

VIRGINIA ELECTRIC AND POWER COMPANY  
RICHMOND, VIRGINIA 23261

January 29, 2001

United States Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, D.C. 20555-0001

Serial No.: 01-021  
NE/ISI/GDM  
Docket No.: 50-281  
License No.: DPR-37

Gentlemen:

**VIRGINIA ELECTRIC AND POWER COMPANY**  
**SURRY POWER STATION UNIT 2**  
**INSERVICE INSPECTION SUMMARY REPORT**  
**FOR THE 2000 REFUELING OUTAGE**

As set forth in the provisions of ASME Section XI, Paragraph IWA- 6230, enclosed is the Inservice Inspection Summary Report for Surry Power Station Unit 2 for the 2000 refueling outage. This report provides a summary of the examinations performed during the outage for the third inservice inspection interval.

In accordance with IWA-6220 of ASME Section XI, Attachment 1 includes a Form NIS-1, "Owner's Report for Inservice Inspections," an examination summary, and abstracts of examinations performed. Attachment 2 includes Forms NIS-2, "Owner's Report for Repairs or Replacements."

The entire report will be maintained on file at the corporate office. If you have any questions or require additional information, please contact us.

Very truly yours,



L. N. Hartz  
Vice Present - Nuclear Engineering and Services

Attachments

A047

cc: U.S. Nuclear Regulatory Commission  
Region II  
Sam Nunn Atlanta Federal Center  
61 Forsyth St. SW, Suite 23 T85  
Atlanta, Georgia 30303-8931

Mr. R. A. Musser  
NRC Senior Resident Inspector  
Surry Power Station

**Attachment 1**

**Surry Power Station Unit 2**

**Inservice Inspections**

**Abstract of Examinations**

**FORM NIS-1 OWNER'S REPORT FOR INSERVICE INSPECTIONS**  
As required by the Provisions of the ASME Code Rules

1. Owner Virginia Electric and Power Company, 5000 Dominion Blvd., Glen Allen, VA 23060  
(Name and Address of Owner)
2. Plant Surry Power Station, 5570 Hog Island Rd., Surry, VA 23883  
(Name and Address of Plant)
3. Plant Unit 2 4. Owner Certificate of Authorization (if required) NA
5. Commercial Service Date 05/01/73 6. National Board Number for Unit NA
7. Components Inspected

Component or Appurtenance	Manufacturer or Installer	Manufacturer or Installer Serial No.	State or Province No.	National Board No.
Steam Generator 2-RC-E-1A	Westinghouse, Tampa Division	2971	VA 58226	6817
Reactor Coolant Pump, 2-RC-P-1A	Westinghouse	492	NA	NA
Regenerative HX 2-CH-E-3	Sentry Equipment Division	A3-13	VA 59806	399
RHR Heat Exchanger 2-RH-E-1A	Atlas Industrial Manufacturing Company	892	VA 58234	742
RHR Heat Exchanger 2-RH-E-1B	Atlas Industrial Manufacturing Company	893	VA 58235	743
Recirc Spray Pump 2-RC-R-1	Byron Jackson Pumps	NA	NA	NA
Safety Injection Pump 2-SI-P-1A	Byron Jackson Pumps	NA	NA	NA
Class 1 & 2 Piping	Southwest Fabrication	NA	NA	NA
Class 1 & 2 Component Supports	Southwest Fabrication	NA	NA	NA

Note: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-1 (Back)

- 8. Examination Dates 05/24/99 to 11/02/00
- 9. Inspection Period Identification Second Period (05/10/97-05/10/01)
- 10. Inspection Interval Identification Third Interval (05/10/94-05/10/04)
- 11. Applicable Edition of Section XI 1989 Addenda NA
- 12. Date/Revision of Inspection Plan October, 2000, Revision 11
- 13. Abstract of Examinations and Tests. Include a list of examinations and tests and a statement concerning status of work required for the Inspection Plan.  
See Attachment 1, Abstract of Examinations Performed  
See Attachment 1, Abstract of System Pressure Tests
- 14. Abstract of Results of Examinations and Tests.  
See Attachment 1, Examination Summary, Page 2
- 15. Abstract of Corrective Measures.  
See Attachment 1, Examination Summary, Page 2

We certify that a) the statements made in this report are correct, b) the examinations and tests meet the Inspection Plan as required by the ASME Code, Section XI, and c) corrective measures taken conform to the rules of the ASME Code, Section XI.

Certificate of Authorization No. (if applicable) NA Expiration Date NA  
Date January 16, 2001 Signed Virginia Elect. & Power Co. Owner By [Signature]

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Virginia and employed by H.S.B.I. & I. Co. of Hartford, CT have inspected the components described in this Owner's Report during the period 05/24/99 to 11/02/00, and state that to the best of my knowledge and belief, the Owner has performed examinations and tests and taken corrective measures described in this Owner's Report in accordance with the Inspection Plan and as required by the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations, tests, and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions NB 7933 N.I.  
Inspector's Signature NB 7933, VA 883(A)  
National Board, State, Province, and Endorsements  
Date 1/17/01 2001

**Examination Summary**  
**Virginia Electric and Power Company**  
**Surry Power Station**

**Unit 2**

**2000 Refueling Outage**  
**3rd Interval, 2nd Period**

**Introduction**

This report covers Inservice examinations and tests of Class 1 and Class 2 components, piping and component supports that were conducted at Surry Power Station Unit 1 from May 24, 1999, through November 1, 2000. The examinations were conducted to meet the requirements of ASME Section XI, 1989 Edition, of the ASME Boiler and Pressure Vessel Code.

Examination procedures were approved prior to the performance of the examinations. Certification documents relative to personnel, equipment and materials were reviewed and determined to be satisfactory.

Inspections, witnessing and surveillance of the examinations and related activities were conducted by personnel from the Hartford Steam Boiler Inspection and Insurance Company, One State Street, Hartford, Connecticut 06102 (Mr. R.A. Smith), and Surry technical staff.

**Limitations**

Some of the arrangements and details of the piping systems and components were designed and fabricated before the access and examination requirements of ASME Section XI of the 1989 Code could be applied. Consequently, some examinations are limited or not practical due to geometric configuration or accessibility. Generally, these limitations exist at fitting to fitting joints, such as elbow to tee, elbow to valve, reducer to valve, and where integrally welded attachments, lugs and supports preclude access to some part of the examination area. These limitations sometimes preclude ultrasonic coupling or access for the required scan length or surface examination.

**Examinations**

Examinations were conducted to review as much of the examination zones as was practical within geometric, metallurgical and physical limitations. When 100% of the

required ultrasonic examination volume could not be examined, the examination method was evaluated and alternate beam angles or volumetric techniques were considered in an attempt to achieve the maximum examination volume. In the case of surface examinations where full coverage could not be achieved, alternative methods were considered and employed when possible to achieve maximum allowable coverage. When alternative methods would not increase the examination coverage, an alternate component was considered for examination. For all examinations covered by this report any reduction in total coverage was less than 10%; per Code Case N-460 these examinations are considered complete.

## **Results**

Rejectable conditions were found on pipe support H-2 on drawing 11548-MKS-RC-9. The support was reported cocked to one side with a spring can bottomed out. Corrective actions were made in accordance with ET S 00-0239 to add a U-bolt and reset the spring can. The inspection scope was expanded to include the two supports immediately adjacent to H-2 and additional supports were selected equal in number, type and function within the same system. Code Case N-491 rules were followed as applies to Surry Unit 2 for the selection of additional exams. No additional discrepancies were found.

No other examinations of components, piping and component supports identified rejectable or reportable conditions.

## **Analytical Evaluation**

Engineering Transmittal **ET S 00-0239, Rev 0, Restoration of Deficiency Reported For Pipe Support H-2 On Drawing 11548-MKS-RC-9, Surry Power Station, Unit 2** was prepared to evaluate the discrepancy found on hanger H-2 and to provide guidance for corrective actions.

## **Evaluation Analyses**

None required or performed.

## **Statement of Interval Status**

Virginia Electric and Power Company (Dominion) will complete the Second Period of the 3<sup>rd</sup> Interval on May 10, 2001. We have presently completed 64% of total 3<sup>rd</sup> Interval exams scheduled, excluding Class I piping. A Risk Informed ISI Program for Class 1 piping inspection was implemented during this 2000 refueling outage in accordance with Virginia Power letter dated April 19, 2000.

## *Abstract of Examinations Performed IWB, IWC and IWF*

<i>DRAWING</i>	<i>MARK/WELD</i>	<i>LINE</i>	<i>ISI CLASS</i>	<i>CATEGORY</i>	<i>ITEM</i>	<i>METHOD</i>	<i>EXAM DATE</i>	<i>REMARKS</i>
11548-SPM-XXXXXX	PRESSURE TEST	VARIOUS	1	R-A	NA	VT-2	11/01/2000	
11548-WMKS-0101D1	2-SHP-H075	30*-SHP-102-601	2	F-A	F1.20	VT-3	10/07/2000	
11548-WMKS-0101G1	1-09	14*-WFPD-113-601	2	C-F-2	C5.51	UT/MT	10/15/2000	
11548-WMKS-0101G1	1-18	14*-WFPD-113-601	2	C-F-2	C5.51	UT/MT	10/15/2000	
11548-WMKS-0102D1	2-SHP-HSS-013A	30*-SHP-103-601	2	TS3.2	TS4.17	VT-3	10/17/2000	
11548-WMKS-0102D1	H002-1	30*-SHP-103-601	2	C-C	C3.20	MT	10/15/2000	
11548-WMKS-0102D1	H002-2	30*-SHP-103-601	2	C-C	C3.20	MT	10/15/2000	
11548-WMKS-0102G1	1-11	14*-WFPD-109-601	2	C-F-2	C5.51	UT/MT	10/20/2000	
11548-WMKS-0117A1-	0-05L	14*-RH-102-602	2	C-F-1	C5.12	UT/PT	10/19/2000	
11548-WMKS-0117A1-	2-RH-H013	12*-RH-119-602	2	F-A	F1.20	VT-3	10/09/2000	
11548-WMKS-0117B1	2-RH-H009A	10*-RH-117-1502	1	F-A	F1.10	VT-3	10/18/2000	A
11548-WMKS-0117B1	2-RH-H027	12*-RH-112-602	2	F-A	F1.20	VT-3	10/18/2000	
11548-WMKS-0117B1	2-RH-HSS-025	10*-RH-137-602	2	TS3.2	TS4.17	VT-3	10/17/2000	
11548-WMKS-0117B1	3-13	10*-RH-116-1502	2	C-F-1	C5.11	UT/PT	10/10/2000	

