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NUCLEAR REGULATORY COMMISSION

OFFICE OF THE SECRETARY

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BRIEFING ON OCONEE LICENSE RENEWAL

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PUBLIC MEETING

Nuclear Regulatory Commission  
One White Flint North  
Commissioner's Conference Room  
11555 Rockville Pike  
Rockville, Maryland  
Tuesday, May 2, 2000

The Commission met in open session, pursuant to notice, at 9:35 a.m., the Honorable RICHARD A. MESERVE, Chairman of the Commission, presiding.

COMMISSIONERS PRESENT:

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

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STAFF AND PRESENTERS SEATED AT THE COMMISSION TABLE:

- FRANK MIRAGLIA, Deputy EDO
- KAREN D. CYR, General Counsel
- ANNETTE L. VIETTI-COOK, Assistant Secretary
- SAMUEL COLLINS, Director, NRR
- JOSEPH SEBROSKY, Safety Project Manager, NRR
- CHRISTOPHER GRIMES, Chief, License Renewal & Standardization Branch, NRR
- JIM WILSON, Environmental Project Manager, NRR
- VICTOR McCREE, Deputy Director, Division of Reactor Projects, Region II

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P R O C E E D I N G S

[9:35 a.m.]

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3 CHAIRMAN MESERVE: Good morning. On behalf of the  
4 Commission I am very pleased to welcome you to this briefing  
5 by the NRC Staff.

6 The Staff today will discuss the review process  
7 and provide its recommendations related to Duke Power  
8 Company's application to renew the licenses for the Oconee  
9 Nuclear Station, Units 1, 2 and 3. This is an application  
10 for a license extension for an additional 20 years for units  
11 that otherwise would have their licenses terminated in 2013  
12 and 2014.

13 As I am sure everyone in the audience knows,  
14 Oconee is the second plant to go through the license renewal  
15 process and the first Babcock & Wilcox plant to do so.

16 Duke Power filed its application in July 1998 and  
17 the Staff completed its review and published its Safety  
18 Evaluation Report in March of this year, concluding, as in  
19 the case of Calvert Cliffs that the Staff had the capability  
20 to meet the demanding target schedule for the process of  
21 performing a comprehensive review of the technical issues.  
22 I would like to compliment the Staff on its ability to abide  
23 and even exceed the scheduled time that it had allocated for  
24 the performance of this review.

25 If there are no comments by my colleagues, why

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1 don't we proceed.

2 MR. MIRAGLIA: Good morning, Mr. Chairman,  
3 Commissioners.

4 As you indicate, Mr. Chairman, this is a meeting  
5 to inform you of the results of our review of the Oconee  
6 License Renewal Application.

7 This again was a team effort with the Office of  
8 NRR, Research and Region. We are here to request the  
9 Commission authorize the Director of NRR to renew the  
10 operating licenses for the Oconee Nuclear Station, Units 1,  
11 2 and 3.

12 With me at the table today is the Director of NRR,  
13 Sam Collins, to my immediate right. To his right is Joe  
14 Sebrosky, the Safety Project Manager for the Oconee review,  
15 and to Joe's right is Jim Wilson, the Environmental Project  
16 Manager. To my immediate left is Chris Grimes, who has led  
17 both of these efforts to date. He is the Branch Chief of  
18 the License Renewal Branch. To Chris's left is Victor

19 McCree, from Region II, the Deputy Director, Reactor  
20 Projects.

21 With that I will turn the review and briefing over  
22 to Sam Collins.

23 MR. COLLINS: Good morning. Before I proceed in  
24 Slide 3 I would like to acknowledge the Staff efforts and  
25 those of the contributing offices, including the Office of

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1 Research, which we depend on heavily as part of the team to  
2 provide technical support to NRR, and also OGC, which  
3 provides counsel, and of course the Region, which implements  
4 the program including the inspection program.

5 We will cover that during the course of the  
6 presentation.

7 Slide 3 indicates the performance goals. The  
8 Office of NRR uses these in our operating plan, of course.  
9 What you see in front of you are the four outcome measures  
10 that we focus on. Our expectations are to meet these four  
11 outcome measures as defined by the performance goals and  
12 including defining success for each of those and adhering to  
13 the schedule, as you mentioned, Mr. Chairman.

14 Under Maintaining Safety we ensure that we are  
15 focused on ensuring that the aging effects are adequately  
16 managed in the course of the review by the Staff themselves.

17 Public confidence is met to a large measure by  
18 increased public participation including those of the  
19 stakeholders, the licensees and the industry groups.

20 Specifically in the course of the Oconee review,  
21 the Staff presented information in what we believe is a more  
22 understandable manner, and we made public participation more  
23 accessible. We added a new summary to the Oconee SER that  
24 is written in accordance with the plain English principles.  
25 We held monthly public meetings with Duke, the licensee,

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1 bimonthly public meetings with the industry to improve the  
2 renewal process itself. We held public meetings near the  
3 Oconee site and after hours to allow for full participation  
4 by the public, particular in the Environmental Impact  
5 Assessment Review.

6 We utilized a facilitator to elicit public  
7 participation and we addressed public concerns in what we  
8 believe is a more timely manner.

9 We reduced unnecessary regulatory burden by  
10 process improvements including working with the industry to  
11 establish a standard format for licensing renewal  
12 activities. As a result of lessons learned from the Oconee  
13 review we provided additional guidance on these for  
14 follow-on plants.

15           The Staff has also begun using experience gained  
16 through Oconee to review and update the Standard Review Plan  
17 in the Generic Aging Lessons Learned Report, and that is  
18 referred to as the GALL report.

19           In the efficiency and effectiveness area, again we  
20 focused on schedule and we met all of our milestones.

21           Slide 4 talks about program monitoring and  
22 oversight. As you know, the first two plants themselves are  
23 receiving an enhanced level of oversight, not only by the  
24 Staff but by the Commission. Participation includes the  
25 Executive Council oversight. The EC contributed to the

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1 Oconee reviews by focusing the effort primarily in three  
2 areas -- first, periodically reviewing the progress, that's  
3 monitoring schedule and Staff activities; second,  
4 facilitating cross-office cooperation in those areas that  
5 require interdependency in the license renewal team; and  
6 thirdly, the EC identified longer term issues which could  
7 affect desired outcome of Oconee review and the NRC's  
8 ability to effectively and efficiently implement the program  
9 for the future.

10           EC reinforced the fundamental responsibility and  
11 the accountability of the NRR line management process.

12           In addition to EC oversight, the License Renewal  
13 Steering Committee guidance and coordination was important.  
14 Bimonthly public management meetings were conducted with  
15 pre-established agendas to review status and ensure that  
16 public cooperation was facilitated.

17           Monthly public management meetings were held with  
18 Duke to identify potential issues impacting continued  
19 progress and to collectively reach solution paths to ensure  
20 progress was maintained.

21           With that broad overview I would at this time like  
22 to move to Slide 5 and turn the details of the meeting over  
23 to Chris Grimes.

