



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
WASHINGTON, D.C. 20555-0001

September 10, 2021

LICENSEE: Southern Nuclear Operating Company, Inc.

FACILITY: Edwin I. Hatch Nuclear Plant, Units 1 and 2

SUBJECT: SUMMARY OF AUGUST 16, 2021, PUBLIC, PRE-LICENSING MEETING WITH SOUTHERN NUCLEAR OPERATING COMPANY, INC., REGARDING A PROPOSED LICENSE AMENDMENT REQUEST TO ADOPT TSTF-505 FOR EDWIN I. HATCH NUCLEAR PLANT, UNITS 1 AND 2 (EPID NO. L-2021-LRM-0072)

On August 16, 2021, an Observation Public Meeting was held between the U.S. Nuclear Regulatory Commission (NRC) and representatives of Southern Nuclear Operating Company, Inc. (SNC, the licensee). The purpose of the pre-licensing meeting was for SNC to describe its plan to submit a license amendment request (LAR) to adopt Technical Specification Task Force (TSTF)-505-A, Revision 2, "Provide Risk-Informed Extended Completion Times – RITSTF Initiative 4b," dated July 2, 2018 (Agencywide Documents Access and Management System (ADAMS) Accession Package No. ML17290A003), for Edwin I. Hatch Nuclear Plant (Hatch), Units 1 and 2.

A list of attendees is provided as an Enclosure.

On July 22, 2021 (ADAMS Accession No. ML21203A081), the meeting was noticed on the NRC public webpage.

The SNC presented slides contained in ADAMS Accession No. ML21222A034.

Introduction

The NRC staff opened the meeting with introductory remarks and introduction of the attendees.

The SNC personnel discussed the following topics: (1) introductions, (2) Probabilistic Risk Assessment (PRA) models and configuration risk model overview, and (3) LAR overview.

PRA Models and Configuration Risk Model Overview

SNC requested this pre-submittal meeting to communicate to the NRC staff that SNC intends to submit a LAR to adopt TSTF-505 at Hatch, Units 1 and 2.

SNC representatives stated that the total core damage frequency (CDF) and large early release frequency (LERF) will meet the criteria contained in Regulatory Guide (RG) 1.174, Revision 3, "An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-

Specific Changes to the Licensing Basis,” January 2018 (ADAMS Accession No. ML17317A256). SNC said that the PRA models are periodically updated to reflect plant changes and updated data. The licensee stated that the uncertainty analysis was performed per NUREG-1855, Rev. 1, “Guidance on the Treatment of Uncertainties Associated with PRAs in Risk-Informed Decisionmaking,” March 2017 (ADAMS Accession No. ML17062A466). SNC said that its PRA models are peer-reviewed and that the Facts and Observations Closure was independently validated. SNC stated that the hazards include (1) Internal Events, (2) Internal Flooding, and (3) Fire.

SNC stated that a penalty is applied for CDF and LERF for seismic and that the other External Hazards screened per the standard. SNC further stated that, for high winds, that the losses of offsite power is included in the internal event PRA (Other High Wind effects screened).

SNC stated that Hatch, Units 1 and 2, unit-specific PRAs will be used for the proposed LAR. The licensee said that sample Risk-Informed Completion Time (RICT) calculations to be presented in the proposed LAR will be for Hatch, Unit 2, configurations. SNC stated that a sample of Hatch, Unit 1, configurations will also have RICTs calculated, to demonstrate the similarity between Hatch, Unit 1, and Hatch, Unit 2, results.

SNC stated that the Hatch RICT will use Configuration Risk Model as currently used for existing Maintenance Rule (a)(4) Configuration Risk Management Program; it uses PHOENIX Risk Analysis Software.

Proposed LAR

SNC said that the proposed LAR is based on TSTF-505, Revision 2, and NEI 06-09, Revision 0-A, “Risk Informed Technical Specifications Initiative 4b: Risk Managed Technical Specifications (RMTS),” dated October 22, 2012 (ADAMS Accession No. ML122860402). The licensee stated that RICTs apply in MODE 1 only, consistent with PRA model, and only PRA-modeled features or appropriate surrogate have RICT proposed. SNC said that no Loss of Function RICTs are proposed.

