



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

January 9, 2012

Mr. M. J. Ajluni  
Nuclear Licensing Director  
Southern Nuclear Operating Company, Inc.  
40 Inverness Center Parkway  
Post Office Box 1295, Bin - 038  
Birmingham, AL 35201-1295

SUBJECT: JOSEPH M. FARLEY NUCLEAR PLANT, UNIT 1 (FARLEY UNIT 1) -  
SUMMARY OF THE U.S. NUCLEAR REGULATORY COMMISSION (NRC)  
STAFF'S REVIEW OF THE STEAM GENERATOR (SG) TUBE INSERVICE  
INSPECTION REPORT FOR THE U1R23 REFUELING OUTAGE (TAC NO.  
ME6168)

Dear Mr. Ajluni:

By letter dated May 4, 2011 (Agencywide Documents Access and Management Systems Accession No. ML111240559), Southern Nuclear Operating Company, Inc. (SNC), submitted information summarizing the results of the SG tube inspections performed at Farley Unit 1 during the fall 2010 refueling outage (U1R23). Additionally, the NRC staff held a follow-up phone call with the licensee to clarify a few minor points of information, the details of which are summarized in the enclosure to this letter.

The NRC staff has completed its review of this report and concludes that the licensee provided the information required by the technical specifications and that no additional follow-up is required. The NRC staff's report is enclosed.

Sincerely,

A handwritten signature in cursive script that reads "Robert Martin".

Robert E. Martin, Senior Project Manager  
Plant Licensing Branch II-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-348

Enclosure:  
Summary of the SG Inservice Inspection Report

cc w/encl: Distribution via Listserv



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
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SOUTHERN NUCLEAR OPERATING COMPANY, INC.

ALABAMA POWER COMPANY

DOCKET NO. 50-348

JOSEPH M. FARLEY NUCLEAR PLANT, UNIT 1 (FNP)

SUMMARY OF THE U.S. NUCLEAR REGULATORY COMMISSION (NRC) STAFF'S REVIEW  
OF THE STEAM GENERATOR (SG) TUBE INSERVICE  
INSPECTION REPORT FOR THE U1R23 REFUELING OUTAGE

By letter dated May 4, 2011 (Agencywide Documents Access and Management Systems Accession Number ML111240559), Southern Nuclear Operating Company, Inc. (SNC), submitted information summarizing the results of the SG tube inspections performed at FNP during the fall 2010 refueling outage (U1R23). Additionally, the NRC staff held a follow-up phone call with the licensee to clarify a few minor points of information, the details of which are summarized below.

FNP has three Westinghouse Model 54F replacement SGs. Each of the SGs contains 3592 tubes fabricated from thermally treated alloy-690 material. The tubes have an outside diameter of 0.875 inches, a wall thickness of 0.050 inches, and are supported by a stainless steel flow distribution baffle with octafoil shaped holes and seven stainless steel tube support plates with quatrefoil broached holes.

SNC provided the scope, extent, methods, and results of their SG tube inspections in the document referenced above. In addition, SNC described corrective actions (e.g., tube plugging) taken in response to the inspection findings.

On October 31, 2011, SNC provided the following additional clarifying information via a phone conference with the staff:

1. SNC performed a Foreign Object Search and Retrieval inspection in all three SGs. In addition, SNC performed sludge lancing in all three SGs removing 8 lbs, 4.5 lbs, and 9 lbs of sludge respectively, in SGs A, B and C.

A Priority 1 loose part is defined by SNC as a part that experience indicates that the foreign object may cause significant wear, possibly exceeding 40-percent through wall, in two operational cycles or three effective full power years (EFPY). There was one Priority 1 loose part found in SG B which was removed. SG A and C had no Priority 1 loose parts identified.

Enclosure

A Priority 2 loose part is defined by SNC as a part that experience indicates will not cause wear to exceed 40 percent over two operational cycles or 3 EFPY. There are five Priority 2 loose parts in SG A that remain and two Priority 2 loose parts in SG B that remain. There were no Priority 2 loose parts left in SG C. All parts left in the SGs were analyzed and determined to not be a significant safety hazard through the next inspection.

2. SNC has inspected the U-bend region of 100 percent of the row-one and row-two tubes during the first inspection period (50 percent of the tubes were inspected in 1R20 (about 2 years before the midpoint of the period) and the remaining 50 percent of the tubes were inspected in 1R23 (about 4 years before the end point of the period)).
3. At the time of outage 1R20, there were 66.2 Effective Full Power Months (EFPM) since SG replacement. At 1R23, there were 115.7 EFPM since SG replacement.

Based on a review of the information provided, the NRC staff concludes that SNC provided the information required by their technical specifications. In addition, the NRC staff concludes that there are no technical issues that warrant follow-up action at this time since the inspections appear to be consistent with the objective of detecting potential tube degradation and the inspection results appear to be consistent with industry operating experience at similarly designed and operated units.

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*/RA/*

Robert E. Martin, Senior Project Manager  
Plant Licensing Branch II-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

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Summary of the SG Inservice Inspection Report

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