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December 17, 2004

Docket No.: 50-364

NL-04-2489

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D. C. 20555-0001

Joseph M. Farley Nuclear Plant - Unit 2  
Response to Request for Additional Information  
Regarding Fall 2002 Steam Generator Inspection

Ladies and Gentlemen:

Subsequent to the inservice inspection activities performed at Farley Nuclear Plant (FNP) Unit 2 during the Fall 2002 maintenance/refueling outage (2R15), Southern Nuclear Operating Company (SNC) submitted copies of the Inservice Inspection Summary Report by letter dated January 21, 2003. This report included the results of steam generator tube examinations, as required by Technical Specification 5.6.10. NRC review of these examination results has prompted a Request for Additional Information (RAI). The RAI questions and SNC responses are enclosed.

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

Sincerely,

A handwritten signature in black ink, appearing to read "L. M. Stinson", is written over a horizontal line.

L. M. Stinson

LMS/DWD/sdl

Enclosure: Response to Request for Additional Information  
Regarding FNP 2R15 Steam Generator Inspection

cc: Southern Nuclear Operating Company  
Mr. J. T. Gasser, Executive Vice President  
Mr. J. R. Johnson, General Manager – Plant Farley  
RTYPE: CFA04.054; LC# 14191

U. S. Nuclear Regulatory Commission  
Dr. W. D. Travers, Regional Administrator  
Mr. S. E. Peters, NRR Project Manager – Farley  
Mr. C. A. Patterson, Senior Resident Inspector – Farley

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Response to Request for Additional Information  
Regarding FNP 2R15 Steam Generator Inspection

**NRC Question 1:**

**Please discuss whether your steam generator has any dents/dings. If your steam generator contains dents/dings, please discuss whether any rotational probe inspections were performed at these locations and the potential for a through-wall or near through-wall flaw to exist at these locations (c.g., are any anomalous dents/ding signals). Please discuss your primary-to-secondary leakage history since installation of the steam generators.**

**SNC Response:**

Farley Unit 2 has the following dents/dings recorded during the 2R15 outage (fall 2002):

SG-A 265 dents, 3 dings

SG-B 1 dent, 0 dings

SG-C 1 dent, 2 dings

During the course of the pre-service examination of the Farley Unit 2 replacement steam generators, a large number of dents were reported in SG-A at the 7<sup>th</sup> tube support plate on the cold leg side. These dents were formed during the heat treatment process of welds in SG-A. All dents/dings in SG-A were tested with a +Point magnetic rotating pancake coil (MRPC) during the pre-service inspection. The dents/dings in SG-B and SG-C (all measuring <5 volts by bobbin coil inspection) were not MRPC tested in the pre-service inspection. No +Point MRPC examinations were performed on dents/dings during the 2R15 outage since no new dents/dings or signal changes at the existing dents/dings were detected.

Since no new dents/dings or signal changes were detected, the potential for through-wall or near through-wall flaws is remote. No primary-to-secondary leakage has been recorded since steam generator replacement during the 2R14 outage (spring 2001).

**NRC Question 2:**

**General information concerning the design of your replacement steam generators was provided in previous submittals. In order for the staff to better understand the design of your replacement steam generators, please provide the following information: tube manufacturer, tube support thickness, tube pitch and pattern, number of tubes plugged (if any) in each steam generator prior to installation, tubesheet thickness, tubesheet map, and a sketch of the steam generator depicting your tube support plate naming convention. In addition, please clarify what rows of tubes have a centerline radius less than 12-inches (i.e., what rows of tubes had the U-bends stress relieved).**

**SNC Response:**

Tube Manufacturer: Sandvik

Tube Support Thickness: Tube Support Plates (1 – 7), Quatrefoil, 1.125"  
Flow Distribution Baffle, Octafoil, 0.750"

