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FEB 19 1991

U.S. Nuclear Regulatory Commission
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Gentlemen:

In the Matter of) Docket No. 50-327
Tennessee Valley Authority)

SEQUOYAH NUCLEAR PLANT (SQN) - UNIT 1 - STEAM GENERATOR (S/G) TUBING
IN-SERVICE INSPECTION

In accordance with the requirements of SQN Unit 1 Technical Specifications, paragraph 4.4.5.5, enclosed are the results of the S/G tube in-service inspection completed April 27, 1990.

An in-service inspection was performed on 204 tubes in each of S/Gs 2 and 3. The in-service inspection result (defined in Technical Specification 4.4.5) was C-1 category for S/G 3. The initial in-service inspection result of S/G 2 was C-2 category (because one tube was found with outside diameter (OD) corrosion greater than 40 percent wall loss); therefore, an additional 408 tubes (as required by Technical Specification Table 4.4-2) were inspected. The second sample inspection result was C-1 category. As a result of the in-service inspection, one tube in S/G 2 was plugged.

Independent of the in-service inspection, TVA performed additional self-imposed, eddy current examinations such that a greater than 38 percent total sample was examined full-length by bobbin coil in S/Gs 1, 2, and 3. Also, approximately 200 tubes were examined by rotating pancake coil (RPC) at both the hot leg top of the tubesheet and at the first hot leg tube support plate in S/Gs 1, 2, and 3. A sample of row 2 U-bends was examined by RPC in S/Gs 1, 2, and 3. S/G 4 had an approximate 10 percent sample examined full-length by bobbin coil and an initial sample of 50 tubes examined by RPC at the hot leg top of the tubesheet. The RPC examination in S/G 4 identified a defect in the top of the tubesheet expansion transition of one tube and resulted in an increased sample size to 21 percent total.

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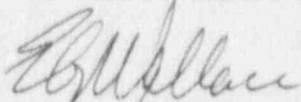
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As a result of the self-imposed examinations, two tubes were plugged because of primary water stress corrosion cracking at the hot leg top of the tube-sheet (one tube in S/G 1 and one tube in S/G 4), one tube was preventively plugged because of OD corrosion at the hot leg top of the tubesheet (in S/G 3), and one tube preventively plugged because of antivibration bar wear (in S/G 3).

No commitments are contained in this submittal. Please direct questions concerning this issue to J. D. Smith at (615) 843-6672.

Very truly yours,

TENNESSEE VALLEY AUTHORITY



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ENCLOSURE

SEQUOYAH NUCLEAR PLANT UNIT 1

CYCLE 4 INSPECTION

APRIL 1990

STEAM GENERATOR TUBING INSPECTION RESULTS

SEQUOYAH NUCLEAR PLANT UNIT 1
CYCLE 4 INSPECTION
APRIL 1990

STEAM GENERATOR (S/G) TUBING INSPECTION RESULTS

- Table 1 - Inspection Summary
Table 2 - S/G 1 Inspection Summary
Table 3 - S/G 2 Inspection Summary
Table 4 - S/G 3 Inspection Summary
Table 5 - S/G 4 Inspection Summary
Table 6 - Indications
Table 7 - Plugged Tube Summary
Table 8 - Nomenclature

TABLE 1

SEQUOYAH NUCLEAR PLANT UNIT 1
 CYCLE 4 INSPECTION
 APRIL 1990

INSPECTION SUMMARY

	<u>S/G 1</u>	<u>S/G 2</u>	<u>S/G 3</u>	<u>S/G 4</u>
Total tubes examined	1857	2340	1688	1291
Tubes recording defects ($\geq 40\%$ wall loss)	1	1	0	1(1)
Tubes recording degradations ($\geq 20\%$ to $< 40\%$ wall loss)	5	48	8	9
Tubes recording imperfections ($< 20\%$ wall loss)	8	19	7(2)	11(3)

- Notes: 1. Non-quantifiable wall loss conservatively assumed $\geq 40\%$.
 2. Two tubes recording imperfections also recorded degradations.
 3. One tube recording an imperfection also recorded a degradation.

