



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

May 19, 2023

LICENSEE: Southern Nuclear Operating Company, Inc.

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

SUBJECT: SUMMARY OF MAY 02, 2023, OBSERVATION PUBLIC MEETING HELD WITH SOUTHERN NUCLEAR OPERATING COMPANY, INC., REGARDING A LICENSE AMENDMENT REQUEST FOR THE REACTOR PRESSURE VESSEL HEAD CLOSURE BOLTS FOR EDWIN I. HATCH NUCLEAR PLANT, UNITS 1 AND 2 (EPID NO. L-2022-LLA-0120)

On May 02, 2023, an Observation 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 meeting was to discuss the license amendment request (LAR) regarding the reactor pressure vessel (RPV) head closure bolts for Edwin I. Hatch Nuclear Plant (Hatch), Units 1 and 2.

By letter dated August 19, 2022, (Agencywide Documents Access and Management System (ADAMS) Accession No. ML22231B055), as supplemented by letter dated January 20, 2023 (ML23020A902), SNC submitted a LAR to relax the required number of fully tensioned RPV head closure bolts in Technical Specification (TS) Table 1.1-1, "MODES," of each of the TSs for Hatch, Units 1 and 2.

A list of attendees is provided as an Enclosure 1.

On April 20, 2023 (ML23110A098), the meeting was noticed on the NRC public webpage.

The NRC staff opened the meeting with introductory remarks and a roll call of the attendees.

The NRC staff brought up the following discussion topics:

1. The Hatch submittal uses the term "out of service" extensively in describing the proposed TS changes for RPV bolts. Please provide an explanation of SNC's proposed use of "out of service" in the TSs as compared to the current TSs OPERABLE-OPERABILITY definition.
2. In the January 20, 2023, submittal, the licensee states that it fully intends to employ sound engineering principles to maintain all RPV studs in service. If a flaw is found during an American Society of Mechanical Engineers Boiler and Pressure Code (ASME Code) Section XI inspection in an RPV bolt that will not be repaired or replaced, what are the licensee's requirements (e.g., repair/replace), as part of its sound engineering principles, to determine the maximum allowable torque that will be applied during tensioning of that bolt prior to plant startup?

3. If approved, the proposed TS changes would appear to allow one bolt from Unit 1 and two bolts from Unit 2 not to be installed or installed and not fully torqued. Please explain how this does not constitute a material alteration of the facility as originally designed and licensed. Based on the above, please justify the assertion that “no hardware changes are proposed” if the proposed change would allow operation with up to two RPV head closure bolts not installed or torqued.
4. Operational history of nuclear power plants does not appear to provide a sufficient technical basis to support the assertion that vessel head bolt failure or degradation is a condition that warrants preemptive analytical consideration. NRC staff has concerns that all vessel head bolts should be in full service unless degradation in a bolt is found and the operational condition is sufficient to justify an alternative vessel head closure bolt tensioning TS. Based on the lack of operating experience and monitoring data, please justify the technical basis for the assumption of an additional bolt being out of service beyond bolt #33 in Unit 2 or any bolt out of service in Unit #1 for the life of the plant.
5. Please describe how Hatch maintenance rule implementation and aging management programs capture the Hatch vessel head closure bolts and justify a TS change.
6. Please justify requesting approval of any scenario of bolt degradation beyond that involving bolt #33 in Unit 2 and explain the tensioning of the Unit 2 vessel head closure bolts coming out of the spring 2023 Unit 2 refueling outage. Based on the completed Unit 2 outage, please justify the continuing need for the proposed amendments.

In response to the discussion topics, SNC showed an updated proposed revision to the current TS. The proposed revision would make the following changes to Unit 2 TS Table 1.1-1 footnotes:

- (a) At least 55 of 56 reactor vessel head closure bolts fully tensioned.
- (b) Two or more reactor vessel head closure bolts less than fully tensioned.

Additionally, SNC proposed to add the following Unit 2 Renewed Facility Operating License (RFOL) condition (a similar condition is proposed for Unit 1):

Hatch Nuclear Plant Unit 2 is approved to operate in Modes 1-4 with at least 55 of 56 reactor vessel head closure bolts fully tensioned. In addition, for any less than fully tensioned bolt, a minimum of nine adjacent bolts that do not have any recordable indications as a result of the most recent ASME Section XI examination are required. Upon implementation of Amendment No. XXX, Southern Nuclear Operating Company shall update the Reactor Vessel Reassembly procedure to include this requirement.