The licensee said that it plans to include the following administrative changes in the proposed LAR:

- Remove one-time, temporary changes to Hatch, Unit 2, TS 3.5.1, Emergency Core Cooling System, “ECCS – Operating,” and Hatch, Unit 1 and Unit 2, TS 3.8.1, “AC Sources – Operating.”
- Remove page 3.4-25 from Hatch, Unit 1, and Hatch, Unit 2, TSs.
- Revise title of Limiting Condition for Operation, LCO 3.3.2.2 “Feedwater and Main Turbine Trip High Water Level Instrumentation,” by moving “Trip” to after “Level.” Also, add “high water level” to LCO statement.

SNC stated that it is going to propose the following variations to the proposed LAR:

- Hatch Residual Heat Removal Drywell Spray TS are not included in NUREG-1433, “General Electric Plants, BWR/4, Rev. 4 STS,” April 2012, (ADAMS Accession No. ML12104A192), and therefore was not included in TSTF-505.
- Re-typed (Clean) TS Pages are not included.
- SNC is proposing to include sample RICTs only for TS 3.8, “Required Actions.”

- TS 3.3.6.1, 3.6.1.3, and 3.8.1 are re-formatted to maintain only “first level” logical connectors in Completion Times.
- TS 3.5.1 reformatted to allow RICT with one Low Pressure Coolant Injection (LPCI) pump inoperable in one or both subsystems AND one CS subsystem inoperable.
- TS 3.8.1 Conditions rearranged to avoid Completion Time nesting (see Note below).
- For inoperable Unit diesel generator (DG), TS allow 14-day Completion Time (CT) provided swing DG is “locked” to that unit and provided maintenance restrictions (e.g. required Operable systems and functions) are met.

Note: From the Background Section of TS 1.2:

From TS 1.2: “Several levels of logic may be used to state Required Actions. These levels are identified by the placement (or nesting) of the logical connectors and by the number assigned to each Required Action. The first level of logic is identified by the first digit of the number assigned to a Required Action and the placement of the logical connector in the first level of nesting (i.e., left justified with the number of the Required Action). The successive levels of logic are identified by additional digits of the Required Action number and by successive indentions of the logical connectors.

When logical connectors are used to state a Condition, Completion Time, Surveillance, or Frequency, only the first level of logic is used, and the logical connector is left justified with the statement of the Condition, Completion Time, Surveillance, or Frequency.

Loss of Function (LOF) Considerations

SNC stated that it is considering the following related to loss-of-function (LOF):

- Some Instrumentation Conditions are applicable when “one or more” channels are inoperable, which could represent a LOF.
- TSTF-505 suggests a Note to limit the application of RICT.
- Should a LOF exist, TS require entry into a separate Condition that does not have RICT option.

NRC Questions to SNC

The NRC staff asked when SNC plans to submit the proposed Hatch TSTF-505 LAR. SNC said that it plans to submit the TSTF-505 LAR for Hatch, Units 1 and 2, in September or October 2021. SNC stated that it expects to request the NRC staff complete its review of the TSFT-505 LAR within 12 months from the acceptance review.

The NRC staff stated that an TSTF-505 LAR is a substantial effort. The NRC stated the effort undertaken by the NRC staff to complete previous TSTF-505 LARs.

Plant	No. of Units	Application Date	Amendment Issued	Time to Amendment (months)	Completed Amendment Accession Number
Turkey Point, TSTF-505	2	12/23/2014	12/3/2018	48	ML18270A429
Diablo Canyon, TSTF-505	2	11/25/2013	3/29/2018	55	ML18082A055
Calvert Cliffs, TSTF-505	2	2/25/2016	10/30/2018	32	ML18270A130
Palo Verde, TSTF-505	3	7/31/2015	5/29/2019	46	ML19085A525
St. Lucie, TSTF-505	2	12/5/2014	7/2/2019	56	ML19113A099
Vogtle, TSTF-505, 4B	2	9/13/2012	8/8/2017	59	ML15127A669
Farley, TSTF-505	2	7/27/2018	8/23/2019	13	ML19175A243
Limerick, TSTF-505	2	12/13/2018	2/28/2020	14	ML20034F637
Byron/Braidwood, TSTF-505	4	12/14/2018	3/30/2020	15	ML20037B221
Shearon Harris, TSTF-505	1	10/07/2019	3/31/2021	17	ML21047A314
Nine Mile Point 2, TSTF-505	1	10/31/2019	4/29/2021	18	ML21082A221
Prairie Island, TSTF-505	2	12/16/2019	3/15/2021	15	ML20346A020
Monticello, TSTF-505	1	3/30/2020	7/12/2021	16	ML21148A274
Clinton, TSTF-505	1	4/30/2020	6/28/2021	14	ML21132A288
Peach Bottom, TSTF-505	2	5/29/2020	5/14/2021	12	ML21074A411

