

H. L. Sumner, Jr.
Vice President
Hatch Project

Southern Nuclear
Operating Company, Inc.
Post Office Box 1295
Birmingham, Alabama 35201
Tel 205.992.7279



Energy to Serve Your World™

NL-04-0371

March 10, 2004

Docket Nos.: 50-321
50-366

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

Edwin I. Hatch Nuclear Plant
Clarification of the Proposed Technical Specifications Revision to
Primary Containment Leakage Rate Testing Program

Ladies and Gentlemen:

By letter dated December 1, 2003 Southern Nuclear Operating Company (SNC) submitted to the NRC a proposed change to the Unit 1 and Unit 2 Technical Specifications (TS) for the Edwin I. Hatch Nuclear Plant. The amendment request proposes a change in the post-accident peak primary containment pressure (P_a) listed in TS section 5.5.12, "Primary Containment Leakage Rate Testing Program." This proposed change supports other efforts by SNC to increase the reactor nominal operating pressure for the Hatch Units. The containment evaluation performed for the pressure increase effort resulted in slightly higher post-accident peak calculated containment pressure values. Since the peak calculated containment pressures are explicitly listed in the Administrative section of the TS, a TS change is required.

Through a teleconference conversation with the NRC/NRR Hatch Project Manager, a request was made for SNC to provide a correspondence describing the additional effort associated with the pressure increase project. Also, an electronic communication (E-mail) was received by SNC requesting responses to three questions from a staff reviewer pertaining to the license amendment request (LAR). This letter provides a response to question 1 of the E-mail, as well as a more detailed description of the pressure increase project scope as requested. The answers to questions 2 and 3 of the E-mail request will be provided under a separate cover as a Request for Additional Information (RAI) response.

NRC Question

(1) While the revised reactor steam dome pressure is stated to be within the TS 3.4.10 allowable of 1073 psia, it would appear that changes to the reactor steam dome nominal operating pressure would also impact other safety analyses, for example ECCS performance, and well as, perhaps, other operating considerations based on reduced margins to safety set points. (a) How are these to be addressed? (b) Is the LAR requesting approval of the change to the reactor steam dome nominal operating pressure value?

AD17

SNC Response

The December 1, 2003 submittal requests NRC review and approval of the change to the Primary Containment Leakage Rate Testing Program only. All other analyses and evaluations in support of the nominal operating pressure increase project are performed under the provisions of 10 CFR 50.59.

The purpose of the pressure increase project is to increase the nominal reactor steam dome pressure from 1035 psig to 1045 psig to allow for additional flow control margin for the high pressure turbine. This flow margin is needed to operate at the 100% rated thermal power level of 2804 MWt. In order to implement the increase in nominal reactor steam dome pressure, a review of the applicable BOP and NSSS systems, structures, analyses, transients and special events was performed. The impact of the pressure increase on the applicable plant programs (i.e., MOV testing, EQ, FAC, Appendix J testing, etc.) was also evaluated. The results of the analyses and evaluations indicate that, except for the subject proposed TS revision request, the 10 psi nominal operating pressure increase can be accomplished under the provision of 10 CFR 50.59 since:

- A nominal operating pressure of 1045 psig is within the existing Reactor Steam Dome Pressure TS LCO (3.4.10) requirement of 1058 psig. The basis for this TS (the main steam isolation valve closure with flux scram) is not affected by this change because it is performed with an initial dome pressure of 1058 psig.
- There is no change to any TS allowable values associated with instrument settings that initiate protective functions. This includes:
 1. No change to the reactor pressure vessel (RPV) steam dome pressure trip Analytical Limit or TS Allowable Values
 2. No change to the RPV water level trip Analytical Limits or TS Allowable Values
- There is no change in the rated thermal power of 2804 MWt.
- The 10 psi increase in nominal reactor dome pressure will not result in a change to any Safety Relief Valve's (SRV) setpoints.
- The Maximum Reactor Core Flow and Power-to-Flow map are unchanged with the 10 psi increase.

The scope on pressure increase engineering project evaluation effort included but was not limited to the following:

- Turbine and Reactor Heat Balances
- Core and Fuel Performance
- Thermal-Hydraulic Stability
- SRV Performance
- RPV Fracture Toughness
- Reactor Vessel Integrity-Stress Evaluation
- RPV Internals Mechanical Evaluation
- Reactor Internal Differential & Fuel Lift
- Containment System Response
- Transient Analyses
- Accident Radiological Analysis
- Anticipated Transients Without Scram (ATWS)
- Station Blackout
- NSSS System

- BOP System
- Instrumentation Review
- Grid Stability

Plant implementation of the 10 psi nominal operating pressure increase will be accomplished through the SNC design change process. Implementing the pressure change via the design change process ensures that the necessary changes to the plant operating procedures, maintenance procedures, instrument calibrations, as well as operator training requirements are captured. Following completion of site implementation, the affected FSAR sections will be submitted under the provisions of 10 CFR 50.71(e) to reflect the changes due to the 10 psi nominal operating pressure increase.

Mr. H. L. Sumner, Jr. states he is a Vice President of Southern Nuclear Operating Company, is authorized to execute this oath on behalf of Southern Nuclear Operating Company and to the best of his knowledge and belief, the facts set forth in this letter are true.

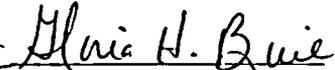
This letter contains no NRC commitments. If you have any questions, please advise.

Respectfully submitted,

SOUTHERN NUCLEAR OPERATING COMPANY


H. L. Sumner, Jr.

Sworn to and subscribed before me this 10th day of March, 2004.


Gloria H. Buie
Notary Public

My commission expires: 06-07-05

HLS/whc/daj

cc: Southern Nuclear Operating Company
Mr. J. B. Beasley, Jr., Executive Vice President
Mr. G. R. Frederick, General Manager – Plant Hatch
RType: CHA02.004

U. S. Nuclear Regulatory Commission
Mr. L. A. Reyes, Regional Administrator
Mr. C. Gratton, NRR Project Manager – Hatch
Mr. D. S. Simpkins, Senior Resident Inspector – Hatch

State of Georgia
Mr. L. C. Barrett, Commissioner – Department of Natural Resources