Southern Nuclear

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NL-18-0906

U.S. Nuclear Regulatory Commission
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Edwin I. Hatch Nuclear Plant - Units 1 & 2
Revision 36 to the Updated Final Safety Analysis Report, Fire Hazard Analysis Changes,
Technical Specification Bases Changes, Technical Requirements Manual Changes,
License Renewal 10 CFR 54.37(b) Changes,
10 CFR 50.59 Summary Report, and Revised NRC Commitments Report

Ladies and Gentlemen:

In accordance with 10 CFR 50.4(b) and 50.71(e), Southern Nuclear Operating Company (SNC) hereby submits Revision 36 to the Edwin I. Hatch Nuclear Plant Units 1 and 2 (HNP) Updated Final Safety Analysis Report (UFSAR). The revised HNP Units 1 and 2 UFSAR pages, indicated as Revision 36, reflect changes through June 30, 2018.

The HNP Units 1 and 2 Technical Specifications, Section 5.5.11, "Technical Specifications (TS) Bases Control Program," provides for changes to the Bases without prior NRC approval. In addition, TS Section 5.5.11 requires that Bases changes made without prior NRC approval be provided to the NRC on a frequency consistent with 10 CFR 50.71(e). Pursuant to TS 5.5.11, SNC hereby submits a complete copy of the HNP TS Bases. The revised HNP TS Bases pages, indicated as Revision 95 for Unit 1 and Revision 107 for Unit 2, reflect changes to the TS Bases through June 30, 2018.

In accordance with Regulatory Issue Summary (RIS) 2001-05, "Guidance on Submitting Documents to the NRC by Electronic Information Exchange or on CD-ROM," all of the current pages of the HNP UFSAR, the HNP UFSAR reference drawings, the TS Bases, the Technical Requirements Manual (TRM), and the Fire Hazard Analysis (FHA) are being submitted on CD-ROM in portable document format (PDF). The revised HNP TRM pages, indicated as Revision 111 for Unit 1 and Revision 114 for Unit 2, reflect changes to the TRM through June 30, 2018. The revised HNP FHA, indicated as Revision 36, also reflects changes through June 30, 2018.

In accordance with 10 CFR 50.59(d)(2), SNC hereby submits the 10 CFR 50.59 Summary Report containing a brief description of any changes, tests, or experiments, including a summary of the safety evaluation of each.

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In accordance with NEI 99-04, "Guidelines for Managing NRC Commitment Changes," Revision 0, SNC hereby submits a Revised NRC Commitments Report containing the original commitment, the revised commitment, and the justification for the change.

SNC conducted a review of HNP plant changes for 10 CFR 54.37(b) applicability and identified no components that were determined to meet the criteria for newly identified components as clarified by RIS 2007-16, Revision 1, "Implementation of the Requirements of 10 CFR 54.37(b) for Holders of Renewed Licenses."

Enclosure 1 provides a table of contents with associated file names for the set of two CD-ROMs (Enclosure 2). Enclosure 3 provides the 10 CFR 50.59 Summary Report. Enclosure 4 provides the Revised NRC Commitments Report.

This letter contains no NRC commitments. If you have any questions, please contact Jamie Coleman at (205) 992-6611.

I declare under penalty of perjury that the foregoing is true and correct. Executed on this 30 day of August 2018.

Respectfully submitted,

Cheryl Gayheart
Regulatory Affairs Director

CAG/TLE/scm

Enclosures:
1. CD-ROM Table of Contents
2. CD-ROMs (2 discs)
3. 10 CFR 50.59 Summary Report
4. Revised NRC Commitments Report

cc: Regional Administrator, Region II (w/o enclosures)
Senior NRR Project Manager – Hatch (w/o enclosures)
Senior Resident Inspector – Hatch (w/o enclosures)
INPO Emergency Management Manager (Enclosure 2, CD ROMs, only)
RType: CHA02.004

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Enclosure 1
CD-ROM Table of Contents

