PRESERVICE INSPECTION PLAN ASSOCIATED WITH STEAM GENERATOR REPLACEMENT FOR SURRY POWER STATION UNIT NO. 1

Surry Power Station
P. O. Box 315
Surry, Virginia 23883

Virginia Electric and Power Company
P. O. Box 26666
Richmond, Virginia 23261

Inspection Plan Date: October 7, 1980
Commercial Service Date: December 22, 1972

This document details the planned scope of preservice examinations associated with the Surry Unit 1 Steam Generator Replacement Project. These examinations will be performed in accordance with the requirements of Section XI of the ASME Boiler and Pressure Vessel Code, 1974 Edition with Addenda thru the Summer 1975, to the extent practical with access provided and limitations of component geometry. The intent of these examinations is to provide preservice baseline data for those new ASME Class 1 and 2 pressure-retaining component (and their supports) welds associated with the steam generator replacement. The NDT work that will be performed by construction personnel as required by the final design controlling procedures is not within the scope of this plan.

Qualification of NDT personnel, materials and equipment will be available prior to the start of examinations. Examination procedures to be used will be those contained in the Vepco Nondestructive Test Manual and/or approved vendors' procedures to be determined prior to the actual testing.

The examinations outlined in the enclosed tabulations have been developed from the steam generator replacement design packages. Specific locations on isometrics drawings of some of the welds cannot be determined from the information therein; and thus will be field located by the NDT personnel during performance of the examinations and indicated on the appropriate drawings.

With respect to ASME Class 2 components, the welds specified in the plan may be substituted by other welds as long as the requirement of IWC-2411 are complied with.

PREPARED BY: D. L. Curtis DATE 10/7/80

TITLE: Mech. Equipment Spec.

LEVEL III APPROVAL: Allan T. Vigi DATE 10/22/80

TITLE: NDT Level III

STATION APPROVAL: W Bramfield DATE 10/27/80

TITLE: Engineering Supervisor

APPROVED J. L. Wilson

CHAIRMAN- SURRY POWER STATION
NUCLEAR SAFETY AND OPERATING
COMMITTEE

DATE MAR 2 6 1981

SURRY UNIT 1
INSPECTION PLAN
ASME CODE CLASS 1 COMPONENTS

Plan Item No.	Table IWB-2600 Item No.	IWB-2500 Exam. Category	Reference Drawing No.	DESCRIPTION OF EXAMINATION	Examination Method UT	PT	VT	REMARKS
1	B 3.3	B-F	West. VPA-1-4100 1980	R.C. Loop "A", Lines 29"-RC-1 and 31"-RC-2. Examine 100% of welds 5 DM and 6 DM	X	X		
2	B 3.3	B-F	West. VPA-1-4200 1980	R.C. Loop "B", Lines 29"-RC-4 and 31"-RC-5. Examine 100% of welds 5 DM and 6 DM.	X	X		
3	B 3.3	B-F	West. VPA-1-4300 1980	R.C. Loop "C", Lines 29"-RC-7 and 31"-RC-8. Examine 100% of welds 5 DM and 6 DM.	X	X		
4	B 4.5	B-J	West. VPA-1-4100 1980	R.C. Loop "A" Lines 29"-RC-1 and 31"-RC-2. Examine 100% of welds, 4 and 7.	X	X		
5	B 4.5	B-J	West. VPA-1-4200 1980	R. C. Loop "B", Lines 29"-RC-4 and 31"-RC-5. Examine 100% of welds, 4 and 7.	X	X		
6	B 4.5	B-J	West. VPA-1-4300 1980	R. C. Loop "C", Lines 29"-RC-7 and 31"-RC-8. Examine 100% of welds 4 and 7.	X	X		
7	B 4.8	B-J	West. VPA-1-4108 1980	R. C. Loop "A" RTD line 2"-RC-139 Examine 100% of 8 welds at socket weld coupling.		X		
8	B 4.8	B-J	West. VPA-1-4208 1980	R. C. Loop "B" RTD line 2"-RC-121 Examine 100% of 11 welds at socket weld coupling.		X		