TABLE 2

SEQUOYAH NUCLEAR PLANT UNIT 1
CYCLE 4 INSPECTION
APRIL 1990

S/G 1 INSPECTION SUMMARY

<u>ISI SAMPLE</u>	<u>NUMBER OF TUBES</u>
No ISI Sample Tubes this Steam Generator	0
<u>NON-ISI SAMPLE</u>	
General defect exams [EXTENT (PROBE TYPE)]	
Full Length (bobbin coil) - tube end to tube end	1315
H07-HTE (bobbin coil) - hot leg	179
H01-HTE (bobbin coil) - partial hot leg	203
Specialty exams [EXTENT (PROBE TYPE)]	
Hot Top of Tubesheet (RPC)	200
Support Plate Intersection (RPC)	201
U-bend (RPC)	13
<u>TOTAL NUMBER OF TUBES EXAMINED</u>	1857
 <u>INDICATIONS - ISI SAMPLE</u>	
No ISI sample tubes this steam generator	0
 <u>INDICATIONS - NON-ISI SAMPLE</u>	
Tubes recording defects ($\geq 40\%$ wall loss)	1
Tubes recording degradations ($\geq 20\%$ and $< 40\%$ wall loss)	5
Tubes recording imperfections ($< 20\%$ wall loss)	8

TABLE 3

SEQUOYAH NUCLEAR PLANT UNIT 1
 CYCLE 4 INSPECTION
 APRIL 1990

S/G 2 INSPECTION SUMMARY

<u>ISI SAMPLE</u>	<u>NUMBER OF TUBES</u>
-------------------	------------------------

FIRST SAMPLE

General defect exams [EXTENT (PROBE TYPE)]

Full Length (bobbin coil) - tube end to tube end	204
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Specialty exams [EXTENT (PROBE TYPE)]

Hot Top of Tubesheet (RPC)	3
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Support Plate Intersections (RPC)	2
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U-bend (RPC)	2
--------------	---

Total tubes examined first sample	204
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The first ISI sample was classified as C-2 Category, therefore an additional sample was examined.

SECOND SAMPLE

General defect exams [EXTENT (PROBE TYPE)]

Full Length (bobbin coil) - tube end to tube end	408
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Specialty exams [EXTENT (PROBE TYPE)]

Hot Top of Tubesheet (RPC)	1
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Total tubes examined second sample	408
------------------------------------	-----

The second ISI sample was classified as C-1 category.

TABLE 3
(Continued)

SEQUOYAH NUCLEAR PLANT UNIT 1
CYCLE 4 INSPECTION
APRIL 1990

S/G 2 INSPECTION SUMMARY
(Continued)

<u>NON-ISI SAMPLE</u>	<u>NUMBER OF TUBES</u>
General defect exams [EXTENT (PROBE TYPE)]	
Full Length (bobbin coil) - tube end to tube end	709
H07-HTE (bobbin coil) - hot leg	176
H02-HTE (bobbin coil) - partial hot leg	1
H01-HTE (bobbin coil) - partial hot leg	697
C07-CTE (bobbin coil) - cold leg	86
Specialty exams [EXTENT (PROBE TYPE)]	
Hot Top of Tubesheet (RPC)	221
Support Plate Intersection (RPC)	191
U-bend (RPC)	50
<u>TOTAL NUMBER OF TUBES EXAMINED</u>	2340

TABLE 3
(Continued)

SEQUOYAH NUCLEAR PLANT UNIT 1
CYCLE 4 INSPECTION
APRIL 1990

S/G 2 INSPECTION SUMMARY
(Continued)

<u>INDICATIONS - ISI SAMPLE</u>	<u>NUMBER OF TUBES</u>
<u>FIRST SAMPLE</u>	
Tubes recording defects ($\geq 40\%$ wall loss)	1
Tubes recording degradations ($\geq 20\%$ and $< 40\%$ wall loss)	4
Tubes recording imperfections ($< 20\%$ wall loss)	3
<u>SECOND SAMPLE</u>	
Tubes recording defects ($\geq 40\%$ wall loss)	0
Tubes recording degradations ($\geq 20\%$ and $< 40\%$ wall loss)	6
Tubes recording imperfections ($< 20\%$ wall loss)	10
<u>INDICATIONS - NON-ISI SAMPLE</u>	
Tubes recording defects ($\geq 40\%$ wall loss)	0
Tubes recording degradations ($\geq 20\%$ and $< 40\%$ wall loss)	38
Tubes recording imperfections ($< 20\%$ wall loss)	6

