



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

September 20, 2006

L-2006-217
10 CFR 50.4
10 CFR 50.36

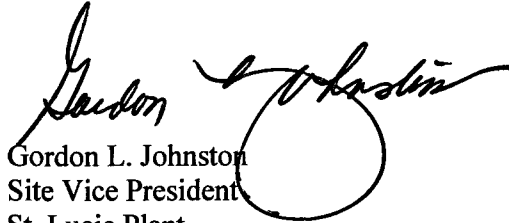
U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

RE: St. Lucie Unit 2
Docket No. 50-389
120-day Post Outage Steam Generator Report
Technical Specification 4.4.5.5.c

Pursuant to Technical Specification 4.4.5.5.c and 6.9.2, attached is the SL2-16 120-day post outage steam generator special report for indications found in the tubesheet region (including the expansion transition) of the St. Lucie Unit 2 steam generators.

Please contact Ken Frehafer at (772) 467-7748 if there are any questions about this submittal.

Very truly yours,


Gordon L. Johnston
Site Vice President
St. Lucie Plant

GLJ/KWF

Attachment

A001

Introduction

In accordance with Plant Technical Specification (TS) Section 4.4.5.5.c., this special report provides information concerning indications found in the tubesheet region (including the expansion transition) of the St. Lucie Unit 2 steam generators (SG).

The complete results of the steam generator tube inservice inspection will be submitted to the commission in a separate special report within 12 months following completion of the inspection in accordance with TS 4.4.5.5.b. However, TS 4.4.5.5.c. requires indications found in the tubesheet region to be reported within 120 days after the RCS reenters MODE 4.

Discussion

In-service examination and plugging of the St. Lucie Unit 2 steam generators was completed between April 28, 2006 and May 14, 2006 during the SL2-16 refueling outage. Inspection of the tubesheet region consisted of +Point™ rotating probe examination as follows:

- 100% of active hot leg tubes +3”/-13” as referenced from the top of tubesheet
- All cold leg tubes in peripheral high flow regions for foreign object wear +3”/-2” as referenced from the top of tubesheet
- Full depth tubesheet inspection of all Hot & Cold Leg Tubes with No Tube Expansion

Table 1 provides the information required by TS 4.4.5.5.c.1. A total of five indications were found in the tubesheet region during the SL2-16 inspection. All indications are axial in orientation with a maximum through-wall penetration of 39% or less and a length of 0.4 inches or less. One of the indications initiated from the inside diameter (ID) and the remainder initiated from the outside diameter (OD) surface.

Figures 1 and 2 provide the cumulative number of indications detected in the tubesheet region as a function of elevation within the tubesheet for SG 2A and 2B respectively as required by TS 4.4.5.5.c.2. The period of time in which degradation has been experienced in the tubesheet region at St. Lucie Unit 2 extends from SL2-8 through SL2-16. The total cumulative indications found in the tubesheet region during this period is 79 in SG 2A and 92 in SG 2B.

Pursuant to TS 4.4.5.5.c.3, the total projected end-of-cycle accident induced leakage from all sources for SG 2A is 0.029 gpm, and for SG 2B is 0.028 gpm. The projected leakage is from the tubesheet region and is based on the methodology approved by the NRC in license amendment 143 (April 11, 2006, TAC NO. MC5084). No additional leakage is projected from other sources. The total projected leakage is below the limit assumed in the UFSAR (216 gpd or 0.15 gpm) and, therefore, NRC notification prior to Unit restart was not required.

Table 1

St. Lucie Unit 2 Steam Generator Tubing Indications Found In The Tubesheet Region (Including the Expansion Transition) at SL2-16														
Count	Date	Exam Depth	SG	Row	Line	Elev	Inch (1)	Orientation	Max %TW	Circular Degrees	Axial Inches	Volts	ID/OD?	Ind
1	Apr-06	13"	SGA	29	107	TSH	-0.69	Axial	39	n/a	0.4	0.53	ID	SAI
2	Apr-06	13"	SGA	41	113	TSH	0.2	Axial	5	n/a	0.17	0.15	OD	SAI
3	Apr-06	13"	SGA	50	110	TSH	0.15	Axial	5	n/a	0.17	0.11	OD	SAI
4	Apr-06	13"	SGA	73	71	TSH	0.15	Axial	27	n/a	0.29	0.17	OD	SAI
5	Apr-06	13"	SGA	75	79	TSH	0.44	Axial	24	n/a	0.35	0.19	OD	SAI

