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

Subject: Duke Energy Carolinas, LLC
Oconee Nuclear Station, Units 1, 2, and 3
Docket Numbers 50-269, 50-270, and 50-287
License Amendment Request to adopt NFPA 805 Performance-Based Standard for Fire Protection for Light Water Reactor Generating Plants (2001 Edition)
License Amendment Request (LAR) 2008-01

In accordance with 10 CFR 50.90, Duke Energy Carolinas, LLC (Duke) proposes to amend Renewed Facility Operating Licenses (FOLs) Nos. DPR-38, DPR-47, and DPR-55. This LAR requests Nuclear Regulatory Commission (NRC) review and approval of a new fire protection licensing basis which complies with the requirements in 10 CFR 50.48(a), 10 CFR 50.48(c), and Regulatory Guide (RG) 1.205. The LAR follows the guidance provided in Nuclear Energy Institute (NEI) 04-02. The LAR was submitted to the NRC on October 31, 2008.

In conference calls on January 15, 2009 and January 22, 2009, the NRC requested additional information to support the acceptance review of the LAR. The requested additional information included approved calculations, a LAR roadmap, any information that does not require LAR revisions, new calculations, and resulting LAR revisions, if any. The approved calculations were provided in a submittal dated January 30, 2009. The additional information, PRA Application calculation and the requested roadmap were provided in a submittal dated February 9, 2009.

The NRC issued a conditional acceptance review of the LAR for ONS NFPA 805 transition on February 2, 2009 pending receipt of the above information.

This submittal provides the resulting LAR revisions as follows: LAR Section 4.5.4 has been revised to include requested roadmap detail for the change evaluations; and LAR Section 4.6, Monitoring Program, has been revised to include detail on how Oconee will develop and implement a monitoring program. The retyped revisions are in Attachment 1.

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NRR

If there are any questions regarding this submittal, please contact Reene' Gambrell at (864) 885-3364 or David J. Goforth at 704-382-2659.

I declare under penalty of perjury that the foregoing is true and correct. Executed on February 23, 2009.

Very truly yours,

Dave Baxter, Vice President
Oconee Nuclear Station

Attachment:

1. Transition Report Revisions, Re-Typed Pages

cc: w/o enclosures

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Attachment 1

Transition Report Revisions

Re-Typed Pages

Remove pages	Insert Pages
Table of Contents, Page ii	Table of Contents, Page ii
Page 40	Page 40
Page 41	Page 41
Page 42	Page 42

4.5.3.4 Acceptability Determination

The Change Evaluations were assessed quantitatively for acceptability using the ΔCDF (change in core damage frequency) and ΔLERF (change in large early release frequency) criteria from Section 5.3.5 of NEI 04-02 and RG 1.205. The results of the acceptability determination are documented in calculations. The proposed change was also assessed to ensure it was consistent with the DID philosophy and that sufficient safety margins were maintained.

4.5.4 NFPA 805 Risk-Informed, Performance-Based Change Evaluation Results

ONS' pre-transition post-fire SSA revalidation efforts and the NFPA 805 transition project activities have identified a number of variances from the pre-transition fire protection LB. These variances were dispositioned using the NFPA 805 Change Evaluation Process.

Each variance was assessed against the change evaluation acceptance criteria of ΔCDF and ΔLERF; and maintenance of DID and safety margin criteria from Section 5.3.5 of NEI 04-02 and RG 1.205.

The results of these calculations are summarized on a fire area basis in Attachment C as follows:

- The variance requiring the change evaluation is identified in the 'Comment' column of the 'Performance Goal' section of the specific fire area.
- A summary of the change evaluation and the results (cross-referenced to the open item number(s) are included in the 'Licensing Action' section of the specific fire area. This summary includes quantitative (ΔCDF and ΔLERF) results, and maintenance of DID and safety margin results and a cross-reference to the applicable change evaluation calculation.
- The 'Open Item' section of the specific fire area contains the disposition of the variance.
    - If the change evaluation is acceptable as is, the disposition references the change evaluation calculation.
    - If the change evaluation identifies the need for a modification, the disposition references the change evaluation and the discussion of the proposed modification in Attachment S.

Following completion of transition activities and planned modifications and program changes, the plant will be compliant with 10 CFR 50.48(c).

