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

Subject:
Davis-Besse Nuclear Power Station, Unit 1
Docket No. 50-346, License No. NPF-3
Technical Specification 6.9.1.12 Steam Generator
Tube Inspection Report

The FirstEnergy Nuclear Operating Company (FENOC), in accordance with the Davis-Besse Nuclear Power Station, Unit 1 (DBNPS) Technical Specification 6.9.1.12, "Steam Generator Tube Inspection Report," hereby submits a report of the steam generator tube inspections performed pursuant to Technical Specification 6.8.4.g, "Steam Generator (SG) Program." The attached report summarizes the steam generator tube inspections performed during the DBNPS January 2008 Fifteenth Refueling Outage (15RFO).

There are no regulatory commitments contained in this letter. If there are any questions or if additional information is required, please contact Mr. Thomas A. Lentz, Manager – Fleet Licensing, at (330) 761-6071.

Sincerely,

Barry S. Allen

Barry S. Allen

Attachment

cc: NRC Region III Administrator
NRR Project Manager - Davis-Besse Nuclear Power Station
NRC Resident Inspector - Davis-Besse Nuclear Power Station
Executive Director, Ohio Emergency Management Agency,
State of Ohio (NRC Liaison)
Utility Radiological Safety Board

A001
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Following completion of a steam generator inspection performed in accordance with the Davis-Besse Nuclear Power Station, Unit 1 (DBNPS) Technical Specification (TS) 6.8.4.g, "Steam Generator (SG) Program," TS 6.9.1.12, "Steam Generator Tube Inspection Report," requires a report of the inspection to be submitted to the Nuclear Regulatory Commission within 180 days after the initial entry into MODE 4. This report summarizes the steam generator tube inspection performed during the DBNPS January 2008 Fifteenth Refueling Outage (15RFO).

The organization of the report is as follows:

Section 1 The Scope of Inspections Performed on Each SG (TS 6.9.1.12.a),
Section 2 Active Degradation Mechanisms Found (TS 6.9.1.12.b),
Section 3 Nondestructive Examination Techniques Utilized for Each Degradation Mechanism (TS 6.9.1.12.c),
Section 4 Location, Orientation (if Linear), and Measured Sizes (if Available) of Service Induced Indications (TS 6.9.1.12.d),
Section 5 Number of Tubes Plugged or Repaired During the Inspection Outage for Each Active Degradation Mechanism (TS 6.9.1.12.e),
Section 6 Total Number and Percentage of Tubes Plugged or Repaired to Date (TS 6.9.1.12.f),
Section 7 The Results of Condition Monitoring, Including the Results of Tube Pulls and In-situ Testing (TS 6.9.1.12.g),
Section 8 The Effective Plugging Percentage for All Plugging and Tube Repairs in Each SG (TS 6.9.1.12.h), and
Section 9 Repair Method Utilized and the Number of Tubes Repaired by Each Repair Method (TS 6.9.1.12.i).

The following is a listing of the more common acronyms that are used throughout this report.

AFW	Auxiliary Feedwater
AX LEN	Axial Length of Indication
CIRC LEN	Circumferential Length in Degrees of Tubing Circumference
DEG MODE	Mode of Degradation
DEPTH % TW	Flaw Depth in Percent of Wall Thickness
GMD	Geometric Mean Distortion
IGA	Intergranular Attack
IND	Indication Type/Orientation

LSE	Lower Sleeve End
LTE	Lower Tube End
LTS	Lower Tube Sheet
MAA	Multiple Axial Tube-end Anomaly
MAI	Multiple Axial Indication
MBM	Manufacturing Burnish Mark
MCO	Mid-Cycle Outage
NQS	Non Quantifiable Signal
ODI	Outside Diameter Indication
ODSCC	Outside Diameter Stress Cracking Corrosion
OPB	Outside Pressure Boundary (above repair roll)
PWSCC	Primary Water Stress Cracking Corrosion
RFO	Refueling Outage
SAA	Single Axial Tube-end Anomaly
SAI	Single Axial Indication
SBLOCA	Small Break Loss of Coolant Accident
SCI	Single Circumferential Indication
SG	Steam Generator
SLB	Steam Line Break
SVI	Single Volumetric Indication
TSP	Tube Support Plate
USE	Upper Sleeve End
UTE	Upper Tube End
UTS	Upper Tube Sheet
xxS	Support Plate Number

Section 1
Response to Technical Specification 6.9.1.12.a,
The Scope of Inspections Performed on Each SG

Number and Extent of Steam Generator Tubes Inspected

Inspections/Examinations	Steam Generator	
	SG 2-A	SG 1-B
Inspection of all newly installed repair rolls.	39	13
Periphery AFW Header to tube gap analysis to determine if the header is moving.	382	411
Full length bobbin examination of all in-service non-sleeved tubing.	14878	15213
Full length bobbin examination of 100% sleeves.	199	212
Rotating Plus Point exam of the sleeve at the point of entry (USE) and parent tube pressure boundary portion extending approximately 6 inches past the sleeve end (LSE) of 100% of the sleeves (the parent tube between the bottom of the upper most sleeve roll and the top of the middle sleeve roll may be excluded from inspection since it is not pressure boundary).	199	212
Rotating Plus Point inspection of non-sleeved in-service upper tube roll expansions (100%) including non stress relieved upper repair roll expansions and factory re-rolls.	14679	15001
Rotating Plus Point coil examination of 29% of the non-sleeved in-service tubes in the upper tube sheet region from tube end including tube end, upper roll expansion and crevice to upper tube sheet exit.	4257	4351
Rotating Plus Point inspection of 25% of the in-service stress relieved lower tube roll expansions and tube ends in SG 2-A.	3721	0
Rotating Plus Point inspection of in-service stress relieved lower tube roll expansions and tube ends in SG 1-B 100%.	0	15213
Rotating Plus Point coil examination of the tubes bordering the sleeve region.	91	81
Rotating Plus Point coil examination of all of the flaw-like indications (I codes, new dents, new MBMs and wear per the Degradation Assessment Report) reported from bobbin.	537	506
Rotating Plus Point coil examination of all NQSs and MBM indications above 14S.	62	86
Rotating Plus Point probe coil examination of all NQSs and MBM indications above 10S -2" in outer 30 rows (expansion in SG 1-B only).	0	149
Rotating Plus Point coil examination of all dent indications below 14S (100% sample of all previously reported and new dents using a greater than or equal to 2.5 volt bobbin threshold).	208	179

Number and Extent of Steam Generator Tubes Inspected (continued)

Inspections/Examinations	SG 2-A	SG 1-B
Rotating Plus Point coil examination of all dent indications greater than or equal to 1 volt between 14S and UTE in the non-periphery region.	316	416
Rotating Plus Point coil examination of all dent indications greater than or equal to 0.5 volts between 14S and UTE in the periphery region.	26	19
Rotating Plus Point coil sample inspection of lower tubesheet sludge pile region tubes.	1192	1294
Sleeve Bobbin and Rotating Plus Point coil inspection of all previously identified gross mean distortions (39 tubes SG 1-B – one new GMD was reported during 15RFO).	0	40
Rotating Plus Point probe coil inspection of all previously identified and new magnetic stain (MAG) indications (23 tubes SG 1-B).	0	23
Rotating Plus Point probe inspection of 50% of the Hot Leg rolled Plugs.	280	117
Visual Welded Plug Exam (VT-1) (100%.)	33	19
Visual Plug exams of all Plugs in Upper and Lower (100%).	1158	488
Total Exams	42257	54043

Section 2
Response to Technical Specification 6.9.1.12.b,
Active Degradation Mechanisms Found

Degradation Mechanism	Steam Generator	
	SG 2-A	SG 1-B
Upper Tube End Axial PWSCC	61	19
Upper Tube End Circumferential PWSCC	1	0
Freespan Volumetric Degradation Adjacent to TSPs	8	10
Upper, Lower and Tube Sheet Region Volumetric	1	1
Wear at Tube Supports	582	347
Freespan Axial ODSCC / IGA at Upper Bundle Denting from Auxiliary Feedwater Stabilization	0	0
Axial ODSCC / IGA (Groove IGA)	15	27
Upper Roll / Reroll Transition PWSCC	3	2
Lower Tube End and Lower Tube End Expansion Transition PWSCC	0	1

Section 3
Response to Technical Specification 6.9.1.12.c, Nondestructive Examination Techniques Utilized for Each Degradation Mechanism

During the DBNPS 15RFO, the tubing in the DBNPS SGs was examined. The examinations were conducted by AREVA to meet the requirements of the DBNPS Technical Specifications.

The eddy current examinations were performed utilizing various eddy current probes. The bobbin coil technique was used to perform the standard American Society of Mechanical Engineers (ASME) Code examination for flaw detection. This technique was applied to the complete length of all in-service tubes. The Rotating Plus Point (RPP) technique was used to examine specific areas of interest. These areas included upper tube end roll expansion regions, upper tubesheet crevice region, critical areas of tubes bordering the sleeved (lane and wedge) region, non-stress relieved roll transitions, the lower tubesheet crevice region, and selected dent locations. These techniques were also used to characterize indications of interest reported by the bobbin technique. Both RPP and bobbin techniques were used to examine tube sleeves. The RPP probe was applied to the rolled regions and lower sleeve end while the bobbin probe was used to examine the unrolled portion. Both bobbin coil and the pancake coil were used to provide depth sizing of Tube Support Plate wear indications. The largest Tube Support Plate wear indication depths from either technique are reported. The examination techniques utilized were qualified for detection of the relevant and potential degradation mechanisms. This qualification is in accordance with Electric Power Research Institute (EPRI) Pressurized Water Reactor Steam Generator Examination Guidelines, Revision 6.

NDE Examination Techniques

Degradation Mechanism	Location	Probe Type	ETSS *
ODSCC / IGA or Volumetric Degradation	Tubesheet Crevice	Bobbin	96009.1
ODSCC / IGA or Volumetric Degradation	Freespan or Near TSPs	Bobbin	96007.1, 96008.1
Wear	TSPs	Bobbin	96004.1
ODSCC or PWSCC or Volumetric Degradation	Sleeve	Bobbin	96008.1

NDE Examination Techniques (continued)

Degradation Mechanism	Location	Probe Type	ETSS *
TSP Damage or Loose Parts	TSP	Bobbin	
PWSCC	Tube Ends and Roll Expansions	RPP	20511.1, 20510.1
ODSCC / IGA	Tubesheet Crevice or near Dents	RPP	21409.1, 22401.1, 21410.1
Wear	TSPs	RPP	96910.1
ODSCC / IGA	Freespan and Expansion Transition	RPP	21409.1, 21401.1, 21410.1, 22842.1, 22842.3
PWSCC	Sleeve	RPP	20511.1, 20510.1, 96912.1, 96912.2
Plug Cracking	Welded Plugs	Visual Examination	

* The applicable Examination Technique Specification Sheets (ETSS) are listed for reference only. Site-specific examination technique sheets are developed prior to each Steam Generator inspection in accordance with Appendix H of the EPRI Pressurized Water Reactor Steam Generator Examination Guidelines.

