



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

December 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: EDWIN I. HATCH NUCLEAR PLANT, UNIT NOS. 1 AND 2, ISSUANCE OF
AMENDMENTS REGARDING A CRITICAL INSTRUMENTATION BUS
(TAC NOS. MF4586 AND MF4587)

Dear Mr. Pierce:

The U.S. Nuclear Regulatory Commission has issued the enclosed Amendment No. 272 to Renewed Facility Operating License DPR-57 and Amendment No. 216 to Renewed Facility Operating License NPF-5 for the Edwin I. Hatch Nuclear Plant, Unit Nos. 1 and 2, respectively. The amendments revise the Technical Specifications (TSs) in response to the application dated August 15, 2014, as supplemented by letter dated October 20, 2014. The amendments revise TS 3.8.7, "Distribution Systems – Operating" to add critical instrumentation busses as a result of the licensee's decision to reconfigure its busses 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)."

A copy of the related Safety Evaluation is also enclosed. A Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,


Robert 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

Enclosures:

1. Amendment No. 272 to DPR-57
2. Amendment No. 216 to NPF-5
3. Safety Evaluation

cc w/encls: Distribution via Listserv



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

SOUTHERN NUCLEAR OPERATING COMPANY, INC.

GEORGIA POWER COMPANY

OGLETHORPE POWER CORPORATION

MUNICIPAL ELECTRIC AUTHORITY OF GEORGIA

CITY OF DALTON, GEORGIA

DOCKET NO. 50-321

EDWIN I. HATCH NUCLEAR PLANT, UNIT NO. 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 272
Renewed License No. DPR-57

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment to the Edwin I. Hatch Nuclear Plant, Unit No. 1 (the facility) Renewed Facility Operating License No. DPR-57 filed by Southern Nuclear Operating Company, Inc. (the licensee), acting for itself, Georgia Power Company, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, and City of Dalton, Georgia (the owners), dated August 15, 2014, as supplemented by letter dated October 20, 2014, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations as set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

Enclosure 1

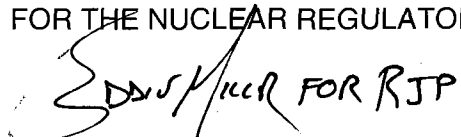
2. Accordingly, the license is hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. DPR-57 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 272 are hereby incorporated in the license. Southern Nuclear shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance and shall be implemented prior to the end of the spring 2016 refueling outage for Unit 1.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in black ink, appearing to read "R. Pascarelli FOR RJP". The signature is written in a cursive, somewhat stylized font.

Robert Pascarelli, Chief
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to Renewed Facility
Operating License No. DPR-57
and the Technical Specifications

Date of Issuance: December 23, 2014

ATTACHMENT TO
LICENSE AMENDMENT NO. 272
RENEWED FACILITY OPERATING LICENSE NO. DPR-57
DOCKET NO. 50-321

Replace the following pages of the License and the Appendix A Technical Specifications (TSs) with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove Pages

License
DPR 57, Page 4

TSs
3.8-36

Insert Pages

License
DPR-57, Page 4

TSs
3.8-36

for sample analysis or instrument calibration, or associated with radioactive apparatus or components;

- (6) Southern Nuclear, pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

C. This renewed license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Section 50.54 of Part 50, and Section 70.32 of Part 70; all applicable provisions of the Act and the rules, regulations, and orders of the Commission now or hereafter in effect; and the additional conditions specified or incorporated below:

- (1) Maximum Power Level

Southern Nuclear is authorized to operate the facility at steady state reactor core power levels not in excess of 2804 megawatts thermal.

- (2) Technical Specifications

The Technical Specifications (Appendix A) and the Environmental Protection Plan (Appendix B), as revised through Amendment No. 272 are hereby incorporated in the renewed license. Southern Nuclear shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

The Surveillance Requirement (SR) contained in the Technical Specifications and listed below, is not required to be performed immediately upon implementation of Amendment No. 195. The SR listed below shall be successfully demonstrated before the time and condition specified:

SR 3.8.1.18 shall be successfully demonstrated at its next regularly scheduled performance.

