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SUBJECT: Forwards audit schedule & charter info re emergency feed-water sys self initiated engineering audit, for review & approval.

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April 30, 1998

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

Subject: Oconee Nuclear Station
Docket Nos. 50-269, -270, -287
Oconee Emergency Feedwater (EFW) System
Self Initiated Engineering Audit (SIEA)

In a letter dated January 26, 1998, Duke Energy Corporation (Duke) agreed to provide the NRC staff with an Emergency Feedwater (EFW) System Self-Initiated Engineering Audit (SIEA) schedule and charter. As described in the January 1998 letter, it is Duke's request to conduct this audit in lieu of the NRC team's audit. The subject audit is currently scheduled for the period of July 13-31, 1998 at the Oconee Nuclear Station.

The audit schedule and charter information are provided in Attachment 1 for your review and approval. We look forward to your approval of the proposal and forthcoming assessment plan and in your participation in the subject assessment.

If there are any comments or questions on this information, please call Mano K. Nazar, Oconee Engineering Manager, at (864) 885-3158.

Very truly yours,

W. R. McCollum, Jr.
Vice President
Oconee Nuclear Site

Attachment

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April 30, 1998

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cc: Mr. L. A. Reyes
Regional Administrator, Region II

Mr. M. A. Scott
Senior Resident Inspector

Mr. D. E. LaBarge
ONRR, Project Manager

Mr. M. Batavia
DHEC

CHARTER

**OCONEE EMERGENCY FEEDWATER SYSTEM
SELF INITATED ENGINEERING AUDIT (SIEA)**

SCOPE:

Systems, structures and components which comprise the Emergency Feedwater (EFW) System and supporting systems.

OBJECTIVES:

1. The primary objective of this Self Initiated Engineering Audit (SIEA) is to assess Oconee Nuclear Station's engineering effectiveness through an in-depth review of calculations, analyses, and other engineering documents used to support the Emergency Feedwater system and supporting systems performance during normal or accident conditions.
2. The secondary objective of the SIEA is to determine the quality of safety evaluations performed for the Oconee Nuclear site in support of engineering modifications performed on the EFW system.
3. Assure the corrective action program associated with the EFW system is effective in identifying adverse trends and preventing recurring events.

AUDIT PLANNING:

The lead auditor from the Regulatory Audit Group of the Nuclear Assessment and Issues Division in the Nuclear General Office located in Charlotte, N. C. will develop the audit plan to address, as a minimum, the following points:

1. Background information relative to EFW system significant issues such as Licensee Event Reports (LER) and More Significant Event (MSE) Problem Investigation Reports, particularly as it may relate to engineering and plant design.
2. Oconee Nuclear Station EFW system specific Probabilistic Risk Assessment (PRA) to identify key components and operating evolutions.
3. Assignments of individual team members to specific engineering areas of the system, such as, instrumentation and control, electrical or mechanical and expectations regarding the type of information to be provided to the auditors by Oconee Nuclear site personnel.

4. A timetable of events involving audit activities, such as site access training, entrance, daily, weekly debrief and exit meetings and due dates.

AUDIT PREPARATION:

The lead auditor will conduct a pre-audit trip to the site to assemble the following:

- a. FSAR and Updated Safety Analysis Report related to the EFW system.
- b. Site-specific administrative procedures related to design-basis document control and to engineering change control.
- c. Design-basis and Engineering Support documents.
- d. Technical Specification requirements and surveillance test procedures.
- e. EFW system piping and instrumentation drawings; one-line diagrams; electrical schematics; wiring and logic diagrams; cross section drawings for pumps and heat exchangers; and procurement specifications for major components.
- f. Engineering calculations related to EFW system and supporting systems.
- g. Temporary and permanent modifications, including safety evaluations.
- h. Relevant regulatory information such as information notices, generic letters, and industry operating experience that apply to the EFW system.
- i. Industry standards applicable to the assigned functional areas.
- j. LERs for the past 12 months.
- k. MSE and LSE PIPs related to the EFW system.
- l. Operator work arounds.
- m. Operator training lesson plans.