TABLE 4

SEQUOYAH NUCLEAR PLANT UNIT 1
 CYCLE 4 INSPECTION
 APRIL 1990

S/G 3 INSPECTION SUMMARY

<u>ISI SAMPLE</u>	<u>NUMBER OF TUBES</u>
General defect exams [EXTENT (PROBE TYPE)]	
Full Length (bobbin coil) - tube end to tube end	204
Specialty exams [EXTENT (PROBE TYPE)]	
Hot Top of Tubesheet (RPC)	1
Support Plate Intersection (RPC)	1
Total tubes examined ISI sample	204
The ISI Sample was classified as C-1 Category	
<u>NON-ISI SAMPLE</u>	
General defect exams [EXTENT (PROBE TYPE)]	
Full Length (bobbin coil) - tube end to tube end	1139
C07-CTE (bobbin coil) - cold leg	164
H07-HTE (bobbin coil) - hot leg	154
Specialty exams [EXTENT (PROBE TYPE)]	
Top of Tubesheet (RPC)	189
Support Plate Intersection (RPC)	191
U-bend (RPC)	42
<u>TOTAL NUMBER OF TUBES EXAMINED</u>	1688

TABLE 4
(Continued)

SEQUOYAH NUCLEAR PLANT UNIT 1
CYCLE 4 INSPECTION
APRIL 1990

S/G 3 INSPECTION SUMMARY
(Continued)

<u>INDICATIONS - ISI SAMPLE</u>	<u>NUMBER OF TUBES</u>
Tubes recording defects ($\geq 40\%$ wall loss)	0
Tubes recording degradations ($\geq 20\%$ and $< 40\%$ wall loss)	2
Tubes recording imperfections ($< 20\%$ wall loss)	4(1)
 <u>INDICATIONS - NON-ISI SAMPLE</u>	
Tubes recording defects ($\geq 40\%$ wall loss)	0
Tubes recording degradations ($\geq 20\%$ and $< 40\%$ wall loss)	6
Tubes recording imperfections ($< 20\%$ wall loss)	3(1)

Note: 1. One tube recording an imperfection also recorded a degradation

TABLE 5

SEQUOYAH NUCLEAR PLANT UNIT 1
CYCLE 4 INSPECTION
APRIL 1990

S/G 4 INSPECTION SUMMARY

<u>ISI SAMPLE</u>	<u>NUMBER OF TUBES</u>
No ISI Sample Tubes this Steam Generator	0
<u>NON-ISI SAMPLE</u>	
General defect exams [EXTENT (PROBE TYPE)]	
Full Length (bobbin coil)	326
H07-HTE (bobbin coil) - hot leg	162
C07-CTE (bobbin coil) - cold leg	75
H03-HTE (bobbin coil) - partial hot leg	1
H02-HTE (bobbin coil) - partial hot leg	223
H01-HTE (bobbin coil) - partial hot leg	93
Specialty exams [EXTENT (PROBE TYPE)]	
Hot Top of tubesheet (RPC)	728
Support Plate Intersection (RPC)	50
U-bend (RPC)	0
<u>TOTAL NUMBER OF TUBES EXAMINED</u>	1291

INDICATIONS - ISI SAMPLE

No ISI sample tubes this steam generator	0
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INDICATIONS - NON-ISI SAMPLE

Tubes recording defects ($\geq 40\%$ wall loss)	1(1)
Tubes recording degradation ($\geq 20\%$ and $< 40\%$ wall loss)	9
Tubes recording imperfections ($< 20\%$ wall loss)	11(2)

Notes: 1. Non-quantifiable wall loss conservatively assumed $\geq 40\%$.
2. One tube recording an imperfection also recorded a degradation.

TABLE 6

SEQUOYAH NUCLEAR PLANT UNIT 1
CYCLE 4 INSPECTION
APRIL 1990

INDICATIONS

S/G 1

<u>Row</u>	<u>Col</u>	<u>Location</u>	<u>Wall Loss</u> (%)	<u>Characterization</u>	<u>Resolution</u>
<u>Non-ISI Sample</u>					
1	1	HTS + 17.5	16	TLBD wear	Note 1
1	90	HTS + 17.7	23	TLBD wear	Note 1
1	92	HTS + 17.7	11	TLBD wear	Note 1
1	94	HTS + 17.7	12	TLBD wear	Note 1
2	44	HOC + 3.2	9	Manufacturing burnish	Note 1
9	69	H01 + 32.7	21	Manufacturing burnish	Note 1
11	56	H01 + 14.8	16	Manufacturing burnish	Note 1
16	71	HTS + 1.8	38	OD corrosion	Note 2
20	69	HTS - 0.5	97	Axial ID indication	Tube plugged
22	7	CTS + 46.9	28	Manufacturing burnish	Note 1
27	39	HTS + 21.5	29	Manufacturing burnish	Note 1
28	46	AV2 + 0.0	9	AVB wear	Note 1
28	46	AV3 + 0.0	14	AVB wear	Note 1
42	56	CTS + 33.4	17	Manufacturing burnish	Note 1
44	33	HTS + 2.0	6	OD corrosion	Note 2