Tube Pitch and Pattern: 1.225", Square Pitch

Number of Tubes Plugged: No plugs in any steam generator

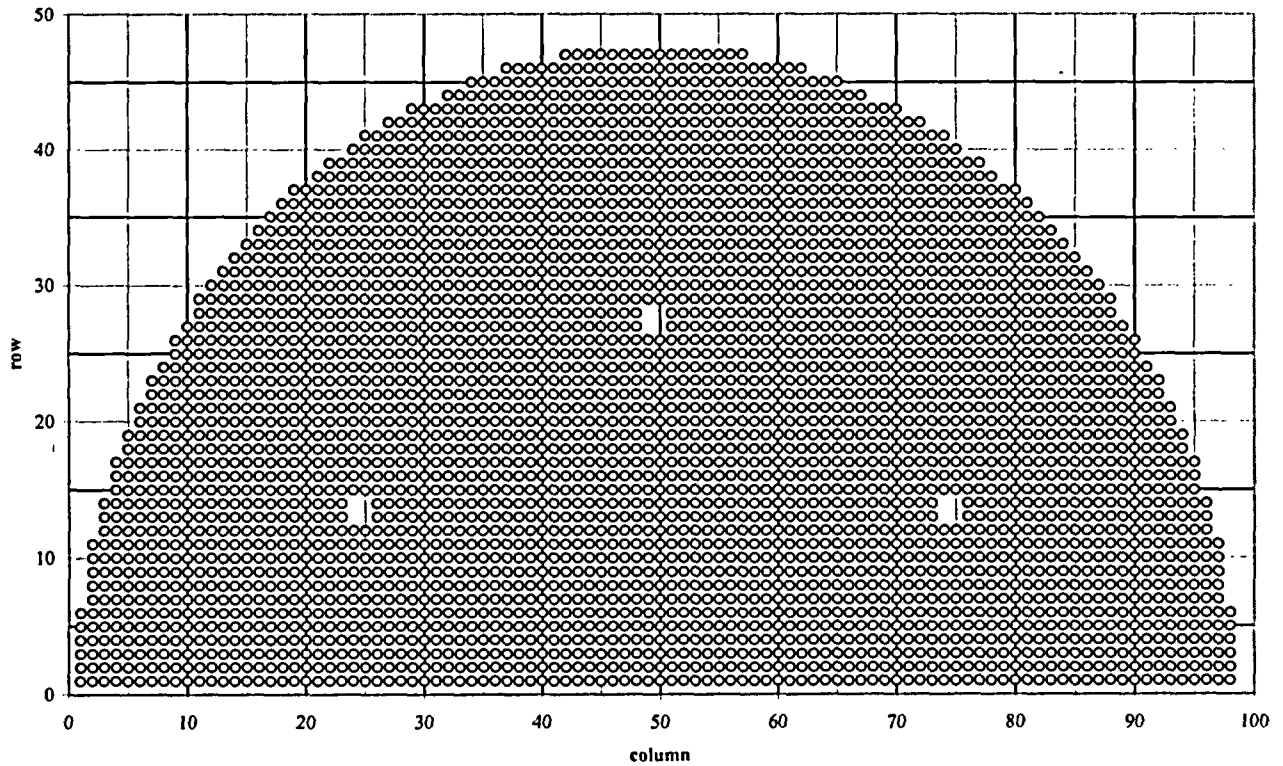
Tubesheet Thickness: 21.42"

Tubes with a Centerline Radius Less than 12-inches: Rows 1 – 8  
(R1 radius = 3.141"; R8 radius = 11.716")

