



UNITED STATES  
**NUCLEAR REGULATORY COMMISSION**

ADVISORY COMMITTEE ON NUCLEAR WASTE  
 WASHINGTON, D.C. 20555-0001

May 10, 2000

MEMORANDUM TO: ACRS Members  
*Noel Dudley*  
 FROM: Noel Dudley, Senior Staff Engineer  
 SUBJECT: COMMISSION MEETING CONCERNING OCONEE NUCLEAR  
 STATION LICENSE RENEWAL - MAY 2, 2000

The Commission met on May 2, 2000, with representatives of the NRC staff concerning the renewal of the operating license for Oconee Nuclear Station. Messrs. Frank Miraglia, Jr., Sam Collins, Christopher Grimes, Joseph Sebrosky, Jim Wilson, and Victor McCree made the staff presentation. The presentation slides are attached.

Commissioner Merrifield questioned why transmission line impacts and combined generation alternatives were considered unique aspects of the Oconee Environmental Review. The staff explained that these items were addressed for the first time in the Oconee Environmental Impact Statement, but were not unique to Oconee. In response to a question by Commissioner Merrifield, the staff explained that a single date was used for completion of all licensee commitments due to the shared systems among the units and for administrative convenience. Commissioner Merrifield asked Mr. Collins several questions requiring a yes or no answer to put on record for future licensee renewal applicants that neither the staff nor the Commission intended to rubber stamp future license renewal applications.

Commissioner McGaffigan noted that the staff should have included a slide presenting the conclusions of the ACRS reports concerning the Oconee license renewal application and the staff's resolution of the generic concerns raised by the ACRS. In response to Commissioner McGaffigan's questions, the staff explained when and how the ACRS would be involved in reviewing the generic license renewal documents. Other issues discussed were why the Final Safety Analysis Report (FSAR) would not be updated until 2001, the scope and depth of the Arkansas Nuclear One and Hatch license renewal applications, and when the generic license renewal documents and stabilization of the license renewal process would be completed.

Commissioner Diaz and the staff discussed new or complex technical issues identified during the review of the Oconee application and a comparison of the resources used to review the Calvert Cliffs and Oconee applications. The staff stated that it had not identified any new technical issues, but noted that reactor pressure vessel internals and electrical cable aging issues were still being studied. Mr. Grimes explained that he did not see any gain in efficiency during the review of the second license renewal application. Mr. Collins stated that efficiencies must be identified by 2002 in order to maintain the present review schedule.

Commissioner Dicus asked how lessons learned would be communicated to and used by the staff and licensees. The staff stated that the generic license renewal documents would incorporate the lessons learned.

Chairman Meserve and the staff discussed the types of issues the staff had resolved to reach its conclusions. He congratulated the staff and industry on the successful and timely completion of the license renewal process for Oconee.

Attachment: Commission Presentation Slide: Oconee Nuclear Station License Renewal -  
May 2, 2000

cc via e-mail w/o att.:

J. Larkin

H. Larson

S. Duraiswamy

ACRS Fellows and Staff

# **Oconee Nuclear Station License Renewal May 2, 2000**

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**Sam Collins** - Director, NRR  
**Christopher Grimes** - License Renewal & Standardization, NRR  
**Joseph Sebrosky** - Safety Project Manager  
**Jim Wilson** - Environmental Project Manager  
**Victor McCree** - Deputy Director, Division of Reactor Projects, Region II

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## **Purpose**

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- Inform the Commission of the results of the review of the Oconee license renewal application
- Request the Commission authorize the Director of NRR to renew the operating licenses for Oconee Nuclear Station, Units 1, 2, and 3

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## **Performance Goals**

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- **Maintain Safety**
- **Increase Public Confidence**
- **Reduce Unnecessary Regulatory Burden**
- **Make NRC decisions effective, efficient & realistic**

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## **License Renewal**

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### **Program Monitoring and Oversight**

- **Executive Council oversight**
- **Steering Committee guidance and coordination**
  - ▶ **Interface with NEI Working Group**
  - ▶ **Coordination of technical and process issues**
  - ▶ **Monitoring of success measures and resources**
- **Monthly management meetings**
  - ▶ **Facilitate communications**
  - ▶ **Identify issues and assign actions**

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## **License Renewal Principles**

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- The regulatory process is adequate to maintain safety, with the possible exception of the detrimental effects of aging
- The licensing basis must be maintained during the renewal term

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## **Renewal Process**

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- Focus on aging management and time-limited design analysis
- Draft standard review plan provided aging management program attributes and reasonable review scope

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## **Safety Review Milestones**

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- July 6, 1998 – Date of Duke application
- December 4, 1998 – Complete issuance of staff questions
- February 17, 1999 – Received Duke's responses
- April 26-30, 1999 – Scoping/Screening Inspection
- June 16, 1999 – Published SER with open items (OIs) & confirmatory items (CIs)
- July 12-16, & 26-30 – Aging Management Inspection
- September 1-3, 1999 – ACRS briefing on SER
- February 3, 2000 – SER closure of OIs & CIs
- Feb 28 - March 3, 2000 – Followup inspection
- March 2, 2000 – ACRS briefing on SER
- March 2000 – Published NUREG-1723