Attachment 1  
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<i>DRAWING</i>	<i>MARK/WELD</i>	<i>LINE</i>	<i>ISI CLASS</i>	<i>CATEGORY</i>	<i>ITEM</i>	<i>METHOD</i>	<i>EXAM DATE</i>	<i>REMARKS</i>
11548-WMKS-0117B1	3-14	10"-RH-116-1502	2	C-F-1	C5.11	UT/PT	10/10/2000	
11548-WMKS-0117B1	H009-1	10"-RH-117-1502	1	B-K	B10.20	PT	10/19/2000	
11548-WMKS-0117B1	H009-2	10"-RH-117-1502	1	B-K	B10.20	PT	10/19/2000	
11548-WMKS-0118A2	0-25	6"-WAPD-150-601	2	C-F-2	C5.51	UT/MT	10/13/2000	
11548-WMKS-0122A1	2-SI-H009	12"-SI-247-1502	2	F-A	F1.20	VT-3	10/09/2000	
11548-WMKS-0122D1	H006-1	12"-SI-246-1502	1	B-K	B10.20	PT	10/09/2000	
11548-WMKS-0122D1	H006-2	12"-SI-246-1502	1	B-K	B10.20	PT	10/09/2000	
11548-WMKS-0122D1	H006-3	12"-SI-246-1502	1	B-K	B10.20	PT	10/09/2000	
11548-WMKS-0122D1	H006-4	12"-SI-246-1502	1	B-K	B10.20	PT	10/09/2000	
11548-WMKS-0122J1	2-01	6"-SI-250-1502	2	C-F-1	C5.11	UT/PT	10/19/2000	
11548-WMKS-0122K1-	3-13	6"-SI-249-1502	2	C-F-1	C5.11	UT/PT	10/08/2000	
11548-WMKS-0122K1-	3-14	6"-SI-249-1502	2	C-F-1	C5.11	UT/PT	10/08/2000	
11548-WMKS-0122K1-	5-34	6"-SI-249-1502	2	C-F-1	C5.11	UT/PT	10/08/2000	
11548-WMKS-0122K1-	5-35	6"-SI-249-1502	2	C-F-1	C5.11	UT/PT	10/08/2000	
11548-WMKS-0124A1	2-RC-H013	4"-RC-334-1502	1	F-A	F1.10	VT-3	10/11/2000	A
11548-WMKS-0124A1	2-RC-H018	3"-RC-335-1502	1	F-A	F1.10	VT-3	10/11/2000	A

<i>DRAWING</i>	<i>MARK/WELD</i>	<i>LINE</i>	<i>ISI CLASS</i>	<i>CATEGORY</i>	<i>ITEM</i>	<i>METHOD</i>	<i>EXAM DATE</i>	<i>REMARKS</i>
11548-WMKS-0125A1	2-RC-H001A	4"-RC-315-1502	1	F-A	F1.10	VT-3	10/11/2000	A
11548-WMKS-0125A1	2-RC-H001B	4"-RC-315-1502	1	F-A	F1.10	VT-3	10/11/2000	A
11548-WMKS-0125A1	2-RC-H039A	4"-RC-315-1502	1	F-A	F1.10	VT-3	10/11/2000	A
11548-WMKS-0125A1	2-RC-H039B	4"-RC-315-1502	1	F-A	F1.10	VT-3	10/11/2000	A
11548-WMKS-0127J2	3-01	6"-SI-344-1502	2	C-F-1	C5.11	UT/PT	10/14/2000	
11548-WMKS-0127J2	3-02	6"-SI-344-1502	2	C-F-1	C5.11	UT/PT	10/14/2000	
11548-WMKS-0127J3Z	1-34	2"-SI-270-1503	2	C-F-1	C5.30	PT	10/08/2000	
11548-WMKS-0127J3Z	1-35	2"-SI-270-1503	2	C-F-1	C5.30	PT	10/08/2000	
11548-WMKS-CH-8	2-CH-H008A	3"-CH-301-1502	1	F-A	F1.10	VT-3	10/07/2000	A
11548-WMKS-CH-9	2-CH-H019	3"-CH-379-1503	1	F-A	F1.10	VT-3	10/07/2000	
11548-WMKS-CH-E-3	1-04	2-CH-E-3	1	B-B	B2.51	UT	10/09/2000	P
11548-WMKS-CH-E-3	1-09	2-CH-E-3	1	B-D	B3.150	PT	10/10/2000	
11548-WMKS-CH-E-3	1-11	2-CH-E-3	1	B-D	B3.150	PT	10/10/2000	
11548-WMKS-CH-E-3	1-22	2-CH-E-3	1	B-B	B2.80	UT	10/09/2000	P
11548-WMKS-CH-E-3	1-23	2-CH-E-3	2	C-A	C1.30	UT	10/09/2000	
11548-WMKS-CH-E-3	1-24	2-CH-E-3	2	C-A	C1.20	UT	10/09/2000	P

<i>DRAWING</i>	<i>MARK/WELD</i>	<i>LINE</i>	<i>ISI CLASS</i>	<i>CATEGORY</i>	<i>ITEM</i>	<i>METHOD</i>	<i>EXAM DATE</i>	<i>REMARKS</i>
11548-WMKS-CH-E-3	2-CH-H003	2-CH-E-3	1	F-A	F1.40	VT-3	10/09/2000	A
11548-WMKS-RC-10Z	2-RC-H002	2"-RC-359-1502	1	F-A	F1.40	VT-3	10/17/2000	
11548-WMKS-RC-9	2-RC-H001A	12"-RC-310-2501R	1	F-A	F1.10	VT-3	10/11/2000	A
11548-WMKS-RC-9	2-RC-H001B	12"-RC-310-2501R	1	F-A	F1.10	VT-3	10/11/2000	A
11548-WMKS-RC-9	2-RC-H002A	12"-RC-310-2501R	1	F-A	F1.10	VT-3	10/09/2000	R
11548-WMKS-RC-9	2-RC-H002B	12"-RC-310-2501R	1	F-A	F1.10	VT-3	10/09/2000	R
11548-WMKS-RC-E-1A	1-01	2-RC-E-1A	1	B-B	B2.40	UT	10/05/2000	P
11548-WMKS-RC-E-2	2-RC-H003	2-RC-H003	1	F-A	F1.40	VT-3	10/11/2000	A
11548-WMKS-RC-MO	2-RC-MOV-2591	27"-RC-303-2501R	1	B-M-2	B12.50	VT-3	07/10/1999	N
11548-WMKS-RH-E-1A	H001-1	2-RH-E-1A	2	C-C	C3.10	PT	10/13/2000	
11548-WMKS-RH-E-1B	1-B01	2-RH-E-1B	2	C-A	C1.20	UT	10/11/2000	P
11548-WMKS-RH-E-1B	1-B02	2-RH-E-1B	2	C-A	C1.10	UT	10/11/2000	P
11548-WMKS-RH-E-1B	1-B06	2-RH-E-1B	2	C-B	C2.31	PT	10/13/2000	
11548-WMKS-RS-P-2A	2-05	2-RS-P-2A	2	C-G	C6.10	PT	10/06/2000	
11548-WMKS-RS-P-2A	2-06	2-RS-P-2A	2	C-G	C6.10	PT	10/04/2000	
11548-WMKS-SI-15	0-02	3"-SI-346-1503	2	C-F-1	C5.21	UT/PT	10/11/2000	

<i>DRAWING</i>	<i>MARK/WELD</i>	<i>LINE</i>	<i>ISI CLASS</i>	<i>CATEGORY</i>	<i>ITEM</i>	<i>METHOD</i>	<i>EXAM DATE</i>	<i>REMARKS</i>
11548-WMKS-SI-15	0-03	3*-SI-346-1503	2	C-F-1	C5.21	UT/PT	10/11/2000	
11548-WMKS-SI-4	2-SI-H002	10*-SI-362-153	2	F-A	F1.20	VT-3	10/09/2000	
11548-WMKS-SI-P-1A	2-05	2-SI-P-1A	2	C-G	C6.10	PT	10/08/2000	
11548-WMKS-SI-P-1A	2-06	2-SI-P-1A	2	C-G	C6.10	PT	10/08/2000	

*P - partial, all partials for this report fall within guidelines of Code Case N-460. No relief request is required.*

*A - additional examination performed*

*R - rejectable results*

## *Abstract of Examinations*

### *System Pressure Test Program*

<i>ZONE</i>	<i>DESCRIPTION</i>	<i>CLASS</i>	<i>CATEGORY</i>	<i>ITEM</i>	<i>DATE</i>
1-SPM-079D-1-3	BORIC ACID TRANSFER PUMP 1-CH-P-2C	2	C-H	C7.70	9/29/00
1-SPM-079D-1-3	BORIC ACID TRANSFER PUMP 1-CH-P-2C	2	C-H	C7.30	9/29/00
1-SPM-079D-1-4	BORIC ACID TRANSFER PUMP 1-CH-P-2D	2	C-H	C7.70	9/29/00
1-SPM-079D-1-4	BORIC ACID TRANSFER PUMP 1-CH-P-2D	2	C-H	C7.30	9/29/00
1-SPM-082A-1-6	VOLUME CONTROL TANK LETDOWN HEADER	2	C-H	C7.70	3/1/00
1-SPM-082A-1-6	VOLUME CONTROL TANK LETDOWN HEADER	2	C-H	C7.30	3/1/00
1-SPM-088A-1-4	BORIC ACID TRANSFER PUMP 1-CH-P-2C	2	C-H	C7.70	9/29/00
1-SPM-088A-1-4	BORIC ACID TRANSFER PUMP 1-CH-P-2C	2	C-H	C7.30	9/29/00
1-SPM-088A-1-4	BORIC ACID TRANSFER PUMP 1-CH-P-2C	2	C-H	C7.50	9/29/00
1-SPM-088A-1-5	BORIC ACID TRANSFER PUMP 1-CH-P-2D	2	C-H	C7.70	9/29/00
1-SPM-088A-1-5	BORIC ACID TRANSFER PUMP 1-CH-P-2D	2	C-H	C7.10	9/29/00
1-SPM-088A-1-5	BORIC ACID TRANSFER PUMP 1-CH-P-2D	2	C-H	C7.30	9/29/00
1-SPM-088A-1-5	BORIC ACID TRANSFER PUMP 1-CH-P-2D	2	C-H	C7.50	9/29/00