Section 4
Response to Technical Specification 6.9.1.12.d, Location, Orientation (if Linear), and Measured Sizes (if Available) of Service Induced Indications

Axial Indications

Count	SG	Row	Tube	Ind	TSP	Inch1	Volts	Depth	Ax Len	Deg Mode
1	2-A	27	22	SAI	UTE	-3.05	1.49	99	0.26	Reroll Transition PWSCC
2	2-A	124	100	MAI	UTE	-3.45	0.47	69	0.26	Reroll Transition PWSCC
3	2-A	50	48	MAI	UTE	-1.34	0.89	41	0.15	Roll Transition PWSCC
4	2-A	126	76	SAI	UTE	-3.07	1.01	50	0.18	Reroll Transition PWSCC
5	2-A	15	70	MAI	UTE	-3.05	1.42	99	0.46	Reroll Transition PWSCC
6	2-A	21	49	MAI	UTE	-3.25	1.92	99	0.32	Reroll Transition PWSCC
7	2-A	25	81	MAI	UTE	-2.9	1.21	90	0.18	Reroll Transition PWSCC
8	2-A	26	80	MAI	UTE	-3.4	1.50	76	0.26	Reroll Transition PWSCC
9	2-A	126	77	SAI	UTE	-3.57	1.56	91	0.31	Reroll Transition PWSCC
10	2-A	66	1	SAI	15S	-3.27	0.14	20	0.40	Groove IGA
11	2-A	118	106	SAI	UTE	-3.05	1.00	92	0.29	Reroll Transition PWSCC
12	2-A	118	104	MAI	UTE	-3.06	0.68	32	0.18	Reroll Transition PWSCC
13	2-A	63	78	SAI	UTE	-3.14	0.45	79	0.28	Reroll Transition PWSCC
14	2-A	43	118	MAI	UTE	-3.05	0.92	99	0.26	Reroll Transition PWSCC
15	2-A	120	106	MAI	UTE	-3.12	0.60	75	0.24	Reroll Transition PWSCC
16	2-A	104	107	MAI	UTE	-1.52	0.62	60	0.18	Roll Transition PWSCC
17	2-A	126	99	SAI	15S	-3.69	0.13	16	0.47	Groove IGA
18	2-A	70	84	SAI	UTE	-1.52	0.43	40	0.16	Roll Transition PWSCC
19	2-A	67	3	MAI	UTE	-3.11	0.86	71	0.21	Reroll Transition PWSCC
20	2-A	126	99	SAI	15S	-2.84	0.15	21	0.24	Groove IGA
21	2-A	150	18	SAI	15S	-4.41	0.19	7	1.68	Groove IGA
22	2-A	105	107	MAI	UTE	-2.93	0.53	54	0.22	Reroll Transition PWSCC
23	2-A	113	105	SAI	UTE	-2.94	0.56	46	0.20	Reroll Transition PWSCC
24	2-A	119	80	MAI	UTE	-3.55	0.82	73	0.22	Reroll Transition PWSCC

Axial Indications (continued)

Count	SG	Row	Tube	Ind	TSP	Inch1	Volts	Depth	Ax Len	Deg Mode
25	2-A	126	99	SAI	15S	-2.46	0.09	5	0.24	Groove IGA
26	2-A	91	8	MAI	UTE	-3.68	0.70	80	0.28	Reroll Transition PWSCC
27	2-A	66	1	SAI	15S	-3.67	0.15	7	0.50	Groove IGA
28	2-A	66	110	SAI	15S	-0.83	0.20	1	0.12	Groove IGA
29	2-A	116	112	SAI	15S	-1.55	0.31	1	0.76	Groove IGA
30	2-A	11	2	SAI	15S	-2.19	0.17	1	0.67	Groove IGA
31	2-A	11	2	SAI	15S	-2.63	0.15	1	0.37	Groove IGA
32	2-A	63	1	SAI	15S	-6.02	0.30	1	0.47	Groove IGA
33	2-A	149	24	SAI	15S	1.64	0.49	44	0.91	Groove IGA
34	2-A	150	19	SAI	15S	2.59	0.11	15	0.35	Groove IGA
35	2-A	150	18	SAI	15S	2.30	0.25	64	0.21	Groove IGA
36	2-A	148	24	SAI	15S	1.59	0.12	5	0.29	Groove IGA
37	1-B	40	104	MAI	UTE	-2.92	1.00	71	0.23	Reroll Transition PWSCC
38	1-B	29	66	MAI	UTE	-3.23	0.47	75	0.25	Reroll Transition PWSCC
39	1-B	90	54	SAI	LTE	1.48	0.79	59	0.18	Roll Transition PWSCC
40	1-B	69	62	SAI	UTS	-21.59	0.12	0	1.28	Groove IGA
41	1-B	69	62	SAI	UTS	-19.55	0.14	15	0.74	Groove IGA
42	1-B	71	61	MAI	UTS	-23.29	0.31	0	1.20	Groove IGA
43	1-B	71	61	SAI	UTS	-20.83	0.17	0	0.31	Groove IGA
44	1-B	5	1	SAI	15S	-1.47	0.20	1	0.32	Groove IGA
45	1-B	5	1	SAI	15S	-3.09	0.17	1	0.82	Groove IGA
46	1-B	61	1	SAI	15S	-4.20	0.11	37	0.15	Groove IGA
47	1-B	61	1	SAI	15S	-3.94	0.15	41	0.43	Groove IGA
48	1-B	61	1	SAI	15S	-3.35	0.15	39	0.41	Groove IGA
49	1-B	7	1	SAI	15S	-1.59	0.12	1	0.53	Groove IGA
50	1-B	88	1	SAI	15S	6.00	0.20	53	0.72	Groove IGA
51	1-B	83	130	SAI	UTS	-13.31	0.22	36	0.35	Groove IGA
52	1-B	107	118	SAI	10S	-1.17	0.13	1	0.41	Groove IGA
53	1-B	107	118	SAI	10S	-1.44	0.10	1	0.17	Groove IGA
54	1-B	107	118	MAI	10S	-1.92	0.08	1	0.96	Groove IGA
55	1-B	108	117	SAI	10S	8.01	0.14	34	0.85	Groove IGA
56	1-B	108	117	MAI	10S	4.43	0.20	1	0.90	Groove IGA
57	1-B	108	119	SAI	10S	7.85	0.10	1	0.20	Groove IGA
58	1-B	117	32	SAI	14S	17.12	0.19	79	0.18	Groove IGA
59	1-B	142	64	MAI	15S	-2.94	0.19	23	2.62	Groove IGA
60	1-B	71	68	SAI	UTE	-1.35	0.20	87	0.14	Roll Transition PWSCC
61	1-B	6	51	SAI	15S	-1.67	0.26	70	0.40	Groove IGA
62	1-B	6	49	SAI	15S	-1.41	0.23	76	0.61	Groove IGA
63	1-B	66	1	SAI	15S	-2.85	0.08	49	0.18	Groove IGA
64	1-B	66	1	SAI	15S	-2.12	0.14	45	0.56	Groove IGA
65	1-B	26	98	SAI	15S	-1.54	0.25	56	0.79	Groove IGA

Axial Indications (continued)

Count	SG	Row	Tube	Ind	TSP	Inch1	Volts	Depth	Ax Len	Deg Mode
66	1-B	36	91	SAI	UTE	-3.46	0.70	62	0.21	Reroll Transition PWSCC
67	1-B	43	108	MAI	UTE	-3.47	0.44	25	0.28	Reroll Transition PWSCC
68	1-B	101	57	MAI	UTE	-1.46	0.64	44	0.16	Roll Transition PWSCC
69	1-B	131	89	SAI	15S	1.65	0.28	38	0.20	Groove IGA
70	1-B	26	98	SAI	15S	-2.30	0.19	22	0.46	Groove IGA
71	1-B	78	58	MAI	UTE	-3.31	0.57	51	0.26	Reroll Transition PWSCC

Circumferential Indications Not in Previously Rerolled Tubes

Count	SG	Row	Tube	Ind	TSP	Volts	Inch1	Depth	Circ Len	Deg Mode
1	2-A	100	1	SCI	UTE	0.78	-0.33	56	0.21	Tube End PWSCC

Volumetric Indications (Not in Previously Rerolled Tubes)

Count	SG	Row	Tube	Ind	TSP	Inch1	Volts	Depth	Ax Len	Circ Len	Deg Mode
1	2-A	61	126	SVI	15S	-2.87	0.18	1	0.41	0.25	ODI-VOLUMETRIC
2	2-A	143	12	SVI	UTE	-0.67	4.88	87	0.35	0.33	ID LOOSE PART IMPACT
3	2-A	85	7	SVI	UTE	-3.72	0.26	12	0.23	0.23	VOL IGA in Roll Transition
4	2-A	4	7	SVI	15S	-1.25	0.33	27	0.35	0.36	ODI-VOLUMETRIC
5	2-A	15	77	SVI	15S	-3.80	0.28	41	0.23	0.36	ODI-VOLUMETRIC
6	2-A	13	74	SVI	15S	-1.22	0.39	29	0.41	0.31	ODI-VOLUMETRIC
7	2-A	13	73	SVI	15S	-3.34	0.38	23	0.76	0.19	ODI-VOLUMETRIC
8	2-A	12	70	SVI	15S	-3.37	0.14	4	0.29	0.15	ODI-VOLUMETRIC
9	2-A	11	68	SVI	15S	-3.26	0.26	12	0.47	0.31	ODI-VOLUMETRIC
10	2-A	66	1	SVI	15S	-1.38	0.12	25	0.30	0.28	ODI-VOLUMETRIC
11	1-B	137	1	SVI	15S	-1.53	0.29	21	0.99	0.35	ODI-VOLUMETRIC
12	1-B	2	2	SVI	15S	-2.20	0.33	8	0.81	0.26	ODI-VOLUMETRIC
13	1-B	2	2	SVI	15S	-3.07	0.20	8	0.52	0.26	ODI-VOLUMETRIC
14	1-B	3	1	SVI	15S	-3.35	0.22	12	0.64	0.36	ODI-VOLUMETRIC
15	1-B	87	60	SVI	LTE	0.61	1.86	26	0.15	0.23	ANCHOR PIN DEFORMATION

Volumetric Indications (Not in Previously Rerolled Tubes) (Continued)

Count	SG	Row	Tube	Ind	TSP	Inch1	Volts	Depth	Ax Len	Circ Len	Deg Mode
16	1-B	88	1	SVI	15S	-3.07	0.21	25	0.26	0.23	ODI-VOLUMETRIC
17	1-B	95	53	SVI	UTS	-13.65	0.26	23	0.35	0.15	ODI-VOLUMETRIC
18	1-B	136	81	SVI	15S	-2.79	0.10	35	0.21	0.29	ODI-VOLUMETRIC
19	1-B	132	85	SVI	15S	-1.11	0.14	1	0.15	0.12	ODI-VOLUMETRIC
20	1-B	129	93	SVI	15S	-1.28	0.22	13	0.71	0.23	ODI-VOLUMETRIC
21	1-B	11	66	SVI	15S	-3.33	0.18	12	0.41	0.36	ODI-VOLUMETRIC

New Tube End Indications (Not in Previously Rerolled Tubes)

Count	SG	Row	Tube	Ind	TSP	Inch1	Volts
1	2-A	17	12	MAA	UTE	-0.26	1.56
2	2-A	19	15	SAA	UTE	-0.19	1.28
3	2-A	20	30	SAA	UTE	-0.21	0.98
4	2-A	14	9	SAA	UTE	-0.23	1.65
5	2-A	14	30	SAA	UTE	-0.20	0.61
6	2-A	13	9	SAA	UTE	-0.23	1.54
7	2-A	131	6	SAA	UTE	-0.31	0.67
8	2-A	143	31	MAA	UTE	-0.28	1.32
9	2-A	32	37	SAA	UTE	-0.25	0.99
10	2-A	55	4	SAA	UTE	-0.29	2.13
11	2-A	61	3	SAA	UTE	-0.25	0.96
12	2-A	45	21	SAA	UTE	-0.34	1.05
13	2-A	75	46	SAA	UTE	-0.24	0.98
14	2-A	88	10	SAA	UTE	-0.25	1.13
15	2-A	82	12	SAA	UTE	-0.27	1.21
16	2-A	82	10	SAA	UTE	-0.25	1.33
17	2-A	118	102	SAA	UTE	-0.36	1.08
18	2-A	85	9	SAA	UTE	-0.25	1.22
19	2-A	87	5	SAA	UTE	-0.33	0.82
20	2-A	121	103	SAA	UTE	-0.24	1.20
21	2-A	116	1	MAA	UTE	-0.25	1.17
22	2-A	29	89	SAA	UTE	-0.28	1.50
23	2-A	25	80	MAA	UTE	-0.29	1.63
24	2-A	72	124	SAA	UTE	-0.25	1.81
25	2-A	22	51	SAA	UTE	-0.32	1.59
26	2-A	26	53	SAA	UTE	-0.24	1.07
27	2-A	16	45	SAA	UTE	-0.25	1.19

New Tube End Indications (Not in Previously Rerolled Tubes) (continued)