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9	B 4.8	B-J	West. VPA-1-4307 1980	R.C. Loop "C", Lines 2"-RC-153 Examine 100% of 11 welds at socket weld coupling.		X		
10	B 4.8	B-J	West. VPA-1-4110 1980	R.C. Loop "A", Lines 2"-RC-53. Examine 100% of welds; 5 socket weld couplings No. 2,50,51,52,53.		X		
11	B 4.5	B-J	West. VPA-1-4210 1980	R.C. Loop "B", Drain Lines 2"-RC-57. Examine 100% of welds; 7 socket weld couplings No. 2,9,40,42,43,44,45.		X		
12	B 4.5	B-J	West. VPA-1-4309 1980	R.C. Loop "C" Drain Lines 2"-RC-58. Examine 100% of welds; 5 socket weld couplings no. 2,37,38,39,40. socket weld couplings..		X		
13	B 3.1	B-B	West. VPA-1-3100 1980	Steam Generators A, B and C Channel Head to Tube Sheet Welds. Examine 100% of welds 1-1, 2-1 and 3-1.	X			
14	B 3.8	B-I-2	West. VPA-1-3100 1980	Steam Generators A, B and C Vessel Cladding Patches. Examine one patch (36 sq. in.) near each primary side manway of each steam generator (6 patches total).			X	
15	B 3.10	B-G-2	West. VPA-1-3100 1980	Steam Generators A, B and C Hotside and Coldside Manway Bolting. Examine 100% of bolts on each manway of each steam generator.			X	

SURRY UNIT 1
INSPECTION PLAN
ASME CODE CLASS 2 COMPONENTS

Plan Item No.	Table IWB-2600 Item No.	IWB-2520 Exam. Category	Reference Drawing No.	DESCRIPTION OF EXAMINATION	Examination Method UT	PT	VT	REMARKS
16	C1.1	C-A	West. VPA-2-1100	Steam Generator "A" Transition Cone Weld #11. Examine 20% of weld divided into three segments equally spaced around circumference.	X			
17	C1.1	C-A	West. VPA-2-1100	Steam Generator "C" Transition Cone to Lower Shell Weld #5. Examine 20% of weld divided into three segments equally spaced around circumference.	X			
18	C1.1	C-A	West. VPA-2-1100	Steam Generator "B" Lower Shell to Stub Barrel Weld #3. Examine 20% of weld divided into three segments equally spaced around circumference.	X			
19	C1.1	C-A	West. VPA-2-1100	Steam Generator "A" Stub Barrel to Upper Tubesheet Weld #2. Examine 20% of weld divided into three segments equally spaced around circumference.	X			
20	C2.1	C-G	West. VPA-2-2100 1980	Steam Generator "A" Main Steam Line 30"-SHP-1, nozzle to elbow weld. Examine 100% of weld.	X			
21	C2.1	C-G	West. VPA-2-2300 1980	Steam Generator "C" Main Steam Line 30"-SHP-3, elbow to pipe weld. Examine 100% of weld.	X			
22	C2.1	C-G	West. VPA-2-2101 1980	Steam Generator "A" Feedwater Line 14"-WFPD-17, nozzle to reducer weld. Examine 100% of weld.	X			

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23	C2.1	C-G	West. VPA-2-2201 1980	Steam Generator "B" Feedwater Line 14"-WFPD-13, reducer to pipe weld. Examine 100% of weld.	X			
24	C2.1	C-G	West. VPA-2-2201 1980	Steam Generator "B" Feedwater Line 14-WFPD-13, elbow to pipe weld. Examine 100% of weld.	X			
25	C2.1	C-G	West. VPA-2-2301 1980	Steam Generator "C" Feedwater Line 14"-WFPD-9, elbow to elbow weld. Examine 100% of weld.	X			