Mark J. Ajluni, P.E.
Nuclear Licensing Director

Southern Nuclear Operating Company, Inc.
40 Inverness Center Parkway
Post Office Box 1295
Birmingham, Alabama 35201

Tel 205.992.7673
Fax 205.992.7885

August 9, 2012

Docket Nos.: 50-321
50-366

NL-12-1598

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555-0001

Edwin I. Hatch Nuclear Plant – Units 1 and 2
Backfit for Degraded Grid Voltage Protection – Implementation of Plant Modifications

Ladies and Gentlemen:

On May 25, 2011, the Nuclear Regulatory Commission (NRC) staff issued a letter to Southern Nuclear Operating Company (SNC) stating that the measures in effect at Edwin I. Hatch Nuclear Plant (HNP) to demonstrate compliance with the applicable provisions of 10 CFR 50.55a(h)(2) and 10 CFR Part 50, Appendix A, General Design Criterion 17 (GDC-17) are not acceptable.

This conclusion constituted a change from the position taken by the NRC staff in the February 23,1995 Safety Evaluation Report (SER) regarding the reliance on administrative controls and manual actions at HNP for maintaining adequate voltage to protect Class 1E (safety-related) electrical equipment in the event of degraded grid voltage conditions.

The NRC staff position is that the 1995 SER was issued in error and that a compliance backfit is necessary, as provided for by 10 CFR 50.109(a)(4)(i). SNC appealed this decision in a letter dated June 17, 2011 (NL-11-1065), which was denied by NRC in a letter dated September 29, 2011. A further SNC appeal, in a letter dated October 28, 2011 (NL-11-2032), was denied by the NRC Executive Director of Operations (EDO) in a letter dated June 19, 2012, based on a chartered review by a Backfit Appeal Panel.

As requested in the June 19, 2012 NRC letter, SNC hereby provides the following information regarding the plans and schedule to resolve this issue (that is, to eliminate manual actions as part of the HNP degraded grid voltage protection system for dealing with a sustained degraded voltage condition).

SNC is developing a project plan which will involve replacement of major plant equipment (the Startup Auxiliary Transformers (SATs)) and include other design changes. Due to the integral role of the SATs and their connected electrical buses in the operation of each unit, project implementation must be performed during scheduled refueling outages, with two outages per unit required.

Schedule milestones include:

2012	May	begin Project Plan development (in progress)
2013	June	approval of Project Plan and Design Change Package
2014	June	issuance of purchase orders for new SATs
2015	December	completion of design
2015	December	submittal of Technical Specification amendment request
2016	January	receipt of new SATs
2016	September	issuance of Technical Specification amendments
2017	February	begin 2R24 outage work – SAT(s), cabling, switchgear
2018	February	begin 1R28 outage work – SAT(s), cabling, switchgear
2019	February	begin 2R25 outage work – SAT(s), cabling, switchgear
2020	February	begin 1R29 outage work – SAT(s), cabling, switchgear
2020	March	completion of project implementation

Non-critical path work activities performed at power are not included in the above schedule. As with similar major backfits, the foregoing milestones are dependent upon the absence of unanticipated events and conditions.

While this schedule for implementation extends over several years, SNC intends to shorten it, if possible. Many challenges in fully implementing the project result from the nature and complexity of the design change, which includes such factors as the protective relay scheme between the plant and switchyard, Bulletin 2012-01, "Design Vulnerability in Electric Power System" considerations, submittal and approval of Technical Specification amendments and an anticipated long lead time for large electrical equipment. These and other factors dictate the implementation schedule, which will require two outage periods of each unit's 24-month operating cycle to complete.

This letter contains no NRC commitments. If you have any questions, please contact Doug McKinney at (205) 992-5982.

Respectfully submitted,

Mark J Ajluni

M. J. Ajluni
Nuclear Licensing Director

MJA/DWD/lac

cc: Southern Nuclear Operating Company
Mr. S. E. Kuczynski, Chairman, President & CEO
Mr. D. G. Bost, Executive Vice President & Chief Nuclear Officer
Mr. D. R. Madison, Vice President – Hatch
Mr. B. L. Ivey, Vice President – Regulatory Affairs
Mr. B. J. Adams, Vice President – Fleet Operations
Mr. C. E. Boone, Fleet Emergency Preparedness Manager
RTYPE: CHA02.004

U. S. Nuclear Regulatory Commission
Mr. V. M. McCree, Regional Administrator
Mr. R. L. Martin, NRR Senior Project Manager - Hatch
Mr. E. D. Morris, Senior Resident Inspector – Hatch
Mr. J. T. Munday, Director of New Construction Projects
Mr. L. D. Wert, Deputy Regional Administrator
Mr. T. Reis, Director Division of Reactor Safey
Mr. H. O. Christensen, Deputy Director Division of Reactor Safety