SEQ	FILENAME CONTENT	EXTENSION
	DISC 1	
	NRC File Nomenclature	.doc
001	HATCH FSAR_U1 UNIT 1 Active Page List Table of Contents Chapters 1 thru 14 Appendices A thru K, Supplement Ka, M, N & R	.pdf
002	HATCH FSAR_U2_APL, TOC, CH1 THRU CH4 UNIT2 Active Page List Table of Contents Chapters 1 thru 4	.pdf
003	HATCH FSAR_U2_CH5 THRU CH7 UNIT 2 Chapters 5 thru 7	.pdf
004	FSAR_U2_CH8 THRU CH 18, APP A UNIT 2 Chapters 8 thru 18 Appendix A	.pdf
005	HATCH BASES Units 1 and 2 Technical Specifications Bases	.pdf
006	HATCH TRM UNIT 1 PART 1	.pdf
007	HATCH TRM UNIT 1 PART 2	.pdf
008	HATCH TRM UNIT 2	.pdf
009	HATCH FHA	.pdf

DISC 2

010	HATCH FSAR REF DWGS PART 1 A-21603 - H-11606	.pdf
011	HATCH FSAR REF DWGS PART 2 H-11607 - H-16002	.pdf
012	HATCH FSAR REF DWGS PART 3 H-16003 - H-16174	.pdf
013	HATCH FSAR REF DWGS PART 4 H-16176 - H-16339	.pdf
014	HATCH FSAR REF DWGS PART 5 H-16512 - H-19941	.pdf
015	HATCH FSAR REF DWGS PART 6 H-19942 - H-21114	.pdf
016	HATCH FSAR REF DWGS PART 7 H-22250 - H-24748	.pdf
017	HATCH FSAR REF DWGS PART 8 H-24749 - H-26036	.pdf
018	HATCH FSAR REF DWGS PART 9 H-26037 - H-26102	.pdf
019	HATCH FSAR REF DWGS PART 10 H-26103 - S-15290	.pdf
020	HATCH FSAR REF DWGS PART 11 S-15304 - S-55894	.pdf
021	HATCH FSAR REF DWGS PART 12 S-53448 - S-56429 Part 1	.pdf
022	HATCH FSAR REF DWGS PART 13 S-56429 Part 2 - SX-28760	.pdf

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Enclosure 2
CD-ROMs (2 discs)

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Enclosure 3
10 CFR 50.59 Summary Report

10 CFR 50.59 Summary Report

Activity: SNC889063

Title: Temporary Design Change to Install Additional Duct Work to Increase Air Flow for Additional Cooling for the Condenser Bay

10 CFR 50.59 Evaluation Summary:

This temporary modification installs a temporary plenum on standby control building exhaust fan 1Z41-C008C to exhaust warm air from the turbine building condenser bay to the Unit 1 Reactor Building Plenum.

Based on the design function for the Unit 1 Control Building exhaust fans, failure of either operating exhaust fan automatically activates the standby exhaust fan. With this temporary modification installed the standby fan is not available. The control building HVAC still satisfies its original design requirements.

The additional flow from fan 1Z41-C008C is in the bounds of the flow range for the radiation monitors.

The modification does not increase the frequency of occurrence or possibility of any accident or malfunction of an SSC. The consequences of an accident or malfunction of an SSC are not increased. The modification does not involve more than a minimal increase in the consequences of a previously evaluated accident. The possibility of an accident of a different type from one previously evaluated is not created.

Activity: DCP SNC435914

Title: U2 Refuel Bridge Replacement

10 CFR 50.59 Evaluation Summary:

This activity is to replace the existing HNP Unit 2 Stearns-Roger refueling platform with a new Westinghouse RFM. The new RFM has the capability of using the new automatic and semi-automatic software control for fuel movement to position the fuel assemblies to their specified locations in addition to the current manual control. The logic of the BWR standard interlocks between the RFM and the Reactor Control System is moved from circuitry hardware to the software of the PLC of the new RFM.

The replacement of the Unit 2 refueling platform does not affect the ability of the plant to safely shut down after accidents nor increase the consequence of accidents evaluated in the HNP Updated FSAR.

Activity: DCP SNC489865

Title: Degraded Grid – U2 Final Configuration

10 CFR 50.59 Evaluation Summary:

This activity modifies the requirements of the TS Bases for LCO 3.8.1, "AC Sources –Operating" with regard to the qualified offsite sources. The new minimum configuration to meet this LCO requirement is two SATs feeding one ESF bus, and the remaining two ESF buses each being fed by a different SAT. This will ensure that in the event of the loss of one offsite circuit, a minimum of two ESF buses will be available to perform the safety function. This is similar to the existing requirements, except that the 2F bus is no longer required to be supplied by two qualified offsite circuits, provided either the 2E bus or 2G bus is supplied by two qualified offsite circuits.