- (3) Fire Protection

Southern Nuclear shall implement and maintain in effect all provisions of the fire protection program, which is referenced in the Updated Final Safety Analysis Report for the facility, as contained in the updated Fire Hazards Analysis and Fire Protection Program for the Edwin I. Hatch Nuclear Plant, Units 1 and 2, which was originally submitted by letter dated July 22, 1986. Southern Nuclear may make changes to the fire protection program without prior Commission approval only if the changes

3.8 ELECTRICAL POWER SYSTEMS

3.8.7 Distribution Systems - Operating

LCO 3.8.7 The following AC and DC electrical power distribution subsystems shall be OPERABLE:

- a. Unit 1 AC and DC electrical power distribution subsystems comprised of:
 - 1. 4160 V essential buses 1E, 1F, and 1G;
 - 2. 600 V essential buses 1C and 1D;
 - 3. 120/208 V essential cabinets 1A and 1B;
 - 4. 120/208 V instrument buses 1A and 1B;
 - 5. 125/250 V DC station service buses 1A and 1B;
 - 6. DG DC electrical power distribution subsystems;
 - 7. Critical Instrumentation Buses 1A and 1B; and
- b. Unit 2 AC and DC electrical power distribution subsystems needed to support equipment required to be OPERABLE by LCO 3.6.4.3, "Standby Gas Treatment (SGT) System," and LCO 3.8.1, "AC Sources - Operating."

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more required Unit 2 AC or DC electrical power distribution subsystems inoperable.	A.1 Restore required Unit 2 AC and DC subsystem(s) to OPERABLE status.	7 days

(continued)



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SOUTHERN NUCLEAR OPERATING COMPANY, INC.

GEORGIA POWER COMPANY

OGLETHORPE POWER CORPORATION

MUNICIPAL ELECTRIC AUTHORITY OF GEORGIA

CITY OF DALTON, GEORGIA

DOCKET NO. 50-366

EDWIN I. HATCH NUCLEAR PLANT, UNIT NO. 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 216
Renewed License No. NPF-5

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment to the Edwin I. Hatch Nuclear Plant, Unit No. 2 (the facility) Renewed Facility Operating License No. NPF-5 filed by Southern Nuclear Operating Company, Inc. (the licensee), acting for itself, Georgia Power Company, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, and City of Dalton, Georgia (the owners), dated August 15, 2014, as supplemented by letter dated October 20, 2014, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations as set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

Enclosure 2

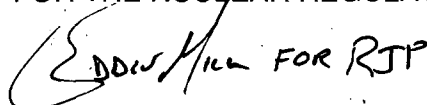
2. Accordingly, the license is hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. NPF-5 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 216 are hereby incorporated in the license. Southern Nuclear shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance and shall be implemented prior to the end of the spring 2015 refueling outage for Unit 2.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in black ink, appearing to read "R. Pascarelli FOR RJP".

Robert Pascarelli, Chief
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to Renewed Facility
Operating License No. NPF-5
and the Technical Specifications

Date of Issuance: December 23, 2014

ATTACHMENT TO
LICENSE AMENDMENT NO. 216
RENEWED FACILITY OPERATING LICENSE NO. NPF-5
DOCKET NO. 50-366

Replace the following pages of the License and the Appendix A Technical Specifications (TSs) with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove Pages

License
NPF-5, Page 4

TSs
3.8-37

Insert Pages

License
NPF-5, Page 4

TSs
3.8-37

- (6) Southern Nuclear, pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

C. This renewed license shall be deemed to contain, and is subject to, the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Section 50.54 of Part 50, and Section 70.32 of Part 70; all applicable provisions of the Act and the rules, regulations, and orders of the Commission now or hereafter in effect; and the additional conditions² specified or incorporated below:

(1) Maximum Power Level

Southern Nuclear is authorized to operate the facility at steady state reactor core power levels not in excess of 2,804 megawatts thermal, in accordance with the conditions specified herein.