<i>ZONE</i>	<i>DESCRIPTION</i>	<i>CLASS</i>	<i>CATEGORY</i>	<i>ITEM</i>	<i>DATE</i>
1-SPM-088A-2-3	BORIC ACID TRANSFER PUMP 1-CH-P-2D	2	C-H	C7.30	9/29/00
1-SPM-088A-2-3	BORIC ACID TRANSFER PUMP 1-CH-P-2D	2	C-H	C7.70	9/29/00
2-SPM-064A-4-3	TERRY TURBINE AND CONNECTING PIPE	2	C-H	C7.70	2/22/00
2-SPM-064A-4-3	TERRY TURBINE AND CONNECTING PIPE	2	C-H	C7.30	2/22/00
2-SPM-075E-1-1	COMPRESSED AIR SYSTEM PENETRATION PIPING	2	C-H	C7.30	10/1/00
2-SPM-075E-1-1	COMPRESSED AIR SYSTEM PENETRATION PIPING	2	C-H	C7.70	10/1/00
2-SPM-082A-2-1	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00
2-SPM-082A-2-1	REACTOR COOLANT SYSTEM	1	B-P	B15.70	10/29/00
2-SPM-082A-2-2	REACTOR COOLANT SYSTEM	1	B-P	B15.70	10/29/00
2-SPM-082A-2-2	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00
2-SPM-082A-2-3	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00
2-SPM-082A-2-3	REACTOR COOLANT SYSTEM	1	B-P	B15.70	10/29/00

<i>ZONE</i>	<i>DESCRIPTION</i>	<i>CLASS</i>	<i>CATEGORY</i>	<i>ITEM</i>	<i>DATE</i>
2-SPM-082A-2-4	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00
2-SPM-082A-2-4	REACTOR COOLANT SYSTEM	1	B-P	B15.70	10/29/00
2-SPM-082A-3-1	VOLUME CONTROL TANK LETDOWN HEADER	2	C-H	C7.70	3/1/00
2-SPM-082A-3-1	VOLUME CONTROL TANK LETDOWN HEADER	2	C-H	C7.30	3/1/00
2-SPM-082A-3-3	VOLUME CONTROL TANK LETDOWN HEADER	2	C-H	C7.30	3/1/00
2-SPM-082A-3-3	VOLUME CONTROL TANK LETDOWN HEADER	2	C-H	C7.70	3/1/00
2-SPM-083A-1-1	CONTAINMENT SUMP PUMP DISCHARGE	2	C-H	C7.70	10/20/00
2-SPM-083A-1-1	CONTAINMENT SUMP PUMP DISCHARGE	2	C-H	C7.30	10/20/00
2-SPM-083B-3-3	CONTAINMENT SUMP PUMP DISCHARGE	2	C-H	C7.70	10/20/00
2-SPM-083B-3-3	CONTAINMENT SUMP PUMP DISCHARGE	2	C-H	C7.30	10/20/00

<i>ZONE</i>	<i>DESCRIPTION</i>	<i>CLASS</i>	<i>CATEGORY</i>	<i>ITEM</i>	<i>DATE</i>
2-SPM-084A-1-1	REFUELING WATER STORAGE TANK AND ASSOCIATED PIPE	2	C-H	C7.70	4/11/00
2-SPM-084A-1-1	REFUELING WATER STORAGE TANK AND ASSOCIATED PIPE	2	C-H	C7.30	4/11/00
2-SPM-084A-1-1	REFUELING WATER STORAGE TANK AND ASSOCIATED PIPE	2	C-H	C7.10	4/11/00
2-SPM-084A-1-3	DISCHARGE INTO RWST FROM SI PUMPS	2	C-H	C7.70	6/5/00
2-SPM-084A-1-3	DISCHARGE INTO RWST FROM SI PUMPS	2	C-H	C7.30	6/5/00
2-SPM-084A-1-4	2-CS-P-1A SUCTION AND DISCHARGE PIPING	2	C-H	C7.70	6/20/00
2-SPM-084A-1-4	2-CS-P-1A SUCTION AND DISCHARGE PIPING	2	C-H	C7.30	6/20/00
2-SPM-084A-2-1	REFUELING WATER STORAGE TANK AND ASSOCIATED PIPE	2	C-H	C7.70	4/11/00
2-SPM-084A-2-1	REFUELING WATER STORAGE TANK AND ASSOCIATED PIPE	2	C-H	C7.30	4/11/00
2-SPM-084A-2-2	2-CS-P-1A SUCTION AND DISCHARGE PIPING	2	C-H	C7.70	6/20/00
2-SPM-084A-2-2	2-CS-P-1A SUCTION AND DISCHARGE PIPING	2	C-H	C7.50	6/20/00
2-SPM-084A-2-2	2-CS-P-1A SUCTION AND DISCHARGE PIPING	2	C-H	C7.30	6/20/00



<i>ZONE</i>	<i>DESCRIPTION</i>	<i>CLASS</i>	<i>CATEGORY</i>	<i>ITEM</i>	<i>DATE</i>
2-SPM-084A-2-3	2-CS-P-1B SUCTION AND DISCHARGE PIPING	2	C-H	C7.50	6/18/00
2-SPM-084A-2-3	2-CS-P-1B SUCTION AND DISCHARGE PIPING	2	C-H	C7.30	6/18/00
2-SPM-084A-2-3	2-CS-P-1B SUCTION AND DISCHARGE PIPING	2	C-H	C7.70	6/18/00
2-SPM-084A-3-1	REFUELING WATER STORAGE TANK AND ASSOCIATED PIPE	2	C-H	C7.70	4/11/00
2-SPM-084A-3-1	REFUELING WATER STORAGE TANK AND ASSOCIATED PIPE	2	C-H	C7.30	4/11/00
2-SPM-084A-3-2	REFUELING WATER STORAGE TANK AND ASSOCIATED PIPE	2	C-H	C7.70	4/11/00
2-SPM-084A-3-2	REFUELING WATER STORAGE TANK AND ASSOCIATED PIPE	2	C-H	C7.30	4/11/00
2-SPM-084A-3-3	RWST/CAT CROSS TIE PIPING	2	C-H	C7.30	2/14/00
2-SPM-084A-3-3	RWST/CAT CROSS TIE PIPING	2	C-H	C7.70	2/14/00
2-SPM-084A-3-4	CAT UNDERGROUND PIPING	2	C-H	C7.70	4/11/00
2-SPM-084A-3-4	CAT UNDERGROUND PIPING	2	C-H	C7.30	4/11/00
2-SPM-084A-3-5	REFUELING WATER CHEMICAL ADDITION TANK	2	C-H	C7.10	4/11/00

<i>ZONE</i>	<i>DESCRIPTION</i>	<i>CLASS</i>	<i>CATEGORY</i>	<i>ITEM</i>	<i>DATE</i>
2-SPM-084A-3-5	REFUELING WATER CHEMICAL ADDITION TANK	2	C-H	C7.70	4/11/00
2-SPM-084A-3-5	REFUELING WATER CHEMICAL ADDITION TANK	2	C-H	C7.30	4/11/00
2-SPM-086A-1-1	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00
2-SPM-086A-1-1	REACTOR COOLANT SYSTEM	1	B-P	B15.30	10/29/00
2-SPM-086A-1-1	REACTOR COOLANT SYSTEM	1	B-P	B15.70	10/29/00
2-SPM-086A-1-1	REACTOR COOLANT SYSTEM	1	B-P	B15.60	10/29/00
2-SPM-086A-1-2	REACTOR COOLANT SYSTEM	1	B-P	B15.70	10/29/00
2-SPM-086A-1-2	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00
2-SPM-086A-1-3	REACTOR COOLANT SYSTEM	1	B-P	B15.70	10/29/00
2-SPM-086A-1-3	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00
2-SPM-086A-1-4	REACTOR COOLANT SYSTEM	1	B-P	B15.70	10/29/00

<i>ZONE</i>	<i>DESCRIPTION</i>	<i>CLASS</i>	<i>CATEGORY</i>	<i>ITEM</i>	<i>DATE</i>
2-SPM-086A-1-4	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00
2-SPM-086A-1-5	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00
2-SPM-086A-1-5	REACTOR COOLANT SYSTEM	1	B-P	B15.70	10/29/00
2-SPM-086A-2-1	REACTOR COOLANT SYSTEM	1	B-P	B15.60	10/29/00
2-SPM-086A-2-1	REACTOR COOLANT SYSTEM	1	B-P	B15.70	10/29/00
2-SPM-086A-2-1	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00
2-SPM-086A-2-1	REACTOR COOLANT SYSTEM	1	B-P	B15.30	10/29/00
2-SPM-086A-2-2	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00
2-SPM-086A-2-2	REACTOR COOLANT SYSTEM	1	B-P	B15.30	10/29/00
2-SPM-086A-2-3	REACTOR COOLANT SYSTEM	1	B-P	B15.30	10/29/00

<i>ZONE</i>	<i>DESCRIPTION</i>	<i>CLASS</i>	<i>CATEGORY</i>	<i>ITEM</i>	<i>DATE</i>
2-SPM-086A-2-3	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00
2-SPM-086A-2-4	REACTOR COOLANT SYSTEM	1	B-P	B15.30	10/29/00
2-SPM-086A-2-4	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00
2-SPM-086A-2-5	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00
2-SPM-086A-2-5	REACTOR COOLANT SYSTEM	1	B-P	B15.30	10/29/00
2-SPM-086A-3-1	REACTOR COOLANT SYSTEM	1	B-P	B15.60	10/29/00
2-SPM-086A-3-1	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00
2-SPM-086A-3-1	REACTOR COOLANT SYSTEM	1	B-P	B15.30	10/29/00
2-SPM-086A-3-1	REACTOR COOLANT SYSTEM	1	B-P	B15.10	10/29/00
2-SPM-086A-3-1	REACTOR COOLANT SYSTEM	1	B-P	B15.70	10/29/00

<i>ZONE</i>	<i>DESCRIPTION</i>	<i>CLASS</i>	<i>CATEGORY</i>	<i>ITEM</i>	<i>DATE</i>
2-SPM-086A-3-2	REACTOR COOLANT SYSTEM	1	B-P	B15.70	10/29/00
2-SPM-086A-3-2	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00
2-SPM-086A-3-3	REACTOR COOLANT SYSTEM	1	B-P	B15.70	10/29/00
2-SPM-086A-3-3	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00
2-SPM-086A-3-4	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00
2-SPM-086A-3-4	REACTOR COOLANT SYSTEM	1	B-P	B15.70	10/29/00
2-SPM-086A-3-5	REACTOR COOLANT SYSTEM	1	B-P	B15.70	10/29/00
2-SPM-086A-3-5	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00
2-SPM-086A-3-6	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00
2-SPM-086A-3-6	REACTOR COOLANT SYSTEM	1	B-P	B15.70	10/29/00

