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JUL 06 2016

Docket Nos.: 50-321
50-366

NL-16-0645

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555-0001

Edwin I. Hatch Nuclear Plant – Units 1 and 2
Request for Extension of Enforcement Discretion and Revised Submittal Date for
10 CFR 50.48(c) License Amendment Request

Ladies and Gentlemen:

By letter dated October 4, 2013, Southern Nuclear Operating Company (SNC) informed the Nuclear Regulatory Commission (NRC) of its intent to transition the fire protection licensing basis for Edwin I. Hatch Nuclear Plant (HNP) (ref.1) to adopt NFPA 805 in accordance with 10 CFR 50.48(c). By letter dated December 2, 2013 (ref.2), the NRC acknowledged receipt of the letter of intent and granted three years of enforcement discretion, for the preparation of the License Amendment Request (LAR), beginning on October 4, 2013. In accordance with the NRC Enforcement Policy, the enforcement discretion period will continue until the NRC approval of the LAR is completed.

In accordance with SECY-12-0031, SNC respectfully requests that the due date for the 10 CFR 50.48(c) LAR be extended eighteen (18) months. SECY-12-0031 provides the NRC Staff position that enforcement discretion could be extended if the licensee provides adequate justification. In evaluating the justification provided by a licensee, the staff would consider, but not be limited by, the status of the industry peer review, plant modifications, and the licensee's compliance reviews.

On June 21, 2016, a public meeting was held between SNC and NRC staff to discuss the status of the HNP NFPA 805 transition project. Difficulty with development of the Fire Probabilistic Risk Assessment (PRA) model was the primary driver for the delay in the HNP LAR submittal. However, further considerations will require additional time to develop and provide a high quality submittal. Specifically, SNC informed the NRC that extension is under consideration to allow appropriate coordination and implementation of design modifications at HNP. SNC was compelled to further supplement the timeframe of this extension request in order to coordinate modification schedules and the NFPA 805 project schedule.

Key modifications are identified in the HNP overall integrated plan in response to NRC Order regarding Mitigation Strategies for Beyond Design Basis External Events (FLEX Order), and were submitted to NRC by letter dated February 27, 2013 (ref. 3). In accordance with FLEX Order obligations and the current expectations for NFPA 805 implementation, a portion of these modifications have or will be implemented prior to the NFPA 805 LAR submittal. The risk impact of these modifications will be added to the risk models and will afford potential risk improvements for NFPA 805 initiatives.

By letter dated December 21, 2012, HNP provided a schedule for Backfit of Degraded Grid Voltage Protection (ref.4). During the modification development process, risk insights are utilized to assist in determining cable locations such that portions of the modification packages would not only meet the Degraded Grid requirements but provide risk reduction for the fire PRA model. The fire PRA is providing risk insight such that one of the redundant sources of offsite power could be retained in some fire areas where current analysis documents a potential loss of offsite power sources due to analysis of cables associated with relay protection. Based on the addition of a third transformer and the rearrangement of the cable bus, a smaller number of fires are anticipated to produce a loss of offsite power. Self-cooled rating of the upgraded transformers may also provide risk benefit. This extension request provides additional time such that portions of these modification packages can be finalized and modeled in the fire PRA.

The enclosure to this letter contains a table which provides NFPA 805 completion schedule and LAR status, as of June 15, 2016, for the remaining key activities and major milestones. SNC requests that the LAR submittal date be revised from October 4, 2016 to a new LAR submittal date of April 4, 2018.

The transition process will be considered complete upon receipt of the approved LAR authorizing the transition to NFPA 805.

If you have any questions, please contact Ken McElroy at (205) 992-7369.

Respectfully submitted,



C. R. Pierce
Regulatory Affairs Director

CRP/JMC/lac

Enclosure:

1. NFPA 805 Transition Progress

References:

1. Edwin I. Hatch Nuclear Plant Letter of Intent to Adopt the 2001 Edition of NFPA 805, "Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants", dated October 4, 2013 [ML13280A299]
2. Edwin I. Hatch Nuclear Plant, Units 1 and 2 - Request For Enforcement Discretion In Accordance With The Interim Enforcement Policy For Fire Protection Issues During Transition To National Fire Protection Standard NFPA 805, dated December 2, 2013 [ML13322B259]
3. Edwin I. Hatch Nuclear Plant - Units 1 and 2, "Southern Nuclear Operating Company's Overall Integrated Plan in Response to Commission Order with Regard to Mitigation Strategies for Beyond-Design-Basis External Events (EA-12-049)," dated February 27, 2013 [ML13059A385]
4. Edwin I. Hatch Nuclear Plant -Units 1 and 2 "Facility Operating License Amendment Request for Degraded Voltage Protection Modification Schedule" dated December 21, 2012 [ML12356A472]
5. Staff Requirements Memorandum SECY-11-0061, "A Request To Revise The Interim Enforcement Policy For Fire Protection Issues On 10 CFR50.48(C) To Allow Licensees To Submit License Amendment Requests in a Staggered Approach" (RIN 3150-AG48) dated June 10, 2011 [ML111610616]
6. Staff Requirements Memorandum SECY-12-0031, "Enforcement Alternatives for Sites that Indicate Additional Time Required to Submit their License Amendment Requests to Transition to 10 CFR 50.48(c) National Fire Protection Association Standard 805," dated February 24, 2012 [ML12025A349]

