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Docket Number 50-346

License Number NPF-3

Serial Number 2284

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United States Nuclear Regulatory Commission
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Washington, D. C. 20555

Subject: Technical Specifications 4.4.5.5.b and 6.9.1.5.b: Report of
Steam Generator Tube Inservice Inspection Results

Ladies and Gentlemen:

This letter is submitted in accordance with the Davis-Besse Nuclear Power Station, Unit Number 1, Operating License, Appendix A Technical Specifications. Technical Specification (TS) Surveillance Requirement 4.4.5.5.b and TS 6.9.1.5.b require Toledo Edison to submit the complete results of the Steam Generator (SG) tube inservice inspection.

During the Ninth Refueling Outage (October 1 - November 13, 1994) at the Davis-Besse Nuclear Power Station (DBNPS) the tubing in the SGs was examined using eddy current testing. The examinations were conducted by B&W Nuclear Technologies to meet the requirements of the Second Ten Year Inservice Inspection Plan and the DBNPS TS. A description of the number and extent of tubes inspected, location, and percent of wall-thickness penetration for each indication of an imperfection; and identification of tube plugged or sleeved is provided in the attachments to this letter.

The eddy current examinations were performed utilizing a Bobbin Coil, a Motorized Rotating Pancake Coil (MRPC), a Crosswound/Bobbin Coil, and a Rotating Crosswound Probe. The Bobbin Coil was used to perform the standard ASME Code examination for defect detection and sizing, the auxiliary feedwater header gap measurement, and profilometry of sleeve candidate tubes prior to sleeving. The MRPC technique was used to characterize indications reported by the Bobbin Coil technique by confirming the presence of the indication, clarifying the geometry of the indication, and when possible, assisting in the determination of flaw type.

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Operating Companies:
Cleveland Electric Illuminating
Toledo Edison

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The Crosswound/Bobbin Coil was used to perform flaw detection in tube sleeves and in the parent tubing adjacent to the lower tube sleeve end. This technique was also used to perform profilometry of the sleeves rolled joints and to verify proper positioning of the sleeves after installation. The Rotating Crosswound Probe was used to perform flaw detection in the sleeve and parent tube in the area of the rolled joints.

Steam Generator 1-1(B)

Approximately 14.3% percent of the tubes in Steam Generator 1-1(B) were examined using the Bobbin Coil. All tubes were examined full length with the exception of one (1) tube which did not require a full length examination.

Twenty (20) tubes had indications of 1% or greater through wall (Attachment 1). As listed in Attachment 2, one (1) additional tube had a 98% through-wall indication and was plugged. One (1) other tube had a 37% through-wall indication. This one (1) tube was plugged as a preventive measure.

One hundred and seventy-two (172) tubes were examined to determine their proximity to the internal auxiliary feedwater header. One (1) tube was determined to have a gap greater than the minimum 0.125 inches, but less than 0.250 inches. All other tubes were determined to have a gap greater than 0.250 inches.

No tube sleeving on Steam Generator 1-1(B) was performed this outage.

Steam Generator 1-2(A)

Approximately 14.3% percent of the tubes in Steam Generator 1-2(A) were examined using the Bobbin Coil. All tubes were examined full length with the exception of three (3) tubes. Two (2) tubes were restricted by the data acquisition system's positioning pins and one (1) tube did not require a full length examination. The loss of examination coverage was limited to only a few inches near the tube end.

Thirty-five (35) tubes had indications of 1% or greater through wall (Attachment 3). None of these indications exceeded 40% through wall. However, one (1) tube was found with a ding indication and plugged as a preventive measure (Attachment 4).

One hundred and sixty-seven (167) tubes were examined to determine their proximity to the internal auxiliary feedwater header. All tubes were determined to have a gap greater than 0.250 inches.

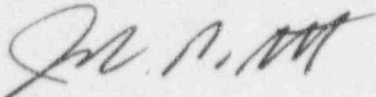
One hundred and ninety-nine (199) tubes, which were sleeved this outage, were examined and no indications in the installed tube sleeves were noted (Attachment 5).

Detailed examination results are contained in the 9th Refueling Outage Steam Generator Eddy Current Inspection Report which is available for review onsite.

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Should you have any questions or require additional information, please contact Mr. William T. O'Connor, Manager - Regulatory Affairs, at (419) 249-2366.

Very truly yours,



KAS/laj

cc: L. L. Gundrum, DB-1 NRC/NRR Project Manager
J. B. Martin, Regional Administrator, NRC Region III
S. Stasek, DB-1 NRC Senior Resident Inspector
Utility Radiological Safety Board

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DAVIS-BESSE NUCLEAR POWER STATION

NINTH REFUELING OUTAGE

STEAM GENERATOR REPORT

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The legend for the abbreviations used in the Attachments 1 through 5 is as follows:

CHN	Channel
DEG	Degrees
DNG	Ding
IND	Indication
LTS	Lower Tube Sheet
%TW	Percent Through Wall
P	Primary Mix
**S	Tube Support Plate Number
ODI	Outside Diameter Indication
WAR	Wear Indication