Count	SG	Row	Tube	Ind	TSP	Inch1	Volts
28	2-A	93	7	SAA	UTE	-0.29	1.16
29	2-A	16	73	SAA	UTE	-0.20	1.19
30	2-A	11	38	SAA	UTE	-0.32	0.93
31	2-A	13	40	MAA	UTE	-0.27	2.17
32	2-A	121	102	SAA	UTE	-0.30	1.09
33	2-A	104	107	SAA	UTE	-0.27	1.50
34	2-A	112	87	SAA	UTE	-0.37	1.73
35	2-A	115	109	SAA	UTE	-0.24	1.22
36	2-A	114	108	MAA	UTE	-0.31	1.08
37	2-A	100	23	SAA	UTE	-0.31	1.09
38	2-A	106	4	SAA	UTE	-0.27	1.21
39	2-A	26	48	SAA	UTE	-0.26	1.63
40	2-A	22	17	SAA	UTE	-0.25	1.10
41	2-A	20	17	SAA	UTE	-0.24	1.29
42	2-A	19	48	SAA	UTE	-0.27	1.11
43	2-A	8	33	SAA	UTE	-0.23	1.52
44	1-B	45	77	SAA	UTE	-0.20	1.41
45	1-B	111	48	SAA	UTE	-0.13	1.07
46	1-B	8	41	MAA	UTE	-0.13	1.90
47	1-B	104	118	SAA	UTE	-0.17	1.56
48	1-B	111	29	SAA	UTE	-0.32	1.54
49	1-B	81	104	SAA	UTE	-0.14	0.82
50	1-B	103	119	SAA	UTE	-0.31	0.94
51	1-B	38	18	SAA	UTE	-0.26	1.05
52	1-B	72	53	SAA	UTE	-0.10	1.02
53	1-B	108	117	SAA	UTE	-0.29	1.27
54	1-B	9	23	SAA	UTE	-0.30	2.24
55	1-B	54	50	MAA	UTE	-0.33	1.74
56	1-B	102	120	MAA	UTE	-0.21	1.79
57	1-B	36	90	SAA	UTE	-0.28	1.42

Circumferential Indications Outside the Pressure Boundary

Count	SG	Row	Tube	TSP	Inch	Ind	Volts	Volts Growth	Circ Ext	Circ Growth	First Repair
1	2-A	1	14	UTE	-0.27	OPB	2.04	0.35	0.42	0.01	14MCO
2	2-A	30	79	UTE	-0.40	OPB	1.20	0.17	0.48	0.07	14MCO
3	2-A	31	84	UTE	-0.27	OPB	3.82	0.51	0.33	0.01	14MCO
4	2-A	43	118	UTE	-0.23	OPB	2.16	0.01	0.31	0.05	14MCO
5	2-A	63	1	UTE	-0.26	OPB	2.21	0.36	0.46	0.02	13RFO
6	2-A	117	108	UTE	-0.40	OPB	0.54	-0.28	0.37	-0.05	13RFO
7	2-A	118	107	UTE	-0.34	OPB	1.03	0.15	0.12	-0.36	14MCO
8	2-A	124	101	UTE	-0.27	OPB	0.71	0.10	0.23	-0.04	14MCO
9	2-A	134	2	UTE	-0.24	OPB	0.78	0.24	0.18	-0.09	14MCO
10	2-A	142	65	UTE	-0.31	OPB	2.21	0.41	0.42	-0.02	14MCO
11	2-A	151	10	UTE	-0.24	OPB	4.92	2.16	0.43	-0.07	14MCO
12	1-B	65	58	UTE	-1.38	OPB	1.25	-0.30	0.36	0.03	13RFO
13	1-B	84	82	UTE	-0.11	OPB	2.37	1.28	0.67	0.39	14RFO
14	1-B	99	26	UTE	-2.38	OPB	0.16	0.03	0.32	-0.01	13RFO

All Wear Indications in SG 2-A by Depth

COUNT	ROW	TUBE	SUPP	INCH1	VOLTS	Depth %TW	Exam
1	16	2	13S	-0.65	1.03	31	Special Interest
2	13	1	13S	-0.71	0.74	24	Special Interest
3	147	36	10S	0.66	1.04	22	Bobbin Exam
4	34	1	12S	0.58	0.62	21	Special Interest
5	146	33	10S	0.66	0.77	20	Special Interest
6	146	34	10S	0.62	0.84	19	Special Interest
7	12	1	13S	-0.7	0.87	17	Bobbin Exam
8	88	76	11S	0.57	0.68	17	Bobbin Exam
9	86	127	14S	-0.61	0.73	16	Bobbin Exam
10	16	3	13S	-0.73	0.43	16	Special Interest
11	150	27	10S	-0.7	0.97	16	Bobbin Exam
12	146	31	10S	0.66	0.64	15	Bobbin Exam
13	91	72	11S	0.49	0.5	15	Special Interest
14	36	1	13S	-0.64	0.67	15	Bobbin Exam
15	149	17	10S	0.47	0.44	15	Special Interest
16	85	31	09S	0.73	0.74	15	Bobbin Exam
17	37	2	13S	-0.58	0.5	15	Special Interest
18	74	1	14S	0.57	0.54	14	Special Interest
19	84	32	09S	0.76	0.55	14	Bobbin Exam

All Wear Indications in SG 2-A by Depth (continued)

COUNT	ROW	TUBE	SUPP	INCH1	VOLTS	Depth %TW	Exam
20	12	2	13S	-0.68	0.67	14	Bobbin Exam
21	72	1	14S	0.54	0.54	14	Special Interest
22	43	1	13S	-0.68	0.73	14	Bobbin Exam
23	14	5	14S	-0.63	0.38	14	Special Interest
24	86	127	13S	0.59	0.63	14	Bobbin Exam
25	150	25	10S	-0.75	0.56	14	Bobbin Exam
26	45	1	12S	0.57	0.46	14	Special Interest
27	120	102	09S	0.67	0.47	13	Bobbin Exam
28	120	104	10S	0.55	0.5	13	Bobbin Exam
29	4	4	14S	-0.71	0.44	13	Special Interest
30	5	45	14S	-0.65	0.52	13	Special Interest
31	73	1	14S	0.5	0.51	13	Special Interest
32	33	1	14S	0.58	0.34	13	Special Interest
33	146	37	10S	0.64	0.5	13	Bobbin Exam
34	28	1	13S	-0.62	0.36	13	Special Interest
35	81	33	09S	0.72	0.49	13	Bobbin Exam
36	36	113	14S	0.59	0.48	12	Special Interest
37	71	2	13S	-0.06	0.47	12	Special Interest
38	52	1	13S	-0.74	0.6	12	Bobbin Exam
39	63	1	14S	0.61	0.32	12	Special Interest
40	145	38	10S	0.57	0.5	12	Special Interest
41	17	3	13S	-0.73	0.33	12	Special Interest
42	51	1	11S	-0.67	0.33	12	Special Interest
43	18	1	14S	0.47	0.31	12	Special Interest
44	139	14	04S	-0.83	0.45	12	Bobbin Exam
45	136	7	10S	0.65	0.35	12	Special Interest
46	80	30	09S	0.63	0.34	12	Special Interest
47	3	3	14S	-0.72	0.51	12	Special Interest
48	132	1	09S	-0.07	0.42	12	Bobbin Exam
49	18	1	13S	-0.7	0.58	12	Bobbin Exam
50	86	77	11S	0.5	0.49	12	Special Interest
51	43	1	14S	-0.63	0.4	12	Special Interest
52	41	3	13S	-0.63	0.47	12	Bobbin Exam
53	70	31	10S	0.69	0.33	12	Special Interest
54	85	32	09S	0.67	0.38	12	Special Interest
55	147	34	10S	0.64	0.48	12	Bobbin Exam
56	10	4	14S	-0.62	0.39	12	Special Interest
57	90	74	10S	0.6	0.47	12	Special Interest

All Wear Indications in SG 2-A by Depth (continued)

COUNT	ROW	TUBE	SUPP	INCH1	VOLTS	Depth %TW	Exam
58	83	37	09S	0.77	0.28	11	Special Interest
59	74	71	11S	0.51	0.4	11	Bobbin Exam
60	150	19	10S	0.64	0.42	11	Bobbin Exam
61	75	73	10S	0.48	0.38	11	Bobbin Exam
62	82	78	10S	0.55	0.51	11	Bobbin Exam
63	86	75	11S	0.68	0.4	11	Bobbin Exam
64	148	30	10S	-0.72	0.42	11	Bobbin Exam
65	150	25	10S	0.84	0.42	11	Bobbin Exam
66	36	1	12S	0.68	0.44	11	Bobbin Exam
67	90	74	11S	0.55	0.36	11	Bobbin Exam
68	65	8	03S	-0.71	0.29	11	Special Interest
69	148	32	10S	0.62	0.4	11	Bobbin Exam
70	79	71	15S	-0.73	0.33	11	Special Interest
71	25	1	12S	0.57	0.56	11	Bobbin Exam
72	20	5	09S	-0.81	0.39	11	Bobbin Exam
73	54	127	14S	0.55	0.42	11	Special Interest
74	30	1	14S	-0.66	0.29	11	Special Interest
75	15	2	13S	-0.7	0.54	11	Bobbin Exam
76	40	117	14S	0.59	0.45	11	Special Interest
77	146	36	10S	0.62	0.55	11	Bobbin Exam
78	70	1	14S	0.53	0.41	11	Special Interest
79	10	2	14S	-0.66	0.38	11	Special Interest
80	39	113	14S	-0.77	0.48	11	Bobbin Exam
81	11	14	14S	0.58	0.29	11	Special Interest
82	149	26	10S	0.61	0.42	11	Special Interest
83	13	2	13S	-0.68	0.55	11	Bobbin Exam
84	84	58	06S	0.63	0.36	11	Special Interest
85	88	69	14S	0.46	0.35	11	Special Interest
86	6	47	14S	0.75	0.43	11	Special Interest
87	98	127	13S	-0.77	0.46	11	Bobbin Exam
88	53	3	09S	0.55	0.29	11	Special Interest
89	123	102	10S	-0.72	0.38	10	Bobbin Exam
90	128	5	10S	0.5	0.55	10	Bobbin Exam
91	116	22	14S	-0.77	0.38	10	Bobbin Exam
92	124	100	10S	-0.67	0.36	10	Bobbin Exam
93	34	107	14S	-0.61	0.4	10	Special Interest
94	73	61	14S	0.57	0.3	10	Special Interest
95	71	2	14S	-0.73	0.36	10	Special Interest
96	37	1	14S	0.45	0.33	10	Special Interest

All Wear Indications in SG 2-A by Depth (continued)

COUNT	ROW	TUBE	SUPP	INCH1	VOLTS	Depth %TW	Exam
97	44	1	13S	-0.6	0.28	10	Special Interest
98	125	100	10S	-0.71	0.35	10	Bobbin Exam
99	41	1	13S	-0.64	0.27	10	Special Interest
100	71	2	13S	0.66	0.38	10	Special Interest
101	140	1	10S	-0.81	0.36	10	Bobbin Exam
102	148	40	14S	0.6	0.4	10	Bobbin Exam
103	11	1	13S	-0.72	0.48	10	Bobbin Exam
104	11	21	14S	0.62	0.26	10	Special Interest
105	8	4	14S	0.65	0.33	10	Special Interest
106	150	3	09S	-0.7	0.28	10	Special Interest
107	13	2	14S	0.53	0.45	10	Bobbin Exam
108	13	5	13S	-0.63	0.27	10	Special Interest
109	28	7	09S	-0.79	0.35	10	Bobbin Exam
110	84	60	14S	-0.72	0.32	10	Special Interest
111	17	1	13S	-0.66	0.5	10	Bobbin Exam
112	18	74	07S	0.62	0.39	10	Special Interest
113	149	26	10S	-0.68	0.39	10	Special Interest
114	66	102	06S	-0.54	0.34	10	Bobbin Exam
115	14	1	14S	0.51	0.25	10	Special Interest
116	25	1	13S	-0.72	0.51	10	Bobbin Exam
117	133	4	10S	0.63	0.29	10	Special Interest
118	110	117	13S	-0.77	0.36	10	Bobbin Exam
119	1	2	11S	-0.83	0.35	10	Bobbin Exam
120	133	7	10S	0.61	0.55	10	Bobbin Exam
121	88	70	14S	0.52	0.31	10	Special Interest
122	137	6	10S	-0.7	0.37	10	Bobbin Exam
123	113	4	14S	0.6	0.32	10	Special Interest
124	82	75	11S	0.56	0.39	10	Special Interest
125	77	48	03S	0.57	0.35	10	Bobbin Exam
126	150	20	14S	0.75	0.39	10	Special Interest
127	150	19	10S	-0.63	0.39	10	Special Interest
128	67	16	10S	-0.75	0.27	9	Special Interest
129	68	1	08S	0.54	0.3	9	Bobbin Exam
130	87	76	04S	0.81	0.31	9	Bobbin Exam
131	87	8	03S	0.79	0.43	9	Bobbin Exam
132	87	75	11S	0.45	0.34	9	Bobbin Exam
133	68	1	14S	0.59	0.33	9	Bobbin Exam
134	89	124	08S	-0.46	0.44	9	Bobbin Exam
135	86	71	14S	0.59	0.28	9	Special Interest