SNC stated that the proposed markups would remove the use of the term “out of service.” The NRC staff asked whether the less than fully tensioned bolt would be considered OPERABLE based on the current TS definition. SNC cannot complete the ASME Code, Section XI requirements for bolt #33 (surface examination of the bolt could not be performed and the indication could not be characterized). So, bolt #33 cannot be demonstrated to meet ASME, but the licensee has received relief through the end of the current 10-year interval that ends in 2025.

Based on the proposed RFOL condition language, the NRC staff questioned whether it would only apply “for any less than fully tensioned bolt.” The NRC staff noted that the licensee is pursuing a licensing solution for a long-standing maintenance challenge. The NRC further if there were any plans for maintenance for closure bolt #33. The licensee stated plans were still being developed.

The NRC staff questioned the adequacy of the proposed TSs to ensure the structural integrity of the RPV and leak-tightness of the primary system pressure boundary, based on the proposed TS would allow the plant to operate with one less than fully tensioned bolt in each unit beyond 2025 for the remaining plant life.

SNC stated that they understand the confusion with its LAR submittal assertion of “no hardware changes are proposed.” SNC stated that it would provide appropriate markups via a supplement and amend its proposed No Significant Hazards Consideration.

The NRC staff questioned the operational need for this LAR, since the licensee exited its spring 2023 refueling outage with all closure bolts fully tensioned including bolt #33. The NRC staff also questioned whether SNC will ask for a follow-up relief after the 2025 in-service inspection (ISI) interval.

The licensee stated that it was unaware that an operational need had to be demonstrated and reiterated its request for an approval even though the submittal provided an assertion of an outage-related need and possible emergency amendment. The licensee acknowledged that it understood the NRC questions and inquired if they should proceed with a written supplement. The NRC stated that it would take the discussion into consideration and may have an additional request for information.

The NRC staff did not make any regulatory decisions during the meeting. Once a regulatory decision is made, the NRC staff will provide SNC the regulatory decision in writing in a timely manner. Public Meeting Feedback forms were available, but no comments were received.

The meeting adjourned at 10:26 am Eastern Time (ET).

Please direct any inquiries to me at Dawnmathews.Kalathiveetil@nrc.gov or 301-415-5905.

Sincerely,

/RA/

Dawnmathews T. Kalathiveetil, Project Manager
Plant Licensing Branch, II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-321 and 50-366

Enclosures:
List of Attendees

cc w/encls: Distribution via Listserv

LIST OF ATTENDEES

MAY 02, 2023, PUBLIC MEETING WITH SOUTHERN NUCLEAR COMPANY

REGARDING A REACTOR PRESSURE VESSEL HEAD CLOSURE BOLTS

LICENSE AMENDMENT REQUEST

EDWIN I. HATCH NUCLEAR PLANT, UNITS 1 AND 2

<u>ATTENDEE</u>	<u>REPRESENTING</u>
Dawnmathews T. Kalathiveettil	U.S. Nuclear Regulatory Commission (NRC)
Jamie Heisserer	NRC
John Lamb	NRC
Mike Markley	NRC
Dave Dijamco	NRC
Ravi Grover	NRC
Thomas Scarbrough	NRC
Kaihwa Hsu	NRC
Stew Bailey	NRC
Kamal Manoly	NRC
Vic Cusumano	NRC
Angie Buford	NRC
John Tsao	NRC
David Rudland	NRC
Ed Miller	NRC
Carol Moyer	NRC
Zach Turner	NRC
Adam Quarles	Southern Nuclear Operating Company (SNC)
Ryan Joyce	SNC
Asif Patel	SNC
Cole Cauthen	SNC
Jason Hunt	SNC
William Dunham	SNC
Corey Thomas	SNC
Jimmy Collins	SNC
Jeremy Torrez	SNC
John Broussard	Dominion Engineering Inc. (DEI) – SNC Contractor
Steve Wideman	SJW Associates – SNC Contractor

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RidsNrrPMHatch Resource	MMarkley, NRR	SBailey, NRR
ABuford, NRR	KHsu, NRR	RGrover, NRR

ADAMS Accession Nos.:

PKG: ML23136B295

Meeting Notice: ML23110A098

Meeting Summary: ML23136B294

OFFICE	NRR/DORL/LPL2-1/PM	NRR/DORL/LPL2-1/LA	NRR/DNRL/NVIB/BC
NAME	DKalathiveettil	KGoldstein	ABuford (JTsoo for)
DATE	05/16/2023	05/18/2023	05/16/2023
OFFICE	NRR/DSS/STSB/BC	NRR/DEX/EMIB/BC	NRR/DORL/LPL2-1/BC
NAME	VCusumano	SBailey	MMarkley
DATE	05/18/2023	05/18/2023	05/19/2023
OFFICE	NRR/DORL/LPL2-1/PM		
NAME	DKalathiveettil		
DATE	05/19/2023		

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