(2) Technical Specifications

The Technical Specifications (Appendix A) and the Environmental Protection Plan (Appendix B), as revised through Amendment No. 216 are hereby incorporated in the renewed license. Southern Nuclear shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

(3) Additional Conditions

The matters specified in the following conditions shall be completed to the satisfaction of the Commission within the stated time periods following the issuance of the renewed license or within the operational restrictions indicated. The removal of these conditions shall be made by an amendment to the license supported by a favorable evaluation by the Commission.

(a) Fire Protection

Southern Nuclear shall implement and maintain in effect all provisions of the fire protection program, which is referenced in the Updated Final Safety Analysis Report for the facility, as contained

² The original licensee authorized to possess, use, and operate the facility was Georgia Power Company (GPC). Consequently, certain historical references to GPC remain in certain license conditions.

3.8 ELECTRICAL POWER SYSTEMS

3.8.7 Distribution Systems - Operating

LCO 3.8.7 The following AC and DC electrical power distribution subsystems shall be OPERABLE:

- a. Unit 2 AC and DC electrical power distribution subsystems comprised of:
 1. 4160 V essential buses 2E, 2F, and 2G;
 2. 600 V essential buses 2C and 2D;
 3. 120/208 V essential cabinets 2A and 2B;
 4. 120/208 V instrument buses 2A and 2B;
 5. 125/250 V DC station service buses 2A and 2B;
 6. DG DC electrical power distribution subsystems;
 7. Critical Instrumentation Buses 2A and 2B; and
- b. Unit 1 AC and DC electrical power distribution subsystems needed to support equipment required to be OPERABLE by LCO 3.6.4.3, "Standby Gas Treatment (SGT) System"; LCO 3.7.4, "Main Control Room Environmental Control (MCREC) System"; LCO 3.7.5, "Control Room Air Conditioning (AC) System"; and LCO 3.8.1, "AC Sources - Operating."

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more required Unit 1 AC or DC electrical power distribution subsystems inoperable.	A.1 Restore required Unit 1 AC and DC subsystem(s) to OPERABLE status.	7 days

(continued)



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO

AMENDMENT NO. 272 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-57

AND

AMENDMENT NO. 216 TO RENEWED FACILITY OPERATING LICENSE NO. NPF-5

SOUTHERN NUCLEAR OPERATING COMPANY, INC.

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

DOCKET NOS. 50-321 AND 50-366

1.0. INTRODUCTION

By license amendment request (LAR) dated August 15, 2014, as supplemented by letter dated October 20, 2014 (Agencywide Documents Access and Management System (ADAMS), Accession Nos. ML14227A921 and ML14293A834, Southern Nuclear Operating Company, Inc. (SNC, the licensee), requested an amendment to the Technical Specifications (TS) for the Edwin I. Hatch Nuclear Plant, Units 1 and 2 (HNP). The proposed amendment would revise the TS to add Critical Instrumentation Busses (Busses 1A and 1B for Unit 1 and Busses 2A and 2B for Unit 2) to TS 3.8.7, "Distribution Systems – Operating." The changes are being made as a result of the licensee's decision to reconfigure its busses 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 for following both a BDBEE and a design basis accident will be moved from an emergency diesel generator backed power source to a battery backed direct current power source. The new instrument busses are proposed to be installed during the spring 2015 refueling outage for Unit 2, and during the spring 2016 refueling outage for Unit 1.

The supplement dated October 20, 2014, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the staff's original proposed no significant hazards consideration determination as published in the *Federal Register* on September 2, 2014 (79 FR 52069).

2.0 REGULATORY EVALUATION

The following regulatory requirements and guidance documents were considered by the NRC staff for review of the LAR:

Title 10 of the *Code of Federal Regulations* (10 CFR), Part 50, Appendix A, General Design Criterion (GDC) 17, "Electric power systems," states, in part, that:

An onsite electric power system and an offsite electric power system shall be provided to permit functioning of structures, systems, and components important to safety. The onsite electric power supplies, including the batteries, and the onsite electric distribution system, shall have sufficient independence, redundancy, and testability to perform their safety functions assuming a single failure. Electric power from the transmission network to the onsite electric distribution system shall be supplied by two physically independent circuits (not necessarily on separate rights of way) designed and located so as to minimize to the extent practical the likelihood of their simultaneous failure under operating and postulated accident and environmental conditions. Provisions shall be included to minimize the probability of losing electric power from any of the remaining supplies as a result of, or coincident with, the loss of power generated by the nuclear power unit, the loss of power from the transmission network, or the loss of power from the onsite electric power supplies.