<i>ZONE</i>	<i>DESCRIPTION</i>	<i>CLASS</i>	<i>CATEGORY</i>	<i>ITEM</i>	<i>DATE</i>
2-SPM-086B-1-1	REACTOR COOLANT SYSTEM	1	B-P	B15.20	10/29/00
2-SPM-086B-1-1	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00
2-SPM-086B-1-1	REACTOR COOLANT SYSTEM	1	B-P	B15.70	10/29/00
2-SPM-086B-1-2	REACTOR COOLANT SYSTEM	1	B-P	B15.70	10/29/00
2-SPM-086B-1-2	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00
2-SPM-086B-1-3	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00
2-SPM-086B-1-3	REACTOR COOLANT SYSTEM	1	B-P	B15.70	10/29/00
2-SPM-086B-1-4	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00
2-SPM-086B-1-4	REACTOR COOLANT SYSTEM	1	B-P	B15.70	10/29/00
2-SPM-086C-1-1	REACTOR COOLANT SYSTEM	1	B-P	B15.70	10/29/00

<i>ZONE</i>	<i>DESCRIPTION</i>	<i>CLASS</i>	<i>CATEGORY</i>	<i>ITEM</i>	<i>DATE</i>
2-SPM-086C-1-1	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00
2-SPM-086C-1-2	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00
2-SPM-086C-1-2	REACTOR COOLANT SYSTEM	1	B-P	B15.70	10/29/00
2-SPM-086C-1-4	RVLIS TRAINS "A & B" OUTSIDE CTMT	2	C-H	C7.70	6/14/00
2-SPM-086C-1-4	RVLIS TRAINS "A & B" OUTSIDE CTMT	2	C-H	C7.30	6/14/00
2-SPM-086C-2-1	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00
2-SPM-086C-2-1	REACTOR COOLANT SYSTEM	1	B-P	B15.70	10/29/00
2-SPM-086C-2-3	RVLIS TRAINS "A & B" OUTSIDE CTMT	2	C-H	C7.70	6/14/00
2-SPM-086C-2-3	RVLIS TRAINS "A & B" OUTSIDE CTMT	2	C-H	C7.30	6/14/00
2-SPM-087A-1-1	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00
2-SPM-087A-1-1	REACTOR COOLANT SYSTEM	1	B-P	B15.70	10/29/00
2-SPM-087A-2-3	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00

<i>ZONE</i>	<i>DESCRIPTION</i>	<i>CLASS</i>	<i>CATEGORY</i>	<i>ITEM</i>	<i>DATE</i>
2-SPM-087A-2-3	REACTOR COOLANT SYSTEM	1	B-P	B15.70	10/29/00
2-SPM-087A-2-4	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00
2-SPM-087A-2-4	REACTOR COOLANT SYSTEM	1	B-P	B15.70	10/29/00
2-SPM-088A-1-1	VOLUME CONTROL TANK LETDOWN HEADER	2	C-H	C7.70	3/1/00
2-SPM-088A-1-1	VOLUME CONTROL TANK LETDOWN HEADER	2	C-H	C7.30	3/1/00
2-SPM-088A-1-2	BORATE FOR END OF CORE LIFE	2	C-H	C7.30	9/11/00
2-SPM-088A-1-2	BORATE FOR END OF CORE LIFE	2	C-H	C7.70	9/11/00
2-SPM-088A-2-2	VOLUME CONTROL TANK LETDOWN HEADER	2	C-H	C7.70	3/1/00
2-SPM-088A-2-2	VOLUME CONTROL TANK LETDOWN HEADER	2	C-H	C7.30	3/1/00
2-SPM-088A-2-3	NON REGENERATIVE HEAT EXCHANGER 2-CH-E-2	2	C-H	C7.70	2/16/00
2-SPM-088A-2-3	NON REGENERATIVE HEAT EXCHANGER 2-CH-E-2	2	C-H	C7.10	2/16/00



<i>ZONE</i>	<i>DESCRIPTION</i>	<i>CLASS</i>	<i>CATEGORY</i>	<i>ITEM</i>	<i>DATE</i>
2-SPM-088A-2-3	NON REGENERATIVE HEAT EXCHANGER 2-CH-E-2	2	C-H	C7.30	2/16/00
2-SPM-088B-1-1	DISCHARGE INTO RWST FROM SI PUMPS	2	C-H	C7.10	6/5/00
2-SPM-088B-1-1	DISCHARGE INTO RWST FROM SI PUMPS	2	C-H	C7.30	6/5/00
2-SPM-088B-1-1	DISCHARGE INTO RWST FROM SI PUMPS	2	C-H	C7.70	6/5/00
2-SPM-088B-1-10	MISC CHARGING 2-CH-220	2	C-H	C7.70	9/27/00
2-SPM-088B-1-10	MISC CHARGING 2-CH-220	2	C-H	C7.30	9/28/00
2-SPM-088B-1-11	MISC CHARGING 2-CH-FCV-2113B	2	C-H	C7.70	2/22/00
2-SPM-088B-1-11	MISC CHARGING 2-CH-FCV-2113B	2	C-H	C7.30	2/22/00
2-SPM-088B-1-3	SEAL RETURN HEADER AND SUCTION LINE TO CHARGING PUMP	2	C-H	C7.10	6/14/00
2-SPM-088B-1-3	SEAL RETURN HEADER AND SUCTION LINE TO CHARGING PUMP	2	C-H	C7.30	6/14/00
2-SPM-088B-1-3	SEAL RETURN HEADER AND SUCTION LINE TO CHARGING PUMP	2	C-H	C7.70	6/14/00
2-SPM-088B-1-4	VOLUME CONTROL TANK LETDOWN HEADER	2	C-H	C7.10	3/1/00

<i>ZONE</i>	<i>DESCRIPTION</i>	<i>CLASS</i>	<i>CATEGORY</i>	<i>ITEM</i>	<i>DATE</i>
2-SPM-088B-1-4	VOLUME CONTROL TANK LETDOWN HEADER	2	C-H	C7.30	3/1/00
2-SPM-088B-1-4	VOLUME CONTROL TANK LETDOWN HEADER	2	C-H	C7.70	3/1/00
2-SPM-088B-1-6	MISC CHARGING 2-CH-228	2	C-H	C7.30	2/17/00
2-SPM-088B-1-6	MISC CHARGING 2-CH-228	2	C-H	C7.70	2/17/00
2-SPM-088B-1-7	MISC CHARGING 2-CH-FCV-2114A	2	C-H	C7.30	2/16/00
2-SPM-088B-1-7	MISC CHARGING 2-CH-FCV-2114A	2	C-H	C7.70	2/16/00
2-SPM-088B-1-8	MISC CHARGING 2-CH-MOV-2350	2	C-H	C7.70	2/17/00
2-SPM-088B-1-8	MISC CHARGING 2-CH-MOV-2350	2	C-H	C7.30	2/17/00
2-SPM-088B-1-9	MISC CHARGING 2-CH-218	2	C-H	C7.70	9/28/00
2-SPM-088B-1-9	MISC CHARGING 2-CH-218	2	C-H	C7.30	9/28/00
2-SPM-088B-2-1	CHARGING HEADER AND SEAL INJECTION FILTER	2	C-H	C7.30	6/14/00
2-SPM-088B-2-1	CHARGING HEADER AND SEAL INJECTION FILTER	2	C-H	C7.70	6/14/00
2-SPM-088B-2-2	RWST CROSSTIE	2	C-H	C7.70	2/16/00
2-SPM-088B-2-2	RWST CROSSTIE	2	C-H	C7.30	2/16/00

<i>ZONE</i>	<i>DESCRIPTION</i>	<i>CLASS</i>	<i>CATEGORY</i>	<i>ITEM</i>	<i>DATE</i>
2-SPM-088B-2-3	CHARGING ALTERNATE HEADER	2	C-H	C7.70	6/14/00
2-SPM-088B-2-3	CHARGING ALTERNATE HEADER	2	C-H	C7.30	6/14/00
2-SPM-088B-2-4	LOW HEAD SAFETY INJECTION PUMP CROSS-TIE TO CHARGING PUMPS	2	C-H	C7.70	2/7/00
2-SPM-088B-2-4	LOW HEAD SAFETY INJECTION PUMP CROSS-TIE TO CHARGING PUMPS	2	C-H	C7.30	2/7/00
2-SPM-088B-2-6	SEAL RETURN HEADER AND SUCTION LINE TO CHARGING PUMP	2	C-H	C7.70	6/14/00
2-SPM-088B-2-6	SEAL RETURN HEADER AND SUCTION LINE TO CHARGING PUMP	2	C-H	C7.30	6/14/00
2-SPM-088C-1-1	REACTOR COOLANT SYSTEM	1	B-P	B15.70	10/29/00
2-SPM-088C-1-1	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00
2-SPM-088C-1-2	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00
2-SPM-088C-1-2	REACTOR COOLANT SYSTEM	1	B-P	B15.70	10/29/00
2-SPM-088C-1-3	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00

<i>ZONE</i>	<i>DESCRIPTION</i>	<i>CLASS</i>	<i>CATEGORY</i>	<i>ITEM</i>	<i>DATE</i>
2-SPM-088C-1-3	REACTOR COOLANT SYSTEM	1	B-P	B15.70	10/29/00
2-SPM-088C-1-4	CHARGING HEADER AND SEAL INJECTION FILTER	2	C-H	C7.70	6/14/00
2-SPM-088C-1-4	CHARGING HEADER AND SEAL INJECTION FILTER	2	C-H	C7.30	6/14/00
2-SPM-088C-1-6	REACTOR COOLANT SYSTEM	1	B-P	B15.40	10/29/00
2-SPM-088C-1-6	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00
2-SPM-088C-1-6	REACTOR COOLANT SYSTEM	1	B-P	B15.70	10/29/00
2-SPM-088C-1-8	CHARGING ALTERNATE HEADER	2	C-H	C7.70	6/14/00
2-SPM-088C-1-8	CHARGING ALTERNATE HEADER	2	C-H	C7.30	6/14/00
2-SPM-088C-2-1	CHARGING HEADER AND SEAL INJECTION FILTER	2	C-H	C7.70	6/14/00
2-SPM-088C-2-1	CHARGING HEADER AND SEAL INJECTION FILTER	2	C-H	C7.30	6/14/00
2-SPM-088C-2-7	CHARGING ALTERNATE HEADER	2	C-H	C7.30	6/14/00
2-SPM-088C-2-7	CHARGING ALTERNATE HEADER	2	C-H	C7.70	6/14/00