- Notes: 1. Reexamine in future outages
2. Reexamine in future outages with a specialty exam

Tube Lane Blocking Device (TLBD)
Anti-Vibration Bar (AVB)

TABLE 6
(Continued)

SEQUOYAH NUCLEAR PLANT UNIT 1
CYCLE 4 INSPECTION
APRIL 1990

INDICATIONS
S/G 2

<u>Row</u>	<u>Col</u>	<u>Location</u>	<u>Wall loss</u> (%)	<u>Characterization</u>	<u>Resolution</u>
<u>First ISI Sample</u>					
2	55	CTS + 29.3	27	Manufacturing burnish	Note 1
11	10	H01 + 7.2	11	Manufacturing burnish	Note 1
11	10	H01 + 24.4	8	Manufacturing burnish	Note 1
11	10	H03 + 3.0	11	Manufacturing burnish	Note 1
16	36	HTS + 1.0	44	OD corrosion	Tube plugged
16	46	H02 + 38.5	8	Manufacturing burnish	Note 1
17	26	CTS + 40.5	17	Manufacturing burnish	Note 1
18	46	HTS + 0.8	26	OD corrosion	Note 2
19	12	H01 + 6.4	22	Manufacturing burnish	Note 1
35	27	HTS + 0.8	23	OD corrosion	Note 2
35	27	HTS + 16.5	27	Manufacturing burnish	Note 1

Steam generator 2 first ISI sample results are C-2 Category.

Second ISI Sample

15	42	HTS + 1.5	15	OD corrosion	Note 2
16	68	HTS + 1.3	5	OD corrosion	Note 2
18	44	HTS + 2.8	10	OD corrosion	Note 2
19	66	HTS + 1.2	22	OD corrosion	Note 2
20	56	HTS + 1.1	<40	OD corrosion	Note 2
21	34	HTS + 1.4	25	OD corrosion	Note 2
21	58	HTS + 1.3	29	OD corrosion	Note 2
23	58	HTS + 1.7	33	OD corrosion	Note 2
24	46	HTS + 0.8	9	OD corrosion	Note 2
24	60	HTS + 1.4	10	OD corrosion	Note 2
24	66	HTS + 1.0	13	OD corrosion	Note 2
25	31	AV1 + 0.0	14	AVB wear	Note 1
27	33	HTS + 0.7	7	OD corrosion	Note 2
28	56	HTS + 0.6	22	OD corrosion	Note 2
30	48	HTS + 0.8	18	OD corrosion	Note 2
33	49	AV2 + 0.0	19	AVB wear	Note 1

Steam Generator 2 second ISI sample results are C-1 Category.

TABLE 6
(Continued)

SEQUOYAH NUCLEAR PLANT UNIT 1
CYCLE 4 INSPECTION
APRIL 1990

INDICATIONS
S/G 2
(Continued)