Activity: DCP SNC836321

Title: SAT 2E Open Phase Protection Trip Enable

10 CFR 50.59 Evaluation Summary:

This activity installs an open phase protection system on the high side neutral of SAT 2E that allows for an open phase condition to trip the high side breaker. The OPP system has been evaluated based on the requirements of 10 CFR 50.59 and following the guidance provided in NEI 96-07 and NEI 01-01. The addition of the OPP system and its method of evaluation does not result in:

- More than minimal increase in the frequency of occurrence or consequences of an accident previously evaluated;
- More than a minimal increase in the frequency of occurrence or consequences of a malfunction of an important-to-safety SSC;
- The creation of an accident of a different type or possibility for a malfunction of an important-to-safety SSC with a different result than any previously evaluated;
- Any impact on the integrity of the fuel cladding, reactor coolant pressure boundary, or containment;
- A departure from a method of evaluation used in establishing design bases or in safety analysis.

Activity: DCP SNC881210

Title: SAT 2C and SAT 2D Open Phase Protection Trip Enable

10 CFR 50.59 Evaluation Summary:

This activity adds a new function to the OPP panels and existing protective relaying for each SAT-1C, SAT-1D, SAT-2C, and SAT-2D. The individual OPP panel isolates the monitored transformer on detection of a loss of phase on the high side (upstream) of each transformer. Each OPP panel is an addition to existing protective relays which lockout (isolate) the same transformers. These transformers are the offsite source of power to the onsite ac power distribution system during normal start-up, normal shutdown, and emergency shutdown. When the nuclear plant is producing power, the separate unit auxiliary transformers (UAT -1NXAA, UAT-1NXAB, UAT-2NXAA, and UAT-2NXAB), sourced from the main generator, provide the nonemergency power to the plant. Thus, isolation of SAT-1C, SAT-1D, SAT-2C, or SAT-2D while the nuclear plant is producing power will not result in complete loss of the non-emergency onsite ac power distribution system, as automatic fast transfers exist between the normal feed from SAT-2D (SAT-1D) to the backup feed from SAT-2C (SAT-1C). If both SAT-2D and SAT-2C (SAT-1D and SAT-1C) are locked out, then offsite ESF power is lost.

Energizing these transformers generates a large inrush current. To avoid false indication of an OPC and inadvertent transformer lockout, procedures for energizing SAT-1C, SAT-1D, SAT-2C, and SAT-2D must be modified to turn off the OPP panel manually when energizing the monitored transformer and re-energized manually after energizing the transformer.

Modification of the OPP system at the Hatch Nuclear Plant has been evaluated based on the requirements of 10 CFR 50.59 and following the guidance provided in NEI 96-07 and NEI 01-01 (References 2 and 3). The conclusion of the Evaluation is that the proposed activities may be implemented under 10 CFR 50.59 without requiring prior USNRC review or approval.

Activity: RER SNC845386

Title: Update of TRACG04P Engineering Computer Program to Version 4.2.75.0

10 CFR 50.59 Evaluation Summary:

The modifications made to the TRACG04P code in response to GE Change Request 835 yield more conservative results than the NRC-approved version of TRACG04P. This is the only change to TRACG04P made as part of the update to Version 4.2.75.0 requiring 10 CFR 50.59 evaluation. Based on the guidance provided in NEI-96-07 Revision 1, this change does not require NRC approval.

Additionally, per GE Report 003N8846 Rev. 1, GNF concludes that the changes to TRACG04P are either conservative or within the limitations and conditions of the NRC-approved methodologies. BWR Fuel Engineering personnel have reviewed this report and agree with this assessment; no NRC approval of the implementation of Version 4.2.75.0 of TRACG04P for reload licensing analyses at Plant Hatch is required.