<i>ZONE</i>	<i>DESCRIPTION</i>	<i>CLASS</i>	<i>CATEGORY</i>	<i>ITEM</i>	<i>DATE</i>
2-SPM-088C-2-8	REACTOR COOLANT SYSTEM	1	B-P	B15.60	10/29/00
2-SPM-088C-2-8	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00
2-SPM-088C-2-8	REACTOR COOLANT SYSTEM	1	B-P	B15.70	10/29/00
2-SPM-089A-1-5	RWST CROSSTIE	2	C-H	C7.30	2/16/00
2-SPM-089A-1-5	RWST CROSSTIE	2	C-H	C7.70	2/16/00
2-SPM-089A-2-5	LOW HEAD SAFETY INJECTION DISCHARGE PIPING TO MOV-2890C	2	C-H	C7.70	6/5/00
2-SPM-089A-2-5	LOW HEAD SAFETY INJECTION DISCHARGE PIPING TO MOV-2890C	2	C-H	C7.30	6/5/00
2-SPM-089A-2-6	DISCHARGE INTO RWST FROM SI PUMPS	2	C-H	C7.70	6/5/00
2-SPM-089A-2-6	DISCHARGE INTO RWST FROM SI PUMPS	2	C-H	C7.30	6/5/00
2-SPM-089A-2-7	LOW HEAD SAFETY INJECTION PUMP CROSS-TIE TO CHARGING PUMPS	2	C-H	C7.70	2/7/00
2-SPM-089A-2-7	LOW HEAD SAFETY INJECTION PUMP CROSS-TIE TO CHARGING PUMPS	2	C-H	C7.30	2/7/00

<i>ZONE</i>	<i>DESCRIPTION</i>	<i>CLASS</i>	<i>CATEGORY</i>	<i>ITEM</i>	<i>DATE</i>
2-SPM-089A-2-8	SEAL RETURN HEADER AND SUCTION LINE TO CHARGING PUMP	2	C-H	C7.30	6/14/00
2-SPM-089A-2-8	SEAL RETURN HEADER AND SUCTION LINE TO CHARGING PUMP	2	C-H	C7.70	6/14/00
2-SPM-089A-3-3	CHARGING HEADER AND SEAL INJECTION FILTER	2	C-H	C7.30	6/14/00
2-SPM-089A-3-3	CHARGING HEADER AND SEAL INJECTION FILTER	2	C-H	C7.70	6/14/00
2-SPM-089A-3-4	CHARGING ALTERNATE HEADER	2	C-H	C7.30	6/14/00
2-SPM-089A-3-4	CHARGING ALTERNATE HEADER	2	C-H	C7.70	6/14/00
2-SPM-089B-1-1	REACTOR COOLANT SYSTEM	1	B-P	B15.70	10/29/00
2-SPM-089B-1-1	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00
2-SPM-089B-1-3	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00
2-SPM-089B-1-3	REACTOR COOLANT SYSTEM	1	B-P	B15.70	10/29/00
2-SPM-089B-2-1	REACTOR COOLANT SYSTEM	1	B-P	B15.70	10/29/00

<i>ZONE</i>	<i>DESCRIPTION</i>	<i>CLASS</i>	<i>CATEGORY</i>	<i>ITEM</i>	<i>DATE</i>
2-SPM-089B-2-1	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00
2-SPM-089B-2-3	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00
2-SPM-089B-2-3	REACTOR COOLANT SYSTEM	1	B-P	B15.70	10/29/00
2-SPM-089B-3-1	REACTOR COOLANT SYSTEM	1	B-P	B15.70	10/29/00
2-SPM-089B-3-1	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00
2-SPM-089B-3-3	REACTOR COOLANT SYSTEM	1	B-P	B15.70	10/29/00
2-SPM-089B-3-3	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00
2-SPM-089B-4-1	REACTOR COOLANT SYSTEM	1	B-P	B15.70	10/29/00
2-SPM-089B-4-1	REACTOR COOLANT SYSTEM	1	B-P	B15.50	10/29/00

**Abstract of Examinations**

**Containment Inservice Inspection Program**

Examinations performed for Category IWE did not identify any conditions which would affect inaccessible areas and require reporting per 10 CFR 50.55a(b)(viii)(E) or 10 CFR 50.55a(b)(ix)(A).



### **Abstract of Examinations** **Snubber Program**

During the Unit 2 Refueling Outage in October 2000, the following activities were performed to implement the snubber program:

- **Functional Test Program:** a total of 25 snubbers were selected for functional test including 20 hydraulic snubbers, 4 mechanical snubbers and one large bore snubber. All functional tests were completed satisfactory.
- **Seal Replacement Program:** a total of 22 hydraulic snubbers were selected for seal replacement. These snubbers were replaced with a rebuilt snubber or a new snubber.
- **Visual Inspection Program:** all snubbers were inspected in accordance with surveillance procedure 2-NPT-PR-002 "Snubber Visual Inspection".

**Dominion Generation  
Surry Unit 2 October, 2000  
90 Day Steam Generator Report**

Station	Unit	Outage Date	Generator Examined			Date of Report
Surry	2	October, 2000			C	10/30/00

Scope of Inspection					
SG	Inspection Program	Planned	Inspected	Inspection Method	Extent
C	Bobbin	3332	3332	Bobbin	TSH-TSC
C	Row 1 U-Bend RPC	92	92	+Point RPC	7H - 7C
C	TTSH RPC	669	669	3-Coil RPC	TSH +/- 3"
C	Special Interest Hot Leg	98	98	+Point/3-Coil RPC	N/A
C	Special Interest Cold Leg	229	229	+Point/3-Coil RPC	N/A

Indications of Imperfections Detected							
SG	NDE Method	Row	Column	Indication Code	Location	Active Yes/No	Measured Wall Penetration
C	Bobbin	24	8	13%	AV2	No	13%
C	Bobbin	24	8	13%	AV4	No	13%
C	Bobbin	25	9	13%	AV3	No	13%
C	Bobbin	38	21	12%	AV2	No	12%
C	Bobbin	26	26	16%	AV3	No	16%
C	Bobbin	26	26	15%	AV4	No	15%
C	Bobbin	25	27	13%	AV2	No	13%
C	Bobbin	38	28	13%	AV1	No	13%
C	Bobbin	38	28	11%	AV3	No	11%
C	Bobbin	25	29	18%	AV3	No	18%
C	Bobbin	34	29	13%	AV4	No	13%
C	Bobbin	40	33	12%	AV1	No	12%
C	Bobbin	40	33	19%	AV2	No	19%
C	Bobbin	40	33	23%	AV3	No	23%
C	Bobbin	42	33	13%	AV2	No	13%
C	Bobbin	26	39	15%	AV3	No	15%
C	Bobbin	43	39	19%	AV2	No	19%
C	Bobbin	39	53	24%	AV3	No	24%
C	Bobbin	39	55	22%	AV3	No	22%
C	Bobbin	39	55	19%	AV4	No	19%
C	Bobbin	43	61	18%	AV1	No	18%
C	Bobbin	44	61	10%	AV1	No	10%
C	Bobbin	37	63	12%	AV2	No	12%
C	Bobbin	40	63	17%	AV3	No	17%
C	Bobbin	40	63	18%	AV4	No	18%
C	Bobbin	31	65	15%	AV2	No	15%
C	Bobbin	40	65	10%	AV3	No	10%
C	Bobbin	41	66	14%	AV3	No	14%
C	Bobbin	41	67	11%	AV2	No	11%
C	Bobbin	33	68	16%	AV1	No	16%
C	Bobbin	33	68	16%	AV2	No	16%
C	Bobbin	41	68	10%	AV2	No	10%

<b>Indications of Imperfections Detected (continued)</b>							
<b>SG</b>	<b>NDE Method</b>	<b>Row</b>	<b>Column</b>	<b>Indication Code</b>	<b>Location</b>	<b>Active Yes/No</b>	<b>Measured Wall Penetration</b>
C	Bobbin	31	69	15%	AV2	No	15%
C	Bobbin	33	70	11%	AV1	No	11%
C	Bobbin	33	70	9%	AV2	No	9%
C	Bobbin	33	70	15%	AV3	No	15%
C	Bobbin	40	70	12%	AV1	No	12%
C	Bobbin	40	70	10%	AV3	No	10%
C	Bobbin	37	73	16%	AV3	No	16%
C	Bobbin	38	73	12%	AV1	No	12%
C	Bobbin	38	73	14%	AV2	No	14%
C	Bobbin	31	75	14%	AV3	No	14%
C	Bobbin	31	75	16%	AV4	No	16%
C	Bobbin	35	77	14%	AV2	No	14%
C	Bobbin	35	77	13%	AV2	No	13%
C	Bobbin	27	84	11%	AV4	No	11%
C	Bobbin	37	30	36%	AV2	No	36%
C	Bobbin	37	30	41%	AV3	No	41%
C	Bobbin	37	30	19%	AV4	No	19%
C	Bobbin	38	34	16%	AV1	No	16%
C	Bobbin	38	34	37%	AV2	No	37%
C	Bobbin	38	34	43%	AV3	No	43%
C	Bobbin	38	34	35%	AV4	No	35%
C	Bobbin	43	40	29%	AV2	No	29%
C	Bobbin	43	40	16%	AV3	No	16%
C	Bobbin	28	49	27%	AV4	No	27%
C	Bobbin	35	54	20%	AV1	No	20%
C	Bobbin	35	54	28%	AV2	No	28%
C	Bobbin	40	54	28%	AV3	No	28%
C	Bobbin	40	54	21%	AV4	No	21%
C	Bobbin	40	57	29%	AV1	No	29%
C	Bobbin	40	57	16%	AV2	No	16%

<b>Tube Plugging</b>		
<b>SG</b>	<b>Reason/Mechanism</b>	<b>Tubes Plugged</b>
C	AVB Wear	7
<b>Total Tubes Plugged</b>		<b>7</b>

<b>Repair Attributions</b>				
<b>SG</b>	<b>Row</b>	<b>Column</b>	<b>Reason/Mechanism</b>	<b>Repair Method</b>
C	37	30	AVB Wear	Plug
C	38	34	AVB Wear	Plug
C	43	40	AVB Wear	Plug
C	28	49	AVB Wear	Plug
C	35	54	AVB Wear	Plug
C	40	54	AVB Wear	Plug
C	40	57	AVB Wear	Plug

<b>Plugging/Repair Record</b>					
<b>SG</b>	<b>Tubes Plugged</b>	<b>Tubes Repaired (Not Plugged)</b>	<b>Percent Plugged</b>	<b>Percent Repaired (Not Plugged)</b>	<b>Percent Plugged or Repaired</b>
A	15	0	0.45	0	0.45
B	7	0	0.21	0	0.21
C	17	0	0.51	0	0.51

### **TUBE INTEGRITY ASSESSMENT**

Overall condition assessments have been delineated in the Surry Steam Generator Monitoring and Inspection Program Plan (SPS-SGMIPP-001), Rev. 2. These assessments are consistent with the requirements of the Nuclear Energy Institute (NEI) Guideline NEI 97-06. A pre-outage assessment was performed to identify any relevant or potential degradation mechanisms to be considered for the Surry Unit 2 steam generators and to identify the appropriate eddy current inspection scope and probe capabilities.