All Wear Indications in SG 2-A by Depth (continued)

COUNT	ROW	TUBE	SUPP	INCH1	VOLTS	Depth %TW	Exam
136	91	70	11S	0.62	0.48	9	Bobbin Exam
137	83	79	11S	0.5	0.33	9	Special Interest
138	84	75	11S	0.64	0.33	9	Bobbin Exam
139	96	121	08S	0.52	0.27	9	Bobbin Exam
140	83	33	08S	0.8	0.31	9	Bobbin Exam
141	72	28	14S	0.63	0.25	9	Special Interest
142	72	66	03S	0.61	0.42	9	Bobbin Exam
143	77	68	13S	0.68	0.39	9	Bobbin Exam
144	73	78	10S	-0.83	0.32	9	Bobbin Exam
145	76	67	15S	-0.7	0.28	9	Special Interest
146	84	78	11S	0.64	0.31	9	Special Interest
147	21	1	13S	-0.66	0.45	9	Bobbin Exam
148	130	93	13S	-0.62	0.33	9	Special Interest
149	20	27	15S	-0.86	0.31	9	Bobbin Exam
150	30	1	14S	0.28	0.23	9	Special Interest
151	16	80	11S	0.62	0.31	9	Bobbin Exam
152	148	38	14S	0.52	0.28	9	Special Interest
153	133	80	14S	-0.72	0.3	9	Special Interest
154	26	9	09S	-0.83	0.31	9	Bobbin Exam
155	148	30	10S	0.55	0.35	9	Bobbin Exam
156	35	108	14S	-0.59	0.36	9	Special Interest
157	148	24	10S	0.62	0.33	9	Bobbin Exam
158	131	6	10S	0.63	0.26	9	Special Interest
159	147	46	14S	0.69	0.29	9	Special Interest
160	147	30	10S	0.71	0.34	9	Bobbin Exam
161	147	26	10S	0.64	0.29	9	Special Interest
162	146	32	10S	0.6	0.46	9	Bobbin Exam
163	141	67	13S	0.56	0.35	9	Bobbin Exam
164	17	4	13S	-0.73	0.23	9	Special Interest
165	17	2	13S	-0.68	0.33	9	Bobbin Exam
166	145	42	10S	0.64	0.36	9	Bobbin Exam
167	11	14	14S	-0.6	0.23	9	Special Interest
168	46	113	13S	0.53	0.28	9	Special Interest
169	50	123	14S	0.64	0.35	9	Special Interest
170	130	7	10S	0.56	0.31	9	Bobbin Exam
171	127	6	10S	0.52	0.25	9	Special Interest
172	42	1	13S	-0.7	0.43	9	Bobbin Exam
173	5	20	08S	0.35	0.37	9	Special Interest
174	36	2	13S	-0.63	0.45	9	Bobbin Exam

All Wear Indications in SG 2-A by Depth (continued)

COUNT	ROW	TUBE	SUPP	INCH1	VOLTS	Depth %TW	Exam
175	149	27	10S	-0.74	0.35	9	Bobbin Exam
176	42	30	05S	0.55	0.23	9	Special Interest
177	37	56	06S	0.42	0.33	9	Bobbin Exam
178	88	77	11S	0.57	0.44	9	Bobbin Exam
179	85	7	08S	-0.68	0.25	8	Special Interest
180	84	76	11S	0.59	0.31	8	Bobbin Exam
181	85	122	09S	-0.24	0.31	8	Bobbin Exam
182	4	1	14S	0.64	0.25	8	Special Interest
183	2	27	14S	-0.63	0.3	8	Special Interest
184	1	2	11S	0.48	0.28	8	Bobbin Exam
185	15	2	14S	0.4	0.2	8	Special Interest
186	86	78	11S	0.69	0.32	8	Special Interest
187	85	77	11S	0.57	0.29	8	Bobbin Exam
188	87	106	02S	0.79	0.3	8	Bobbin Exam
189	86	75	10S	0.68	0.28	8	Bobbin Exam
190	87	77	11S	0.5	0.28	8	Bobbin Exam
191	4	41	13S	0.68	0.42	8	Bobbin Exam
192	11	3	09S	-0.89	0.38	8	Bobbin Exam
193	5	12	10S	0.65	0.42	8	Bobbin Exam
194	8	23	14S	0.61	0.29	8	Special Interest
195	9	60	14S	-0.71	0.31	8	Special Interest
196	86	95	05S	-0.63	0.29	8	Bobbin Exam
197	12	1	13S	0.55	0.36	8	Bobbin Exam
198	26	2	12S	0.59	0.19	8	Special Interest
199	50	122	10S	0.55	0.3	8	Bobbin Exam
200	68	64	15S	0.63	0.24	8	Special Interest
201	68	72	15S	0.4	0.23	8	Special Interest
202	37	1	13S	-0.59	0.34	8	Bobbin Exam
203	71	19	14S	0.57	0.27	8	Bobbin Exam
204	71	35	14S	0.65	0.2	8	Special Interest
205	71	77	11S	0.48	0.26	8	Bobbin Exam
206	80	79	10S	0.68	0.31	8	Special Interest
207	72	35	14S	0.59	0.28	8	Bobbin Exam
208	35	108	14S	0.63	0.32	8	Special Interest
209	73	2	14S	0.53	0.31	8	Special Interest
210	73	76	05S	-0.35	0.27	8	Bobbin Exam
211	30	6	09S	0.58	0.21	8	Special Interest
212	81	61	11S	-0.69	0.4	8	Bobbin Exam
213	21	10	03S	-0.7	0.28	8	Bobbin Exam

All Wear Indications in SG 2-A by Depth (continued)

COUNT	ROW	TUBE	SUPP	INCH1	VOLTS	Depth %TW	Exam
214	18	2	13S	-0.64	0.38	8	Bobbin Exam
215	19	1	09S	-0.82	0.4	8	Bobbin Exam
216	19	30	06S	-0.14	0.21	8	Special Interest
217	37	1	12S	0.61	0.34	8	Bobbin Exam
218	20	80	10S	0.53	0.27	8	Bobbin Exam
219	75	7	13S	-0.74	0.27	8	Bobbin Exam
220	80	79	10S	-0.75	0.31	8	Special Interest
221	75	73	11S	0.51	0.28	8	Special Interest
222	21	88	09S	0.65	0.27	8	Special Interest
223	24	1	08S	0.72	0.27	8	Bobbin Exam
224	25	1	08S	0.49	0.37	8	Bobbin Exam
225	78	82	05S	0.67	0.34	8	Special Interest
226	25	32	06S	0.49	0.2	8	Special Interest
227	15	7	13S	-0.72	0.29	8	Bobbin Exam
228	52	1	12S	0.59	0.4	8	Bobbin Exam
229	114	3	14S	0.75	0.25	8	Special Interest
230	148	34	10S	0.62	0.32	8	Special Interest
231	149	27	10S	0.57	0.29	8	Bobbin Exam
232	128	6	10S	0.57	0.27	8	Bobbin Exam
233	137	78	14S	0.61	0.3	8	Special Interest
234	146	38	10S	0.66	0.39	8	Bobbin Exam
235	117	103	09S	0.7	0.33	8	Special Interest
236	129	8	10S	0.61	0.28	8	Bobbin Exam
237	89	128	13S	-0.63	0.31	8	Bobbin Exam
238	114	113	10S	0.62	0.3	8	Bobbin Exam
239	129	85	14S	0.55	0.29	8	Bobbin Exam
240	116	107	09S	-0.73	0.28	8	Bobbin Exam
241	90	74	10S	-0.74	0.27	8	Bobbin Exam
242	133	4	10S	-0.68	0.23	8	Special Interest
243	94	1	13S	0.61	0.3	8	Bobbin Exam
244	89	70	14S	0.63	0.24	8	Special Interest
245	122	103	10S	-0.75	0.25	8	Special Interest
246	93	80	05S	-0.44	0.26	8	Bobbin Exam
247	122	101	04S	-0.77	0.29	8	Bobbin Exam
248	89	73	11S	0.64	0.33	8	Bobbin Exam
249	125	96	09S	0.38	0.29	8	Bobbin Exam
250	121	98	13S	-0.79	0.28	8	Bobbin Exam
251	146	39	10S	0.72	0.3	8	Bobbin Exam
252	116	107	09S	0.69	0.23	7	Bobbin Exam

All Wear Indications in SG 2-A by Depth (continued)

COUNT	ROW	TUBE	SUPP	INCH1	VOLTS	Depth %TW	Exam
253	74	72	10S	-0.74	0.4	7	Bobbin Exam
254	75	6	14S	0.55	0.25	7	Special Interest
255	116	110	09S	0.58	0.32	7	Bobbin Exam
256	74	72	10S	0.53	0.38	7	Bobbin Exam
257	16	81	13S	-0.7	0.34	7	Bobbin Exam
258	148	31	10S	-0.72	0.35	7	Bobbin Exam
259	145	39	10S	0.66	0.33	7	Bobbin Exam
260	17	8	13S	0.43	0.17	7	Special Interest
261	10	1	14S	0.66	0.22	7	Special Interest
262	76	73	04S	0.55	0.25	7	Bobbin Exam
263	114	111	09S	0.67	0.24	7	Bobbin Exam
264	17	81	13S	-0.62	0.34	7	Bobbin Exam
265	77	72	10S	0.55	0.33	7	Bobbin Exam
266	77	72	13S	-0.83	0.33	7	Bobbin Exam
267	77	75	10S	-0.81	0.24	7	Bobbin Exam
268	9	62	13S	-0.59	0.32	7	Bobbin Exam
269	9	1	13S	-0.62	0.34	7	Bobbin Exam
270	69	32	10S	0.68	0.26	7	Bobbin Exam
271	75	73	10S	-0.83	0.25	7	Bobbin Exam
272	65	93	14S	0.65	0.27	7	Special Interest
273	70	78	10S	0.55	0.24	7	Bobbin Exam
274	70	78	11S	0.44	0.25	7	Bobbin Exam
275	70	79	10S	-0.81	0.35	7	Bobbin Exam
276	147	27	10S	0.64	0.33	7	Bobbin Exam
277	14	3	13S	-0.66	0.33	7	Bobbin Exam
278	120	104	09S	0.74	0.25	7	Bobbin Exam
279	121	101	13S	-0.65	0.28	7	Special Interest
280	12	5	13S	-0.73	0.21	7	Special Interest
281	121	103	09S	0.65	0.31	7	Bobbin Exam
282	71	93	14S	0.53	0.23	7	Bobbin Exam
283	14	74	11S	0.59	0.25	7	Bobbin Exam
284	73	3	14S	-0.68	0.25	7	Special Interest
285	118	104	09S	0.58	0.3	7	Bobbin Exam
286	148	28	10S	-0.7	0.27	7	Bobbin Exam
287	118	103	10S	-0.74	0.24	7	Bobbin Exam
288	117	107	10S	-0.76	0.31	7	Bobbin Exam
289	65	77	11S	0.55	0.26	7	Special Interest
290	117	106	10S	-0.69	0.25	7	Bobbin Exam
291	72	76	11S	0.55	0.25	7	Bobbin Exam

All Wear Indications in SG 2-A by Depth (continued)