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## **Review Results**

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- **Scoping & Screening [§54.4 - SER Chapter 2]**
  - ▶ Evaluated applicant's methodology of which systems, structures, and components should be within the scope of license renewal
  - ▶ Evaluated applicant's implementation of the methodology for structures and components subject to an aging management review
  - ▶ Evaluated applicant's determination of which passive, long-lived structures and components are subject to aging management

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## **Review Results - continued**

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- **Aging Management [54.21(a)(3) - SER Chapter 3]**
  - ▶ Evaluated applicant's identification of applicable aging effects and proposed programs to manage aging effects to ensure relevant equipment intended functions are maintained
  
- **Time-Limited Aging Analysis (TLAA) [54.21(c) - SER Chapter 4]**
  - ▶ Evaluated applicant's methods to determine how analyses with time-limited assumptions have been or will be managed for period of extended operation

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## **Review Results**

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- **Unique Aspects**
  - ▶ Keowee Hydroelectric Station
  - ▶ Standby Shutdown Facility
  - ▶ Insulated Cables and Connection Aging Management Program
  - ▶ Use of topical reports

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## **Safety Review Highlights**

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- Many existing programs provide adequate aging management
- Some programs modified to ensure adequate aging management
- Additional inspections to resolve potential aging effects or demonstration of program adequacy
- UFSAR supplement to be incorporated by July 2001

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## **Safety Conclusion**

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- Actions have been or will be taken with respect to managing the effects of aging
- Actions have been or will be taken with respect to time-limited aging analyses
- The staff finds that there is reasonable assurance that the activities authorized by a renewed license will continue to be conducted in accordance with the licensing basis for the ONS Units 1, 2 and 3, as revised by the renewal commitments

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## **Environmental Review**

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- National Environmental Policy Act (NEPA) requires environmental impact statement for major federal actions.
  - ▶ 10 CFR Part 51 implements NEPA
- Generic Environmental Impact Statement for License Renewal of Nuclear Plants, NUREG-1437 (GEIS)
  - ▶ Category 1 issues (generically resolved)
  - ▶ Category 2 issues (site-specific evaluation)
  - ▶ Uncategorized (site-specific evaluation)
- Oconee site-specific evaluation, NUREG-1437, Supplement 2

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## **Environmental Milestones**

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|----------------------------|---|
| ■ July 6, 1998             | - ER submitted as part of LRA                     |
| ■ August 5, 1998           | - Notice of Acceptance for Docketing              |
| ■ September 14, 1998       | - Notice of Intent to Prepare EIS/Conduct Scoping |
| ■ Sept 14 - Nov 19, 1998   | - Public Comment Period for Scoping               |
| ■ October 19, 1998         | - 2 Public Scoping Meetings                       |
| ■ October 19-22, 1998      | - Site Visit & Audit                              |
| ■ May 20, 1999             | - Draft EIS Issued                                |
| ■ May 28 - August 16, 1999 | - Public Comment Period on Draft EIS              |
| ■ July 8, 1999             | - 2 Public Meetings on Draft EIS                  |
| ■ December 9, 1999         | - Final EIS Issued                                |

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## **Environmental Review Results**

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- **Unique Aspects**
  - ▶ **Scope of transmission line impacts**
  - ▶ **Combined generation alternative**

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## **Environmental Impact Conclusion**

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- **The environmental impacts of renewing the Oconee Nuclear Station licenses are acceptable for the purposes of license renewal**

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# **Inspection Program**

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## **Region II Activity**

- **Conducted three inspections following established procedures**
  - ▶ **Determine if Scoping and Screening, as implemented by Duke, was consistent with their application and the rule**
  - ▶ **Determine if Duke's existing and planned aging management programs were consistent with their application, the rule, and the staff safety evaluation**
  - ▶ **Verify that supporting documentation was auditable**

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# **Inspection Program**

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- **Selected 14 mechanical systems, 3 major structures, and 2 electrical systems to verify the adequacy of Duke's scoping and screening effort**
- **Selected 4 mechanical and 1 electrical system excluded from scope by Duke effort**
- **Visually inspected portions of 7 systems and reviewed status of 31 aging management programs credited in the application**

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## **Inspection Conclusions**

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- Duke successfully implemented scoping and screening process and is establishing aging management programs as described in their application
- Duke demonstrated the capability to manage aging during the period of extended operation
- Duke aging management programs provide an adequate foundation for renewing Oconee licenses

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## **Overall Conclusion**

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### **Staff Recommendation**

- The conclusions of the safety review, evaluation of environmental impacts, and inspection verifications support renewal of the licenses for Oconee Nuclear Station, Units 1, 2, and 3
- The staff requests that the Commission authorize the Director of NRR to renew licenses DPR-38, DPR-47, and DPR-55 with expiration dates of February 6, 2033, October 6, 2033, and July 19, 2034, respectively

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