Dennis R. Madison
Vice President - Hatch

Southern Nuclear Operating Company, Inc.
Plant Edwin I. Hatch
11028 Hatch Parkway North
Baxley, Georgia 31513

Tel 912 537 5859
Fax 912 366 2077

SOUTHERN COMPANY

June 25, 2012

Docket Nos.: 50-366

NL-12-1321

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

Edwin I. Hatch Nuclear Plant, Unit 2
Special Report 2012-001-0
Post Accident Temperature Instrument
Out of Service Greater than 30 Days

Ladies and Gentlemen:

In accordance with the requirements of the Unit 2 Technical Specifications, section 5.6.6, Southern Nuclear Operating Company hereby submits the enclosed Special Report concerning an event of non-compliance with Technical Specification 3.3.3.1 in which a required temperature instrument was not returned to service within its 30 day Completion Time.

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

Respectfully submitted,

D. R. Madison
Vice President – Hatch

DRM/sbt

Enclosure: Special Report 2012-001-0

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
RTYPE: CHA02.004

cc: (continued)

U. S. Nuclear Regulatory Commission
Mr. V. M. McCree, Regional Administrator
Mr. P. G. Boyle, NRR Senior Project Manager - Hatch
Mr. E. D. Morris, Senior Resident Inspector – Hatch

Enclosure

NL-12-1321

Edwin I. Hatch Nuclear Plant – Unit 2

Special Report 2012-001-0

Post Accident Temperature Instrument
Out of Service Greater than 30 Days

DESCRIPTION OF EVENT

On 5/14/2012 at 0857 EDT while operating at 97.4% rated thermal power (RTP), a post accident monitor (PAM) drywell temperature reading from resistance temperature detector (RTD) 2T47-N001B failed a required channel check resulting in an inoperable channel. Subsequently, the determination was made that drywell entry is required in order to make the needed repairs of the inoperable RTD. As a result, the channel could not be restored to OPERABLE status within 30 days, making applicable the requirement to report this condition within 14 days in accordance with Technical Specification 5.6.6.

The channel checks for the affected RTD had been successfully performed prior to a planned shutdown in May 2012 to replace some of the main steam safety relief valves (SRVs). Following restart from the outage, the temperature difference between RTDs was too great for the acceptance criteria to be met for the channel check to be successfully performed. Troubleshooting was performed that confirmed the cause for the inaccurate temperature reading was associated with the RTD itself which is located in the drywell. Current plans are to make the needed repair or replace the RTD during the 2013 refueling outage. There are additional qualified RTDs located in the vicinity of the reactor pressure vessel (RPV) level instrument reference legs that are used in determining the proper compensation of reactor water level indication during post accident conditions with this RTD inoperable. The use of these additional RTDs is addressed in the Operations procedure used for making these RPV water level corrections. The use of the procedure in conjunction with the continued operability of qualified RTDs provides ongoing assurance that adequate temperature indications remain operable to make the needed RPV water level indication corrections in post accident conditions as necessary.

CAUSE OF EVENT

The cause for the failed RTD cannot be determined until plant conditions allow access to the RTD during the 2013 refueling outage. The most likely cause for the current condition is physical damage that could have occurred during the activities involving replacement of SRVs during the SRV planned shutdown. A more conclusive cause determination will be made based on information gained during the planned refueling outage.

REPORTABILITY ANALYSIS AND SAFETY ASSESSMENT

The post accident monitoring (PAM) instrumentation limiting condition of operation (LCO) 3.3.3.1 requires 6 channels to be OPERABLE with inputs from designated RTDs. With RTD 2T47-N001B inoperable, Tech Spec 3.3.3.1, Required Action A.1 required the channel to be restored to OPERABLE status within 30 days or to submit a report within the following 14 days in accordance with Tech Spec 5.6.6.

As previously discussed, the cause for the inoperable RTD is not known at this time and will be determined during the 2013 refueling outage when the reactor is in a mode that supports access to the RTD. At that time the RTD will be repaired or replaced and returned to an OPERABLE status prior to startup from that outage. In the interim, Operations procedure 34AB-B21-002-2, "RPV Water Level Corrections", provides adequate guidance to make post accident RPV water level corrections and serves as the preplanned alternate method of monitoring. This procedure provides guidance to use a qualified RTD that is in the same general vicinity as the RTD that is currently inoperable, which provides the ongoing assurance that post accident RPV water level corrections can be made as necessary based on plant conditions. Based on this information, the inoperable RTD has low safety significance.

CORRECTIVE ACTIONS

The failed RTD has been entered into the corrective action program to determine the cause for the failure, and a work order has been created to perform the required repair during the 2013 refueling outage. The temperature reading from the failed RTD has been disabled for use in the main control room safety parameter display system (SPDS) to ensure that only the OPERABLE RTDs are used in making post accident RPV water level corrections. Procedure 34AB-B21-002-2 is already in place and will be used as needed in post accident conditions.