

WOLF CREEK
NUCLEAR OPERATING CORPORATION

John A. Bailey
Vice President
Operations

May 29, 1992

NO 92-0130

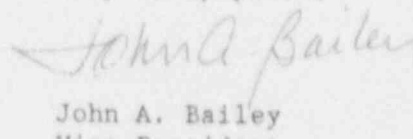
U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Station P1-137
Washington, D. C. 20555

Subject: Docket No. 50-482: Special Report 91-007

Gentlemen:

The attached Special Report is being submitted in accordance with Technical Specification 4.4.5.5.b concerning the results of Wolf Creek Generating Station's fourth steam generator tube inservice inspection.

Very truly yours,



John A. Bailey
Vice President
Operations

JAB/aem

Attachment

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Handwritten initials and date: JAB 5/29/92

SPECIAL REPORT 91-007

FOURTH STEAM GENERATOR TUBE INSPECTION RESULTS

This report is being submitted pursuant to Technical Specification (T/S) 4.4.5.5.b and 6.9.2 to report the results of the fourth steam generator tube inservice inspection.

The fourth steam generator tube inservice inspection was completed by Westinghouse Electric Corporation on October 24, 1991, during the fifth Refueling Outage. This inspection included steam generators (S/G) "A" and "C".

A total of 2,792 tubes were inspected, and a total of two tubes were plugged in S/G "C" as discussed in Special Report 91-004, which was transmitted by letter NO 91-0313, dated November 1, 1991. This inspection did not identify any tubes which were required to be plugged in S/G "A". Included in this inspection effort were 15 tubes (three in S/G "A" and 12 in S/G "C") which had been previously identified as having indications requiring re-inspection during this inservice inspection effort. The inspection results of all indications of greater than 20% are listed in section 3 of this report. This includes any indications found in the 15 tubes that had previous indications.

NRC Bulletin 89-01, with supplements, requires that mechanical tube plugs manufactured from Inconel 600 with certain heat numbers be removed prior to the expiration of their predicted time to fail. As a conservative measure, all of the Inconel 600 mechanical tube plugs were removed from steam generators "A" and "C" during this inspection. In addition, all Inconel 600 mechanical tube plugs are planned to be removed from steam generators "B" and "D" during the sixth refueling outage scheduled for Spring, 1993.

Ten Inconel 600 mechanical tube plugs (6 hot leg and 4 cold leg) were removed from six tubes in S/G "A" and eight mechanical plugs were removed from four tubes in S/G "C". All of the tubes in S/G "A" were replugged. In S/G "C", two tubes were returned to service after eddy current testing indicated acceptable results. They had been plugged preventively with indications of less than 40%. All mechanical plugs installed were manufactured of Inconel 690.

1. Number and Extent of Tubes Inspected:

- A. Steam Generator "A": A total of 1,565 tubes were inspected full length.
- B. Steam Generator "C": A total of 1,227 tubes were inspected full length. A total of 253 tubes were inspected from tube end cold (TEC) to the top support plate of the cold leg side (7C).

2. Identification of Tubes Plugged:

	Row	Column	Leg
A. Steam Generator "A":			
Replugged after plug removal	17	11	H
	52	66	H
	28	61	H
	28	61	C
	28	65	H
	28	65	C
	28	103	H
	28	103	C
	51	78	H
	51	78	C
B. Steam Generator "C":			
Replugged after plug removal	54	40	H
	54	40	C
	14	17	H
	14	17	C
New pluggable indications	49	84	H
	49	84	C
	49	88	H
	49	88	C

3. Location and Percent of Wall Thickness Penetration for Each Indication of an imperfection (Note: Multiple listings of the same tube are the result of more than one indication in that tube):

Key For Indication Lists

#H, #C	(# = number) of Support Plate at Leg or Cold Leg Side
AV#	Anti-Vibration Bar (# = number)
P	Tube Plugged, following % of Wall Thickness Loss
Indication	% of Wall Thickness Loss
Inch (+) from Location	Distance Measured from reference point (AV Bar, Baffle Plate, Tube Support Plate, etc.)

Tube Indications in Steam Generator *A*

<u>Row</u>	<u>Column</u>	<u>Location/Leg</u>	<u>Indication (% of Wall Thickness)</u>	<u>Inch (+) From Location</u>
45	25	AV5	23	0.00
45	32	AV4	26	0.00
45	35	AV2	21	0.00
45	35	AV3	20	0.00
45	35	AV4	37	0.00
45	38	AV3	34	0.00
51	78	AV2	37P	0.00
51	78	AV3	37P	0.00
51	78	AV4	49P	0.00
51	78	AV5	29P	0.00
39	80	AV6	37	0.00
39	86	AV4	28	0.00

Tube Indications in Steam Generator *C*

<u>Row</u>	<u>Column</u>	<u>Location/Leg</u>	<u>Indication (% of Wall Thickness)</u>	<u>Inch (+) From Location</u>
38	19	TSC	30	9.26
49	36	AV3	35	0.00
49	84	AV3	43P	0.00
49	84	AV4	26P	0.00
49	88	AV3	26P	0.00
49	88	AV4	42P	0.00
49	88	AV5	20P	0.00
40	103	AV4	25	0.00
40	103	AV5	35	0.00
36	108	AV3	27	0.00
36	108	AV4	21	0.00
35	109	AV4	29	0.00
35	110	AV2	22	0.00
35	110	AV5	38	0.00