<u>Row</u>	<u>Col</u>	<u>Location</u>	<u>Wall loss</u> (%)	<u>Characterization</u>	<u>Resolution</u>
<u>Non-ISI Sample</u>					
6	23	HTS + 1.2	18	OD corrosion	Note 2
6	39	HTS + 1.4	27	OD corrosion	Note 2
6	55	HTS + 1.3	18	OD corrosion	Note 2
8	56	HTS + 1.8	<40	OD corrosion	Note 2
8	72	HTS + 1.0	18	OD corrosion	Note 2
9	37	HTS + 2.0	<40	OD corrosion	Note 2
9	58	HTS + 1.1	<40	OD corrosion	Note 2
9	58	HTS + 1.6	<40	OD corrosion	Note 2
9	66	HTS + 1.8	9	OD corrosion	Note 2
10	59	HTS + 1.7	<40	OD corrosion	Note 2
10	64	HTS + 1.6	34	OD corrosion	Note 2
11	53	HTS + 1.2	<40	OD corrosion	Note 2
11	61	HTS + 1.5	39	OD corrosion	Note 2
13	33	HTS + 3.5	21	OD corrosion	Note 2
13	54	HTS + 1.7	24	OD corrosion	Note 2
13	61	HTS + 1.4	<40	OD corrosion	Note 2
14	53	HTS + 1.7	<40	OD corrosion	Note 2
14	54	HTS + 1.5	29	OD corrosion	Note 2
14	55	HTS + 1.5	29	OD corrosion	Note 2
14	59	HTS + 1.4	38	OD corrosion	Note 2
15	57	HTS + 1.4	<40	OD corrosion	Note 2
15	63	HTS + 1.0	<40	OD corrosion	Note 2
16	48	HTS + 0.7	50	OD corrosion	Note 2
16	54	HTS + 1.3	34	OD corrosion	Note 2
16	55	HTS + 1.2	<40	OD corrosion	Note 2
16	57	HTS + 1.3	37	OD corrosion	Note 2
17	25	H01 + 37.2	33	Manufacturing burnish	Note 1
19	25	HTS + 1.6	24	OD corrosion	Note 2
20	57	HTS + 1.1	31	OD corrosion	Note 2
20	59	HTS + 1.2	25	OD corrosion	Note 2
20	61	HTS + 1.3	37	OD corrosion	Note 2
21	31	HTS + 1.7	<40	OD corrosion	Note 2
21	32	HTS + 1.8	<40	OD corrosion	Note 2
21	35	HTS + 1.4	<40	OD corrosion	Note 2
21	43	HTS + 1.7	<40	OD corrosion	Note 2
21	44	HTS + 1.2	<40	OD corrosion	Note 2
21	47	HTS + 1.4	<40	OD corrosion	Note 2
22	31	HTS + 1.5	36	OD corrosion	Note 2
22	37	HTS + 1.4	<40	OD corrosion	Note 2

TABLE 6
(Continued)

SEQUOYAH NUCLEAR PLANT UNIT 1
CYCLE 4 INSPECTION
APRIL 1990

INDICATIONS
S/G 2
(Continued)

<u>Row</u>	<u>Col</u>	<u>Location</u>	<u>Wall loss</u> (%)	<u>Characterization</u>	<u>Resolution</u>
<u>Non-ISI Sample</u>					
22	49	HTS + 1.7	31	OD corrosion	Note 2
22	51	HTS + 1.9	17	OD corrosion	Note 2
22	59	HTS + 1.3	32	OD corrosion	Note 2
23	52	HTS + 1.9	35	OD corrosion	Note 2
23	57	HTS + 1.7	<40	OD corrosion	Note 2
23	57	HTS + 2.1	<40	OD corrosion	Note 2
42	44	AV4 + 0.0	19	AVB wear	Note 1

- Notes: 1. Reexamine in future outages
2. Reexamine in future outages with specialty exams

Anti-Vibration Bar (AVB)

TABLE 6
(Continued)

SEQUOYAH NUCLEAR PLANT UNIT 1
CYCLE 4 INSPECTION
APRIL 1990

INDICATIONS
S/G 3

<u>Row</u>	<u>Col</u>	<u>Location</u>	<u>Wall Loss</u> (%)	<u>Characterization</u>	<u>Resolution</u>
<u>ISI Sample</u>					
17	48	CTS + 3.5	18	Manufacturing burnish	Note 1
20	87	CO1 + 47.9	7	Manufacturing burnish	Note 1
21	9	HO4 + 44.	27	Manufacturing burnish	Note 1
21	9	CO3 + 44.3	17	Manufacturing burnish	Note 1
33	39	AV2 + 0.0	25	AVB wear	Preventively
33	39	AV3 + 0.0	38	AVB wear	Plugged
39	56	CTS + 4.2	14	Manufacturing burnish	Note 1

Steam Generator 3 ISI Sample results are C-1 Category.

Non-ISI Sample

1	1	HTS + 17.5	26	TLBD wear	Note 1
5	94	CO4 + 15.3	9	Manufacturing burnish	Note 1
19	22	AV3 + 0.0	22	AVB wear	Note 1
22	64	AV2 + 0.0	15	AVB wear	Note 1
22	64	AV3 + 0.0	18	AVB wear	Note 1
24	38	HTS + 1.3	36	OD corrosion	Preventively Plugged
25	33	HTS + 1.0	22	OD corrosion	Note 2
29	57	HTS + 1.1	21	OD corrosion	Note 2
38	64	AV1 + 0.0	12	AVB wear	Note 1
38	64	AV2 + 0.0	23	AVB wear	Note 1
38	64	AV3 + 0.0	12	AVB wear	Note 1