Tubes with the U-Bends Stress Relieved: Rows 1- 8

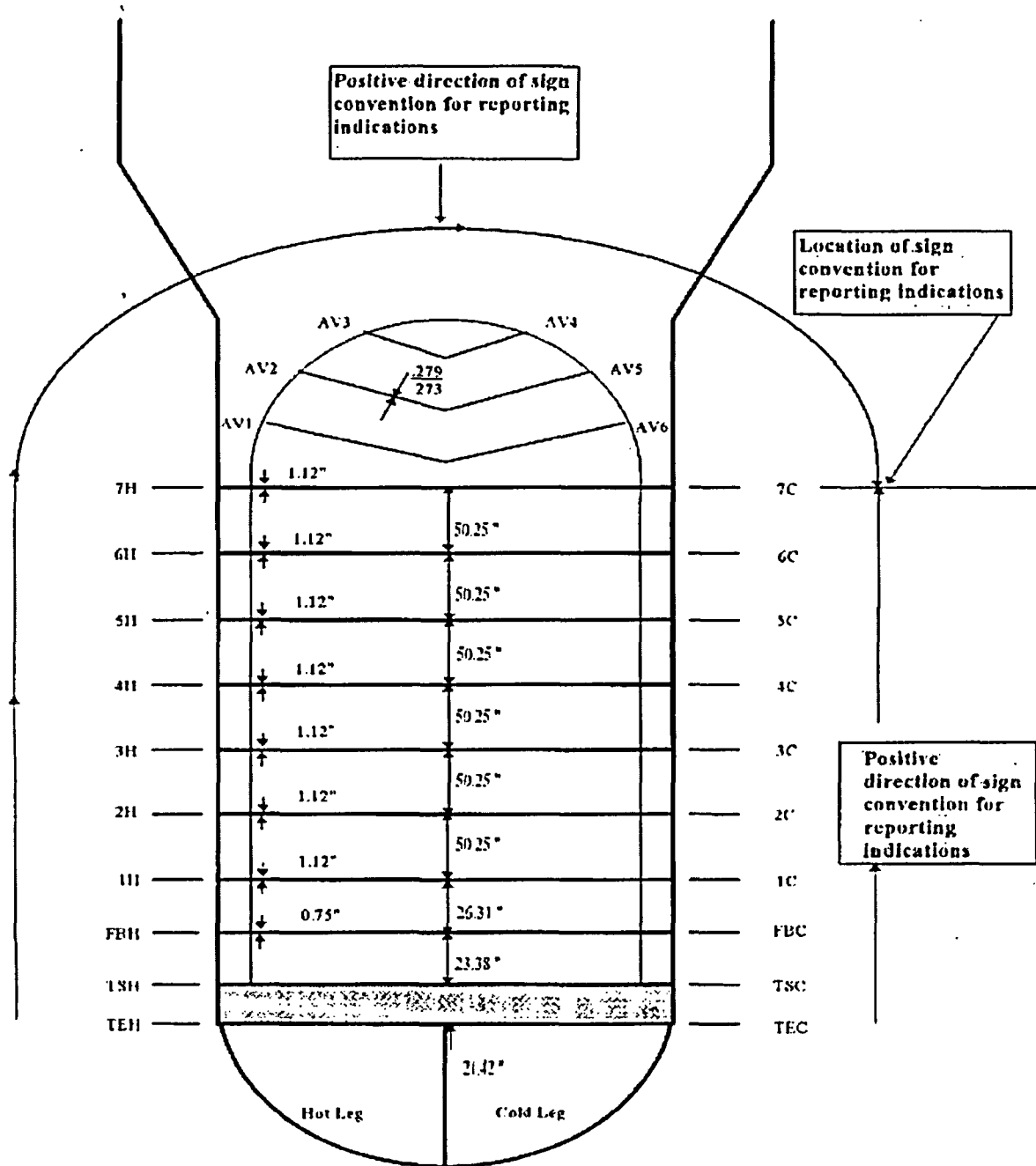
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Model 54F ILL Tubesheet Map



Tubesheet Map (Hotleg Side) for Westinghouse Model 54F Steam Generators  
as used at Farley Nuclear Plant

Response to Request for Additional Information  
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MODEL 54F DESIGN SPECIFICS

Tube Support Plate Layout for Westinghouse Model 54F Steam Generators  
as used at Farley Nuclear Plant