Performance criteria are established in this document in three areas:

- Structural Integrity – Margin of 3.0 against burst under normal steady state power operation and a margin of 1.4 against burst under the most limiting design basis accident concurrent with a safe shutdown earthquake.
- Operational Leakage – RCS operational primary-to-secondary leakage through one steam generator shall not exceed 150 GPD
- Accident Induced Leakage – Leakage shall not exceed 1 GPM per steam generator during Main Steam Line Break (MSLB).

The inspection performed on “C” steam generator during the October 2000 outage was consistent with the Program Plan and the results formed the basis of the Condition Monitoring and Operational Assessment performed for this outage.

Condition Monitoring and Operational Assessment of the steam generator tube bundles is performed to verify that the condition of the tubes, as reflected in the inspection results, is in compliance with the plant licensing basis. Defects detected are evaluated to confirm that margins against leakage and burst were not exceeded at the end of the current operating cycle in accordance with the bounding ASME calculation. The results of the Condition Monitoring evaluation are used as a basis for an Operational Assessment, which demonstrates prospectively that the anticipated performance of the steam generators will not exceed the performance criteria margins against leakage and tube burst during the ensuing operating period.

Condition monitoring is “backward looking” and compares the currently observed inspection results for “C” steam generator against the structural and leakage integrity requirements. Additionally, an operational assessment, or “forward looking” evaluation is required to determine primarily if tube structural or leakage integrity will be challenged prior to the next scheduled inspection of “C” steam generator. In addition, an

assessment is made to verify the continued structural and leakage integrity of "A" and "B" steam generators based upon the inspection findings from "C" steam generator.

This report documents the condition monitoring and operational assessment based upon the inspection results from Surry Unit 2 "C" steam generator. The inspections were performed in October 2000. The Surry Unit 2 replacement steam generators are Westinghouse Model 51F units. These steam generator units contain thermally treated Alloy 600 tubing, full depth hydraulic expanded tube to tubesheet joints, and broached Type 405 stainless steel tube support plates.

## 1.0 Summary

The only degradation mechanism identified during the inspection of "C" steam generator was tube wear due to contact with anti-vibration bars (AVB's). Two (2) tubes (R37, C30 and R38, C34) were plugged due to wear depths exceeding the 40% Technical Specification Plugging Limit. Five (5) tubes (R43; C30; R28, C49; R35, C54; R40, C54; and R40, C57) were administratively plugged based on the projected AVB wear depth. Calculations predicted that AVB wear for the five (5) tubes would approach the ASME structural limit prior to the next inspection of "C" steam generator (scheduled for the Spring of 2005). All of the AVB indications found were below the ASME Code calculated structural limit including 3 delta P burst pressure margins for uniform wall thinning.

The condition of Surry Unit 2 "C" steam generator, as indicated by the results of the Condition Monitoring evaluation, satisfy the requirements for structural and leakage integrity margins. These conclusions are further confirmed by the lack of appreciable primary-to-secondary leakage during the last operating cycle as determined by routine testing. Evaluation of the AVB wear degradation mechanism showed no unusual progression of wear rates since the May 1996 inspection (approximately 48.4 EFPM). Projection of degradation rates for the next planned operating interval of 49.4 EFPM for "C" steam generator does not indicate that conditions exceeding structural and leakage margin requirements will occur before the end of that next planned operating interval. Thus, the Operational Assessment requirements are satisfied.

The inspection results for "C" steam generator were consistent with prior operational assessments and did not require any expansion of testing to other steam generators. No indications were detected that exceeded the structural integrity limits or could potentially challenge tube integrity margins for burst and leakage. All Operational Assessment structural and leakage integrity requirements continue to be met for the Surry Unit 2 "A", "B" and "C" steam generators. It is expected that structural and leakage integrity requirements will be met at the end of the next operating interval.

The next operating interval for "C" steam generator is planned to be 49.4 EFPM (Spring of 2005) compared with 48.4 EFPM for the past interval. Based upon the inspection results for "C" steam generator, no changes to the inspection intervals are planned for Unit 2 "A" or "B" steam generators. Inspection of Surry Unit 2 "B" steam generator is scheduled for the spring of "2002" and inspection of "A" steam generator is scheduled for the fall of "2003".

### **3.0 Surry Unit 2 – Summary of Evaluated Degradation Mechanisms, Inspection Methods, and Plan**

Table 1.0 is a summary of the Surry Unit 2 tube plugging attributions prior to the Fall 2000 outage. A total of thirty-two (32) tubes were plugged in this unit prior to the Fall 2000 outage. Mechanical wear at AVB contact points and pitting were the primary degradation related cause of tube plugging. Both of the preceding modes of degradation are classified as “inactive” for all steam generators as defined by Rev. 5 of the EPRI Examination Guidelines. No corrosion related cracking degradation has been identified in Surry Unit 2.

Prior to the current outage (EOC16), ten (10) tubes were plugged in “C” steam generator. Three (3) tubes were plugged due to tube wear at AVB contact points and one (1) tube was plugged due to C/L pitting degradation in the free-span above the cold leg tubesheet. Past practice has resulted in plugging of tubes with AVB contact wear that was less than the 40% TW plugging limit. This practice was taken as a conservative measure. As indicated in the Pre-outage Assessment, a number of tubes were left in service following the 1996 inspection (EOC13) with tube wear at AVB contact points in accordance with the plugging evaluation requirements in place at that time.

As noted in Table 1.0, twelve (12) tubes have been plugged in the Surry Unit 2 steam generators due to pitting. Only one (1) of the plugged tubes was in “C” steam generator. This pit indication was left in service following the EOC13 inspection but was subsequently plugged during the EOC15 inspection of “A” steam generator. Unit 2 “C” steam generator was re-evaluated for this condition during the October 2000 outage with no additional findings.

The inspection plans for Surry Unit 2 “C” steam generator followed the philosophy established in the Surry Station Steam Generator Monitoring and Inspection Program Plan as augmented by the Pre-Outage Assessment. The inspection plans for the October 2000 outage are outlined below:

- 100% full length bobbin inspection of three thousand three hundred and thirty two (3332) tubes which equates to a 33% sample of the total tube population in all three (3) steam generators.
- Focused 3-coil rotating probe inspections at the H/L top of tubesheet of six hundred and sixty seven (667) tubes which is a 20% sample of all of the tubes in “C” steam generator. This inspection scope equates to a 60% sample of the of the Critical Area population in “C” steam generator as defined by the Surry Station Steam Generator Monitoring and Inspection Program.
- 100 % single coil Plus Point rotating probe inspection of ninety two (92) tubes in the Row 1 tube U-bend areas which equates to a 33% sample of Row 1 U-bends in all three Unit 2 steam generators.
- Rotating probe confirmation of bobbin indications per the Surry Site Specific Analysis Guidelines.

**Table 1.0 Surry Power Station Unit 2**

SURRY POWER STATION UNIT #2																											
PLUGGING ATTRIBUTES																											
DATE	Preservice			Dec-81			Jun-83			Apr-85			Jun-86			Oct-86			Oct-88			Mar-91			Mar-93		
EFPY	0.0			1.1			2.4			3.6			3.8			4.7			5.9			7.2			8.7		
S/G	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
AVB																								2			
Freespan																											
Tube Pulls																											
Foreign Object												1															
Pitting																											
Anomalies																											
Other	1		1																								
Sub-Total	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0
TOTAL	2			0			0			0			1			0			0			0			2		

DATE	Feb-95			Apr-96			Oct-97			Apr-99			Total per S/G		
EFPY	10.2			11.2			12.5			13.9					
S/G	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
AVB						3			3				0	5	3
Freespan													0	0	0
Tube Pulls													0	0	0
Foreign Object													1	0	0
Pitting	4									7		1	11	0	1
Anomalies						3							0	0	3
Other	1					2			2	1			3	2	3
Sub-Total	5	0	0	0	0	8	0	5	0	8	0	1	15	7	10
TOTAL	5			8			5			9			32		

**Total tubes plugged by category**

- 8 AVB
- 0 Freespan
- 0 Tube Pulls
- 1 Foreign Objects
- 12 Pitting
- 3 Anomalies
- 8 Other

 S/G Inspected

Attachment 1  
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#### **4.0 Condition Monitoring Assessment – Tube Integrity Evaluation**

The condition monitoring assessment is an evaluation of the past operating cycle (EOC16) performance relative to structural and leakage integrity margins as compared to current inspection results. The condition of the Surry Unit 2 steam generators, as indicated by the results of the inspection performed on the “C” steam generator, satisfy the structural and leakage integrity margin for the recently completed operating period. A discussion of the inspection results and the evaluations performed is provided in the following sections.

##### **4.1 Primary Side Inspection**

No conditions indicative of corrosion degradation were noted during the eddy current inspection of Unit 2 “C” steam generator.

