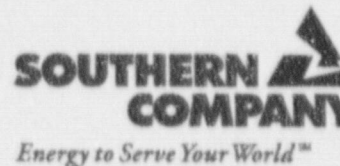


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January 23, 1998

Docket No. 50-321

HL-5555

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

Edwin I. Hatch Nuclear Plant - Unit 1  
Jet Pump Riser and Core Plate Support Ring Indications

Gentlemen:

During the Plant Hatch Unit 1 Fall, 1997 Refueling Outage (IR17), while performing visual inspection of portions of the reactor internals, indications were discovered in two jet pump riser elbow-to-recirc. nozzle thermal sleeve welds and one core plate support ring segment weld. Details are as follows.

Jet Pump Riser

Visual inspection using Enhanced VT-1 technique (1/2 mil resolution with cleaning) was performed at all ten (10) jet pump riser elbow-to-recirc. nozzle thermal sleeve weld locations which revealed indications as follows:

Location	Description
Riser N2B, elbow-to-recirc. nozzle thermal sleeve weld (between jet pumps 3 and 4, 60° AZ)	1.6 inch long circumferential indication in the heat affected zone (HAZ) on the thermal sleeve side at the 12 o'clock position.
Riser N2D, elbow-to-recirc. nozzle thermal sleeve weld (between jet pumps 7 and 8, 120° AZ)	2.2 inch long circumferential indication in the HAZ on the elbow side at the 12 o'clock position.

The inspection scope was subsequently expanded to include visual inspection of the other welds in these two riser/jet pump assemblies which are classified as "high" priority by BWRVIP-41, "BWR Jet Pump Assembly Inspection and Flaw Evaluation Guidelines, October, 1997." No additional indications were found.

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The indications were evaluated in accordance with BWRVIP-41. It was determined that, after consideration of IGSCC growth and NDE uncertainty, they would not exceed the fatigue growth threshold (5.8 inches) during the next operating cycle and were significantly less than the allowable flaw length (15.42 inches). SNC has reviewed the attached report (GE-NE-B13-01869-122) and concurs in its analysis and conclusions.

Also, during the Unit 2 Spring, 1997 outage, visual inspection using Enhanced VT-1 was performed at all ten (10) jet pump riser elbow-to-recirc. nozzle thermal sleeve weld locations. No indications were found.

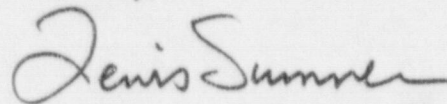
**Core Plate Support Ring**

During the same Unit 1 Fall, 1997, Refueling Outage a 0.3 inch indication was discovered in the Unit 1 core plate support ring segment weld at 180° AZ. The only other accessible core plate segment weld (0° AZ) was inspected with no indications. A conservative limit load analysis was performed which indicated a maximum allowable flaw length of 3.6 inches. SNC has reviewed the attached report (GENE-523-B1301869-122L1) and concurs in its analysis and conclusions.

SNC intends to continue to follow BWRVIP-41 and BWRVIP-07, "Guidelines for Reinspection of BWR Core Shrouds" inspection guidelines for these components in the future.

Should you have any questions in this regard, please contact this office.

Sincerely,



H. L. Sumner, Jr.

IFL/eb

Attachments: (See next page.)

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Attachments:

1. Jet Pump Riser Weld Flow Evaluation Handbook  
for Hatch Unit 1 (GE-NE-B13-01869-122, Rev. 0)
2. Evaluation of Indications in the Unit 1 Shroud Core  
Plate Support Ring (GENE-523-B1301869-12L1)

cc: Southern Nuclear Operating Company  
Mr. P. H. Wells, Nuclear Plant General Manager  
NORMS

U. S. Nuclear Regulatory Commission, Washington, D. C.  
Mr. L. N. Olshan, Project Manager - Hatch

U. S. Nuclear Regulatory Commission, Region II  
Mr. L. A. Reyes, Regional Administrator  
Mr. B. L. Holbrook, Senior Resident Inspector - Hatch

**Attachment 1**

**Jet Pump Riser Weld Flow  
Evaluation Handbook for Hatch Unit 1  
(GE-NE-B13-01869-122, Rev. 0)**