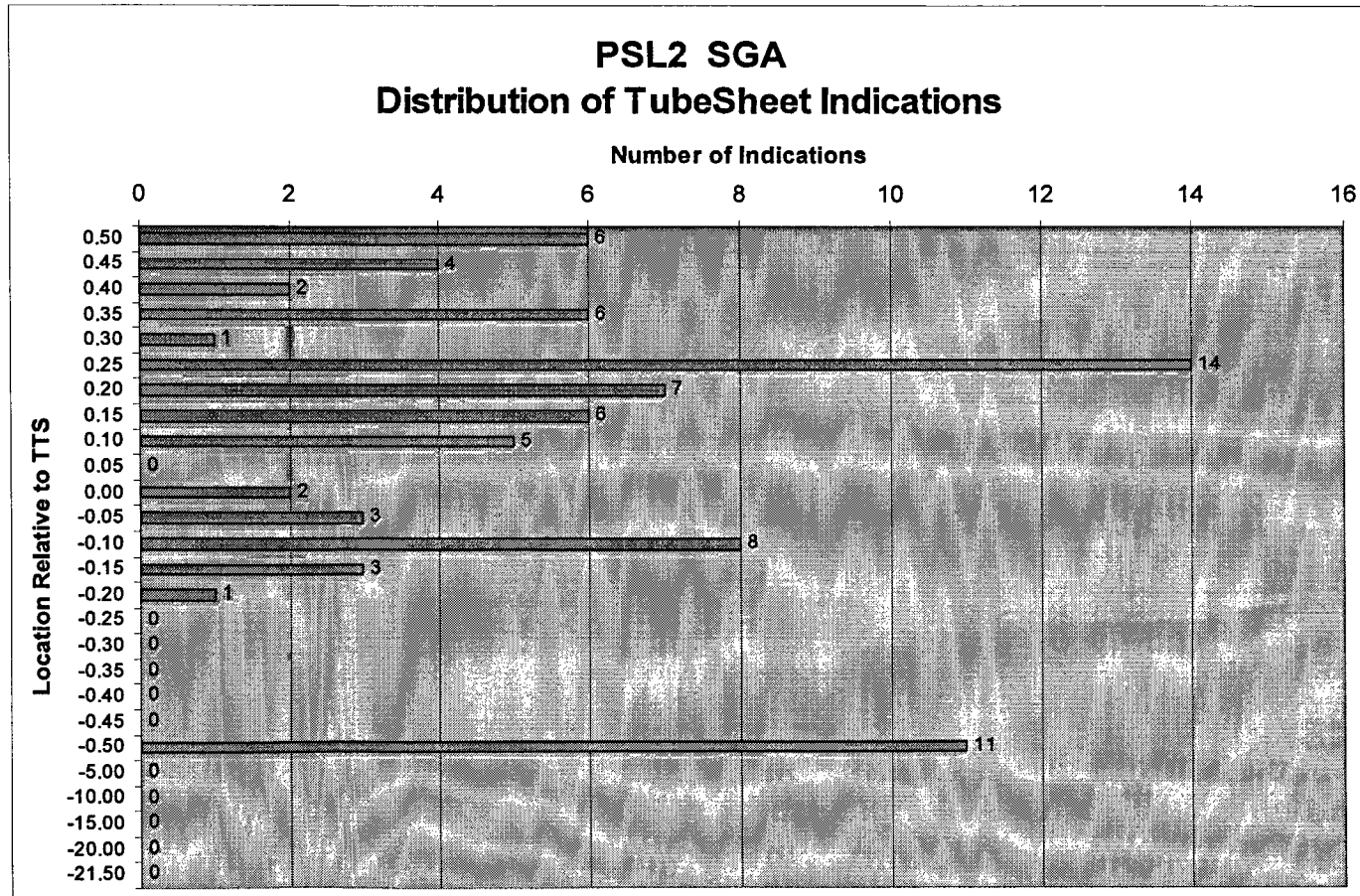
Total Indications SGA: 5
 SGB: None

Note: (1) Indication search window ranged from the tube-end to 0.5 inches above the top-of-tubesheet.

