



Florida Power & Light Company, 6501 S. Ocean Drive, Jensen Beach, FL 34957

April 8, 2005

L-2005-077
10 CFR 50.55a
10 CFR 50.36

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

Re: St. Lucie Unit 1
Docket No. 50-335
Refueling Outage SL1-19
Steam Generator Tube Inservice Inspection Special Report

Attached is the Steam Generator Tube Inservice Inspection Special Report required by sections 4.4.5.5.b and 6.9.2 of the St. Lucie Unit 1 Technical Specifications for the spring 2004 refueling outage (SL1-19). The report is to be submitted within one year of completing the refueling outage steam generator in service inspection.

Should there be any questions, please contact us.

Very truly yours,

A handwritten signature in black ink, appearing to read "WJ", with a long horizontal flourish extending to the right.

William Jefferson, Jr.
Vice President
St. Lucie Plant

WJ/GRM

Attachment

A047

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St. Lucie Unit 1
Spring 2004 Refueling Outage SL1-19
Steam Generator Tube Inservice Inspection
Special Report

This report addresses Plant Technical Specification Section 4.4.5.5 b. The attached information provides the summarized results for the in-service examination of steam generator tubing, which is to be submitted to the Commission within twelve months of the examination completion date.

1. In-service eddy current examination and tube plugging of the St. Lucie Unit 1 steam generators was completed between April 4, 2004 and April 10, 2004. The examination scope as noted below is represented under "Total Tubes Inspected" on the attached FORM NIS-BB, Owners' Data Report for Eddy Current Examination Results.

Examination Scope

- **Bobbin Coil Probe**
 - Approximately 57% of the in-service tubes in S/G 1A and approximately 54% of the in-service tubes in S/G 1B were examined from tube end to tube end. Row 3 examinations (because of the tight bend radii) included the hot leg and cold leg straight sections with complementary u-bend examinations performed using the Plus Point Probe.
 - **Plus Point Rotating Probe**
 - Approximately 50% of the hot leg Expansion Transitions from 3" above to 2" below the secondary face of the tubesheet.
 - 50% of the row 3 U-bends as a minimum were examined. (Row 3 has the tightest bend radius due to the crossover design)
 - Special interest (diagnostic) locations as required by the bobbin coil results.
2. The location and percent of wall thickness penetration is also summarized on the attached "FORM NIS-BB" under "Location of Indications. To date, no corrosion type indications have been reported at St. Lucie Unit 1.
 3. Three (3) tubes were preventively plugged in S/G 1A due to mechanical wear that was less than the Technical Specification plugging limit of 40% wall thickness penetration. This is summarized in the upper portion of the attached "FORM NIS-BB".
 4. A total of 21 mechanical wear indications (17 in SG A and 4 in SG B) detected at u-bend support structures that measured less than 20% wall thickness penetration will remain in service for cycle 19.
 5. The source documents (Tubes preventively plugged, 20% to 39%, and 1% to 19%) used for preparation of "Form NIS-BB" are attached for reference.

FORM NIS-BB OWNERS' DATA REPORT FOR EDDY CURRENT EXAMINATION RESULTS
As required by the provisions of the ASME CODE RULES

EDDY CURRENT EXAMINATION RESULTS

PLANT: St. Lucie Unit 1 Outage: SL1-19
EXAMINATION DATE: April 4, 2004 through April 10, 2004

STEAM GENERATOR	TOTAL TUBES INSPECTED	TOTAL TUBES 20%-39%	TOTAL TUBES ≥40%, PIT & VOL	TUBES PREVENTIVELY PLUGGED (PTP)	TUBES PLUGGED THIS OUTAGE	TOTAL PLUGGED TUBES IN S/G
769802A (Bobbin)	4834	3	0	3	3	14
769801B (Bobbin)	4640	0	0	0	0	0
769802A (RPC) (1)	4288 (2)	0	0	0	0	See Bobbin
769801B (RPC) (1)	4291 (2)	0	0	0	0	See Bobbin

LOCATION OF INDICATIONS
(1% - 100%, PIT & VOL)

STEAM GENERATOR	U Bend CBH (3) To CBC (3)	Lattice Grids (TSP's) 01 to 07		Top of Tubesheet to #1 Support C/L	Top of Tubesheet to #1 Support H/L	Total Indications		
		H/L	C/L			1% - 19%	20%-39%	≥40%, PIT or VOL
769802A (Bobbin)	3	0	0	0	0	17	3 (4)	0
769801B (Bobbin)	0	0	0	0	0	4	0	0
769802A (RPC) (1)	0	0	n/a	n/a	n/a	n/a	n/a	0
769801B (RPC) (1)	0	n/a	n/a	n/a	n/a	n/a	n/a	0

Remarks:
(1) RPC = Rotating Pancake Coil Technique.
(2) Includes tubes in the low row U-bend & dent programs.
(3) CBH = Connector Bar Hot Leg; CBC = Connector Bar Cold Leg
(4) Tubes with indications measuring greater than or equal to 20% through wall were preventively plugged (PTP).