cc: Southern Nuclear Operating Company
Mr. S. E. Kuczynski, Chairman, President & CEO
Mr. D. G. Bost, Executive Vice President & Chief Nuclear Officer
Mr. D. R. Vineyard, Vice President – Hatch
Mr. M. D. Meier, Vice President – Regulatory Affairs
Mr. D. R. Madison, Vice President – Fleet Operations
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U. S. Nuclear Regulatory Commission
Ms. C. Haney, Regional Administrator
Mr. M. D. Orenak, NRR Project Manager – Hatch
Mr. D. H. Hardage, Senior Resident Inspector – Hatch

**Edwin I. Hatch Nuclear Plant – Units 1 and 2
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Enclosure 1

NFPA 805 Transition Progress

NFPA 805 Transition Progress

SECY-11-0061 requested information from licensees on demonstrated progress toward completion of NFPA 805 transition, as a condition of granting an extension of enforcement discretion. Southern Nuclear Operating Company (SNC) has made substantial progress in the Hatch NFPA 805 transition effort. SNC has completed the Nuclear Safety Capability Assessment (NSCA) fault tree model and a preliminary set of Variations from Deterministic Requirements (VFDRs) have been determined based on compliance assessments. Non Power Operations (NPO) component and cable selection is complete. The development of strategies to integrate fire risk into outage risk management has started. Fundamental fire protection program elements, radioactive release and licensing action transition work tasks are also nearing completion; however, finalization will be reliant on input from other project elements.

A full scope peer review of the fire Probabilistic Risk Assessment (PRA) model was completed in April of 2016. The fire PRA model met ninety-three (93) percent of the technical elements of the ASME standard. Two hundred fifty-six (256) applicable supporting requirements were reviewed. Thirteen (13) supporting requirements were identified as not met, three (3) were met at capability category I and the remaining were met at a category II and/or III. While the peer review generally endorsed the model methodology, the overall Core Damage Frequency (CDF) and Large Early Release Frequency (LERF) are relatively high. Additional time is also required to refine the fire PRA model, identify new modifications which may be needed to reduce risk, and incorporate existing modification packages that may also be risk beneficial. These activities are projected to be complete by April of 2017. Based on industry experience, LAR development requires at least 12 months of work after the model is peer reviewed and refined such that total plant CDF meets Regulatory Guide 1.174 criteria.

SNC has participated in the NEI NFPA 805 Task Force, Fire PRA task force, and Frequently Asked Question (FAQ) process. SNC has made significant efforts in performing work activities in an effective manner, while utilizing the lessons learned from other sites.

Table E1-1 represents the major work activities for SNC associated with NFPA 805 LAR development. The "LAR/TR Reference" column refers to the referenced section of the NFPA 805 LAR/Transition Reports that document the results of the NFPA 805 Transition. As shown in the Table E1-1, SNC has demonstrated substantial progress in the NFPA 805 transition process. Table E1-2 provides the project's major milestones and respective projected start and projected completion dates.

Physical Modifications

While physical modifications may be identified as part of the transition effort and fire PRA model refinement, no physical modifications have been performed to address any fire protection issues. Optimization by use of risk insights for in progress modifications will be credited in the LAR based on risk benefit. Any modifications required will be identified in the LAR submittal letter and that letter will provide a schedule and commitments for any such modifications.

NFPA 805 Monitoring Program

SECY-11-0061 requested that as part of the status report for demonstrating substantial progress on the transition that the status of the NFPA 805 monitoring program be provided. The NFPA 805 monitoring program is highly dependent on fire PRA results as well as the traditional fire protection program issues. Therefore, the monitoring program is one of the last items to be completed during the transition effort

Information Available On Site

In addition to the information contained in this attachment, SECY-11-0061 requested that additional information be compiled / documented on site and available for inspection and/or audit.

As issues are identified, fire protection-related deterministic compliance concerns are entered into the site corrective action program and appropriate compensatory measures are implemented in accordance with the existing fire protection program. This information is contained within the site's corrective action program and is available for review.