24           MR. GRIMES: Thank you, Sam.

25           Slide 5 summarizes the two key principles of

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1 license renewal that guided us during the course of the  
2 evaluation of the Oconee review.

3           As Frank mentioned, Joe Sebrosky, who is the  
4 Safety Project Manager for the Oconee review, is going to  
5 describe some of the unique details of the Oconee review.  
6 Jim Wilson is going to describe some of the unique details  
7 of the environmental review and Victor McCree is going to  
8 describe the inspection activities that were conducted as it  
9 related to the renewal review for Oconee.

10           The same purpose applies for the Oconee as that  
11 for the Calvert Cliffs review that we described to you in

12 the Commission briefing on March 3rd. The objective of Part  
13 54 is to determine whether the detrimental effects of aging  
14 will be adequately managed for the period of extended  
15 operation, and that is the thrust and focus of the safety  
16 evaluation that we performed.

17 The license renewal review is intended to identify  
18 any additional actions that will be needed in order to  
19 maintain the functionality of systems, structures and  
20 components during the period of extended operation. The  
21 review was conducted to ensure that the plant-specific  
22 licensing basis will be maintained during the renewal  
23 period.

24 The Staff presentations are going to focus on some  
25 of the unique aspects, but very broadly I would say that the

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1 lessons that we learned during the Oconee review were  
2 essentially the same as those that we had learned during the  
3 Calvert Cliffs review and they have been reflected in the  
4 standard form and content that we sent to the Nuclear Energy  
5 Institute and that we promoted as part of our process  
6 improvement.

7 These reviews were conducted contemporaneously so  
8 as lessons were learned on Calvert Cliffs and Oconee they  
9 had a synergistic effect in terms of assisting our ability  
10 to improve the quality of our work and at the same time to  
11 exceed the milestones.

12 I will turn to Slide 6 now. Slide 6 highlights  
13 some of the significant aspects of the renewal review  
14 process. The Oconee plan was set up with the same 585-day  
15 review schedule as we set up for Calvert Cliffs and they  
16 were separated by approximately three months. The review  
17 guidance and the experience from Calvert Cliffs were used to  
18 ensure that the evaluation scope was disciplined and focused  
19 to the desired outcome -- that is, the adequacy of aging  
20 management and the identification of time limited aging  
21 analysis or time limited design analysis.

22 The Oconee renewal review also had the benefit of  
23 other regulatory process improvements -- a single round of  
24 questions before identifying issues requiring resolution;  
25 weekly internal staff meetings to discuss the progress of

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1 the review; monthly public management meetings to ensure  
2 that issues were communicated and actions were assigned to  
3 ensure that the milestones could be met; and accountability  
4 to ensure that responsible parties for actions met their  
5 responsibilities.

6 Similarities and differences existed in Oconee  
7 largely because of difference in the -- excuse me.

8 Differences in the review arose largely from the plant  
9 design and the vintage but mostly we found that the same  
10 process lessons were learned in terms of being able to  
11 maintain a focus on aging management programs and that  
12 experience has fed back into our efforts to identify  
13 adequate aging management programs in the generic aging  
14 lessons learned and the Standard Review Plan improvements  
15 that we are going to continue with this summer.

16 With that, I will turn the presentation over to  
17 Joe Sebrosky.

18 MR. SEBROSKY: May I have Slide 7, please.

19 Good morning. My name is Joe Sebrosky and I am  
20 the NRC Project Manager for the Safety Review of the Oconee  
21 license renewal application.

22 Slide 7 highlights 11 of the more significant  
23 milestones for the safety review that occurred over a  
24 21-month period including related inspection activities that  
25 will be discussed later by Victor McCree.

11

1 The detailed safety review of Duke's renewal  
2 application began upon receiving their application on July  
3 6, 1998 and concluded with the issuance of NUREG-1723,  
4 documenting the Staff's review and conclusion that the  
5 effects of aging for the systems, structures and components  
6 within the scope of license renewal would be managed during  
7 the renewal period.

8 Over this 21-month period the Staff held 37 public  
9 meetings with Duke and the ACRS to ensure continual progress  
10 on the review and to resolve safety issues. There were two  
11 safety meetings at the site and the Staff supported an ACRS  
12 subcommittee meeting near the site on February 24th, 2000.

13 These meetings were in addition to the public  
14 meetings related to the inspection and environmental  
15 efforts. The safety review benefitted from team work.  
16 Research staff assisted with the resolution of technical  
17 issues and assisted with the inspections.

18 Technical specialists in Headquarters worked  
19 closely with the renewal and regional staff to ensure that  
20 issues were clearly identified and resolved on a sound  
21 technical basis. Next slide, please.

22 Slide 8 presents three of the significant areas of  
23 the Oconee Safety Evaluation Report. Chapter 2 of the  
24 Safety Evaluation Report describes the results of the  
25 Staff's scoping and screening review of Duke's license

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1 renewal application.

2 Scoping is the method for determining what  
3 structures and components are within the scope of license  
4 renewal. Screening is the method for determining which of

5 those structures and components require an aging management  
6 review.

7 The Calvert Cliffs methodology had been reviewed  
8 and approved by the Staff prior to the submittal of the  
9 application. Oconee was not.

10 During the review the Staff was concerned whether  
11 Duke's methodology had identified all systems, structures  
12 and components within the scope of license renewal. Duke  
13 performed further evaluations to address the Staff's concern  
14 and did not identify any additional structures or components  
15 that would require an aging management review. Therefore,  
16 the Staff concluded that the structures and components  
17 within the scope of Part 54 had been appropriately  
18 identified. Next slide, please.

19 Slide 9 highlights the two areas of the Safety  
20 Evaluation Report where the majority of the Staff's efforts  
21 were expended.

22 First is aging management, which is covered in  
23 Chapter 3. In this chapter the Staff evaluated Duke's  
24 identification of the applicable aging effects and proposed  
25 aging management programs to ensure the intended functions

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1 for the relevant equipment would be maintained through the  
2 period of extended operation.

3 The next significant area was the evaluation of  
4 the time-limited aging analysis discussed in Chapter 4. In  
5 this chapter the Staff evaluated Duke's methods to determine  
6 how analyses with time-limited assumptions have been or  
7 would be managed for the period of extended operation.

8 Time-limited aging analysis includes pressure  
9 temperature limits for the reactor coolant system, various  
10 fatigue analyses, and environmental qualification which  
11 establishes a qualified life for each electrical component.

12 The Staff determined that the time-limited aging  
13 analysis would be adequately managed during the renewal  
14 term. Next slide, please.

15 Slide 10 highlights the unique aspects of the  
16 Oconee review. The Staff reviewed aging management programs  
17 related to unique features of the Oconee plant, such as the  
18 Kewee Hydroelectric Station, and the standby shutdown  
19 facility.

20 The Kewee Hydroelectric Station is the onsite  
21 emergency power source for Oconee. The standby shutdown  
22 facility is designed as a standby system for use under  
23 certain emergency conditions.