10 CFR Part 50, Appendix A, GDC 18, "Inspection and testing of electric power systems," states, in part, that "electric power systems important to safety shall be designed to permit appropriate periodic inspection and testing of important areas and features...."

10 CFR Part 50, Appendix A, GDC 1, "Quality standards and records," requires that structures, systems, and components important to safety shall be designed, fabricated, erected, and tested to quality standards commensurate with the importance of the safety functions to be performed.

10 CFR 50.36, "Technical specifications," establish the requirements related to the content of the TS. Pursuant to 10 CFR 50.36(c), the TS are required to include items in five specific categories related to station operation: (1) Safety limits, limiting safety system settings, and limiting control settings, (2) Limited conditions of operation (LCO), (3) Surveillance requirements (SRs), (4) Design features; and (5) Administrative controls. The proposed changes to the HNP TS relate to the LCO category.

NRC Order EA-12-049, "Order to Modify Licenses with Regard to Requirements for Mitigation Strategies for Beyond Design Basis External Events" (ADAMS Accession No. ML12054A736).

JLD-ISG-2012-01, "Compliance with Order EA-12-049" (ADAMS Accession No. ML12229A174).

NEI 12-06, "Diverse and Flexible Coping Strategies (FLEX) Implementation Guide," (ADAMS Accession No. ML12242A378) endorsed by the NRC.

NRC Order EA-12-051, "Order to modify Licenses with Regard to Spent Fuel Pool Instrumentation," (ADAMS Accession No. ML12056A044).

NRC Order EA-13-109, "Order to modify Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions," (ADAMS Accession No. ML13143A321).

3.0 TECHNICAL EVALUATION

3.1 Proposed Change

In the LAR, the licensee stated that the existing 120/208 Volt (V) alternating current (AC) instrument Busses (Tagged: R25-S064 and S065) and 120/208 V essential cabinets (Tagged: R25-S036 and S037) are fed from the safety-related diesel generator power sources. However, based on NRC order EA-12-049, the safety-related diesel generator power sources are not considered to be available during a BDBEE. Therefore, the critical instruments presently fed from existing 120/208 V AC instrument Busses and 120/208 V essential cabinets and needed following a BDBEE, are proposed to be re-located to two new divisionally separated critical instrumentation Busses A and B (to be Tagged: R25-S066 and S067) which will be fed from the battery-backed direct current (DC) power sources.

In the LAR, the licensee stated that each of the divisionally separated new critical instrumentation Busses will be powered via a safety-related DC/AC inverter which in turn will receive its primary power from a safety-related DC station service bus. Alternate power to the new inverter will be provided by the existing essential AC cabinet through a bypass switch internal to the inverter. Back-up power to the inverter will ensure that power to equipment supplied by the inverter is not lost upon DC system maintenance. One inverter and its critical instrumentation bus will be installed on each existing DC division to ensure power is available to the essential instrumentation during a BDBEE. A cross tie will be added between the divisions with two normally-open fused disconnect switches to further enhance availability of the power supplies during a BDBEE. The new equipment will be qualified as Class 1E. Instruments/loads to be moved to the new critical instrumentation Busses from the existing Busses are required for design basis events as well as BDBEEs.