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Enclosure 4
Revised NRC Commitments Report

Original Commitment: Licensees and Applicants are Requested to Review their Present Vendor Interface Programs (Response to GL 90-03)
SNC26430 (Legacy Number 1991300200)

Licensees and applicants are requested to review their present vendor interface programs and modify their programs as necessary to assure that both of the elements set out above [see Justification for Change below] are met. Pursuant to Section 192 of the Atomic Energy Act and 10 CFR 50.54(f), the NRC requires that licensees report to the NRC within 180 days of receipt of this Generic Letter whether or not they have taken the actions requested. Licensees undertaking the actions requested should confirm that they have already examined their vendor interface programs, that their programs either already include both of the elements set out in this letter, or that the elements have been scheduled for implementation. If licensee actions are not complete at the time of their submittal, the license should submit a completion date for the remaining actions to be taken. If the licensee declines to undertake the actions requested by this letter, the licensee is required to provide justification for this position.

Revised Commitment

I. Program with NSSS Vendor

Prior to the receipt of GL 90-03, GPC developed a vendor equipment technical information program (VETIP) with General Electric (GE), the NSSS supplier for Plant Hatch, consistent with the Nuclear Utility Task Action Committee (NUTAC) report. The Plant Hatch VETIP program consists of the following activities and information systems that address safety-related components within the NSSS scope of supply.

A. The Institute of Nuclear Power Operations (INPO) Significant Event Evaluation and Information Network (SEE-IN) program which encompasses the Nuclear Plant Reliability Data System (NPRDS) and the Nuclear Network.

B. Routine utility and vendor interchange.

C. Utility and regulatory interchange.

GPC has established procedures to ensure the Nuclear Network entries are retrieved, reviewed for applicability to Plant Hatch, and forwarded for action, if appropriate. GPC has also established programs and procedures to ensure the dispositioning of technical information transmitted by GE to GPC. GE provides technical information through service information letters (SILs), rapid communication service information letters (RCSILs), technical information letters (TILs), servicer advisory letters (SALs), and potentially reportable conditions (PRC) letters. Appropriate procedures will be revised by January 1, 1991, to require receipt acknowledgement of technical information by GE.

The program described above also provides for the receipt and dispositioning of updates to instruction and maintenance manuals, and technical information bulletins which may be issued by the NSSS vendor.

GPC is in the process of establishing an additional contact program, with GE, which will assure specified vendors within the NSSS scope of supply are contacted to obtain any pertinent information issued by the vendor in the preceding year. The contact program will provide for the review, disposition, and receipt acknowledgement of technical information received. The program will be developed and initiated by January 1, 1991.

II. Periodic Contact with Vendors of Other Key Safety-Related Components

Benchmarking has shown that the industry has weighed the cost and the time required to complete a program of periodic contact with the vendors of other key safety-related components outside of NSSS scope balanced per GL 90-03(b) against the risks to safe operation and the goals of equipment reliability. There are multiple other programs currently in place in the SNC fleet that achieve the same goals as the original intent of this aspect of the Generic Letter.

The technological advancements in equipment performance information exchanges and other OE sharing meet the intent of GL 83-28 and GL 90-03 and have obviated the need for direct periodic contact with vendors. This proposed change will not affect SNC contact with fleet NSSS vendors as defined in GL 90-03(a).

Justification for Change

This commitment documents Georgia Power Company's response to the NRC regarding implementation of GL 90-03. In the generic letter the NRC stated that "an adequate vendor interface program should include:

(a) A program with the NSSS vendor as described in the VETIP, which covers all the safety-related components within the NSSS scope of supply. This program should include provisions for assuring receipt by the licensee/applicant of all technical information provided by the NSSS vendor; and

(b) A program of periodic contact with the vendors of other key safety-related components not included in (a) above."

Benchmarking has shown that the industry has weighed the cost and the time required to complete the item (b) vendor contact effort balanced against the risks to safe operation and the goals of equipment reliability. Many have eliminated or are in the process of eliminating the non-NSSS portion of their programs. Elimination of undue administrative burden also aligns with the goals of Delivering the Nuclear Promise and reducing regulatory risk. Furthermore, there are multiple other programs currently in place in the SNC fleet that achieve the same goals as the original intent of this aspect of the Generic Letter.

The technological advancements in equipment performance information exchanges and other OE sharing meet the intent of GL 83-28 and GL 90-03 and have obviated the need for direct periodic contact with vendors. This change will not affect SNC's contact with fleet NSSS vendors as defined in GL 90-03(a). The requirement to have direct contact with key safety-related vendors was made in a time when computers, email and other regulatory and industry processes were not well integrated into every-day business.