



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

September 23, 2014

Mr. C. R. Pierce
Regulatory Affairs Director
Southern Nuclear Operating Company, Inc.
Post Office Box 1295, Bin - 038
Birmingham, AL 35201-1295

SUBJECT: HATCH NUCLEAR PLANT, UNITS 1 AND 2 – REQUEST FOR ADDITIONAL
INFORMATION (TAC NOS. MF4586 AND MF4587)

Dear Mr. Pierce:

On August 15, 2014, the Southern Nuclear Operating Company (SNC) submitted a license amendment request to change Edwin I. Hatch Nuclear Plant, Units 1 and 2, Technical Specifications to add Critical Instrumentation Buses (Buses 1A and 1B for Unit 1 and Buses 2A and 2B for Unit 2) to LCO 3.8.7, "Distribution Systems – Operating." The changes are proposed in order to comply with the U.S. Nuclear Regulatory Commission (NRC) Order EA-12-049, "Order to Modify Licenses with Regard to Requirements for Mitigation Strategies for Beyond Design Basis External Events (BDBEE)." By modification, the critical instrumentation needed following a design basis accident and a BDBEE (Phase 1) will be moved from an emergency diesel generator backed power source to a battery backed direct current power source.

The NRC staff finds that additional information is needed as set forth in the Enclosure. Please provide the additional information within thirty (30) days of the date of this letter.

Sincerely,

A handwritten signature in cursive script that reads "Robert Martin".

Robert E. Martin, 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: Request for Additional Information

cc w/encl: Distribution via Listserv

REQUEST FOR ADDITIONAL INFORMATION
BY THE OFFICE OF NUCLEAR REACTOR REGULATION
REGARDING LICENSE AMENDMENT REQUEST TO ADD
A CRITICAL INSTRUMENTATION ELECTRICAL BUS IN LCO 3.8.7
SOUTHERN NUCLEAR OPERATING COMPANY, INC.
EDWIN I. HATCH NUCLEAR PLANT, UNITS 1 AND 2

By letter dated August 15, 2014 (Agencywide Document Access Management System (ADAMS) Accession No. ML14227A921), Southern Nuclear Operating Company (SNC, the licensee) requested an amendment to the Facility Operating License for the Edwin I. Hatch Nuclear Plant, Units 1 and 2 (HNP). The proposed amendment would revise the Technical Specifications (TS) to add Critical Instrumentation Buses (Buses 1A and 1B for Unit 1 and Buses 2A and 2B for Unit 2) to LCO 3.8.7, "Distribution Systems – Operating." The changes are being made as a result of the licensee's decision to reconfigure its buses in order to comply with the U.S. Nuclear Regulatory Commission (NRC) Order EA-12-049, "Order to Modify Licenses with Regard to Requirements for Mitigation Strategies for Beyond Design Basis External Events (BDBEE)." By modification, the critical instrumentation needed following a design basis accident and a BDBEE (Phase 1) will be moved from an emergency diesel generator backed power source to a battery backed direct current power source.

In order to complete its review of the license amendment request (LAR), the NRC staff needs the following additional information:

1. In the LAR, the licensee stated that the critical instruments to be relocated to the new critical instrumentation bus will include primary containment pressure, reactor and suppression pool water level, and drywall and suppression pool temperature indications. Additionally, the new critical instrument bus will be providing power and position indication to some Primary Containment Isolation Valves, as well as to the hardened vent valves, as required by the EA-13-109 Order [Order Modifying Licenses with Regard to Reliable Containment Vents].

Regarding each of the critical instruments to be relocated/added to the new critical instrumentation buses, please provide the following information:

- a) Instrument function.
- b) Critical Instrument Bus Number (e.g., A or B), and the original Instrument Bus Number/Essential Cabinet Number.
- c) For any new critical instrument which is not currently part of the "Post Accident Monitoring Instrumentation" listed in TS Table 3.3.3.1-1, explain why it is not included in the TS Table 3.3.3.1-1.

Enclosure

- d) For each instrument being relocated/added, identify whether it will meet the requirements of NRC Order EA-12-049 or EA-13-109.
2. In its Overall Integrated Plan for HNP dated February 27, 2013, the licensee identified Spent Fuel Pool (SFP) Level as essential instrumentation during a BDBEE. Please provide details of the source of power for SFP Level instrumentation, if not planned to be fed from the critical instrument bus.
3. Please provide a summary of the analysis performed to determine the impact of adding additional loads on battery and battery charger sizing, and load profiles for surveillance tests. Confirm that the minimum battery voltage will continue to provide the minimum required voltage at the downstream devices to perform their safety function.
4. Please provide details on the physical separation between the two trains of critical instrument buses, and a discussion of the adequacy of physical separation between the buses.
5. Please provide details on the protection coordination between the largest breaker located on each of the critical instrument bus and its upstream protection device.
6. Final Safety Analysis Report (FSAR) Section 8.3.1.1.4 provides the description of the instrument power supply. Please provide a design description of the new AC inverters and critical instrument buses, which will be added to the FSAR.
7. The LAR Section 3.0 states that the new equipment will be environmentally qualified to the appropriate IEEE standards. Clarify whether the new equipment will be subjected to harsh environment, and therefore qualified in accordance with 10 CFR 50.49. If they will be installed in a harsh environment, please provide a summary of the qualification report.

September 23, 2014

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The NRC staff finds that additional information is needed as set forth in the Enclosure. Please provide the additional information within thirty (30) days of the date of this letter.

Sincerely,

/RA/

Robert E. Martin, 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: Request for Additional Information

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*By email dated

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NAME	RMartin	SFiguroa	JZimmerman	RPascarelli	RMartin
DATE	09/23/14	09/22/14	09/16/14	09/23/14	09/23/14

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