During the bobbin inspection, Dent (DNT) signals were reported at the 6<sup>th</sup> and 7<sup>th</sup> tube support plates. These “DNT” signals appear to be associated with contact of the tubes against the quatrefoil land and do not represent the denting issue and resultant corrosion degradation associated with drilled carbon steel support plates. A total of two hundred and fifty one (251) dented locations were identified with voltages  $\geq 2.0$  volts. An increase in the number of reported “DNT” indications was experienced during this inspection. The increase resulted because the reporting threshold for “DNT” calls was changed to  $\geq 2.0$  volts as compared to a reporting threshold of  $\geq 5.0$  volts during the EOC13 inspection. As specified in the Surry Site Specific Eddy Current Analysis Guidelines “SRY-SGPMS-002 Rev. 4, dents or bulges  $\geq 5$  volts must be re-inspected with a rotating surface riding coil unless a review of historical data confirms that the signal voltage and phase attributes are essentially unchanged from previous inspections. A total of seventy four (74) dent locations (28 hot leg and 46 cold leg) required resolution using the Plus Point probe. These inspections confirmed the “DNT” signals to result from small dents. Most of the “DNT” signals corresponded to the edge of the tube support plate and were in line with the quatrefoil lands. No crack-like or other forms of tube degradation were noted at any of the dent locations. Some support plate locations exhibited two or more dents that corresponded with the quatrefoil lands.

Other free-span bobbin signals required supplemental rotating probe examination due to insufficient history data or changes in the signal attributes relative to the previous inspection data. These were typically low voltage signals associated with manufacturing burnish marks (MBM's), local geometric variations (LGV's), or local inward displacements of the tube caused by a manufacturing impact (DNG). The signals associated with these categories do not represent in-service degradation. Nevertheless, these signals were carefully monitored for change relative to previous inspection results. If an indication had changed more than specified by the Analysis Guidelines or could not be identified in the history review, it was designated for rotating probe testing. Rotating probe inspections were performed on a total of two hundred and



fifty three (253) free-span locations (70 H/L and 183 C/L). None of the locations tested exhibited signs of in-service degradation.

RPC inspection of the top of the hot leg tubesheet (HL-TTS) region was performed on six hundred and sixty seven (667) tubes. This program focused primarily on the low velocity region in the middle of the bundle. All HL-TTS signals were resolved in accordance with the analysis guidelines and no degradation was identified.

Ninety one (91) of the scheduled ninety two (92) Row 1 U-bends were inspected with a 0.680" diameter plus-point U-Bend probe. No corrosion related degradation was identified in any of the tubes. The U-Bend of tube R1, C4 could not be inspected with the 0.680" diameter plus-point U-Bend probe due to a restriction at the U-bend. A 0.620" diameter high frequency plus-point probe was used to accomplish the inspection and no degradation was identified in the tube.

During the U-bend inspection effort, signal-to-noise (S/N) measurements were made on a sample of 20 tubes at both 300 and 400 kHz. The results of the sample were compared to the EPRI qualification data used in developing ETSS #96511. These comparisons were made to determine if a high frequency plus-point probe was required at Surry to improve the S/N ratio in the U-Bend area. As is shown by Table 2.0, the average S/N values obtained at Surry are below the values reported by EPRI in developing the qualification for ETSS #96511. Therefore, no testing with the high frequency plus-point probe was deemed necessary for "C" steam generator.

**Table 2.0 Signal-to-Noise Row 1 U-bend Study**

		<b>300 KHZ</b>			
		<b>Apex</b>	<b>Apex</b>	<b>Tangent</b>	<b>Tangent</b>
		<b>Vp-p</b>	<b>Vv-m</b>	<b>Vp-p</b>	<b>Vv-m</b>
<b>SITE</b>	<b>AVG.</b>	0.83	0.26	1.30	0.60
<b>EPRI - ETSS 96511</b>		1.08	0.40	1.49	0.65
<b>AVG.</b>					
		<b>400 KHZ</b>			
		<b>Apex</b>	<b>Apex</b>	<b>Tangent</b>	<b>Tangent</b>
		<b>Vp-p</b>	<b>Vv-m</b>	<b>Vp-p</b>	<b>Vv-m</b>
<b>SITE</b>	<b>AVG.</b>	0.94	0.28	1.38	0.61
<b>EPRI - ETSS 96511</b>		1.20	0.40	1.62	0.62
<b>AVG.</b>					

Tube wear was identified in "C" steam generator at sixty-two (62) AVB intersections involving thirty-nine (39) tubes. The maximum measured depth for an AVB indication was 43% through-wall (TW) which was reported on tube R38, C34 at AV3. The indication on tube R38, C34 at AV3 was reported as 24% TW during the May 1996 inspection of "C" steam generator. Of the sixty two (62) AVB indications reported in "C" steam generator, forty one (41) indications were not reported in 1996. The largest newly reported indication was 24% TW on tube R39, C53 at AV3. The minimum reporting criteria for AVB wear in 1996 was 10% TW. In order to establish growth rates for nine (9) of the largest new indications, previous inspection data was re-evaluated to determine if the indications were present in 1996 at levels below 10% TW. The review indicated that all nine (9) of the AVB areas exhibited wear in 1996 with measured depths ranging from 2% TW to 10% TW. For the purpose of growth rate statistics, the remaining thirty two (32) new AVB areas with wear indications were assumed to contain no wear in 1996. Table 3.0 lists all tubes with AVB wear indications as well as the associated growth rate for each location. The average growth rate per cycle for the reported indications since the last inspection (1996 – 48.4 EFPM) was 3.8%. The maximum growth rate being 7.0% TW per cycle. This growth rate is approximately twice the value documented for AVB indications in the Surry Site Specific Steam Generator Program Plan as derived from prior inspections.

During the October 2000 examination of Unit 2 "C" steam generator, the Dominion ET Level III served as the independent Qualified Data Analyst. The Dominion Generation ET Level III performed random data checks as well as a final verification of the planned versus completed inspection program. No issues were noted.

**TABLE 3.0**

**SURRY UNIT 2 – October 2000  
STEAM GENERATOR EDDY CURRENT INSPECTION SUMMARY – AVB PERCENT SIGNALS**

Row	Column	AVB Location	Voltage (Fall 2000)	% TW (Fall 2000)	% TW (Spring 1996) (Less than 10% Not Reported)	% Change (% TW in 2000 - %TW in 1996)	% TW Change per Cycle based on 1996 data
24	8	AV2	0.25	13	<10	13	4.33
		AV4	0.27	13	<10	13	4.33
25	9	AV3	0.29	13	<10	13	4.33
38	21	AV2	0.27	12	<10	12	4
26	26	AV3	0.37	16	<10 (2)**	14	4.67
		AV4	0.31	15	<10 (5)**	10	3.33
25	27	AV2	0.29	13	<10	13	4.33
38	28	AV1	0.27	13	<10	13	4.33
		AV3	0.22	11	14	0	0
25	29	AV3	0.47	18	<10 (8)**	10	3.33
34	29	AV4	0.31	13	<10	13	4.33
37*	30 *	AV2	2.05	36	20	16	5.33
		AV3	3.17	41	21	20	6.67
		AV4	0.51	19	<10	19	6.33
40	33	AV1	0.27	12	<10	12	4
		AV2	0.53	19	16	3	1
		AV3	0.79	23	17	6	2
42	33	AV2	0.28	13	<10	13	4.33
38*	34*	AV1	0.38	16	12	4	1.33
		AV2	2.26	37	21	16	5.33
		AV3	3.51	43	24	21	7
		AV4	1.88	35	18	17	5.67
26	39	AV3	0.34	15	<10 (4)**	11	3.67
43	39	AV2	0.49	19	<10(10)**	9	3
43*	40*	AV2	1.25	29	22	7	2.33
		AV3	0.38	16	<10	16	5.33
28*	49*	AV4	1.05	27	19	8	2.67
39	53	AV3	0.84	24	<10 (8)**	16	5.33
35*	54*	AV1	0.64	20	<10	20	6.67
		AV2	1.26	28	14	14	4.67
40*	54*	AV3	1.27	28	23	5	1.67
		AV4	0.67	21	11	10	3.33
39	55	AV3	0.67	22	14	8	2.67
		AV4	0.52	19	10	9	3
40*	57*	AV1	1.27	29	16	13	4.33
		AV2	0.38	16	<10	16	5.33

**TABLE 3.0 (Continued)**

Row	Column	AVB Location	Voltage (Fall 2000)	% TW (Fall 2000)	% TW (Spring 1996) (Less than 10% Not Reported)	% Change (% TW in 2000 - %TW in 1996)	% TW Change per Cycle based on 1996 data
43	61	AV1	0.47	18	<10 (8)**	10	3.33
44	61	AV1	0.19	10	<10	10	3.33
37	63	AV2	0.27	12	<10	12	3
40	63	AV3	0.46	17	14	3	1
		AV4	0.49	18	13	5	1.67
31	65	AV2	0.34	15	<10 (8) **	7	2.33
40	65	AV3	0.2	10	<10	10	3.33
41	66	AV3	0.32	14	<10	14	4.67
41	67	AV2	0.22	11	<10	11	3.67
33	68	AV1	0.42	16	<10	16	5.33
		AV2	0.4	16	<10 (9)**	7	2.33
41	68	AV2	0.2	10	<10	10	3.33
31	69	AV2	0.35	15	<10	15	5
33	70	AV1	0.22	11	<10	11	3.67
		AV2	0.19	9	<10	9	3
		AV3	0.38	15	<10	15	5
40	70	AV1	0.25	12	<10	12	4
		AV3	0.2	10	<10	10	3.33
37	73	AV3	0.4	16	<10	16	5.33
38	73	AV1	0.25	12	<10	12	4
		AV2	0.32	14	<10	14	4.67
31	75	AV3	0.33	14	11	3	1
		AV4	0.38	16	11	5	1.67
35	77	AV2	0.33	14	<10	14	4.67
		AV2	0.3	13	<10	13	4.33
27	84	AV4	0.22	11	<10	11	3.67
						Max:	7
						Mean:	3.789677419
						StdDev	1.496919205
						90% Value = Mean +1.28*StdDev	5.705734002
						95% Value = Mean +1.65*StdDev:	6.304501684

**Notes:**

- \* Location Plugged – Fall 2000
- \*\* %TW based on 1996 data "Lookup Review"

## **4.2 Operational Leakage**

Routine primary-to-secondary leak monitoring is conducted in accordance with Station procedure 0-HSP-LKRATE-001. The critical leakage value requiring unit shutdown is 150 GPD/steam generator and/or a rate of change leakage limit of > 60 GPD/hour/steam generator. During the past operating cycle, no appreciable primary-to-secondary leakage was observed during plant operation.

## **4.3 Projected Accident Leakage**

Based on the fact that no through-wall indications or indications approaching the structural limit have been reported in the Surry station steam generators, no appreciable primary-to-secondary leakage would be expected under accident induced loadings.