24 It provides additional defense-in-depth protection  
25 by serving as a backup to existing safety systems. The

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1 standby shutdown facility is designed to achieve and  
2 maintain hot shutdown conditions following an Appendix R  
3 fire, sabotage, turbine building flood, station blackout or  
4 tornado or missile event.

5 The Kewee Hydroelectric Station and standby  
6 shutdown facility presented challenges in determining what  
7 structures and components are subject to an aging management  
8 review for these facilities. However, there were no unique  
9 aging effects identified for these facilities.

10 The review of the application required resolution  
11 of issues associated with the electrical cabling aging  
12 management program and plant-specific resolutions to Babcock  
13 and Wilcox owners groups license renewal topical reports on  
14 the pressurizer, reactor coolant system piping, reactor  
15 vessel, and reactor vessel internals.

16 An inspection found evidence of aging of insulated  
17 cables which was not identified as an aging effect in the  
18 application.

19 As a result of the inspection and interaction with  
20 headquarters Staff, Duke provided an insulated cable and  
21 connections aging management program for cables and  
22 connections within the scope of license renewal that are  
23 installed in adverse localized environments in the reactor  
24 buildings, auxiliary buildings, turbine building, standby  
25 shutdown facility, the Kewee Hydroelectric Station, and

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1 inaccessible cabling which could be subject to aging effects  
2 from heat, radiation, or moisture.

3 The program does not include insulated cables and  
4 connections that are in the Environmental Qualification  
5 Program.

6 The Staff encourages the use of topical reports,  
7 however, the generic review and plant-specific resolutions  
8 of issues were performed in parallel in some cases.

9 In addition, the reactor vessel internals  
10 inspection program involves an approach that allows  
11 activities to continue that will develop and qualify the  
12 inspection methods and acceptance criteria later.

13 Next slide, please. Slide 11 lists some  
14 significant observations and accomplishments from the  
15 Staff's safety review. The Staff confirmed that many  
16 existing programs provided adequate aging management.

17 Some programs required augmentation, and new  
18 programs were created. For example, Duke will augment the  
19 Oconee Station thermal fatigue management program to provide  
20 a plant-specific resolution for Generic Safety Issue 190, or  
21 adopt the NRC's generic resolution.

22 Duke also developed a new aging management program  
23 for non-environmentally-qualified insulated cables and



24 connections.

25 Additional inspections were proposed by Duke. In

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1 some cases, these inspections were one-time inspections, and

2 in other cases, the additional inspections were periodic.

3 One-time inspections were aimed at verify aging

4 effects are not occurring. Any aging effects identified

5 will require engineering evaluation and could result in

6 further programmatic action.

7 Examples of one-time inspections include Kewee air

8 and gas system inspection, and the reactor coolant pump

9 motor oil collection tank inspection.

10 Periodic additional inspections have been

11 developed for the reactor vessel internals, and the Alloy

12 600 Aging Management Program.

13 The last bullet in this slide pertains to the

14 updated final safety analysis report supplement. The UFSAR

15 supplement contains a summary description of the programs

16 and activities for managing the effects of aging, and the

17 evaluation of time-limited aging analysis for the period of

18 extended operations.

19 The Staff reviewed the UFSAR supplement and found

20 that it meets the requirements of the license renewal rule.

21 The proposed renewed license conditions require that Duke

22 include the UFSAR supplement in the update to the UFSAR

23 scheduled for July of 2001, and control changes to the

24 program described in the supplement under 50.59 until then.

25 The Oconee proposed renewed licenses also contain

17

1 a license condition stating that future inspection

2 activities will be completed before the period of extended

3 operation, similar to the Calvert Cliffs licensing

4 condition.

5 Slide 12, please. In conclusion, all of the aging

6 management issue and identification of time-limited aging

7 analysis have been resolved as documented in NUREG 1723, and

8 on the basis of its evaluation of the Oconee license renewal

9 application, the Staff concludes that the standards for

10 issuance of a renewed license as specified in 10 CFR 5429,

11 have been met, which are summarized on this slide.

12 Specifically:

13 One, actions have been identified and have been or

14 will be taken with respect to managing the effects of aging

15 during the period of extended operation on the functionality

16 of structures and components that have been identified to

17 require an aging management review under 10 CFR 54.21

18 (a)(1), and;

19 Two, actions have been identified and have been or

20 will be taken with respect to time-limited aging analyses  
21 that have been identified to require review under 10 CFR  
22 54.21(c).

23 Therefore, the Staff finds that there is  
24 reasonable assurance that the activities authorized by a  
25 renewed license will continue to be conducted in accordance

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1 with the licensing basis for the Oconee Nuclear Station,  
2 Units I, II, and III, as revised by the renewal  
3 commitments.

4 That ends my portion of the presentation. I'd  
5 like to turn it over to Jim Wilson for the Environmental  
6 Review.

7 MR. WILSON: I'm Jim Wilson, and I'm the Project  
8 Manager responsible for the environmental portion of the  
9 Staff's review of the Oconee license renewal application.

10 The NRC Staff has the responsibility to implement  
11 the requirements of NEPA for the nuclear power plants under  
12 its purview. Under NEPA, and Environmental Impact  
13 Statement, or EIS, is required for major federal actions  
14 significantly affecting the human environment.

15 Renewal of a nuclear power plant license is  
16 considered such a major federal action. In 1996, the Staff  
17 promulgated revisions to 10 CFR Part 51 to implement the  
18 requirements of NEPA as it applies to license renewal.

19 The rule reflects the findings of the Generic  
20 Environmental Impact Statement, or GEIS, and established a  
21 framework for addressing environmental issues.

22 These issue were separated into two categories:  
23 Those that were generically resolved, Category I issues; and  
24 those that required a site-specific evaluation, Category II  
25 issues.

19

1 In addition, two issues, environmental justice and  
2 chronic effects of electromagnetic fields, were not  
3 categorized, but were specifically examined.

4 The rule requires that the NRC issue a  
5 site-specific supplement to the GEIS for each application.

6 During the review, the Staff considers whether  
7 there is new and significant information on any issue.

8 Slide 14, please. The Staff followed the review  
9 process necessary to meet the requirements of NEPA, and the  
10 environmental review requirements of 10 CFR Part 51.

11 During the review process, the Staff visited the  
12 site and provided members of the public with two public  
13 comment opportunities; the first at the beginning of a  
14 review period of 60 days, which was the scoping period; and  
15 the second public opportunity for comment was after the  
16 draft supplement to the Generic Environmental Impact

17 Statement was issued.

18 The Staff had public meetings, both during the  
19 scoping period and the comment period on the draft  
20 supplement to the GEIS, and to outline NRC's process for  
21 license renewal, and to help the public focus on the issues.

22 The Staff issued its final plant-specific  
23 supplement to the GEIS for Oconee in December of 1999. No  
24 significant new information was identified during the Oconee  
25 review that would change the Category I findings, the 69

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1 generically-resolved issues identified in the GEIS.

2 Consequently, the Staff adopted the conclusions in  
3 the GEIS into the plant-specific supplement for Oconee for  
4 those issues that were applicable to that action.