COUNT	ROW	TUBE	SUPP	INCH1	VOLTS	Depth %TW	Exam
292	148	3	10S	0.63	0.21	7	Bobbin Exam
293	122	98	14S	-0.75	0.22	7	Special Interest
294	123	85	14S	-0.75	0.23	7	Special Interest
295	146	37	04S	-0.72	0.26	7	Bobbin Exam
296	144	48	08S	-0.4	0.26	7	Bobbin Exam
297	145	54	13S	0.55	0.25	7	Bobbin Exam
298	148	27	10S	-0.7	0.33	7	Bobbin Exam
299	72	1	13S	0.58	0.23	7	Bobbin Exam
300	129	5	10S	0.54	0.36	7	Bobbin Exam
301	125	93	14S	-0.7	0.29	7	Special Interest
302	82	79	10S	-0.85	0.24	7	Bobbin Exam
303	82	127	13S	0.55	0.24	7	Bobbin Exam
304	102	4	08S	-0.68	0.23	7	Bobbin Exam
305	20	84	13S	-0.69	0.21	7	Special Interest
306	9	1	09S	-0.75	0.35	7	Bobbin Exam
307	84	79	11S	0.67	0.26	7	Special Interest
308	137	6	10S	0.63	0.26	7	Bobbin Exam
309	91	72	11S	-0.71	0.21	7	Special Interest
310	85	76	11S	0.61	0.27	7	Bobbin Exam
311	19	53	12S	-0.84	0.36	7	Bobbin Exam
312	3	33	13S	0.66	0.35	7	Bobbin Exam
313	83	79	10S	-0.83	0.24	7	Bobbin Exam
314	3	14	14S	0.6	0.26	7	Special Interest
315	87	69	05S	-0.5	0.39	7	Bobbin Exam
316	130	8	10S	0.59	0.36	7	Bobbin Exam
317	27	5	09S	0.51	0.18	7	Special Interest
318	151	5	06S	-0.5	0.22	7	Bobbin Exam
319	27	100	14S	0.65	0.26	7	Special Interest
320	130	91	10S	0.57	0.24	7	Bobbin Exam
321	89	72	11S	0.69	0.33	7	Bobbin Exam
322	33	2	13S	-0.75	0.22	7	Bobbin Exam
323	1	5	14S	0.65	0.29	7	Special Interest
324	38	3	12S	0.64	0.25	7	Bobbin Exam
325	82	1	11S	0.66	0.34	7	Bobbin Exam
326	140	67	13S	0.57	0.28	7	Bobbin Exam
327	80	58	15S	-0.68	0.31	7	Bobbin Exam
328	81	61	07S	0.57	0.35	7	Bobbin Exam
329	7	2	13S	-0.55	0.39	7	Bobbin Exam
330	139	74	04S	-0.77	0.28	7	Bobbin Exam

All Wear Indications in SG 2-A by Depth (continued)

COUNT	ROW	TUBE	SUPP	INCH1	VOLTS	Depth %TW	Exam
331	81	2	14S	0.78	0.28	7	Special Interest
332	107	117	09S	0.47	0.32	7	Bobbin Exam
333	8	5	14S	0.66	0.24	7	Special Interest
334	7	11	10S	0.57	0.23	7	Special Interest
335	141	65	13S	-0.62	0.26	7	Special Interest
336	82	1	13S	-0.69	0.34	7	Bobbin Exam
337	142	17	09S	0.59	0.18	7	Special Interest
338	82	44	08S	0.71	0.26	7	Bobbin Exam
339	121	104	09S	0.6	0.19	6	Bobbin Exam
340	129	93	13S	-0.77	0.23	6	Bobbin Exam
341	44	69	06S	0.53	0.22	6	Bobbin Exam
342	35	2	09S	-0.9	0.28	6	Bobbin Exam
343	123	98	04S	-0.64	0.2	6	Bobbin Exam
344	68	72	15S	-0.68	0.2	6	Special Interest
345	43	118	13S	0.62	0.25	6	Special Interest
346	80	72	14S	0.52	0.2	6	Special Interest
347	123	93	14S	-0.79	0.29	6	Bobbin Exam
348	49	5	09S	-0.85	0.27	6	Bobbin Exam
349	47	122	14S	0.57	0.31	6	Bobbin Exam
350	131	7	10S	0.59	0.33	6	Bobbin Exam
351	69	2	14S	0.6	0.22	6	Special Interest
352	69	5	10S	-0.63	0.2	6	Bobbin Exam
353	121	101	09S	0.72	0.26	6	Bobbin Exam
354	126	99	10S	-0.73	0.2	6	Bobbin Exam
355	124	101	10S	-0.78	0.21	6	Bobbin Exam
356	145	46	10S	0.64	0.21	6	Bobbin Exam
357	145	36	10S	0.66	0.22	6	Bobbin Exam
358	42	4	13S	-0.54	0.16	6	Special Interest
359	145	11	04S	-0.83	0.29	6	Bobbin Exam
360	41	36	06S	0.54	0.29	6	Bobbin Exam
361	145	47	10S	0.66	0.29	6	Bobbin Exam
362	137	1	11S	-0.76	0.21	6	Bobbin Exam
363	11	67	08S	-0.55	0.19	6	Bobbin Exam
364	128	7	10S	0.63	0.34	6	Bobbin Exam
365	137	15	14S	0.69	0.18	6	Special Interest
366	39	116	13S	-0.72	0.26	6	Bobbin Exam
367	127	2	11S	0.54	0.17	6	Special Interest

All Wear Indications in SG 2-A by Depth (continued)

COUNT	ROW	TUBE	SUPP	INCH1	VOLTS	Depth %TW	Exam
368	39	62	06S	-0.4	0.19	6	Bobbin Exam
369	38	1	12S	0.55	0.23	6	Bobbin Exam
370	125	98	10S	-0.74	0.21	6	Bobbin Exam
371	23	1	13S	-0.62	0.32	6	Bobbin Exam
372	88	83	05S	-0.68	0.21	6	Bobbin Exam
373	145	48	10S	0.65	0.19	6	Special Interest
374	72	77	10S	-0.75	0.24	6	Special Interest
375	114	40	06S	0.26	0.22	6	Bobbin Exam
376	93	48	05S	0.11	0.21	6	Bobbin Exam
377	4	35	13S	-0.52	0.31	6	Bobbin Exam
378	150	15	10S	0.71	0.29	6	Bobbin Exam
379	5	45	13S	-0.51	0.32	6	Bobbin Exam
380	5	45	13S	0.72	0.3	6	Bobbin Exam
381	92	129	07S	-0.77	0.25	6	Bobbin Exam
382	82	26	07S	-0.39	0.23	6	Bobbin Exam
383	92	69	11S	0.64	0.26	6	Bobbin Exam
384	7	41	08S	0.61	0.3	6	Bobbin Exam
385	69	49	10S	0.66	0.26	6	Bobbin Exam
386	80	71	05S	0.59	0.24	6	Bobbin Exam
387	80	39	09S	-0.25	0.19	6	Special Interest
388	80	15	07S	-0.52	0.22	6	Bobbin Exam
389	79	77	10S	-0.85	0.2	6	Bobbin Exam
390	6	41	14S	0.61	0.28	6	Bobbin Exam
391	3	11	08S	-0.26	0.2	6	Bobbin Exam
392	88	71	14S	0.5	0.2	6	Special Interest
393	1	15	13S	-0.61	0.29	6	Bobbin Exam
394	2	25	14S	-0.64	0.22	6	Special Interest
395	2	25	14S	0.59	0.21	6	Special Interest
396	89	75	10S	0.59	0.3	6	Bobbin Exam
397	87	73	12S	0.56	0.26	6	Bobbin Exam
398	84	79	05S	-0.57	0.23	6	Bobbin Exam
399	87	71	13S	0.67	0.25	6	Bobbin Exam
400	8	4	14S	-0.69	0.19	6	Special Interest
401	86	121	08S	0.48	0.24	6	Bobbin Exam
402	90	7	08S	-0.79	0.28	6	Bobbin Exam
403	150	20	10S	0.66	0.29	6	Bobbin Exam
404	150	20	10S	-0.67	0.32	6	Bobbin Exam

All Wear Indications in SG 2-A by Depth (continued)

COUNT	ROW	TUBE	SUPP	INCH1	VOLTS	Depth %TW	Exam
405	91	70	10S	0.53	0.28	6	Bobbin Exam
406	85	79	11S	0.5	0.21	6	Bobbin Exam
407	87	73	11S	0.74	0.27	6	Bobbin Exam
408	118	106	10S	-0.76	0.25	6	Bobbin Exam
409	73	27	10S	-0.11	0.27	6	Bobbin Exam
410	9	28	14S	-0.68	0.22	6	Special Interest
411	148	26	10S	0.62	0.22	6	Bobbin Exam
412	31	3	10S	0.44	0.26	6	Bobbin Exam
413	72	51	10S	0.59	0.25	6	Bobbin Exam
414	148	1	10S	-0.63	0.16	6	Special Interest
415	73	77	10S	0.55	0.33	6	Bobbin Exam
416	71	78	10S	-0.83	0.28	6	Bobbin Exam
417	73	2	13S	0.65	0.31	6	Bobbin Exam
418	71	7	11S	0.7	0.2	6	Bobbin Exam
419	71	4	11S	0.56	0.28	6	Bobbin Exam
420	119	107	09S	0.65	0.27	6	Bobbin Exam
421	70	80	10S	-0.72	0.22	6	Special Interest
422	120	104	10S	-0.74	0.19	6	Bobbin Exam
423	13	66	07S	0.7	0.21	6	Bobbin Exam
424	146	43	10S	0.62	0.24	6	Bobbin Exam
425	72	1	08S	0.45	0.2	6	Bobbin Exam
426	114	113	10S	-0.71	0.2	6	Bobbin Exam
427	149	18	10S	0.66	0.29	6	Bobbin Exam
428	75	72	11S	0.5	0.36	6	Bobbin Exam
429	74	73	05S	0.53	0.22	6	Bobbin Exam
430	75	34	04S	0.63	0.28	6	Bobbin Exam
431	74	63	04S	0.53	0.28	6	Bobbin Exam
432	75	28	04S	0.6	0.29	6	Bobbin Exam
433	10	1	14S	-0.57	0.18	6	Special Interest
434	73	88	05S	0.39	0.2	6	Bobbin Exam
435	148	29	10S	0.66	0.29	6	Bobbin Exam
436	149	28	10S	-0.72	0.28	6	Bobbin Exam
437	10	1	09S	-0.75	0.18	5	Bobbin Exam
438	149	28	10S	0.62	0.23	5	Bobbin Exam
439	132	8	10S	0.52	0.28	5	Bobbin Exam
440	25	88	08S	0.66	0.21	5	Bobbin Exam
441	151	1	10S	0.42	0.26	5	Bobbin Exam

All Wear Indications in SG 2-A by Depth (continued)

COUNT	ROW	TUBE	SUPP	INCH1	VOLTS	Depth %TW	Exam
442	12	22	07S	-0.52	0.22	5	Bobbin Exam
443	147	32	10S	0.66	0.19	5	Bobbin Exam
444	135	4	10S	0.63	0.19	5	Bobbin Exam
445	4	33	09S	0.76	0.25	5	Bobbin Exam
446	24	46	06S	-0.55	0.24	5	Bobbin Exam
447	5	42	13S	0.5	0.26	5	Bobbin Exam
448	3	29	13S	-0.54	0.25	5	Bobbin Exam
449	7	12	10S	0.45	0.24	5	Bobbin Exam
450	136	4	10S	0.57	0.25	5	Bobbin Exam
451	6	14	10S	0.66	0.23	5	Bobbin Exam
452	7	36	08S	0.6	0.25	5	Bobbin Exam
453	5	46	13S	0.7	0.27	5	Bobbin Exam
454	149	31	10S	0.64	0.24	5	Bobbin Exam
455	146	18	13S	-0.77	0.26	5	Bobbin Exam
456	4	40	12S	-0.77	0.17	5	Bobbin Exam
457	16	18	06S	0.09	0.15	5	Bobbin Exam
458	25	1	12S	-0.81	0.24	5	Bobbin Exam
459	113	111	09S	0.71	0.17	5	Bobbin Exam
460	117	104	14S	0.31	0.21	5	Special Interest
461	52	45	06S	-0.28	0.24	5	Bobbin Exam
462	114	111	09S	-0.72	0.17	5	Bobbin Exam
463	100	125	13S	-0.74	0.28	5	Bobbin Exam
464	54	50	06S	0.53	0.27	5	Bobbin Exam
465	83	40	06S	-0.31	0.19	5	Bobbin Exam
466	82	97	06S	-0.48	0.19	5	Bobbin Exam
467	104	93	07S	0.47	0.18	5	Special Interest
468	63	1	12S	0.42	0.22	5	Bobbin Exam
469	121	105	10S	-0.72	0.22	5	Bobbin Exam
470	68	23	09S	0.8	0.17	5	Bobbin Exam
471	69	1	13S	0.52	0.16	5	Bobbin Exam
472	70	10	10S	-0.68	0.21	5	Bobbin Exam
473	122	104	10S	-0.76	0.24	5	Bobbin Exam
474	79	2	11S	0.59	0.27	5	Bobbin Exam
475	77	68	02S	-0.36	0.14	5	Special Interest
476	115	102	14S	-0.66	0.2	5	Special Interest
477	75	72	10S	0.59	0.27	5	Bobbin Exam
478	75	67	13S	0.62	0.25	5	Bobbin Exam

All Wear Indications in SG 2-A by Depth (continued)