- Notes: 1. Reexamine in future outages
2. Reexamine in future outage with a specialty exam

Tube Lane Blocking Device (TLBD)
Anti-Vibration Bar (AVB)

TABLE 6
(Continued)

SEQUOYAH NUCLEAR PLANT UNIT 1
CYCLE 4 INSPECTION
APRIL 1990

INDICATIONS
S/G 4

<u>Row</u>	<u>Col</u>	<u>Location</u>	<u>Wall Loss</u> (%)	<u>Characterization</u>	<u>Resolution</u>
<u>Non-ISI Sample</u>					
1	1	CTS + 17.7	30	TLBD wear	Note 1
11	82	CO2 + 11.3	25	Manufacturing burnish	Note 1
14	26	HTS + 3.5	15	OD corrosion	Note 2
14	82	CO6 + 42.5	21	Manufacturing burnish	Note 1
14	82	CO6 + 47.2	16	Manufacturing burnish	Note 1
15	73	CO1 + 16.6	20	Manufacturing burnish	Note 1
15	75	CO1 + 9.1	11	Manufacturing burnish	Note 1
17	43	HTS - 0.1	>40	Circumferential ID	Tube Plugged
18	64	HTS + 0.8	7	OD corrosion	Note 2
20	56	HTS + 1.9	28	OD corrosion	Note 2
21	51	HTS + 0.9	29	OD corrosion	Note 2
21	54	HTS + 1.1	24	OD corrosion	Note 2
26	43	HTS + 1.0	22	OD corrosion	Note 2
22	52	HTS + 1.1	18	OD corrosion	Note 2
26	60	HTS + 1.1	9	OD corrosion	Note 2
26	86	HTS + 0.8	10	OD corrosion	Note 2
28	52	HTS + 1.0	18	OD corrosion	Note 2
28	53	CO6 + 11.5	19	Manufacturing burnish	Note 1
29	31	AV2 + 0.0	14	AVB wear	Note 1
40	28	HO4 + 36.1	16	Manufacturing burnish	Note 1
40	69	CO6 + 34.5	23	Manufacturing burnish	Note 1

- Notes: 1. Reexamine in future outages
2. Reexamine in future outage with a specialty exam

Tube Lane Blocking Device (TLBD)
Anti-Vibration Bar (AVB)

TABLE 7

SEQUOYAH NUCLEAR PLANT UNIT 1
 CYCLE 4 INSPECTION
 APRIL 1990

PLUGGED TUBE SUMMARY

	<u>S/G 1</u>	<u>S/G 2</u>	<u>S/G 3</u>	<u>S/G 4</u>
Previously Plugged Tubes	10	10	24	19
Tubes Plugged Cycle 4 by Damage Mechanism				
PWSCC HTS	1	0	0	1
OD Corrosion HTS	0	1	1(1)	0
AVB Wear	0	0	1(1)	0
 TOTAL TUBES PLUGGED	 11	 11	 26	 20

Primary Water Stress Corrosion Cracking (PWSCC)
 Anti-Vibration Bar (AVB)

Note: 1. Tube preventively plugged.

TABLE 8

SEQUOYAH NUCLEAR PLANT UNIT 1
CYCLE 4 INSPECTION
APRIL 1990

NOMENCLATURE

Location Nomenclature for Sequoyah Nuclear Plant

<u>Notation</u>	<u>Description</u>
HTE	Tube end - hot leg
HTS	Top of tubesheet - hot leg
H01	First support plate - hot leg
H02	Second support plate - hot leg
H03	Third support plate - hot leg
H04	Fourth support plate - hot leg
H05	Fifth support plate - hot leg
H06	Sixth support plate - hot leg
H07	Seventh support plate - hot leg
AV1	First anti-vibration bar above H07
AV2	Second anti-vibration bar above H07
AV3	Second anti-vibration bar above C07
AV4	First anti-vibration bar above C07
C07	Seventh support plate - cold leg
C06	Sixth support plate - cold leg
C05	Fifth support plate - cold leg
C04	Fourth support plate - cold leg
C03	Third support plate - cold leg
C02	Second support plate - cold leg
C01	First support plate - cold leg
CTS	Top of Tubesheet - cold leg
CTE	Tube end - cold leg

Indication locations are designated by an above listed major location and numeric values in inches above or below a major location. Positive inches indicates positive elevation (example - HTS + 1.0 is one inch above the hot leg top of tubesheet).