5 Of the remaining 23 issues in the GEIS, 21 were  
6 classified as being in Category II, requiring plant-specific  
7 analysis. Five of these were not applicable because they  
8 are related to plant design features or characteristics not  
9 found at Oconee.

10 Four were not discussed because they relate to  
11 refurbishment, of which there will be none at Oconee.

12 The two un-categorized issues, the Staff found  
13 that no minority or low income groups would experience  
14 disproportionately high and adverse impacts. This is an  
15 environmental justice consideration.

16 Second, since a consensus has not yet been reached  
17 by appropriate federal health agencies on the chronic  
18 effects of electromagnetic fields, the Staff relies on the  
19 initial findings in the GEIS that there is no evidence  
20 linking harmful effects with field exposures.

21 Next slide, please. This next slide highlights  
22 two of the unique issues in the Oconee environmental review:  
23 For the first the Staff determined that the transmission  
24 line maintenance impact on endangered species should be  
25 considered for the 330 total miles that were constructed for

21

1 the purpose of connecting the plant to the grid.

2 After consultation under Section 7 of the  
3 Endangered Species Act, the U.S. Fish and Wildlife Service  
4 concurred with the Staff's conclusion that routine  
5 maintenance activities would not adversely affect threatened  
6 or endangered species living within the transmission line  
7 rights of way.

8 The second issue came about as a result of a  
9 comment on the Oconee-specific draft supplement to the GEIS,  
10 and the Staff, as a result of that comment, evaluated yet  
11 another alternative action. The Staff considered a  
12 combination of alternative energy sources, including

13 conservation, and determined that the environmental impacts  
14 of a combination of alternatives is unlikely to be smaller  
15 than the small impacts associated with license renewal.

16 Finally, the Staff did consider severe accident  
17 mitigation alternatives in this application. After the  
18 Staff's independent review, no cost-beneficial SAMAs were  
19 identified that had not already been identified by Duke.

20 Slide 16. Therefore, it's the Staff's conclusion,  
21 based on its review, that the environmental impacts of  
22 renewing Oconee's nuclear station licenses are acceptable  
23 for the purpose of license renewal.

24 MR. MCCREE: Slide 17, please. Good morning, Mr.  
25 Chairman, Commissioners.

22

1 Region II performed three license renewal  
2 inspections at Oconee. Carl Julian, a Senior Reactor  
3 Inspector in the Division of Reactor Safety led all three  
4 teams, and he is also here today, sitting behind me.

5 I will note at this time that Carl participated in  
6 the two license renewal inspections at Calvert Cliffs which  
7 allowed us to use some of the lessons learned there.

8 In addition, Staff from Region I and Headquarters  
9 participated in the Oconee inspections, which contributed to  
10 consistency and promoting of lessons of learned.

11 The bullets on the first slide summarize the  
12 objectives of the first two inspections that were based on  
13 the inspection procedure for license renewal.

14 The first inspection was a one-week inspection  
15 that took place in April, 1999. The inspection focused on  
16 Duke's scoping and screening process that was used to  
17 identify the plant equipment that would be subject to an  
18 aging management review.

19 Our inspection also included an evaluation of  
20 several systems, structures, and components that were  
21 excluded from the scope of license renewal.

22 The second inspection, a two-week inspection in  
23 June and July, 1999, involved an inspection of Duke's aging  
24 management programs to verify that the programs had been  
25 implemented in accordance with the application and the

23

1 safety evaluation report.

2 This involved a sample inspection of maintenance  
3 records, system walkdowns, and visual inspections to  
4 identify credible aging mechanisms, and to ensure that  
5 ongoing aging was identified in Duke's aging management  
6 program.

7 The third and final inspection that occurred in  
8 early March of this year, was used primarily to follow up on  
9 open items from the first two inspections.

10 Next slide, please. The team selected the scoping  
11 and screening inspection sample set based on the risk  
12 significance of the equipment, and after a detailed Regional  
13 inspection plan was developed.

14 For example, the 4160 volt auxiliary power system,  
15 the emergency feedwater system, high pressure injection  
16 system, and the Kewee Hydroelectric Station subsystems were  
17 among those systems and structures chosen to evaluate the  
18 scoping process.

19 In addition, the team selected a group of plant  
20 systems and structures that Duke did not include within the  
21 scope of license renewal. For example, the spent fuel pool  
22 cooling system, the decay heat removal system, and the  
23 electric supply were selected, using insights from the  
24 Oconee probabilistic risk assessment.

25 The team found that scoping and screening was

24

1 conducted as described in the application, and that  
2 documentation supporting Duke's application was in an  
3 auditable and retrievable form.

4 However, it was also the team's view that the  
5 function of spent fuel cooling and the postulated plant  
6 events of loss of decay heat removal and pipe rupture should  
7 have been addressed in mechanical scoping.

8 This issue was related to the broader concern  
9 regarding the scoping methodology that was resolved by  
10 Duke's additional evaluation, as Joe Sebrosky discussed  
11 earlier.

12 The second inspection revealed that in most cases,  
13 Duke had properly implemented the aging management programs  
14 as approved by the Staff in its Safety Evaluation Report.

15 The team determined that the existing aging  
16 management programs credited by Duke in its application were  
17 adequate for the applications examined. For those aging  
18 management programs that Duke planned to develop before the  
19 license term is completed in 2013, the team noted that there  
20 was no aging management program or tracking mechanism in  
21 place to ensure that the programs were developed and  
22 implemented.

23 Since then, however, Duke has developed an  
24 internal document to track license renewal program  
25 commitments, and plans to include these in the update of the

25

1 updated final Safety Analysis Report.

2 As part of the second inspection, the team  
3 reviewed documentation that Duke had developed that  
4 indicated that the aging effects for certain electrical  
5 components did not require an aging management program.

6                   However, based on the team's review of correction  
7                   action documents, maintenance records and system walkdowns  
8                   of the auxiliary building, turbine building, and Unit I  
9                   reactor building, the team concluded that the potential  
10                  aging effects of heat, moisture, and radiation were  
11                  applicable at Oconee.

12                  In response, Duke developed an insulated cable  
13                  aging management program for electrical cables and  
14                  connectors that includes required inspections, parameters to  
15                  be monitored, and the requirement for corrective actions.

16                  As I mentioned, the third inspections focused on  
17                  open items identified during the screening and aging  
18                  management inspections.

19                  The inspection was also used to examine any plant  
20                  equipment or programs added to the scope of license renewal  
21                  since the original application.

22                  The team included as a result of this final  
23                  inspection that all open issues had been resolved.

24                  Next slide, please. Overall, the Region  
25                  concluded, in a memo dated March 16th of this year, from

26

1                  Luis Reyes, that the scoping and screening process was  
2                  implemented in conformance with Duke's license renewal  
3                  application, that applicable aging mechanisms were  
4                  identified, that required documentation was auditable, and  
5                  that Duke's aging management programs provide reasonable  
6                  assurances for renewing the licenses for the Oconee units.