The NRC staff stated that the slides presented by SNC indicated a number of variations for the proposed LAR, and the NRC staff would withhold comment until the proposed Hatch LAR is submitted.

The NRC staff noted that LaSalle has a swing emergency diesel generator (EDG) and suggested that SNC should review the LaSalle audit documentation as well as the requests for additional information (RAIs).

The NRC asked SNC to cite the appropriate revisions to the regulatory guides (RGs) in its submittal since many have been revised recently (e.g., RG 1.200, RG 1.177, RG 1.174).

The NRC staff stated that SNC should provide sufficient information and detail if it plans to take credit for FLEX equipment.

The NRC staff asked if SNC will incorporate open phase circuit (OPC) information in Hatch's risk analysis.

The NRC staff asked to confirm Hatch's risk analysis will be based on "as-built" and "as-operated" plant.

Public Questions to NRC

There were three members of the public in attendance. One member of the public asked a question about OPC.

Closing

The NRC staff made no regulatory decisions during the meeting.

Once received, the NRC staff will perform a thorough review of the proposed LAR and make any regulatory decisions in writing in a timely manner.

Public Meeting Feedback forms were available, but no comments were received.

The meeting adjourned at 3:12 pm (Eastern time).

Please direct any inquiries to me at 301-415-3100.

/RA/

John G. Lamb, Senior Project Manager
Plant Licensing Branch, II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-321 and 50-366

Enclosure: List of Attendees

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LIST OF ATTENDEES
AUGUST 16, 2021, PUBLIC, PRE-LICENSING MEETING WITH
SOUTHERN NUCLEAR COMPANY
REGARDING A PROPOSED LICENSE AMENDMENT REQUEST
EDWIN I. HATCH NUCLEAR POWER PLANT, UNITS 1 AND 2

<u>ATTENDEE</u>	<u>REPRESENTING</u>
John G. Lamb	U.S. Nuclear Regulatory Commission (NRC)
Bernard Grenier	NRC
Jay Robinson	NRC
Adrienne Driver (Brown)	NRC
Dawnmathews Kalathiveetil	NRC
Joshua Havertape	NRC
Sunwoo Park	NRC
Keith Tetter	NRC
Bob Pascarelli	NRC
Andrea Russell	NRC
Ryan Joyce	Southern Nuclear Operating Company (SNC)
Jamie Coleman	SNC
Jason Douglass	SNC
Tim Enfinger	SNC
Eddie Grant	SNC
Cheryl Gayheart	SNC
Faramarz Pournia	SNC
Daniel Williamson	SNC
Steve Short	Pacific Northwest National Laboratory
Chris Derego	Duke Energy
Heather Szews	Duke Energy
Deepak Rao	Entergy

Enclosure

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Docket Nos. 50-321 and 50-366

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RidsNrrPMHatch Resource	MMarkley, NRR	

ADAMS Accession No. PKG ML21229A012; Meeting Notice ML21203A081; Meeting Summary ML21229A007; Slides ML21222A034

OFFICE	DORL/LPL2-1/PM	DORL/LPL2-1/LA	DRA/APLA/BC	DORL/LPL2-1/BC	DORL/LPL2-1/PM
NAME	JLamb	KGoldstein	RPascarelli	MMarkley	JLamb
DATE	08/16/2021	08/18/2021	08/25/2021	09/10/2021	09/10/2021

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