The existing instrument Busses are included in Hatch TS, Limiting Condition of Operation (LCO) 3.8.7, "Distribution Systems-Operating," which is applicable in Modes 1, 2, and 3. The 120/208 V AC essential cabinets 'A' and 'B', and 120/208 V AC instrument Busses 'A' and 'B' are explicitly listed in LCO 3.8.7 under items a.3 and a.4, respectively. The licensee also proposed including the new critical instrumentation Busses in the TS, LCO 3.8.7 as Item a.7. After the proposed modification, LCO 3.8.7.a will read as follows:

LCO 3.8.7.a for Unit 1 AC and DC electrical power distribution subsystems include:

1. 4160 V essential Busses 1E, 1F, and 1G;
2. 600 V essential Busses 1C and 1D;
3. 120/208 V essential cabinets 1A and 1B;
4. 120/208 V instrument Busses 1A and 1B;
5. 125/250 V DC station service Busses 1A and 1B;
6. DG DC electrical power distribution subsystems; and
7. Critical instrumentation Busses 1A and 1B

LCO 3.8.7.a for Unit 2 will be identical except with the Unit 2 designations (e.g., 1A becomes 2A).

In case an individual new critical instrumentation bus becomes inoperable, LCO 3.8.7, Condition C, "One or more (Unit 1[2] or swing bus) AC electrical power distribution subsystems inoperable," will be entered. This is the same Condition that is entered when an existing instrument bus or essential cabinet becomes inoperable.

3.2 The staff evaluation of the proposed change

In the LAR, the licensee stated that the critical instruments to be relocated to the new FLEX critical instrumentation bus will include primary containment pressure, reactor and suppression pool water level, and drywell and suppression pool temperature indications. Additionally, the new critical instrument bus will provide power and position indication to some Primary Containment Isolation Valves, as well as, to the hardened vent valves, as required by NRC Order EA-13-109.

NEI 12-06, which is endorsed by JLD-ISG-2012-01, Section 3.1.10 recommended the following list of parameters for boiling water reactors (BWRs) to demonstrate the success of the strategies for maintaining the key safety functions, as well as, to indicate imminent or actual core damage to facilitate a decision to manage the response to the event:

- RPV [Reactor Pressure Vessel] Level
- RPV Pressure
- Containment Pressure
- Suppression Pool Level
- Suppression Pool Temperature
- SFP [Spent Fuel Pool] Level

In letter dated October 20, 2014, the licensee provided a list of instruments which will be fed from the new critical instrumentation Busses. The list includes the following instruments which will be moved from the exiting instrument Busses to the new critical instrumentation Busses to comply with the requirements of NRC Order EA-12-049:

Unit 1 Instruments (applicable for both Train A and Train B, unless indicated otherwise):

- Suppression (Torus) Water Temperature, Drywell Air Temperature, Drywell Temperature in the Vicinity of the Reference Legs - Recorder
- Drywell Pressure (mid range) – Recorder
- Torus Water Level (narrow range), Drywell Pressure (narrow range) – Recorder
- Reactor Vessel Water Level (fuel zone), Reactor Pressure – Recorder (Only Train A)

Unit 2 Instruments (applicable for both Train A and Train B, unless indicated otherwise):

- Suppression (Torus) Pool Water Temperature, Drywell Air Temperature, Drywell Temperature in the Vicinity of the Reference Legs - Recorder
- Drywell Pressure (mid range) – Recorder

- Torus Water Level (narrow range), Drywell Pressure (narrow range) - Recorder
- Reactor Vessel Water Level (fuel zone), Reactor Pressure – Recorder (Only Train A)

In a letter dated October 20, 2014, the licensee stated that no new critical instruments are being added to the FLEX Busses (new critical instrument Busses). All instruments and components that are currently credited as TS components will continue to be credited as such following implementation of the critical instrument bus design. The licensee also stated that the source of power for spent fuel pool level instrumentation, to be installed under NRC Order EA-12-051 and used as a "Key Parameter" instrument under NRC Order EA-12-049, will be determined later. The licensee noted that the hardened vent and its components will meet the requirements of Order EA-13-109. However, its design has not been finalized yet. The licensee stated that the plant supporting equipment to meet the NRC Orders EA-12-051 and EA-13-109 will not be TS required equipment, and, therefore, are not likely to have any additional impact on the TS.