7                  Next slide, please. In conclusion, Mr. Chairman  
8                  and Commissioners, the conclusions of the safety review and  
9                  evaluation of the environmental impacts and inspection  
10                 verifications support renewal for the licenses for Oconee  
11                 Nuclear Stations, Units I, II, and III.

12                 The Staff requests that the Commission authorize  
13                 the Director of NRR to renew the licenses DPR-38, DPR-47,  
14                 and DPR-55, with the expiration dates of February 6, 2033;  
15                 October 6, 2033; and July 19th, 2034, respectively.

16                 This completes the Staff's presentation, and we'll  
17                 take questions. Thank you.

18                 CHAIRMAN MESERVE: Thank you for a very helpful  
19                 presentation. Let me turn to my colleagues to see if they  
20                 have some questions.

21                 First, Commissioner Merrifield.

22                 COMMISSIONER MERRIFIELD: Thank you, Mr. Chairman.  
23                 First, I'd like to turn back to the Slide Number 15.

24                 You've got two issues here that you're referring  
25                 to as unique aspects, the first one being the transmission

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1                 line impacts; and the second being the combined generation  
2                 alternatives.

3           Now, when you use the word, unique, it would lead  
4 one to the conclusion that this is something that is not  
5 very often and we aren't likely to see very much in the  
6 future.

7           Obviously there are a lot of other plants out  
8 there with very extensive transmission lines, and there may  
9 be other individuals who comment on future license renewals  
10 who may want to have us look at a combination of generation  
11 alternatives.

12           So what about these is unique to Oconee, and how  
13 are we going to deal with these issues as it relates to  
14 future license renewal applications?

15           MR. GRIMES: Commissioner, I'll take the first  
16 stab at that. And to clarify that, when we explained  
17 uniquenesses, they were unique from the standpoint of the  
18 experience that we had on Calvert Cliffs, and they aren't  
19 provided for in our general review guidance.

20           And I'll ask Jim Wilson to explain the extent to  
21 which we think the transmission quarters may be unique  
22 amongst all plants. But I think that we will learn a lesson  
23 from the comment regarding the alternative sources that we  
24 can reflect on. But it wasn't one that we had anticipated,  
25 so in that sense, it was unique.

28

1           Jim, would you like to comment on the transmission  
2 quarters?

3           MR. WILSON: Up until sometime last Spring, the  
4 industry had been taking the position that because  
5 transmission lines will remain energized even if the  
6 licenses are not renewed, that the impacts of transmission  
7 line maintenance activity should not be considered during  
8 the scope of the environmental review for license renewal.

9           After consulting with OGC, the Staff has taken the  
10 position that because the rule specifies the scope to be  
11 considered for transmission line impacts for electromagnetic  
12 fields acute effects, that is, those transmission lines that  
13 were constructed for the purpose of connecting the plant to  
14 the grid when the plant was initially licensed as specified  
15 in the rule, the same scope should be applied to other  
16 impacts involving transmission lines, in this case, the  
17 potential effects on endangered species due to maintenance  
18 activities.

19           At Calvert Cliffs, the connection took place at  
20 the switch yard, because the grid was essentially in place  
21 when the plant was built. For Oconee, however, the plant  
22 was built at the same time as approximately 330 miles of  
23 transmission lines that comprise the grid, once Oconee was  
24 installed, in place, and operating.

25 And that was part of the initial licensing basis.

29

1 The Staff's position now is that the impacts considered for  
2 transmission lines should consider all those lines that were  
3 originally constructed for the purpose of connecting the  
4 plant to the grid, and we'll be using that position for  
5 future reviews.

6 COMMISSIONER MERRIFIELD: So it's different. It's  
7 not really unique; it's different.

8 MR. WILSON: It's in contrast to the way we did it  
9 at Calvert Cliffs, and the way the industry --

10 COMMISSIONER MERRIFIELD: But this is more typical  
11 of what we're going to see in the future, is what you're  
12 saying?

13 MR. WILSON: I think we're going to be using that  
14 position in the future.

15 COMMISSIONER MERRIFIELD: Okay, what about  
16 combined generation alternatives; is that going to be  
17 typical?

18 MR. WILSON: That was unique because that was the  
19 first time we had seen it. We had -- in the past, the Staff  
20 has only considered alternatives that were direct  
21 replacements for large baseload units such as the nuclear  
22 plants. And as a result of a comment at a public meeting,  
23 they said why don't you consider a combination of  
24 alternatives, and the Staff thought that was a reasonable  
25 comment, and, indeed, we considered a mix of alternatives.

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1 And we will likely use that as an alternative in  
2 future renewal applications. It's one of our lessons  
3 learned.

4 COMMISSIONER MERRIFIELD: You may want to avoid  
5 the use of the word, unique, if it's something we intend to  
6 use, typically, in the future.

7 MR. MIRAGLIA: I don't think we'll be using it in  
8 the broad sense, Commissioner. I think we were trying to  
9 present in terms of the uniqueness of this review in  
10 contrast to the Calvert Cliffs, in that more limited sense  
11 that we were using the term, unique, not to say that we  
12 wouldn't see similar things in future reviews.

13 COMMISSIONER MERRIFIELD: On the paper, I'd like  
14 to turn to page 8. We have -- hold on a second. Under (g),  
15 the licensee's USFAR Supplement submitted pursuant to 10 CFR  
16 54.21(d) was revised on March 27th, 2000, and describes  
17 certain future inspection activities to be completed before  
18 the end of the extended operation. The licensee shall  
19 complete these activities no later than February 6, 2013.

20 We have obviously different dates for which these  
21 licenses are being extended to, and so I'm wondering why we



22 fixed upon this particular date.

23 MR. GRIMES: There are two reasons for that: The  
24 first is as a matter of convenience. Duke felt that having  
25 one milestone to meet would be more convenient in managing

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1 their three units.

2 The other aspect is that there are shared features  
3 amongst the units that would make it very difficult to  
4 manage the completion of three successive dates. And so  
5 after discussing it with Duke, we framed the licenses with a  
6 single milestone to meet.

7 COMMISSIONER MERRIFIELD: All right, Sam, I've got  
8 a series of questions. There are actually nine of them and  
9 they all require a yes or no answer. If you don't feel  
10 comfortable giving a yes or no answer, you can say you  
11 don't. But this is not difficult.

12 MR. COLLINS: And they're all for me?

13 COMMISSIONER MERRIFIELD: They're all for you.

14 Number One: Do you think the licensee, Duke Power,  
15 would describe our relicensing process as a piece of cake?  
16 Yes or no?

17 MR. COLLINS: No.

18 COMMISSIONER MERRIFIELD: Okay, Number Two: Was  
19 the Staff vigorous and thorough in its questioning of the  
20 licensee?

21 MR. COLLINS: Yes.

22 COMMISSIONER MERRIFIELD: Yes. Was the Staff able  
23 to ask questions of the licensee to resolve outstanding  
24 safety concerns?