COUNT	ROW	TUBE	SUPP	INCH1	VOLTS	Depth %TW	Exam
479	78	23	04S	-0.83	0.17	5	Bobbin Exam
480	109	118	09S	-0.53	0.19	5	Bobbin Exam
481	116	111	08S	-0.68	0.17	5	Bobbin Exam
482	119	105	10S	0.46	0.22	5	Bobbin Exam
483	79	25	11S	-0.35	0.17	5	Bobbin Exam
484	31	13	08S	-0.53	0.25	5	Bobbin Exam
485	72	77	05S	0.55	0.26	5	Bobbin Exam
486	72	28	11S	0.6	0.23	5	Bobbin Exam
487	119	5	07S	-0.15	0.17	5	Bobbin Exam
488	122	102	10S	0.55	0.21	5	Bobbin Exam
489	116	109	09S	0.71	0.17	5	Bobbin Exam
490	127	97	10S	-0.71	0.24	5	Bobbin Exam
491	32	61	06S	-0.57	0.25	5	Bobbin Exam
492	88	93	06S	-0.67	0.19	5	Bobbin Exam
493	34	84	03S	-0.72	0.15	5	Bobbin Exam
494	130	10	13S	0.45	0.25	5	Bobbin Exam
495	89	74	09S	0.82	0.24	5	Bobbin Exam
496	35	68	06S	-0.51	0.26	5	Bobbin Exam
497	89	75	11S	0.61	0.25	5	Bobbin Exam
498	129	7	10S	0.61	0.26	5	Bobbin Exam
499	37	1	11S	-0.77	0.2	5	Bobbin Exam
500	89	124	08S	0.59	0.25	5	Bobbin Exam
501	52	125	13S	-0.81	0.24	5	Bobbin Exam
502	128	84	14S	-0.71	0.14	5	Special Interest
503	37	75	06S	0.2	0.18	5	Bobbin Exam
504	125	99	10S	-0.74	0.21	5	Bobbin Exam
505	123	101	10S	0.59	0.21	5	Bobbin Exam
506	124	100	13S	-0.81	0.17	5	Bobbin Exam
507	84	75	12S	0.62	0.14	4	Bobbin Exam
508	5	42	13S	-0.52	0.21	4	Bobbin Exam
509	95	1	08S	-0.7	0.15	4	Bobbin Exam
510	1	10	04S	-0.73	0.14	4	Bobbin Exam
511	2	25	13S	-0.56	0.2	4	Bobbin Exam
512	77	124	13S	-0.75	0.18	4	Bobbin Exam
513	87	98	05S	0.59	0.14	4	Bobbin Exam
514	150	8	10S	0.59	0.18	4	Bobbin Exam
515	2	26	09S	-0.72	0.11	4	Bobbin Exam

All Wear Indications in SG 2-A by Depth (continued)

COUNT	ROW	TUBE	SUPP	INCH1	VOLTS	Depth %TW	Exam
516	150	13	10S	0.57	0.23	4	Bobbin Exam
517	151	16	10S	-0.74	0.17	4	Bobbin Exam
518	93	64	11S	0.72	0.17	4	Bobbin Exam
519	91	70	10S	-0.73	0.23	4	Bobbin Exam
520	93	63	11S	0.67	0.2	4	Bobbin Exam
521	149	29	10S	-0.72	0.22	4	Bobbin Exam
522	104	93	07S	-0.45	0.17	4	Special Interest
523	111	4	11S	0.29	0.15	4	Bobbin Exam
524	5	46	13S	-0.49	0.21	4	Bobbin Exam
525	5	41	13S	-0.6	0.19	4	Bobbin Exam
526	90	129	13S	-0.77	0.17	4	Bobbin Exam
527	91	65	05S	-0.43	0.18	4	Bobbin Exam
528	91	70	11S	-0.64	0.21	4	Bobbin Exam
529	81	128	13S	-0.66	0.2	4	Bobbin Exam
530	107	117	09S	-0.57	0.19	4	Bobbin Exam
531	87	74	11S	0.67	0.2	4	Bobbin Exam
532	22	1	12S	0.62	0.21	4	Bobbin Exam
533	59	1	07S	0.51	0.19	4	Bobbin Exam
534	55	1	12S	0.63	0.27	4	Bobbin Exam
535	122	102	10S	-0.83	0.17	4	Bobbin Exam
536	9	62	13S	0.66	0.2	4	Bobbin Exam
537	48	14	05S	-0.57	0.17	4	Bobbin Exam
538	42	66	06S	-0.09	0.2	4	Bobbin Exam
539	139	3	10S	0.65	0.19	4	Bobbin Exam
540	61	80	05S	0.35	0.21	4	Bobbin Exam
541	40	36	07S	0.22	0.17	4	Bobbin Exam
542	48	23	05S	0.48	0.13	4	Bobbin Exam
543	127	16	07S	-0.46	0.15	4	Bobbin Exam
544	136	2	10S	-0.78	0.22	4	Bobbin Exam
545	134	6	10S	0.56	0.15	4	Bobbin Exam
546	134	5	10S	-0.89	0.21	4	Bobbin Exam
547	33	108	13S	-0.73	0.19	4	Bobbin Exam
548	133	3	10S	-0.67	0.23	4	Bobbin Exam
549	133	2	05S	-0.72	0.16	4	Bobbin Exam
550	138	11	13S	-0.77	0.16	4	Bobbin Exam
551	73	46	03S	-0.7	0.17	4	Bobbin Exam

All Wear Indications in SG 2-A by Depth (continued)

COUNT	ROW	TUBE	SUPP	INCH1	VOLTS	Depth %TW	Exam
552	122	100	09S	0.63	0.15	4	Bobbin Exam
553	147	29	10S	-0.72	0.21	4	Bobbin Exam
554	119	105	09S	0.6	0.19	4	Bobbin Exam
555	123	101	10S	-0.8	0.19	4	Bobbin Exam
556	121	4	09S	0.52	0.21	4	Bobbin Exam
557	147	35	10S	0.64	0.19	4	Bobbin Exam
558	116	9	09S	-0.24	0.16	4	Bobbin Exam
559	75	59	01S	0.73	0.18	4	Bobbin Exam
560	134	4	10S	0.71	0.12	3	Bobbin Exam
561	78	11	07S	-0.72	0.12	3	Bobbin Exam
562	89	71	05S	0.47	0.14	3	Bobbin Exam
563	134	8	10S	0.61	0.13	3	Bobbin Exam
564	79	44	11S	0.4	0.1	3	Bobbin Exam
565	131	6	09S	0.67	0.11	3	Bobbin Exam
566	151	6	10S	-0.38	0.15	3	Bobbin Exam
567	91	3	09S	0.29	0.13	3	Bobbin Exam
568	51	54	06S	0.39	0.18	3	Bobbin Exam
569	4	2	11S	-0.72	0.17	3	Bobbin Exam
570	41	36	06S	-0.44	0.12	3	Bobbin Exam
571	70	79	10S	0.63	0.14	3	Bobbin Exam
572	7	41	08S	-0.41	0.15	3	Bobbin Exam
573	141	8	09S	0.04	0.16	3	Bobbin Exam
574	73	2	06S	0.67	0.15	3	Bobbin Exam
575	7	16	07S	0.7	0.17	3	Bobbin Exam
576	109	4	09S	0.43	0.12	3	Bobbin Exam
577	63	6	07S	0.35	0.16	3	Bobbin Exam
578	82	1	06S	-0.79	0.15	3	Bobbin Exam
579	149	30	10S	0.62	0.15	3	Bobbin Exam
580	59	108	06S	0.22	0.1	3	Bobbin Exam
581	87	62	06S	-0.25	0.11	2	Bobbin Exam
582	38	17	07S	-0.46	0.1	2	Bobbin Exam
583	56	8	07S	0.35	0.14	1	Bobbin Exam

All Wear Indications in SG 1-B by Depth

COUNT	ROW	TUBE	SUPP	INCH1	VOLTS	Depth %TW	Exam
1	67	1	12S	-0.02	1.05	22	Bobbin Exam
2	151	13	14S	-0.05	1.23	22	Special Interest
3	122	104	10S	-0.56	0.71	19	Special Interest
4	108	57	06S	0.68	0.48	19	Special Interest
5	151	10	14S	0.06	0.49	17	Special Interest
6	151	9	14S	0.56	0.52	17	Special Interest
7	14	74	12S	-0.24	0.64	17	Special Interest
8	73	9	12S	0.63	0.58	17	Special Interest
9	133	86	14S	-0.73	0.46	16	Special Interest
10	142	1	14S	0.57	0.44	16	Special Interest
11	3	16	10S	0.66	0.45	16	Special Interest
12	15	77	14S	-0.56	0.67	16	Special Interest
13	141	67	14S	0.51	0.34	15	Special Interest
14	69	2	12S	0.32	0.6	15	Special Interest
15	6	50	13S	0.64	0.44	15	Special Interest
16	72	2	12S	-0.65	0.59	15	Special Interest
17	92	1	14S	0.65	0.35	14	Special Interest
18	141	68	14S	0.27	0.41	14	Special Interest
19	2	4	14S	-0.63	0.53	14	Special Interest
20	151	16	14S	-0.66	0.4	14	Special Interest
21	148	2	14S	0.03	0.37	14	Special Interest
22	70	2	12S	0.51	0.58	14	Special Interest
23	2	27	12S	0.73	0.61	14	Bobbin Exam
24	10	40	14S	0.62	0.49	13	Special Interest
25	4	17	10S	0.6	0.35	13	Special Interest
26	60	128	10S	0.51	0.44	13	Special Interest
27	113	1	09S	0.22	0.34	13	Special Interest
28	8	6	14S	-0.64	0.49	13	Special Interest
29	3	14	10S	0.6	0.37	13	Special Interest
30	11	24	13S	0.64	0.62	13	Special Interest
31	129	93	10S	-0.66	0.48	13	Bobbin Exam
32	147	33	10S	0.61	0.46	13	Special Interest
33	18	84	13S	0.48	0.43	13	Special Interest
34	5	17	10S	0.62	0.49	13	Special Interest
35	10	65	13S	0.59	0.46	13	Special Interest
36	72	10	10S	0.45	0.62	13	Special Interest
37	5	13	10S	0.68	0.36	13	Special Interest
38	128	94	10S	-0.54	0.48	13	Special Interest
39	61	125	10S	0.44	0.43	12	Special Interest
40	13	2	12S	0.66	0.59	12	Special Interest
41	29	102	10S	0.62	0.43	12	Special Interest
42	139	7	10S	0.63	0.6	12	Special Interest
43	132	6	10S	0.75	0.57	12	Special Interest

All Wear Indications in SG 1-B by Depth (continued)

COUNT	ROW	TUBE	SUPP	INCH1	VOLTS	Depth %TW	Exam
44	73	8	12S	0.68	0.4	12	Special Interest
45	126	98	10S	-0.56	0.43	12	Special Interest
46	5	31	11S	-0.72	0.32	12	Special Interest
47	14	74	11S	0.61	0.41	12	Special Interest
48	6	22	14S	0.57	0.47	12	Special Interest
49	150	27	14S	-0.64	0.33	12	Special Interest
50	11	44	14S	0.56	0.44	12	Special Interest
51	123	102	10S	-0.66	0.48	12	Bobbin Exam
52	24	91	09S	0.66	0.41	11	Special Interest
53	126	35	06S	-0.75	0.3	11	Special Interest
54	22	5	09S	0.58	0.58	11	Bobbin Exam
55	10	56	14S	-0.62	0.4	11	Special Interest
56	4	14	10S	0.63	0.43	11	Special Interest
57	10	65	14S	-0.64	0.41	11	Special Interest
58	11	58	14S	0.68	0.57	11	Special Interest
59	20	79	09S	0.63	0.44	11	Special Interest
60	151	5	10S	-0.73	0.28	11	Special Interest
61	73	12	12S	0.61	0.46	11	Bobbin Exam
62	91	45	06S	0.39	0.28	11	Special Interest
63	134	50	10S	0.65	0.45	11	Bobbin Exam
64	151	5	12S	0.56	0.52	11	Special Interest
65	79	7	12S	-0.59	0.37	11	Special Interest
66	28	100	10S	0.59	0.39	11	Special Interest
67	2	27	14S	-0.73	0.39	11	Special Interest
68	30	104	10S	-0.69	0.37	11	Special Interest
69	115	114	07S	-0.69	0.45	11	Bobbin Exam
70	71	2	13S	-0.58	0.44	11	Special Interest
71	10	65	14S	0.6	0.39	11	Special Interest
72	69	3	12S	0.66	0.42	11	Special Interest
73	18	68	14S	0.63	0.38	10	Special Interest
74	16	78	14S	0.72	0.54	10	Special Interest
75	15	77	14S	0.73	0.4	10	Special Interest
76	17	81	10S	0.59	0.34	10	Special Interest
77	20	2	12S	0.67	0.48	10	Special Interest
78	100	45	06S	0.52	0.4	10	Bobbin Exam
79	100	44	06S	0.17	0.24	10	Special Interest
80	15	76	13S	0.59	0.33	10	Special Interest
81	43	116	10S	0.6	0.33	10	Special Interest
82	83	47	14S	0.66	0.31	10	Special Interest
83	81	4	12S	-0.57	0.23	10	Special Interest
84	53	126	12S	-0.71	0.36	10	Special Interest
85	54	125	10S	0.66	0.35	10	Special Interest
86	74	4	13S	0.58	0.4	10	Special Interest