The NRC staff notes that for the specified set of instrumentation that is currently powered by an alternating current bus that is in the TS, the change is to move those instruments' power supply to a direct current (i.e. battery-backed) bus that, with the proposed TS change, will also be in the TS. Therefore, there is no net change regarding the TS related requirements of 10 CFR 50.36 for specification of a power supply for these instruments for design basis events.

In letter dated October 20, 2014, the licensee also provided information related to load increases on Station Services Batteries 1A, 1B, 2A and 2B due to the proposed modification. The NRC staff finds that the safety-related batteries and DC system would continue to have adequate capacity to meet the load increases.

The NRC staff also reviewed the physical and electrical separation between the two new critical instrument Busses for each unit and finds that adequate physical and electrical separation exists between the two Busses so that failure of one bus will not cause failure of the other bus, thus maintaining consistency with the requirements of GDC-17. The new equipment will be located in a mild environment and, per 10 CFR 50.59(c), is not within the scope of 10 CFR 50.49, "Environmental qualification of electrical equipment important to safety for nuclear power plants."

In addition, in its letter dated October 20, 2014, the licensee stated that following description of the 120 V AC critical instrumentation Busses will be added to the Units 1 and 2 Updated Final Safety Analysis Reports:

120 VAC Critical Instrument Bus

This is an essential power system supplied from the safety related 125/250 VDC system via a safety related seismically qualified 250 VDC/120 VAC inverter.

Like the essential 120/208 VAC instrument Busses, the critical instrument Busses supply essential and non-essential loads. They provide AC power from the safety-related DC sources to loads critical for the mitigation of events, when the AC power is not available from offsite sources or from the on-site emergency AC system.

Failure of a non-essential load will not affect the ability of this system to supply the essential loads.

Back-up power is available to the inverter via the existing essential cabinets. The back-up power will ensure power is not lost to the critical instrumentation during DC system maintenance.

Based on the above review, the NRC staff finds that the proposed TS change to add the two new 120 V AC "Critical Instrumentation Busses A and B" to TS LCO 3.8.7 list, Item 3.8.7.a.7, for each unit, is acceptable.

4.0 SUMMARY

Based on the review of the licensee's LAR and supplemental information, the NRC staff finds that the proposed TS change to add the two new 120 V AC "Critical Instrumentation Busses A and B" to TS LCO 3.8.7 list, Item 3.8.7.a.7, for each unit provides the requirements to assure the functional capability or performance level of equipment needed for safe operation and is consistent with the requirements of 10 CFR Part 50, Appendix A, GDC 17 and 10 CFR 50.36.

5.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Georgia State official was notified of the proposed issuance of the amendments. The State official had no comments.

6.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendments involve no significant increase in the amounts and no significant change in the types of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards considerations, and there has been no public comment on the finding (79 FR 52069, September 2, 2014). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

7.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) there is reasonable assurance that such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: V. Goel

Date: December 23, 2014

December 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: EDWIN I. HATCH NUCLEAR PLANT, UNIT NOS. 1 AND 2, ISSUANCE OF
AMENDMENTS REGARDING A CRITICAL INSTRUMENTATION BUS
(TAC NOS. MF4586 AND MF4587)

Dear Mr. Pierce:

The U.S. Nuclear Regulatory Commission has issued the enclosed Amendment No. 272 to Renewed Facility Operating License DPR-57 and Amendment No. 216 to Renewed Facility Operating License NPF-5 for the Edwin I. Hatch Nuclear Plant, Unit Nos. 1 and 2, respectively. The amendments revise the Technical Specifications (TSs) in response to the application dated August 15, 2014, as supplemented by letter dated October 20, 2014. The amendments revise TS 3.8.7, "Distribution Systems – Operating" to add critical instrumentation busses as a result of the licensee's decision to reconfigure its busses 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)."

A copy of the related Safety Evaluation is also enclosed. A Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

/RA/

Robert 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

Enclosures:

1. Amendment No. 272 to DPR-57
2. Amendment No. 216 to NPF-5
3. Safety Evaluation

cc w/encls: Distribution via Listserv

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DATE	12/12/14	12/23/14	12/23/14	

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