25 MR. COLLINS: Yes.

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1 COMMISSIONER MERRIFIELD: Did the Staff utilize a  
2 questioning attitude in this relicensing process?

3 MR. COLLINS: Yes.

4 COMMISSIONER MERRIFIELD: Was the outcome of this  
5 relicensing effort predetermined?

6 MR. COLLINS: No.

7 COMMISSIONER MERRIFIELD: Are you comfortable with  
8 the Staff recommendation to provide for a 20-year license  
9 extension?

10 MR. COLLINS: Yes.

11 COMMISSIONER MERRIFIELD: Would you have been  
12 willing to provide a negative recommendation to the  
13 Commission if you were convinced that this plant could not  
14 be operated safely for an additional 20 years?

15 MR. COLLINS: Yes.

16 COMMISSIONER MERRIFIELD: Should any licensee take  
17 from this review that the NRC is going to rubber-stamp

18 future applications for license extension?

19 MR. COLLINS: No.

20 COMMISSIONER MERRIFIELD: Has the Commission taken  
21 any action or given you any instruction that would prevent  
22 you from recommending in the future, that a license renewal  
23 application not be approved?

24 MR. COLLINS: No.

25 COMMISSIONER MERRIFIELD: Thank you, Mr. Chairman.

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2 MR. MIRAGLIA: I would like the record to show  
3 that I would concur with all those answers.

4 CHAIRMAN MESERVE: Commissioner McGaffigan?

5 COMMISSIONER MCGAFFIGAN: There is one comment  
6 I'll make in terms of the slides. I think that you probably  
7 should have an ACRS slide in the future. It's a very  
8 important document, the letter from the ACRS, statutorily  
9 required, and I think you had one for Calvert Cliffs that  
10 just sort of summarized the ACRS letter.

11 But the ACRS is an important part of the process,  
12 and is an additional check. If there were an ACRS member in  
13 front of us at the moment, he probably could have answered  
14 appropriately to most of those questions that are applicable  
15 to ACRS.

16 But turning to the ACRS letter -- and this gets  
17 more into the future -- they suggest in their letter that  
18 there are several issues that came up in the Oconee license  
19 renewal that are really generic.

20 They mentioned the completeness of the methodology  
21 used to identify SSCs that are within the scope of Part 54;  
22 consideration of the effects of the reactor coolant  
23 environment on fatigue life.

24 Are those issues that they identified in their  
25 March 13th letter being treated in the GAL report?

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1 MR. GRIMES: Yes, either the GAL report or the  
2 Standard Review Plan. The issue about expanding guidance in  
3 order to ensure the completeness of the methodology to  
4 capture all the systems, structures, and components that are  
5 relied upon by the licensing basis, is an experience that  
6 will reflect in the Standard Review Plan. It does not  
7 really relate to the credit for existing programs that we're  
8 trying to accomplish under GAL.

9 But we are continuing a dialogue with the  
10 assistance of the Office of Research to pursue this issue  
11 about what is the appropriate way to manage environmental  
12 effects on fatigue.

13 And that is still an area that requires some  
14 further work, generically. And the ACRS has been assisting

15 us in those efforts as well, and providing feedback that  
16 will contribute to generic process improvements.

17 COMMISSIONER MCGAFFIGAN: They imply in here that  
18 some of these issues are taking significant resources  
19 between the Staff and the licensee to resolve during the  
20 process.

21 I'm trying to find the -- you know, it's the issue  
22 of the completeness of the methodology for bounding the  
23 SSCs.

24 MR. GRIMES: That gets to the benefits of being  
25 able to have a generic resolution to improve the efficiency

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1 of future renewal efforts, and we fully support this  
2 experience and feedback. To the extent that it can be  
3 resolved generically, we'll further streamline and improve  
4 the efficiency of renewal reviews.

5 And the ACRS is -- we're arranging to continue to  
6 work with the ACRS, generically, to reflect on appropriate  
7 guidance that we could include in the Standard Review Plan,  
8 GAL, or recommend that NEI include it in their Guide 95-10.

9 COMMISSIONER MCGAFFIGAN: There is a bit of a  
10 pause here at the moment because ACRS -- not for you guys.  
11 You've got two applications in front of you.

12 But for ACRS, there will be little for them to do  
13 in this area, specifically, for about a year or two,  
14 whenever you've got the schedule for the Arkansas Nuclear I,  
15 and Hatch items come before them.

16 Are they involved in these generic issues? Is  
17 that an important element of their work effort for the next  
18 year?

19 MR. GRIMES: Yes. As a matter of fact, we've  
20 identified milestones for the ACRS, leading up to the  
21 presentation of GAL and an SRP for Commission approval in  
22 accordance with the plan that we've established to develop  
23 GAL, send it out for public comment.

24 We're making arrangements to meet with the ACRS  
25 Subcommittee this summer in order to keep them engaged and

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1 to maintain a dialogue with them to ensure that their views  
2 are reflected in GAL and the Standard Review Plan.

3 COMMISSIONER MCGAFFIGAN: Just a quick item on the  
4 UFSAR. The UFSAR supplement being incorporated by July  
5 2001, and then the interim that they have to sort of treat  
6 it as if it's already in UFSAR; is that a matter of  
7 convenience?

8 You have a license condition that basically says  
9 they have to submit the supplement by July, 2001. That's  
10 what Viewgraph 11 said, and that's what the documents say.

11 But in the interim, it's almost as if the material  
12 they have already submitted is already in the FSAR. So, why  
13 didn't we just -- they're going to get a new license  
14 whenever the approval is granted.

15 Why isn't that FSAR -- why wasn't this all put  
16 together at one point? Is it just a matter of convenience?

17 MR. COLLINS: It's mostly a matter of proces.  
18 Although they proposed a UFSAR supplement with the  
19 application, and the have proposed changes to it to comport  
20 with our safety evaluation basis, there is still a lot more  
21 work that needs to be done before the programs that are  
22 described in the FSAR supplement can be fully implemented.

23 And so there is administrative work on their end  
24 in order to take the supplement and roll it into the FSAR,  
25 and to make sure that they satisfy all of the provisions in

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1 the FSAR.

2 So it's a little bit more than a matter of  
3 convenience. We realize that there would need to be a time  
4 provide where they could bring all the documentation  
5 together.

6 And that's why we believe that Part 54 provided  
7 that the application would depend on a supplement that could  
8 then be integrated within a reasonable period of time.

9 COMMISSIONER MCGAFFIGAN: Okay, the final question  
10 is Mr. Collins. You were quoted in Nuclear News Flashes  
11 last week, last Thursday as expressing some disappointment  
12 or transmitting some disappointment -- maybe I should keep  
13 on Mr. Grimes here -- from your staff as to the depth and  
14 scope of the license renewal submittals from Arkansas  
15 Nuclear I and Hatch.

16 Could you tell us what's involved there? Do they  
17 not -- you know, Hatch is a very new unit, the first BWR;  
18 Arkansas Nuclear I, presumably, could have learned a lot  
19 from Oconee since they're similar plants.