ATTACHMENT 1
 STEAM GENERATOR 1-1 B
 LISTING OF INDICATIONS LEFT INSERVICE

ROW	TUBE	IND	%TW	VOLTS	CHN	DEG	LOCATION
9	62	ODI	3	1.58	1	139	14S +31.79
11	67	ODI	3	0.77	1	139	14S +31.21
23	6	ODI	21	0.41	1	131	07S + 7.29
29	30	ODI	12	1.46	4	123	11S +14.88
40	71	ODI	4	0.44	1	140	14S +17.40
53	126	ODI	28	0.49	P1	119	12S - 0.95
59	122	ODI	14	0.33	P1	125	09S + 0.56
61	121	ODI	12	0.43	P1	126	09S + 0.49
64	27	ODI	23	0.66	P1	122	04S - 0.81
74	66	ODI	19	0.55	1	133	05S +30.70
78	69	ODI	1	0.82	1	145	12S +29.95
80	6	ODI	10	0.31	P1	137	09S + 0.46
96	20	ODI	13	0.46	1	136	09S +21.84
111	64	ODI	20	0.77	1	131	14S + 2.34
126	98	WAR	9	0.69	P1	0	10S - 0.72
129	94	ODI	19	0.56	1	138	14S +30.72
133	86	ODI	7	0.55	1	138	14S +31.37
		ODI	15	0.23	1	141	14S +30.57
140	21	ODI	19	0.45	1	136	09S +35.19
		ODI	20	0.36	1	136	09S +36.05
150	6	ODI	10	0.55	1	137	04S +12.51
151	15	ODI	14	0.42	1	143	14S +31.20

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ATTACHMENT 2
STEAM GENERATOR 1-1 B
LISTING of TUBES PLUGGED

ROW	TUBE	IND	%TW	VOLTS	CHN	DEG	LOCATION
39	45	ODI	98	0.35	1	43	01S +12.13
135	19	ODI	37	0.21	1	122	LTS +21.13

ATTACHMENT 3
STEAM GENERATOR 1-2 A
LISTING of INDICATIONS LEFT INSERVICE

ROW	TUBE	IND	%TW	VOLTS	CHN	DEG	LOCATION
10	22	ODI	3	0.39	1	148	01S +19.42
12	1	ODI	14	0.88	P1	125	13S - 0.70
19	15	ODI	13	0.34	1	142	05S +15.10
21	24	ODI	4	2.51	4	115	02S +14.21 to +16.73
24	1	ODI	25	0.42	P1	127	08S + 0.56
26	69	ODI	18	0.33	1	143	LTS + 9.18
29	104	ODI	19	0.75	1	140	15S +12.80
31	60	ODI	18	0.31	1	143	LTE +21.95
33	71	ODI	10	1.98	4	124	03S +22.71 to +25.11
34	17	ODI	8	2.26	4	112	08S + 4.34 to + 6.53
36	75	ODI	13	0.54	1	146	09S 5.12
37	77	ODI	4	0.46	1	152	02S +12.02
39	116	WAR	11	0.23	P1	0	13S - 0.74
50	112	ODI	3	1.80	4	118	07S +14.31
68	1	ODI	13	0.36	P1	127	08S + 0.67
70	63	ODI	6	0.30	1	145	05S +14.52
		ODI	18	0.32	1	140	04S + 9.18
		ODI	20	0.22	1	138	04S + 4.56
72	4	ODI	18	0.28	P1	130	08S + 0.70
73	68	ODI	11	0.28	1	146	07S +10.26
74	1	WAR	12	0.32	P1	0	14S + 0.76
75	34	WAR	10	0.26	P1	0	04S + 0.71
77	63	ODI	19	0.22	1	139	08S +35.79
77	68	ODI	15	0.34	P1	132	02S - 0.28
78	20	ODI	12	0.31	P1	133	04S + 0.29
78	24	ODI	15	0.68	1	141	LTE + 1.92
81	2	WAR	10	0.29	P1	140	14S + 0.65
83	84	ODI	9	0.42	1	146	11S +34.92
91	126	ODI	17	0.43	1	141	15S +32.96
93	40	ODI	14	0.81	1	143	LTE + 4.59
94	10	ODI	21	0.25	1	139	05S + 8.43
102	4	ODI	18	0.40	P1	127	08S - 0.78
106	119	ODI	28	0.31	1	133	15S +17.17
107	17	ODI	6	2.21	4	120	11S +17.33
108	18	ODI	2	1.54	1	151	03S +33.62
		ODI	9	0.49	1	147	LTS +36.60
112	1	ODI	11	0.99	1	145	15S +13.69
140	1	WAR	2	0.17	P1	0	10S - 0.77

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ATTACHMENT 4
STEAM GENERATOR 1-2 A
LISTING of TUBES PLUGGED

ROW	TUBE	IND	%TW	VOLTS	CHN	DEG	LOCATION
7	53	DNG	-	4.62	1		15S +18.18

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ATTACHMENT 5
STEAM GENERATOR 1-2 A
TUBES SLEEVED

ROW	TUBE	TOTAL
67	1	1
68	1,2	2
69	1-4	4
70	1-5	5
71	1-7	7
72	1-8	8
73	1-7,10-12	10
74	1-29	29
75	1-7,9-29,31-35	33
77	2-28,30-35	33
78	1,3-29	28
79	1-12	12
80	2-8	7
81	1-7	7
82	1-5	5
83	3,4	2
84	2	1
85	1	1
49	13	1
61	19	1
72	56	1
74	82	1

	Total	199