicus?

COMMISSIONER DICUS: Thank you.

The numbers that the staff showed us a little bit ago out to 2005 on what we might expect coming in, do you kind of agree with those, or disagree with them, or --

MR. TUCKMAN: Yes. Through the Executive Steering group, we tried to gather information from various utilities and present them to the NRC staff. We got into a little bit of difficulty in that because NEI doesn't really speak for licensee A, and licensee A might not want to have their name out.

So we shifted with working with Chris, and then the NRC now does that survey. But it jives very closely with what our understanding of the industry is today.

COMMISSIONER DICUS: Okay. That's good.

MR. TUCKMAN: I have not seen anybody slip their application out. They're all coming this way, though.

COMMISSIONER DICUS: Noticed that.

The question that I put also to the staff about -- and you brought it up yourself -- on the head cracking at Oconee. Staff says that's an operating plant issue. It's not a license renewal issue. And I appreciated that answer.

But has that activity or that situation changed anything that the industry is doing with regard to license renewal, taking another look at something or anything along those lines?

MR. TUCKMAN: Well, the industry has, though the materials

reliability program, of which I'm also co-chair, we've worked with the NRC and brought all of the information we have relative to the Oconee head cracking and the implications to the rest of the industry. There is also an Inconel 600 working group that is trying to formulate plans to do various inspections much earlier on some of the plants than would have been done otherwise.

So, yes, I would say we have learned the direct impact on license renewal is not there. But it is on current plants.

COMMISSIONER DICUS: Okay. And then, finally, what would you list as the one or two or the main reason that there has been this apparent turnaround that licensees -- perhaps most, if not all -- will come in for license renewal? What's the environment that has created that?

MR. TUCKMAN: Several things. The economics, the performance of the plants has dramatically improved -- dramatically improved. The economics, therefore, have improved on the plants that we presently have.

Quite frankly, without trying to sound self-serving, the stability of the Commission and the way the NRC is dealing with the industry goes a long way to providing faith for the operation of the plants. That doesn't mean that you won't act when you need to act, and I don't want to allude to that fact.

But what I am saying is the stability this Commission has put on things like license renewal and the way the oversight process -- all those things have made nuclear much more viable than it has been in the past.

The success of license renewal -- there were very few folks -- we used to have license renewal meetings in the industry, and you'd have six people attend. We have a lot of people attend those meetings today. It's the happy club. So those are some of the factors.

COMMISSIONER DICUS: Okay. This is a good news day, I guess. Okay.

Thank you, Mr. Chairman.

CHAIRMAN MESERVE: Commissioner McGaffigan?

COMMISSIONER MCGAFFIGAN: I'm not going to linger on this control drive mechanism issue either, except you all are planning to replace the heads, aren't you, at Oconee? Is that the case?

MR. TUCKMAN: Yes, sir. I'll replace them in 2003 and '04.

COMMISSIONER MCGAFFIGAN: Does the fact that you have a 20-year additional period to amortize whatever cost, is that something that makes it easier to make that sort of decision? Or would you have done it even if you had --

MR. TUCKMAN: Let me comment in general about capital expenditures. Because I have license renewal at our Oconee plant, I am replacing steam generators and spending an additional \$500 million on the plant in capital improvements to assure its reliability for the long term.

If I -- reactor vessel heads, I have probably spent more money in the repair of reactor vessel heads than I would have spent had I already had new ones. I just didn't have them in the warehouse. But it does make all capital decisions on a plant much easier, when you know you have another 33 years to go.

COMMISSIONER MCGAFFIGAN: Going back to the question I asked the staff, maybe you're comfortable with this situation. We have this de facto -- in the NEI 95-10, Rev. 3, in our Reg. Guide, we now say, while it's not required by the rule, people should think about submitting the results of their scoping process when they submit their application.

And ACRS had written a letter saying we should think about requiring it, which apparently we once did in the license renewal rule, circa the early '90s. Then, we take it out of the rule, and we put it back in guidance, and everybody is following it. If everybody is comfortable with that, I'm comfortable I guess.

But is the de facto situation, as you understand it, somebody who has just submitted two applications today, that you had best include the results of the scoping analysis in order to --

MR. TUCKMAN: It's something you have --

COMMISSIONER MCGAFFIGAN: -- facilitate the staff review?

MR. TUCKMAN: It's something you have to do. It's unreasonable to expect that the staff would not ask questions about scoping. So you just go ahead and put it in there, and it doesn't cost anything.

COMMISSIONER MCGAFFIGAN: Okay. I guess it's one of these unwritten rules, and I should just let it be. Having heard this discussion today, if everybody is satisfied with the situation as it is, and it's functioning, maybe I'll just let it go.

MR. TUCKMAN: Nobody has complained about doing it.

COMMISSIONER MCGAFFIGAN: Nobody has complained about doing it. So ACRS will be happy, the staff will be happy, you all -- okay. I quit.

(Laughter.)

Thank you. I join Commissioner Merrifield and the other Commissioners in commending the industry for the work that it has done to meet us more than halfway in getting all of this process in place. And now the proof will be in the classes of 2001, 2002, 2003, and '04, whether we can get it all done.

MR. TUCKMAN: I can hardly wait to renew Oconee's license again.

(Laughter.)

CHAIRMAN MESERVE: Mr. Tuckman, thank you for joining us. Very much appreciate it.

MR. TUCKMAN: Thank you.

CHAIRMAN MESERVE: This is an impressive achievement by both the staff and the industry. It's a good day.

With that, we're adjourned.

(Whereupon, at 3:06 p.m., the proceedings in the foregoing matter went off the record.)