20 What did you have in mind in that statement, and  
21 does it affect your schedule for those plants?

22 MR. COLLINS: There are two questions there. One,  
23 it doesn't appear to affect the schedule at this time.

24 The first question: There was a general  
25 admonition that came up as a result of the NEI meeting of

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1 last week. Hatch and ANO are currently in the process, as  
2 you well know. We're performing the review for Hatch first  
3 BWR. We have a lot of contract support for ANO.

4 We're further ahead on ANO than we are Hatch right  
5 now as far as review and RAIs are concerned. The submittals  
6 for ANO, when you look at the amount of information, is less  
7 than what we have seen in the past.

8                   There are various reasons for that. Some of it is  
9 to remove duplicative information; some of it is to take  
10 advantage of efficiencies and lessons learned in the  
11 process.

12                   The statement -- I think Chris's statement in that  
13 April 26th Nuclear Flash Notes is probably more accurate  
14 than mine was depicted to be. It is a general caution that  
15 the scope and depth of the followon applications should be  
16 sensitive to the amount of information that the Staff needs  
17 to perform an appropriate review with minimum requests for  
18 additional information in that any attempt -- and it might  
19 be a good will attempt -- to take advantage of past reviews  
20 ahead of the finalization of the Standard Review Plan and  
21 the generic aging lessons learned, has some risk with it if  
22 it's not well coordinated with the Staff.

23                   It's premature at this time to say that that is  
24 the case for either Hatch or ANO.

25                   COMMISSIONER MCGAFFIGAN: One final question: When

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1 does these three documents -- there are three critical  
2 documents here. There's an NEI document; there's the SRP  
3 and there's the GAL report. When does stability arrive for  
4 those three documents? What is the schedule for when we  
5 have -- two of which are in your control, and one of which  
6 is not, the NEI.

7                   MR. GRIMES: Well, to a certain extent, the NEI  
8 document is within our control to the extent that if we're  
9 not satisfied that NEI has been responsive to our needs,  
10 we'll take exception to that in a Regulatory Guide.

11                   But you're correct in pointing out that trying to  
12 maintain coordination between the three documents is  
13 presenting a challenge to us. But we're working to have  
14 those documents ready for public comment in August, and then  
15 to brief you in November on the results of the public  
16 comment process, and then present documents for the  
17 Commission's approval in March of next year.

18                   COMMISSIONER MCGAFFIGAN: That is a good schedule.  
19 I hope we can keep it, given all the other things you are  
20 working on. It would be awful nice if by mid-2001 there was  
21 a great deal of stability, because I think there are a lot  
22 of applications coming in soon thereafter. Thank you.

23                   CHAIRMAN MESERVE: Commissioner Diaz.

24                   COMMISSIONER DIAZ: Yes, thank you, Mr. Chairman.

25                   Turning to the issues of -- technical issues --

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1 was there any very serious of more difficult than expected  
2 technical issues encountered during the scope of the review?

3                   MR. GRIMES: I would say that they were

4 comparable. As a matter of fact there were elements of the  
5 same technical issues at Oconee.

6 For example, the issues that we are pursuing  
7 generically on reactor vessel internals, the underlying  
8 aging effects that are associated with that; the issue on  
9 cable insulation aging effects and how those will be  
10 managed. They were treated with some differences but they  
11 were slight differences. I would say that all of the issues  
12 were comparable.

13 COMMISSIONER DIAZ: No new issues?

14 MR. GRIMES: We found no new technical issues.

15 COMMISSIONER DIAZ: No new technical issues -- and  
16 to satisfy Commissioner Merrifield, the atypical aspects  
17 identified under Item 10, do those present a different  
18 challenge to the Staff or was it treated within the same  
19 scope and you were able to handle them in the same manner  
20 that you now have developed?

21 MR. GRIMES: Well, at the risk of abusing "same"  
22 in the same way we abused "unique" I would say that they  
23 were sufficiently similar.

24 [Laughter.]

25 COMMISSIONER DIAZ: Aha. That sounds excellent to

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1 me. Sounds excellent. Very good.

2 I do have one further question. We area always  
3 looking for efficiencies. Have there been an efficiency  
4 achieved between these two licenses right now regarding the  
5 FTEs that are being used for Calvert Cliffs and Oconee?

6 MR. GRIMES: We attempted to determine that, and I  
7 would say that there is a very small efficiency observed in  
8 the level of effort but unfortunately it is difficult to  
9 pull out because there was a lot of effort on Oconee in  
10 reviewing the topic reports.

11 We will see a benefit for that in the subsequent  
12 B&W; applications because we made that investment but the  
13 level of effort for Calvert Cliffs and Oconee was fairly  
14 comparable. It was in the same range as the estimate that  
15 we provided in our planning assumptions and we are going to  
16 continue to monitor that. As a matter of fact, the issue  
17 that we raised with respect to the content of the Arkansas  
18 and Hatch applications was a reflection of a disappointment  
19 that we were not seeing as large an improvement in  
20 efficiency as we had hoped from the new standard form and  
21 content.

22 To be more specific to your question, the numbers  
23 are comparable and there's a very small improvement on  
24 Oconee.

25 COMMISSIONER DIAZ: You are still expecting when

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1 the GALL is finished and we get a couple more of these under  
2 our belt that both the licensees and us will be able to  
3 achieve efficiencies in the process?

4 MR. GRIMES: Yes.

5 MR. COLLINS: Our operating plan assumes 2002 and  
6 out that there are efficiencies in order to maintain  
7 schedule. Our resources are predicated on achieving those  
8 efficiencies.

9 COMMISSIONER DIAZ: Okay, thank you.

10 CHAIRMAN MESERVE: Commissioner Dicus.

11 COMMISSIONER DICUS: Thank you, Mr. Chairman.

12 I have really just one rather general, probably  
13 generic, question. It really has to do with the going  
14 forward for these future applications. Obviously we have  
15 two in now and we know we are going to have move, and you  
16 have discussed the lessons learned.

17 You mentioned it in general terms that specific  
18 lessons learned have been brought forward and I guess my  
19 question goes to we are going to have these lessons learned  
20 and I know you are aware of them. You are incorporating  
21 them into what we do in the future, but how?

22 I guess little more specifics on exactly how we  
23 are dealing with these and what other lessons, if we have  
24 more lessons learned, how are we going to use these as we  
25 get more and diverse applications in, because I don't want

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1 to -- you know, the two applications we have in now you have  
2 indicated perhaps did not go into the depth that you thought  
3 perhaps they would simply because maybe they assumed  
4 efficiencies and effectiveness that was already available to  
5 us, and so I can see maybe down the road, so how are we  
6 going to deal with this?

7 MR. GRIMES: First, I would like to point out that  
8 although we were somewhat disappointed we saw a substantial  
9 improvement in Arkansas and Hatch as far as we have gone so  
10 far, but we have a procedure that essentially collects  
11 experience of different types and then focuses it.