Regulatory Commitments

Since the fire protection program transition to 10 CFR 50.48(c) is a voluntary initiative, this letter contains no regulatory commitments. Statements in this submittal represent intended or planned actions. They are provided for information purposes and are not considered to be regulatory commitments.

Enclosure 1 to NL-16-0645
NFPA 805 Transition Progress

Table E1-1. LAR Status

LAR/TR Reference	Topic	% Complete (Estimate)
N/A	Safe Shutdown Analysis Update (pre-requisite task)	90%
4.1, Attachment A	Fundamental FP Program Elements and Minimum Design Requirements (Table B-1)	75% (Note 1)
4.2.1, Attachment B	Nuclear Safety Capability Assessment - Methodology (Table B-2)	70% (Note 2)
Section 4.2.2, Attachment C	Nuclear Safety Capability Assessment - Fire Area – by - Fire Area Review (Table B-3)	50% (Note 3, 4)
Section 4.3, Attachment D	Non Power Operational Modes (Table F-1)	60% (Note 5)
Section 4.4, Attachment E	Radioactive Release (Table G-1)	90% (Note 6)
Section 4.1.3, Attachment I	Definition of Power Block and Plant	100%
Section 4.2.2	Existing Engineering Equivalency Evaluation Transition	30% (Note 7)
Section 4.2.3, Attachment K	Licensing Action Transition	90% (Note 8)
Section 4.1.2.3, Attachment L	NFPA 805 Chapter 3 Requirements Not Met and Not Previously Approved by NRC	55% (Note 9)
N/A	Fire PRA Peer Review	100%
N/A	FPRA Peer Review F&O closure	15%
Section 4.5.2.2	Fire Risk Evaluations	0%
Section 4.6	Monitoring Program	0%
Section 4.7	Program Documentation, Configuration Control, and Quality Assurance	0%
N/A	Transition Report	5% (Note 10)

Table E1-1 Notes:

1. All Table B-1 sections have been prepared. Sections 3.1 to 3.4 have been reviewed by SNC. Sections 3.5 to 3.11 are being reviewed by SNC. NFPA code evaluations to support Chapter 3 compliance have been prepared and reviewed. Additional evaluations to support Chapter 3 and/or NFPA code compliance have been identified but have not started.
2. All Table B-2 sections have been prepared. The NSCA needs to be completed before Table B-2 section references can be completed.
3. The NSCA model has been prepared and additional necessary circuit analysis has been completed. Additional instrument tubing sense line analysis has been completed. Current Transformer (CT) assessment has been completed. Assessment of 92-18 needs to be completed. Room heat up analysis needs to be completed. Preliminary variations from deterministic requirements (VFDR)s have been identified.
4. Table B-3 information has been populated including: Fire Areas, Fire Zones, Performance Goals, Reference Documents, Required fire protection features and Suppression Effects analysis information. Table B-3 awaits finalizing NSCA, evaluation of VFDRs and completion of fire risk evaluations.
5. Non Power Operations component and cable selection is complete.
6. The Radioactive Release evaluation has been completed including draft updates to training materials and pre-fire plans. The bounding calculation is being prepared and is under review.
7. Existing Engineering Equivalency Evaluations have been reviewed. Revisions to some evaluations have been started. Additional evaluations to support Chapter 3 and/or NFPA code compliance have been identified but have not started.
8. Previous licensing actions have been reviewed. Some licensing actions are going to be documented in engineering evaluations. The engineering evaluations have not started.
9. Five of eight (5 of 8) anticipated Attachment L requests for approval have been drafted and are under review. Of the remaining three (3) requests, one has been started and the remaining two (2) requests for approval have not been started.
10. Development of the draft Transition Report has been started using the LAR template Rev 1Q.

Table E1-2. Remaining NFPA 805 Project Major Milestones

Task	Projected Start	Projected Completion*
Nuclear Safety Capability Assessment	March 2015	September 2017
Non-Power Operations Analysis	November 2015	April 2017
Fundamental Fire Protection Program Review	January 2015	October 2017
FPRA F&O Resolution / Model Refinement	May 2016	April 2017
FPRA model Risk Reduction	October 2016	April 2017
Radiological Release Review	May 2015	October 2016
Additional Fire Protection Engineering Evaluations	July 2016	August 2017
Fire Risk Evaluations	October 2016	August 2017
Identify and Incorporate Modifications	July 2016	September 2017
Transition Report	March 2016	February 2018
SNC Final LAR review	February 2018	April 2018

* Projected Completion date is a target and not considered an NRC obligation or commitment and could change as the project continues. The NRC may review the NFPA-805 project schedule on site at any time.