4.5.5 Risk Change Due to NFPA 805 Transition

In accordance with the guidance in Regulatory Position C.2.2 of RG 1.205, Revision 0, the total risk change associated with pre-transition FP program variances that will meet the NFPA 805 performance-based approach (via the Change Evaluation Process) was evaluated. Upon completion of plant modifications (see section 4.8.3) the total change in risk associated with the transition to NFPA 805 will be consistent with the acceptance guidelines in RG 1.174. Refer to Attachment W for a discussion of the treatment.

4.5.6 Fire PRA Quality – Post-transition Process

The development of the Fire PRA to support transition and the reviews discussed in Section 4.5.1 discuss the adequacy of the Fire PRA to support transition to NFPA 805.

The process described in Attachment X outlines the proposed process for evaluating the appropriate Fire PRA capability category in support of post-transition change evaluations.

4.6 Monitoring Program

The Monitoring Program will be developed after LAR submittal and will be implemented after LAR approval as part of the FP program transition to NFPA 805. In order to assess the impact of the transition to NFPA 805 on the current monitoring program, the ONS FP program documentation such as the maintenance program processes, FP program implementing procedures, and plant change processes will be reviewed. Sections 4.5.3 and 5.2 of the NEI 04-02 Implementing Guidance will be used during the review process and that process is described in the following sections.

4.6.1 Overview of NFPA 805 Requirements and NEI 04-02 Guidance on the Existing Monitoring Program

Section 2.6 of NFPA 805 states:

> *"A monitoring program shall be established to ensure that the availability and reliability of the fire protection systems and features are maintained and to assess the performance of the fire protection program in meeting the performance criteria. Monitoring shall ensure that the assumptions in the engineering analysis remain valid."*

The intent of the monitoring transition effort will be to confirm (or modify as necessary) the adequacy of the existing surveillance, testing, maintenance, compensatory measures, and oversight processes for transition to NFPA 805. This review will consider the following:

1) The adequacy of the scope of systems and equipment within existing plant programs, i.e., the necessary FP systems and features and nuclear safety capability equipment (NFPA 805 Section 1.5.1) are included.
2) The performance criteria for the availability and reliability of FP systems and features relied on to demonstrate compliance.
3) The adequacy of the plant corrective action program in determining causes of equipment and programmatic failures and in minimizing their recurrence.

A project instruction will be developed using the methodology outlined below. The process is based on NUMARC 93-01, Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants. The project instruction will be converted to a procedure to support program implementation during the post-transition stage. The process and the proposed plan for monitoring program implementation (See section 4.6.2) were discussed with the NRC at the April 2008 Pilot Observation Meeting.

4.6.2 Overview of Post-Transition NFPA 805 Monitoring Program

A flowchart of the overall process for NFPA 805 monitoring implementation is shown in Figure 4-7. The process consists of convening an NFPA 805 Monitoring Expert Panel to conduct the first two phases of the monitoring process. The four main phases of the monitoring process are described as follows:

Phase 1 - Scoping

Phase 1 of the process will determine the scope of the NFPA 805 monitoring program. In order to meet the NFPA 805 requirements for monitoring, four basic categories are established:

- FP systems and features.
- Nuclear safety capability equipment (NFPA 805 Section 1.5.1). Note: This is addressed by the Maintenance Rule and/or a similar program.
- FP Programmatic Elements.
- Key Assumptions in Engineering Analyses (e.g., Change Evaluations, Nuclear Safety Capability Assessment, EEEs).

Phase 2 - Establishing Risk Criteria

Phase 2 of the process will establish risk significant criteria for SSCs and programmatic elements within the NFPA 805 monitoring scope. The Fire PRA is the primary tool used to establish risk significant criteria. Only certain SSCs/FP program elements are amenable to risk measurement in Fire PRA.

Another aspect of risk criteria is establishing performance criteria. These performance criteria will be established for items within the NFPA 805 monitoring scope, regardless of their ability to be measured using risk significant criteria. The performance criteria used should be availability, reliability, or condition, as appropriate.

Phase 3 - Risk Determination

Phase 3 will consist of utilizing the Fire PRA, or other processes, as appropriate, to determine the risk significant SSCs/FP program elements using the criteria established in Phase 2.

Phase 4 – Monitoring Implementation

Phase 4 is the full implementation of the monitoring program, once the scope and criteria are established in previous phases. The implementation includes the assessment of performance against the established criteria. Follow on steps include refinement of performance goals and criteria, analysis of situations where goals are not met, and addressing items appropriately via the corrective action program.