12 We had a collection or an inventory of generic  
13 renewal issues and we sorted that out and abandoned that  
14 inventory in favor of directing specific experience to GALL  
15 where it applies to credit for existing programs and  
16 adequacy of aging management.

17 Other lessons related to the review process we  
18 have directed to the SRP, and that experience that gets to  
19 the content of the application, standardization and  
20 consistency in order to minimize the extent to which future  
21 applications divert from a plan would go into NEI-9510 or  
22 would be exceptions in a Regulatory Guide.

23                   Finally, the most important key I think is we have  
24                   been feeding experience back into our planning and budgeting  
25                   process that identifies where we need to focus on

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1                   efficiencies in the level of effort resources, the planning  
2                   assumptions, the 585-day schedule. All of those things that  
3                   are reflected from the strategic plan all the way down to  
4                   the operating plan as the Commission, you know, reflects in  
5                   its request to Congress, all of that is fed back into the  
6                   planning and budgeting process.

7                   COMMISSIONER MCGAFFIGAN: Mr. Chairman, I would  
8                   just -- it occurs to me on the 585-day schedule, just for  
9                   the public, is the schedule for the Staff to complete its  
10                  work from the date of receipt on the SER and the EIS. We  
11                  are not announcing a new goal for the overall process, which  
12                  has an ACRS component, a Commission component and perhaps an  
13                  adjudicatory component, but just to make sure that that is  
14                  understood.

15                  CHAIRMAN MESERVE: Thank you for that  
16                  clarification.

17                  I just have two questions of a very specific  
18                  nature.

19                  You indicate on Slide 10 that one of the unique  
20                  aspects of this plan, and I think this is truly unique, is  
21                  the Keowee Hydro-Electric Station. My understanding is that  
22                  they don't have emergency diesels at this facility and they  
23                  rely on this dedicated station.

24                  Could you say a little bit more about the sorts of  
25                  issues that you had to confront in dealing with that element

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1                  of the --

2                  MR. GRIMES: Joe, would you like to describe some  
3                  of what went on with Keowee?

4                  MR. SEBROSKY: It presented a challenge more from  
5                  the scoping and screening perspective, that when you look at  
6                  that there's very few people in the agency that have  
7                  expertise on how a dam operates, a hydro-electric station  
8                  operates to produce power.

9                  With Keowee when we asked questions, Duke had  
10                  referred us to previous documentation, previous docketed  
11                  material, on how that worked.

12                  As an example they did a probabilistic risk  
13                  assessment on Keowee that gave us --

14                  CHAIRMAN MESERVE: On dam failure or what?

15                  MR. SEBROSKY: No, actually on failure of the  
16                  hydro-electric station. Dams are not unique. There's dams,  
17                  impoundment dams for ultimate heat sinks, but to use them to  
18                  generate electricity as your emergency power supply, that is  
19                  unique. I don't know of another plant that does that.



20 COMMISSIONER DIAZ: Oh, no, there are several  
21 plants in the world that do that.

22 MR. SEBROSKY: I guess I was limiting it to the  
23 United States, to the 103 operating plants and I don't know  
24 of any other that uses a dam as an emergency power supply.

25 But anyway, we went to that information, the

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1 previously docketed material, and we asked some questions of  
2 Duke about the scoping and screening to make sure that we  
3 got all of the systems, structures and components. Once  
4 that was identified, really the aging effects for different  
5 components in there aren't unique.

6 You deal with concrete and water, for example, in  
7 the intake structure, so the aging effects -- and that is  
8 what I tried to say during that slide presentation -- the  
9 aging effects really didn't present a challenge. It was  
10 more from the scoping and screening perspective.

11 MR. MIRAGLIA: There was a substantive review of  
12 the operation at Keowee in performing the emergency function  
13 and there was a probabilistic risk assessment that Joe  
14 talked about previously, and not part of the license renewal  
15 but part of the licensing review of Oconee, and that was the  
16 basis for the acceptability of the understanding of the  
17 operation of the Keowee Hydro-Electric Station.

18 As Joe said, the renewal was looking at the aging  
19 management associated with those components and structures.

20 CHAIRMAN MESERVE: My other question relates to  
21 the same slide. In discussing the insulated cables in  
22 connection to the aging management program you emphasized  
23 that you excluded from that analysis the cables that were  
24 covered by the Environmental Qualification Program.

25 I assume that is because you had determined that

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1 that program by itself was sufficient to deal with any aging  
2 phenomena?

3 MR. GRIMES: Yes, that's correct. Joe, do you  
4 want to add anything to that?

5 MR. SEBROSKY: The only thing that I would have to  
6 add is the Environmental Qualification Program for the  
7 cables is covered under a time-limited aging analysis which  
8 was reviewed separately and accepted by the Staff, so it is,  
9 as you said, we didn't have a problem with how they were  
10 addressing environmentally qualified cabling. It was  
11 limited to non-environmentally qualified cable.

12 CHAIRMAN MESERVE: And the moisture problem here  
13 is buried cables, or what was the --

14 MR. SEBROSKY: Moisture isn't limited to buried  
15 cables but there was experience at Davis-Besse and it was

16 something that was brought up late in the Calvert review and  
17 we wanted to make sure that that was captured, and Duke  
18 provided a program for that.

19 CHAIRMAN MESERVE: Good. That's all of my  
20 questions.

21 Let me just say on behalf of the Commission that I  
22 want to thank you for both an excellent briefing and for  
23 your capacity to abide by the schedule for the performance  
24 of your work in this case.

25 When we had our briefing in Calvert Cliffs' case I

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1 said that I thought that there was going to be a challenge  
2 for the Staff in continuing to be able to meet the high  
3 standards that it set for itself in that case, and it  
4 appears to me that you have done that in this instance, and  
5 I want to, on behalf of the Commission, I want to express my  
6 appreciation to you.

7 Let me turn to my colleagues and see if they have  
8 any comments to make in conclusion?

9 COMMISSIONER MERRIFIELD: I have a brief comment  
10 to make, Mr. Chairman.

11 First, I would like to join in your compliments to  
12 the Staff. They did a terrific job on this and it is  
13 certainly going to make our decision, I think my decision  
14 very easy.

15 I want to thank Sam for answering my series of  
16 questions. There was a point that I wanted to make with  
17 that and the point was that I think licensees in the future  
18 will be at their peril if they believe that this Commission  
19 and this Staff are going to rubber stamp future license  
20 applications.

21 This is not a pro forma process and one which I  
22 think licensees will have to treat very seriously and should  
23 do the application, should prepare the applications that are  
24 adequate to do that.

25 For my own part, I believe that if this Staff in

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1 the future makes a well-reasoned argument that an individual  
2 licensee should not be relicensed for a 20-year extension, I  
3 am comfortable with that process and I would be willing to  
4 vote to accept that kind of a Staff recommendation. I  
5 certainly want licensees to know that for my part. Thank  
6 you.

7 CHAIRMAN MESERVE: Good. With that, we stand  
8 adjourned. Thank you.

9 [Whereupon, at 10:29 a.m., the briefing was  
10 concluded.]