Acronyms:

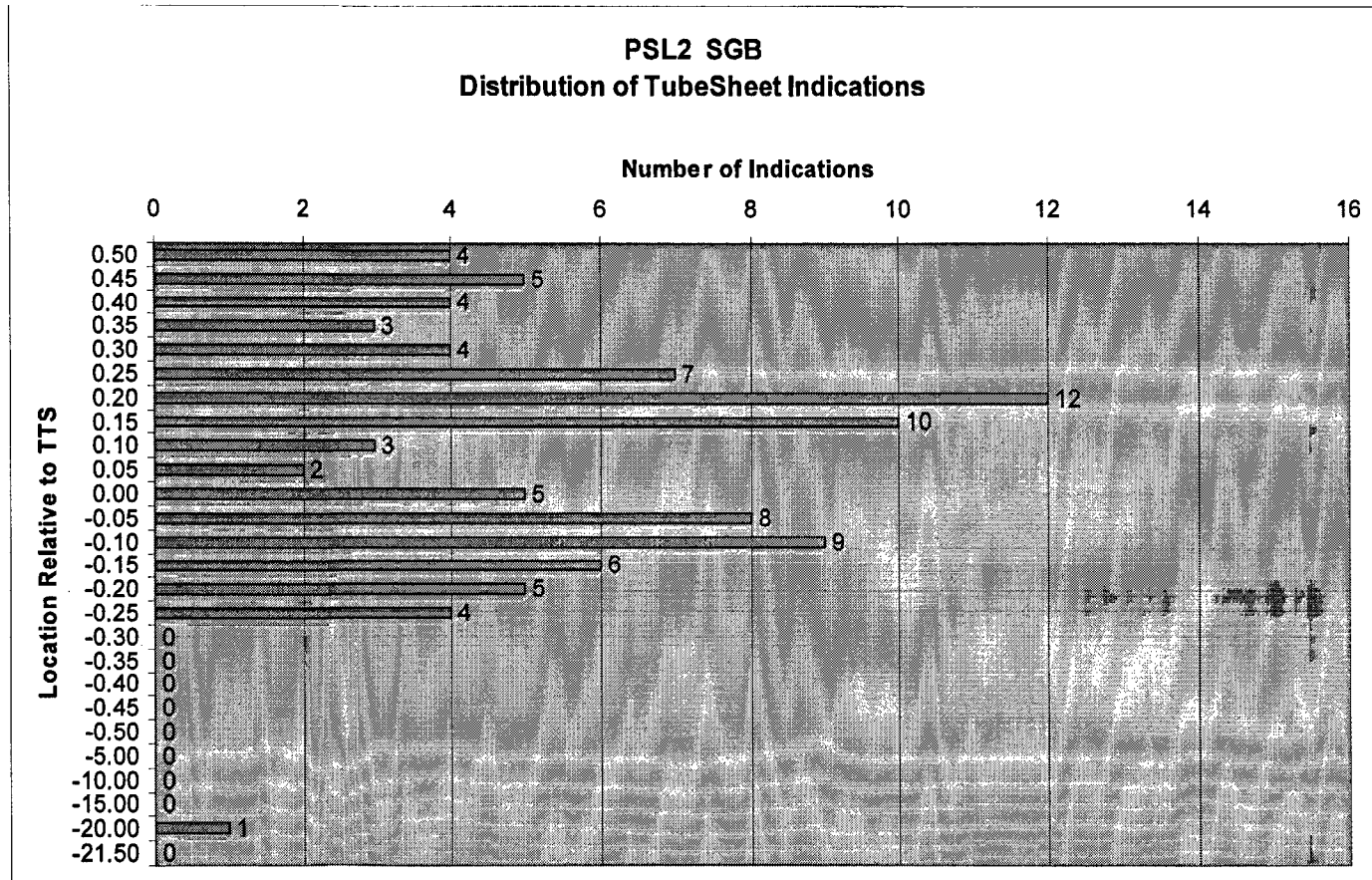
SAI Single Axial Indication
TSH Tubesheet Hot Side
ID Inside Diameter
OD Outside Diameter

Figure 1 - SL2-8 through SL2-16



(TTS – Top of Tubesheet)

Figure 2 - SL2-8 through SL2-16



(TTS – Top of Tubesheet)