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December 13, 2007

Docket Nos.: 50-348
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NL-07-2213

U. S. Nuclear Regulatory Commission
Region II
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW, Suite 23T85
Atlanta, Georgia 30303-8931

Joseph M. Farley Nuclear Plant – Units 1 and 2
Response to Confirmatory Action Letter on AREVA Cutler-Hammer Breakers

Ladies and Gentlemen:

On November 9, 2007, NRC issued a Confirmatory Action Letter (CAL No. 02-07-001) to Southern Nuclear Operating Company (SNC) regarding the 4160 volt AREVA Cutler-Hammer circuit breaker failures that have occurred at the Farley Nuclear Plant (FNP) since September 2007.

The Confirmatory Action Letter was based on the letters SNC submitted on October 29, 2007 and November 5, 2007 describing completed and planned actions to identify and address the breaker issues at FNP.

This letter is to report completion of the actions addressed in the Confirmatory Action Letter, as detailed in the Enclosure.

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

Sincerely,

A handwritten signature in black ink that reads "J. R. Johnson". The signature is written in a cursive style with a long, sweeping underline that extends to the right.

J. R. Johnson
Vice President – Farley

JRJ/DWD

Enclosure: Completed Actions on AREVA Cutler-Hammer Breakers at FNP

U. S. Nuclear Regulatory Commission

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cc: Southern Nuclear Operating Company

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Mr. J. R. Johnson, Vice President – Farley

Mr. D. H. Jones, Vice President – Engineering

RTYPE: CFA04.054; LC # 14696

U. S. Nuclear Regulatory Commission

Mr. V. M. McCree, Acting Regional Administrator

Ms. K. R. Cotton, NRR Project Manager – Farley

Mr. E. L. Crowe, Senior Resident Inspector – Farley

Document Control Desk

Joseph M. Farley Nuclear Plant – Units 1 and 2

Enclosure

Completed Actions on AREVA Cutler-Hammer Breakers at FNP

Joseph M. Farley Nuclear Plant – Units 1 and 2

Enclosure

Completed Actions on AREVA Cutler-Hammer Breakers at FNP

Each numbered item from the NRC November 9, 2007 Confirmatory Action Letter is re-stated below, followed by completion information for that item.

1. FNP Unit 1 – SNC will inspect 4160 volt C-H breakers that are required to support reload of fuel into the reactor (7 breakers total), prior to reloading fuel (Mode 6) during Refueling Outage U1R21 in the fall of 2007.

Complete.

The 7 required breakers have the following cubicle designations and functions:

- DF-04 1C Component Cooling Water Pump
- DF-06 1A Charging Pump
- DF-08 1-2A Diesel Generator Output
- DF-09 1A Residual Heat Removal Pump
- DH-07 1C Diesel Generator Output
- DK-03 1A Service Water Pump
- DK-04 1B Service Water Pump

2. FNP Unit 1 – SNC will inspect 4160 volt C-H breakers required to support second train of Residual Heat Removal (5 breakers total), prior to draining the reactor cavity with fuel in the core during Refueling Outage U1R21 in the fall of 2007.

Complete.

The 5 required breakers have the following cubicle designations and functions:

- DG-04 1A Component Cooling Water Pump
- DG-08 1B Diesel Generator Output
- DG-09 1B Residual Heat Removal Pump
- DL-03 1D Service Water Pump
- DL-04 1E Service Water Pump

3. FNP Unit 1 - SNC will inspect 4160 volt C-H breakers that must be able to close on a Safety Injection signal, reopen on a subsequent Loss of Site Power and then re-close one additional time to accommodate accident recovery action (12 remaining breakers). This will be accomplished prior to entering Mode 4 following Refueling Outage U1R21 in the fall of 2007.

Complete.

The 12 required breakers have the following cubicle designations and functions:

DF-05 1B Component Cooling Water Pump
DF-07 1B Charging Pump
DF-10 1A Motor Driven Auxiliary Feedwater Pump
DF-11 1A Containment Spray Pump
DF-13 1H Bus Feed (see item 4 below)
DG-05 1B Component Cooling Water Pump
DG-06 1C Charging Pump
DG-07 1B Charging Pump
DG-10 1B Motor Driven Auxiliary Feedwater Pump
DG-11 1B Containment Spray Pump
DK-05 1C Service Water Pump
DL-05 1C Service Water Pump

4. FNP Unit 2 – Breaker DF-13 was inspected by November 3, 2007, as detailed in your letter dated November 5, 2007.

Complete.

See item 5 below. The Anti-Pump Relay inspection for breaker DF-13 was completed on November 3, 2007, subsequent to completion of the other inspection points.

5. FNP Unit 2 – SNC has completed the established 11-point breaker inspection process for 13 critical 4160 volt C-H breakers as designated in Enclosure 2, Section 3 of your letter dated October 29, 2007.

Complete.

Note that Enclosure 2, Section 3 of SNC's October 29, 2007 letter also included breaker DF-13, for 14 breakers total. The 14 required breakers have the following cubicle designations and functions:

DF-05 2B Component Cooling Water Pump
DF-08 1-2A Diesel Generator Output
DF-09 2A Residual Heat Removal Pump
DF-13 2H Bus Feed
DG-04 2A Component Cooling Water Pump
DG-07 2B Charging Pump

DG-08 2B Diesel Generator Output
DG-11 2B Containment Spray Pump
DK-03 2A Service Water Pump
DK-04 2B Service Water Pump
DK-05 2C Service Water Pump
DL-03 2D Service Water Pump
DL-04 2E Service Water Pump
DL-05 2C Service Water Pump

6. SNC will complete the root cause review and determine any additional required actions by December 1, 2007.

Complete.

Root cause and corrective action determinations have been completed for the two issues related to failures of in-service breakers, the Latch Check Switch issue and the Anti-Pump Relay issue. Additional corrective actions beyond the initial 11-point inspection were developed. These actions included revising the breaker purchase order requirements, investigating the AREVA commercial grade dedication process, and developing an enhanced breaker inspection program.

7. SNC will review their corrective action and work order systems to confirm the established 11-point breaker inspection process encompasses all critical and necessary inspection attributes based on available information. This one time review will be completed by December 1, 2007.

Complete.

Approximately 1900 breaker-related entries in the Condition Report and Work Order systems were reviewed. This review confirmed the adequacy of the established 11-point breaker inspection process, in that no items were identified which would have prevented the breakers from performing their design function. An enhanced inspection program is being developed to provide continued assurance that the AREVA Cutler-Hammer breakers will perform their design function in the long term, and three additional inspection attributes were identified for inclusion in that program. These attributes are PS1/2 switch adjustment, charging motor mounting tightness and Kirk key interlock alignment. The review also identified several items with particular breakers to be addressed on a one-time basis through the work order system.