UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

March 21, 2012

Mr. M. J. Ajluni **Nuclear Licensing Director** Southern Nuclear Operating Company, Inc. 40 Inverness Center Parkway P.O. Box 1295 Bin - 038 Birmingham, AL 35201-1295

SUBJECT:

. EDWIN I. HATCH NUCLEAR PLANT, UNIT NOS. 1 AND 2 - REQUEST FOR ADDITIONAL INFORMATION, LICENSE AMENDMENT REQUEST TO REVISE THE MINIMUM WATER LEVEL IN THE PLANT SERVICE WATER PUMP WELL

(TAC NOS. ME7706 AND ME7707)

Dear Mr. Ajluni:

By letter dated December 15, 2011 (Agencywide Documents Access and Management System, Accession No. ML113500108), Southern Nuclear Operating Company, Inc submitted a license amendment request to change the Technical Specifications (TSs) for Edwin I. Hatch, Unit Nos. 1 and 2 (Hatch 1 and 2). The amendment would revise Surveillance Requirement (SR) 3.7.2.1 for the minimum water level in the plant service water pump well of the intake structure for Hatch 1 and 2. Responses to the enclosed request for additional Information (RAI) are needed for us to continue our review.

Please provide a response within thirty (30) calendar days of the date of this letter.

Sincerely,

Patrick G. Boyle, Project Manager

Plant Licensing Branch II-1

Patrick & Bost

Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Docket No.

50-321 and 50-366

Enclosure:

RAI

cc w/encl: Distribution via Listserv

BALANCE OF PLANT BRANCH REQUEST FOR ADDITIONAL INFORMATION

EDWIN I. HATCH NUCLEAR PLANT, UNIT NOS. 1 AND 2

LICENSE AMENDMENT REQUEST TO REVISE SURVEILLANCE REQUIREMENT 3.7.2.1

DOCKET NOS. 50-321 AND 50-366

Reference

- 1. Hatch Drawing S56317, "Residual Heat Removal (RHR) Service Water Pumps w/Cutter Pump Modification"
- 2. Hatch Drawing S52586, "plant service water PSW Pumps Outline and Parts Assembly-Stainless Steel Bowl Assembly"
- 3. Hatch Drawing S60315, "RHR Service Water Pumps-Section Illustration 36 X 14 Type A Discharge"
- 4. Hatch Drawing S60778, PSW Pump Outline and Parts Assembly"
- 5. Hatch Drawing SX24108, "Outline Standby S.W. Pump"

Background

Hatch drawings S56317 and S52586 show the Unit 1 residual heat removal service water (RHRSW) pumps and the plant service water (PSW) pumps. Drawings S60315 and S60778 show the Unit 2 RHRSW and PSW pumps. Drawing SX24108 shows the Standby Service water pump (SSWP) for Unit 2. The drawings for Unit 2 show the distance from pump bell to the bottom of the intake structure, which is critical in determining the minimum intake water level to assure minimum net positive suction head (NPSH) and preclude vortexing. Surveillance Requirement (SR) 3.7.1 for both Unit 1 and Unit 2 verify water level in each PSW pump well to ensure satisfactory NPSH.

Noted:

RHRSW and Standby SW do not have a similar SR, but the RHRSW pump drawing S60315 and standby SW pump drawing SX24108 for Unit 2 show that a satisfactory intake level for PSW pumps would satisfy a minimum level for RHRSW pumps and Standby SW pump as long as the bottom of the intake structure was the same for all three pump types.

Issue

The critical dimensions of the distance from pump bell to the bottom of intake structure are not shown on drawings for Unit 1.

Regulatory Guidance

The Nuclear Regulatory Commission (NRC) staff notes that Nuclear Energy Institute (NEI) 97-04 Revised Appendix B, which was endorsed by the NRC in Regulatory Guide (RG) 1.186, "Guidance and Examples for Identifying [Title] 10 [of the *Code of Federal Regulations*] CFR [Section] 50.2 Design Basis," states that both 10 CFR 50.2 design basis and supporting design

information are subject to design control and other requirements of 10 CFR 50 Appendix B, as applicable to the safety classification of particular systems, structures, and components (SSCs). As a minimum the staff considers the minimum intake level required by SR 3.7.1 to be 10 CFR 50.2 Design Bases and the distance of the suction bell from the bottom of the intake structure to be supporting design basis information and thus subject to 10 CFR 50 Appendix B.

Therefore the staff considers that the distance relationship of the suction bell to the bottom of the intake structure should be shown on the pump drawings for Unit 1 also in accordance with 10CFR 50 Appendix B (III Design Control and VI Document Control).

Request

A) Please explain why these values are not shown on the drawings for Unit 1 and what action the licensee will take to update the drawings accordingly.

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/RA/

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