All Wear Indications in SG 1-B by Depth (continued)

COUNT	ROW	TUBE	SUPP	INCH1	VOLTS	Depth %TW	Exam
87	73	4	13S	-0.39	0.41	10	Special Interest
88	64	27	04S	-0.7	0.49	10	Bobbin Exam
89	38	91	11S	0.68	0.38	10	Special Interest
90	7	20	14S	-0.59	0.38	10	Special Interest
91	145	42	14S	0.57	0.28	10	Special Interest
92	145	21	14S	0.57	0.25	10	Special Interest
93	5	14	10S	0.71	0.28	10	Special Interest
94	143	46	14S	0.63	0.27	10	Special Interest
95	141	68	14S	-0.71	0.28	10	Special Interest
96	5	12	10S	0.68	0.26	10	Special Interest
97	150	13	10S	-0.75	0.26	10	Special Interest
98	5	18	10S	0.62	0.27	10	Special Interest
99	138	75	10S	-0.75	0.36	10	Special Interest
100	2	2	14S	-0.63	0.4	10	Special Interest
101	9	52	13S	0.57	0.33	10	Special Interest
102	123	104	14S	-0.65	0.25	10	Special Interest
103	13	46	14S	0.53	0.35	10	Special Interest
104	1	5	14S	-0.63	0.4	10	Special Interest
105	79	4	12S	-0.6	0.31	9	Bobbin Exam
106	138	6	10S	0.63	0.41	9	Special Interest
107	13	52	14S	0.63	0.44	9	Special Interest
108	44	117	10S	0.69	0.29	9	Special Interest
109	149	32	12S	0.32	0.31	9	Special Interest
110	141	47	14S	0.56	0.25	9	Special Interest
111	114	56	07S	0.37	0.41	9	Bobbin Exam
112	6	39	09S	0.64	0.34	9	Bobbin Exam
113	6	13	10S	0.62	0.24	9	Special Interest
114	54	1	14S	-0.6	0.39	9	Special Interest
115	68	2	12S	0.55	0.33	9	Special Interest
116	13	58	14S	0.6	0.45	9	Special Interest
117	15	2	12S	0.55	0.43	9	Special Interest
118	5	44	13S	0.65	0.23	9	Special Interest
119	15	55	14S	0.66	0.45	9	Special Interest
120	147	20	10S	-0.66	0.44	9	Special Interest
121	60	127	09S	0.68	0.36	9	Bobbin Exam
122	54	1	11S	-0.68	0.44	9	Special Interest
123	3	3	14S	0.66	0.33	9	Special Interest
124	151	12	12S	0.68	0.29	9	Special Interest
125	20	2	13S	0.59	0.41	9	Special Interest
126	20	79	09S	-0.81	0.44	9	Bobbin Exam
127	19	1	12S	0.63	0.4	9	Special Interest
128	1	6	14S	-0.78	0.34	9	Bobbin Exam
129	23	80	14S	0.52	0.34	9	Special Interest

All Wear Indications in SG 1-B by Depth (continued)

COUNT	ROW	TUBE	SUPP	INCH1	VOLTS	Depth %TW	Exam
130	63	126	09S	0.74	0.38	9	Bobbin Exam
131	86	103	04S	-0.74	0.33	9	Special Interest
132	26	80	14S	0.7	0.46	9	Special Interest
133	129	93	11S	-0.63	0.24	9	Special Interest
134	27	97	09S	0.64	0.43	9	Bobbin Exam
135	28	96	09S	0.63	0.44	9	Bobbin Exam
136	7	35	11S	-0.74	0.35	9	Bobbin Exam
137	83	4	10S	0.6	0.19	9	Special Interest
138	18	79	09S	0.58	0.39	9	Bobbin Exam
139	6	49	14S	0.7	0.31	9	Special Interest
140	5	16	10S	0.62	0.22	8	Special Interest
141	62	1	14S	0.37	0.27	8	Bobbin Exam
142	3	4	14S	0.67	0.31	8	Special Interest
143	62	1	14S	-0.57	0.31	8	Special Interest
144	62	128	10S	0.7	0.26	8	Special Interest
145	36	5	10S	0.44	0.39	8	Special Interest
146	60	113	03S	-0.77	0.35	8	Bobbin Exam
147	10	65	11S	-0.14	0.26	8	Special Interest
148	9	54	14S	0.64	0.28	8	Special Interest
149	9	43	12S	-0.69	0.32	8	Bobbin Exam
150	9	41	14S	0.6	0.29	8	Special Interest
151	6	19	10S	0.67	0.2	8	Special Interest
152	7	46	14S	-0.69	0.29	8	Special Interest
153	58	1	12S	0.58	0.35	8	Special Interest
154	37	7	09S	0.78	0.29	8	Bobbin Exam
155	15	67	09S	0.64	0.32	8	Special Interest
156	6	23	14S	0.65	0.29	8	Special Interest
157	45	118	10S	0.52	0.28	8	Special Interest
158	52	89	05S	-0.77	0.35	8	Bobbin Exam
159	56	122	09S	0.5	0.37	8	Bobbin Exam
160	9	30	14S	0.62	0.27	8	Special Interest
161	134	84	12S	0.54	0.28	8	Special Interest
162	126	98	10S	0.64	0.25	8	Bobbin Exam
163	148	22	09S	-0.53	0.34	8	Bobbin Exam
164	124	100	10S	-0.64	0.28	8	Special Interest
165	135	79	06S	0.51	0.25	8	Bobbin Exam
166	100	44	06S	-0.56	0.18	8	Special Interest
167	141	2	12S	-0.69	0.27	8	Bobbin Exam
168	141	1	12S	-0.77	0.33	8	Bobbin Exam
169	123	100	10S	0.67	0.25	8	Special Interest
170	106	65	06S	0.19	0.33	8	Bobbin Exam
171	140	2	12S	-0.66	0.37	8	Special Interest
172	150	20	10S	0.67	0.28	8	Special Interest

All Wear Indications in SG 1-B by Depth (continued)

COUNT	ROW	TUBE	SUPP	INCH1	VOLTS	Depth %TW	Exam
173	149	28	11S	-0.16	0.25	8	Special Interest
174	151	14	10S	0.67	0.33	8	Bobbin Exam
175	135	54	03S	0.46	0.32	8	Bobbin Exam
176	117	1	09S	0.55	0.34	8	Bobbin Exam
177	69	66	09S	0.65	0.35	8	Bobbin Exam
178	149	33	12S	0.36	0.28	8	Special Interest
179	70	6	12S	0.68	0.38	8	Special Interest
180	109	69	06S	0.46	0.34	8	Bobbin Exam
181	151	7	12S	0.65	0.19	8	Special Interest
182	112	71	03S	-0.81	0.26	8	Bobbin Exam
183	137	5	09S	-0.76	0.3	8	Bobbin Exam
184	73	9	12S	-0.59	0.26	8	Special Interest
185	134	78	10S	0.63	0.22	7	Special Interest
186	28	99	09S	0.7	0.29	7	Bobbin Exam
187	131	89	12S	-0.37	0.22	7	Bobbin Exam
188	10	24	09S	-0.74	0.32	7	Bobbin Exam
189	131	6	10S	-0.66	0.32	7	Special Interest
190	7	50	11S	-0.74	0.23	7	Special Interest
191	8	48	11S	-0.69	0.28	7	Bobbin Exam
192	104	121	03S	-0.76	0.24	7	Bobbin Exam
193	119	105	10S	0.64	0.23	7	Special Interest
194	121	90	07S	0.58	0.27	7	Bobbin Exam
195	121	105	10S	-0.59	0.22	7	Special Interest
196	18	47	11S	-0.85	0.31	7	Bobbin Exam
197	14	73	11S	0.3	0.25	7	Special Interest
198	13	74	09S	-0.81	0.32	7	Bobbin Exam
199	20	84	11S	-0.48	0.23	7	Special Interest
200	123	86	03S	0.61	0.26	7	Bobbin Exam
201	129	94	10S	-0.7	0.25	7	Special Interest
202	104	70	06S	0.54	0.26	7	Bobbin Exam
203	103	113	07S	0.52	0.24	7	Bobbin Exam
204	7	21	14S	0.63	0.28	7	Special Interest
205	124	98	10S	0.69	0.23	7	Special Interest
206	11	56	14S	0.61	0.25	7	Special Interest
207	11	48	08S	0.64	0.34	7	Bobbin Exam
208	101	124	12S	-0.63	0.25	7	Special Interest
209	19	62	14S	0.67	0.34	7	Special Interest
210	61	121	09S	0.68	0.34	7	Bobbin Exam
211	3	12	10S	0.57	0.31	7	Special Interest
212	150	23	12S	0.6	0.28	7	Bobbin Exam
213	79	3	12S	-0.6	0.23	7	Bobbin Exam
214	80	6	09S	0.48	0.24	7	Bobbin Exam
215	3	17	10S	0.65	0.24	7	Special Interest

All Wear Indications in SG 1-B by Depth (continued)

COUNT	ROW	TUBE	SUPP	INCH1	VOLTS	Depth %TW	Exam
216	4	16	10S	0.55	0.18	7	Special Interest
217	7	43	11S	-0.71	0.26	7	Bobbin Exam
218	31	94	08S	0.55	0.25	7	Special Interest
219	4	39	12S	-0.56	0.27	7	Bobbin Exam
220	149	17	10S	0.61	0.22	7	Special Interest
221	77	43	04S	-0.58	0.35	7	Bobbin Exam
222	73	61	12S	0.7	0.27	7	Special Interest
223	4	30	09S	0.59	0.23	7	Special Interest
224	2	1	13S	0.65	0.26	7	Special Interest
225	135	82	12S	0.72	0.26	7	Bobbin Exam
226	69	60	04S	0.52	0.23	7	Bobbin Exam
227	140	1	12S	-0.69	0.31	7	Special Interest
228	6	37	08S	0.67	0.24	7	Special Interest
229	148	39	12S	0.61	0.22	7	Special Interest
230	146	21	14S	-0.75	0.17	7	Special Interest
231	44	18	07S	-0.54	0.28	7	Bobbin Exam
232	61	124	10S	0.7	0.26	7	Special Interest
233	81	126	09S	-0.8	0.22	7	Bobbin Exam
234	121	105	10S	0.69	0.19	6	Special Interest
235	150	27	11S	-0.28	0.2	6	Special Interest
236	123	82	06S	0.61	0.15	6	Special Interest
237	1	6	13S	0.47	0.2	6	Special Interest
238	1	5	13S	0.33	0.15	6	Special Interest
239	13	57	11S	-0.77	0.29	6	Bobbin Exam
240	149	30	10S	0.69	0.19	6	Special Interest
241	11	58	06S	0.64	0.28	6	Bobbin Exam
242	5	15	10S	0.53	0.15	6	Special Interest
243	127	49	09S	-0.79	0.24	6	Bobbin Exam
244	127	77	10S	-0.76	0.21	6	Bobbin Exam
245	10	63	09S	0	0.27	6	Bobbin Exam
246	129	94	11S	-0.64	0.22	6	Special Interest
247	147	25	09S	-0.76	0.19	6	Bobbin Exam
248	6	17	10S	0.71	0.14	6	Special Interest
249	7	10	10S	0.63	0.15	6	Special Interest
250	7	20	14S	0.66	0.24	6	Special Interest
251	116	111	10S	-0.65	0.21	6	Special Interest
252	149	19	09S	-0.76	0.21	6	Bobbin Exam
253	19	62	14S	0.56	0.21	6	Special Interest
254	26	14	12S	-0.75	0.29	6	Bobbin Exam
255	22	88	09S	0.56	0.28	6	Bobbin Exam
256	97	31	07S	-0.58	0.23	6	Bobbin Exam
257	94	1	08S	-0.54	0.23	6	Bobbin Exam
258	21	89	10S	-0.75	0.18	6	Special Interest