Additionally, the lead auditor will identify all other key administrative procedures. This information will be copied, collated, and distributed to the audit team members for their in-office preparation.

CONDUCT OF AUDIT:

After initial arrival on-site, the audit team will conduct a general system walkdown inspection either as a group or individually. The objective of this walkdown inspection is to familiarize the group with the general plant and the specific system hardware and layout.

The lead auditor will develop an audit checklist to meet the audit objectives. The audit checklist will incorporate the following requirements:

- a. Review the design, licensing basis, and other design documents, such as calculations and analyses for the EFW system, and determine the functional requirements for the system and each active component during accident or abnormal conditions.

- b. Select significant test procedures and verify that the acceptance criteria specified in the test procedures for system components are adequately supported by design calculations or other engineering documents.
- c. Determine whether the normal and emergency operation of the EFW system is consistent with the design-basis and licensing documents. Determine the need for further review and operational evaluation of discrepancies.
- d. Evaluate Oconee Engineering's control and use of design and licensing input information, and the adequacy of design calculations from the perspective of modifications made to the selected safety system.
- e. Review selected modifications made to the original EFW system that could have changed the design or licensing basis. Determine whether the system meets the design basis and the licensing basis in the as-modified configuration.
- f. Determine whether selected system modifications implemented since initial licensing have introduced any un-reviewed safety questions as defined in 10 CFR 50.59.
- g. Identify inconsistencies between the updated final safety analysis report and the design documents.

AUDIT TEAM COMPOSITION:

The audit team will consist of 4 auditors. The lead auditor will be a member of the Duke Power Regulatory Audit Group and the remaining auditor will be either Duke Power personnel or outside consultants.

AUDIT SCHEDULE:

The length of the audit will be approximately 4 weeks. This does not include the preparation time for the lead auditor which includes checklist establishment, PRA input, and collection of EFW related documents needed for audit team. The 4 weeks include 1 week for audit preparation in the Nuclear General Office in Charlotte, N. C., a 2 week on-site audit period at the Oconee Nuclear site, and 1 week in which the audit team shall document the audit results for presentation to Oconee site management.

The audit schedule will be as follows:

- | | |
|------------------------|---|
| Week 1 (July 13, 1998) | The audit team performs in-office review of design documents. |
| Week 2 (July 20, 1998) | The entrance meeting is held at the Oconee Nuclear site. The on-site portion of the audit begins. A debrief is held with site management on Thursday afternoon. |

Week 3 (July 27, 1998) The on-site portion of the audit continues. A debrief is held with site management on Thursday afternoon.

Week 4 (August 3, 1998) The team prepares for formal exit with management on Thursday and prepare input into audit report.

Week 5-6 (August 10 - 21, 1998) The lead auditor completes the report.

SPONSOR:

- Mano Nazar, Engineering Manager, Oconee Nuclear Site

MANAGEMENT LIAISON:

- Leonard J Azzarello, Mechanical Systems Engineering Group Manager

GROUPS/INDIVIDUALS INVOLVED AND THEIR RESPONSIBILITIES:

- Jerry Standridge of the Regulatory Audit Group (RAG) will lead the EFW SIEA team. The remainder of the team will be comprised of industry recognized experts in the areas of engineering and/or operations.
- Utilize the knowledge and experience of Oconee operations, engineering and maintenance personnel that support the EFW systems and supporting systems.
- Interface with Safety Review Group personnel to obtain a conference room for the team, weekly debriefs, and the exit interview.

DELIVERABLES:

- The SIEA team will review the design and design basis, operation, surveillance and testing, and corrective action processes for the EFW system and supporting systems and identify deficiencies along with corrective actions where appropriate, and recommendations for process improvements to increase the reliability and availability system and related components.
- The SITA team will provide a detailed report of the audit results.