All Wear Indications in SG 1-B by Depth (continued)

COUNT	ROW	TUBE	SUPP	INCH1	VOLTS	Depth %TW	Exam
259	21	68	14S	0.54	0.2	6	Special Interest
260	34	4	10S	0.55	0.26	6	Bobbin Exam
261	41	108	09S	-0.33	0.32	6	Bobbin Exam
262	33	108	09S	0.25	0.3	6	Bobbin Exam
263	111	6	06S	0.55	0.18	6	Bobbin Exam
264	48	121	08S	-0.53	0.25	6	Bobbin Exam
265	1	3	08S	0.6	0.24	6	Bobbin Exam
266	3	31	12S	0.68	0.23	5	Bobbin Exam
267	151	14	11S	-0.71	0.17	5	Special Interest
268	9	60	09S	0.25	0.24	5	Bobbin Exam
269	28	94	08S	0.22	0.23	5	Bobbin Exam
270	99	94	06S	-0.63	0.18	5	Bobbin Exam
271	71	28	11S	0.51	0.26	5	Bobbin Exam
272	150	26	11S	-0.19	0.19	5	Special Interest
273	31	104	09S	0.72	0.21	5	Bobbin Exam
274	57	2	05S	-0.84	0.16	5	Bobbin Exam
275	41	114	05S	-0.77	0.26	5	Bobbin Exam
276	115	113	10S	-0.76	0.16	5	Bobbin Exam
277	4	34	09S	0.62	0.18	5	Bobbin Exam
278	91	13	07S	-0.52	0.19	5	Bobbin Exam
279	39	4	09S	0.67	0.17	5	Bobbin Exam
280	10	42	14S	0.58	0.18	5	Special Interest
281	80	36	12S	-0.59	0.24	5	Bobbin Exam
282	50	122	09S	0.67	0.2	5	Bobbin Exam
283	84	57	06S	-0.59	0.24	5	Bobbin Exam
284	148	41	11S	-0.06	0.17	5	Special Interest
285	148	41	11S	0.34	0.16	5	Special Interest
286	149	28	12S	0.69	0.15	5	Special Interest
287	20	41	09S	-0.84	0.23	5	Bobbin Exam
288	11	55	11S	-0.65	0.15	5	Special Interest
289	103	46	06S	0.61	0.2	5	Bobbin Exam
290	125	99	10S	-0.67	0.17	5	Special Interest
291	15	67	09S	-0.6	0.19	5	Special Interest
292	17	79	09S	-0.48	0.23	5	Bobbin Exam
293	21	28	08S	0.4	0.22	5	Bobbin Exam
294	19	83	09S	0.56	0.24	5	Bobbin Exam
295	18	80	09S	0.59	0.26	5	Bobbin Exam
296	128	95	11S	-0.63	0.16	5	Special Interest
297	24	92	09S	-0.73	0.24	5	Bobbin Exam
298	103	46	06S	-0.45	0.2	5	Bobbin Exam
299	5	9	08S	0.65	0.2	4	Bobbin Exam
300	45	81	06S	0.59	0.19	4	Bobbin Exam
301	113	9	08S	0.74	0.19	4	Bobbin Exam

All Wear Indications in SG 1-B by Depth (continued)

COUNT	ROW	TUBE	SUPP	INCH1	VOLTS	Depth %TW	Exam
302	18	4	09S	0.58	0.24	4	Bobbin Exam
303	114	4	09S	0.74	0.18	4	Bobbin Exam
304	52	120	07S	-0.44	0.16	4	Bobbin Exam
305	46	114	08S	0.57	0.16	4	Bobbin Exam
306	121	41	04S	0.44	0.16	4	Bobbin Exam
307	31	98	07S	-0.8	0.17	4	Bobbin Exam
308	77	68	03S	-0.11	0.13	4	Bobbin Exam
309	42	106	08S	0.55	0.2	4	Bobbin Exam
310	17	79	09S	0.56	0.17	4	Bobbin Exam
311	75	39	04S	-0.78	0.17	4	Bobbin Exam
312	70	37	06S	0.38	0.17	4	Bobbin Exam
313	70	22	12S	0.53	0.16	4	Bobbin Exam
314	70	14	12S	0.24	0.19	4	Bobbin Exam
315	68	3	15S	-0.75	0.22	4	Bobbin Exam
316	67	118	05S	-0.73	0.15	4	Bobbin Exam
317	67	48	03S	0.62	0.18	4	Bobbin Exam
318	54	116	03S	0.66	0.16	4	Bobbin Exam
319	136	44	07S	0.39	0.14	4	Bobbin Exam
320	130	74	05S	-0.09	0.16	4	Bobbin Exam
321	27	96	09S	0.56	0.17	4	Bobbin Exam
322	23	78	08S	0.48	0.18	4	Bobbin Exam
323	22	91	09S	-0.37	0.19	4	Bobbin Exam
324	17	77	06S	0.61	0.17	4	Bobbin Exam
325	19	15	08S	0.42	0.19	4	Bobbin Exam
326	12	50	08S	0.59	0.21	4	Bobbin Exam
327	42	112	09S	-0.6	0.23	4	Bobbin Exam
328	90	6	10S	0.53	0.16	4	Special Interest
329	88	3	09S	0.56	0.19	4	Bobbin Exam
330	40	115	09S	-0.11	0.22	4	Bobbin Exam
331	145	30	03S	0.69	0.13	4	Bobbin Exam
332	20	84	09S	0.29	0.18	4	Bobbin Exam
333	81	65	11S	0.38	0.12	3	Bobbin Exam
334	129	9	06S	0.72	0.11	3	Bobbin Exam
335	100	53	06S	-0.22	0.15	3	Bobbin Exam
336	45	30	06S	-0.7	0.13	3	Bobbin Exam
337	27	90	08S	0.36	0.16	3	Bobbin Exam
338	14	9	01S	-0.31	0.15	3	Bobbin Exam
339	142	56	03S	0.37	0.1	3	Bobbin Exam
340	80	28	11S	-0.84	0.15	3	Bobbin Exam
341	99	42	06S	-0.28	0.18	3	Bobbin Exam
342	15	76	09S	-0.26	0.15	3	Bobbin Exam
343	140	7	03S	0.07	0.13	3	Bobbin Exam
344	122	6	08S	-0.35	0.16	3	Bobbin Exam

All Wear Indications in SG 1-B by Depth (continued)

COUNT	ROW	TUBE	SUPP	INCH1	VOLTS	Depth %TW	Exam
345	39	108	09S	-0.18	0.12	3	Bobbin Exam
346	57	113	08S	-0.46	0.12	3	Bobbin Exam
347	12	11	04S	0.26	0.12	2	Bobbin Exam
348	41	112	09S	0.6	0.11	2	Bobbin Exam

Section 5
Response to Technical Specification 6.9.1.12.e,
Number of Tubes Plugged or Repaired During the Inspection Outage for Each Active Degradation Mechanism

Degradation Mechanism	Steam Generator	
	SG 2-A	SG 1-B
Upper Tube End Axial PWSCC	61	19
Upper Tube End Circumferential PWSCC	1	0
Freespan Volumetric Degradation Adjacent to TSPs	8	9
Upper, Lower and Tube Support Crevice Volumetric	1	1
Wear at Tube Supports	0	0
Freespan Axial ODSCC / IGA at Upper Bundle Denting from Auxiliary Feedwater Stabilization	0	0
Axial ODSCC / IGA (Groove IGA)	10	17
Upper Roll Transition PWSCC	3	2
Lower Tube End and Lower Tube End Expansion Transition PWSCC	0	1
Upper Tube End Plastic Deformation from Loose Part Impact	1	0
Tube End Plastic Deformation from Robot Anchor Pin	0	2
Significant Change in OPB Indication Located Above a Repair Roll	2	0

Some of the tubes repaired during the DBNPS 15RFO contained multiple degradation mechanisms and thus are counted more than once. In SG 2-A, tube A-66-1 had Freespan Axial ODSCC / IGA (groove IGA) and Freespan Volumetric degradation adjacent to TSPs. Tube A-104-107 contained an Upper Roll

Transition Axial PWSCC and an Upper Tube End Axial PWSCC. In SG 1-B, tube B-88-1 had Freespan Axial ODSCC / IGA (groove IGA) and Freespan Volumetric degradation adjacent to TSPs. Tube B-108-117 had an Upper Tube End Axial PWSCC and groove IGA. Finally, tube B-87-60 had anchor pin deformation and some Inside Diameter (ID) volumetric degradation associated with the plastic deformation near the tube end. Each of these five tubes had two associated degradation mechanisms reported.

Section 6
Response to Technical Specification 6.9.1.12.f,
Total Number and Percentage of Tubes Plugged or Repaired to Date

Steam Generator	Total Plugged	Percentage Plugged	Number Rerolled in Service	Percent Rerolled in Service
2-A	625	4.0	131	0.85
1-B	279	1.8	31	0.20

Section 7
Response to Technical Specification 6.9.1.12.g, The Results of Condition Monitoring, Including the Results of Tube Pulls and In-situ Testing

The following table provides the DBNPS 15RFO Condition Monitoring Leakage Integrity Summary.

15RFO Leakage Integrity Summary

Degradation Mechanism	SG 2-A (gpm @ Room Temperature)	SG 1-B (gpm @ Room Temperature)
Freespan ODSCC / IGA	0	0
Wear at Supports	0	0
Upper Tube End Axial PWSCC	0.00073	0.00038
Upper Tube End Circ PWSCC	0	0
Axial PWSCC at Lower Tubesheet	0	0
Circ PWSCC at Lower Tubesheet	0	0
ID Vol IGA at Lower Tubesheet	0	0
Volumetric IGA in Freespan	0	0
Axial UTS PWSCC at Roll Transition	0	0
ID UTS Vol IGA at Roll Transition	0.00054	0.00000
In Service Repair Re-rolls, Rolled	0.01618	0.00797
Total	0.01745	0.00835

No tube pulls were required or performed during 15RFO.

Based on eddy current inspection results and analysis, no tubing defects were large enough to meet the in-situ pressure testing screening criteria threshold as defined in the DBNPS 15RFO In-Situ Selection document. The SG primary to

secondary operational leakage at the start of 15RFO was at or below the detection threshold of approximately 0.02 gpd.

Therefore, based on the results of the 15RFO examination, both SG 2-A and SG 1-B meet the leakage and structural margins prescribed in the steam generator performance criteria.

Section 8
Response to Technical Specification 6.9.1.12.h, The Effective Plugging Percentage for All Plugging and Tube Repairs in Each SG

During the DBNPS 15RFO, tubes that had to be removed from service were removed by plugging and in most cases, stabilization. In some cases, upper tube end or original roll expansion indications could be left in service after performing a repair roll expansion to create a new pressure boundary below the indication. The repair roll process does not remove heat transfer surface area or increase the primary flow resistance.

The process of plugging removes heat transfer area from service and increases primary flow resistance of the steam generator. Sleeving increases the primary flow resistance of the steam generator, but has minimal impact on the heat transfer area or efficiency. The 199 installed sleeves in SG 2-A are equivalent to 30 plugged tubes (with respect to primary flow resistance), and the 212 installed sleeves in SG 1-B are equivalent to 32 plugged tubes (with respect to primary flow resistance). The plugging equivalency for SG 2-A is 655 tubes (4.2%) and for SG 1-B is 311 tubes (2.0%).

A review was performed and verified that the plugging increase was within the analyzed design margins. Therefore, the removal of the heat transfer area and increased flow resistance is within the limits for the total number of tubes allowed to be removed from service (plug equivalents) and does not affect the steam generator's compliance with the design performance requirements.

Section 9
Response to Technical Specification 6.9.1.12.i, Repair Method Utilized and the Number of Tubes Repaired by Each Repair Method

There were 39 repair rolls installed in the SG 2-A upper tubesheet and 13 repair rolls installed in the SG 1-B upper tubesheet during the DBNPS 15RFO. The repairs were made in accordance with the DBNPS Technical Specifications, which endorses Framatome Technologies Inc. Topical Report BAW-2303, "OTSG Repair Roll Qualification Report," Revision 4.

Tubes removed from service were plugged using rolled plugs and stabilized as required by predefined stabilization criteria. There were 46 tubes plugged in SG 2-A and 35 tubes plugged in SG 1-B during the DBNPS 15RFO.