## **45 Condition Monitoring Conclusion**

In order to demonstrate condition monitoring structural integrity, it is necessary to account for various uncertainties, which are subtracted from the structural limit. The result is then compared with the largest flaw measured. The largest measured flaw reported during the current inspection effort was a 43% TW wear indication at R38, C34. As indicated in the Surry Site Specific Steam Generator Program Plan, the structural limit using the ASME Code equation for uniform wear in a 7/8" diameter tube with a 0.050" wall thickness is 60 % through-wall (i.e., 0.020 inch remaining wall). When the total NDE uncertainty of 8.58% is added to the measured value of 43%, a Condition Monitoring limit of 51.6% is obtained. This value is well below the structural limit of 60%. Since there is no uncertainty in the ASME Code equation itself, there is no relational uncertainty that must be considered in determining the Condition Monitoring limit. Therefore, the condition of the Surry Unit 2 steam generators, as indicated by the results of the inspection performed on "C" steam generator, satisfy condition monitoring requirements for structural and leakage integrity margin for the recently completed operating period.

## **5.0 Operational Assessment: Tube Integrity and Leakage**

### **5.1 Discussion**

NEI 97-06 requires that a "forward looking" Operational Assessment be performed to assess degradation mechanisms. The assessment must determine if the degradation mechanisms observed in a plant will continue to meet tube structural and leakage integrity requirements at the end of the upcoming cycle when degradation mechanism growth rates and NDE uncertainty are added to the largest flaw remaining in service. The only degradation mechanism observed is Surry Unit 2 "C" steam generator during the October 2000 inspection was AVB wear. The following sections summarize the

growth rate evaluation and the NDE sizing uncertainty evaluations performed for AVB wear to support the Operational Assessment.

Based on information contained in Technical Report NE-1214, Rev. 0 "Fuel Management Scheme 1999-B," the past operating interval between inspections of "C" steam generator was 48.4 EFPM and the cumulative operating period for the replacement steam generators was 166.8 EFPM. The projected operating interval until the next inspection of "C" steam generator is approximately 49.4 EFPM.

The only degradation that is expected over the long term is wear at anti-vibration bar locations. AVB wear, if present, is reported during bobbin testing. Typically, indications begin to be reported at approximately 10% through wall and, in general, are slow growing. As was shown in Table 3.0, the average AVB wear rate per cycle was 3.8% with a maximum of 7%. These tube wear rates are similar to those seen for the Surry Unit 1 "C" steam generator during the Spring 2000 outage and are higher than those seen previously for Surry station steam generators (i.e., 2% to 5% per cycle).

An evaluation was performed to determine the AVB wear depths for locations exhibiting wear in "C" steam generator that remained in service following the October 2000 inspection. This evaluation addressed all AVB wear conditions relative to tube integrity requirements at the end of the next planned operating interval (3 Cycles – 49.4 EFPM). Table 4.0 lists the projected through wall depths for all AVB wear sites left in service for "C" steam generator.

The appropriate NDE technique performance data for bobbin probe detection and sizing of AVB wear is based upon EPRI ETSS # 96004.1. Using the EPRI database, a technique uncertainty of 4.956 % at a 90% confidence interval is obtained. The analyst uncertainty for wear measurements is obtained from the document "Capabilities of Eddy Current Data Analysts to Detect and Characterize Defects in SG Tubes" D. H. Harris, 15<sup>th</sup> Steam Generator NDE Workshop, Long Beach, CA, July 1996. The value obtained for analyst variability is 7.04 %. As discussed in EPRI Report TR-107621, R1, "Steam Generator Integrity Assessment Guidelines", dated March 2000, the total NDE uncertainty is equal to the square root of the sum of the squares of the measurement uncertainty and the analyst uncertainty. The total NDE uncertainty associated with AVB sizing is 8.58 %. Since there is no uncertainty in the ASME Code equation itself, there is no relational uncertainty that must be considered in determining the Operational Assessment limit.

## 5.2 AVB Wear Depth Projections

As discussed earlier, the AVB wear growth rates were evaluated based upon the final field data from the EOC16 inspection. The growth rate from 1996 to 2000 for each AVB wear site is detailed in Table 3.0. A summary of the information is shown below:

Maximum:	7.00% / Cycle
Mean Growth Rate:	3.79% / Cycle
Standard Deviation:	1.50% / Cycle
Number of Data Points:	62
90% CL:	5.71% / Cycle
95% CL:	6.30% / Cycle

For this Operational Assessment, the maximum individual growth seen (i.e., 7% / cycle) will be utilized as the conservative growth rate basis.

The guidance provided in the EPRI Steam Generator Integrity Assessment Guidelines: Revision 1 (TR-107621-R1) states that structural integrity should be demonstrated at the next inspection by showing that the tube meets the performance criteria with an overall uncertainty based on a probability of 0.90, evaluated at 50% confidence. Application of the maximum observed growth rate from EOC16 (R38, C34 at AV3) for the last 3 cycles results in the following projected maximum depth at the next inspection (Spring of 2005) for "C" steam generator:

Maximum AVB Wear Site Left in Service: (R39C54 – AV3)	24 %
Max Growth Adjusted for Cycle Length: (7 % x 49.4/48.4 x 3)	21.4 %
NDE Sizing at 90% CL	8.58%
Projected EOC19 (3 cycles) Condition	54%

This evaluation is conservative for the following reasons:

- a) The largest growth rate from the prior inspection data is utilized. This value is greater than the 95% CL and the industry experience is that growth rates decline with increasing operating time.
- b) Generally, the largest growth rates do not occur at the largest BOC indications retained in service. Thus, the combination of the largest individual growth rate and the largest indication kept in service is conservative.

### 5.3 Operational and Accident Leakage

Although there are no findings that would indicate a concern, sensitivity to primary-to-secondary leakage events will continue to be monitored with conservatively based monitoring procedures. Incorporation of recommended leakage values as indicated in industry guidelines will be implemented as a part of the assessment of the current monitoring procedures consistent with Dominion commitments to NEI 97-06, Steam Generator Program Guideline.

It is expected that chemistry controls similar to the past cycle will be maintained throughout the next cycle. Chemistry excursions or significant changes to treatment programs will be evaluated on a case by case basis. Evaluations will include the impact on planned steam generator inspection cycles and scopes.

### 5.4 Conclusion

Based upon the results of this eddy current inspection, past inspections, and current chemistry operating practices, "C" steam generator meets the performance criteria to operate for at least three cycles before the next planned tubing inspection. No conditions were identified during the recently completed inspection that would impact the structural and leakage performance of the Unit 2 steam generators through the next planned operating interval, thereby satisfying the operational assessment.

In accordance with the Program Plan logic of general and focused tubing inspections on one steam generator per refueling cycle, the findings of this inspection are consistent with maintaining the currently planned frequency of inspection. If other issues are identified during ensuing inspections of other Surry steam generators or relevant industry findings are reported during the inspection of similar model steam generators, a review of the planned inspection intervals will be conducted. Results to date indicate that inspection intervals for Unit 2 "A" and "B" steam generators may remain as planned. Surry Unit 2 "B" steam generator is scheduled for inspection in the Spring "2002" and Surry Unit 2 "A" steam generator is scheduled for inspection in the Fall of "2003".

Results of secondary side inspections continue to demonstrate reliable operation. Continuing diligence on chemistry and FME control issues will support long term performance. Evaluation and monitoring will continue as planned. Continued awareness of any related industry issues will be observed when planning future inspections.



Table 4.0

End Of Cycle 19 (EOC19) % TW Depths At AVB Location Left In Service  
For the "C" Steam Generator

Row	Column	AVB Location	% Call (Fall 2000)	Projected % Call - Spring 2005
24	8	AV2	13	43
		AV4	13	43
25	9	AV3	13	43
38	21	AV2	12	42
26	26	AV3	16	46
		AV4	15	45
25	27	AV2	13	43
38	28	AV1	13	43
		AV3	11	41
25	29	AV3	18	48
34	29	AV4	13	43
		AV4	19	49
40	33	AV1	12	42
		AV2	19	49
		AV3	23	53
42	33	AV2	13	43
26	39	AV3	15	45
43	39	AV2	19	49
39	53	AV3	24	54
39	55	AV3	22	52
		AV4	19	49
43	61	AV1	18	48
44	61	AV1	10	40
37	63	AV2	12	42
40	63	AV3	17	47
		AV4	18	48
31	65	AV2	15	45
40	65	AV3	10	40
41	66	AV3	14	44
41	67	AV2	11	41
33	68	AV1	16	46
		AV2	16	46
41	68	AV2	10	40

**Table 4.0 (Cont'd)**

**End Of Cycle 19 (EOC19) % TW Depths At AVB Location Left In Service  
For the "C" Steam Generator**

Row	Column	AVB Location	% Call (Fall 2000)	Projected % Call - Spring 2005
31	69	AV2	15	45
33	70	AV1	11	41
		AV2	9	39
		AV3	15	45
40	70	AV1	12	42
		AV3	10	40
37	73	AV3	16	46
38	73	AV1	12	42
		AV2	14	44
31	75	AV3	14	44
		AV4	16	46
35	77	AV2	14	44
		AV2	13	43
27	84	AV4	11	41

Note: % TW (2005) = % TW (2000) + [(7% Growth / cycle) x 49.4. / 48.4 Cycles x 3 Cycles] + 8.58%

**Corrective Actions Planned**

**None**

**Evaluation (If SG condition does not meet previous cycle operational assessment)**

**NA**

## Glossary of Terms

AVB	Anti-vibration Bars
ANF	Anomaly Not Found
ANR	Anomaly Not Reportable
BDA	Bad Data
BLG	Bulge
DNG	Ding
DNT	Dent
EFPM	Effective Full Power Months
INF	Indication Not Found
INR	Indication Not Reportable
LGV	Local Geometric Variation
MAA	Multiple Axial Anomaly
MBM	Manufacturing Buff Mark
MMB	Multiple Manufacturing Buff Mark
NDD	No Degradation Detected
NQI	Non-Quantifiable Indication
NQN	Non-Quantifiable Indication Not Confirmed
NT	No Test
NTE	No Tube Expansion
PCT	Percent Through-Wall
PID	Positive Identification Established
PLG	Plug
PVN	Permeability Variation
RST	Restriction
SAA	Single Axial Anomaly
SCA	Single Circumferential Anomaly
TIU	Tube Identity Uncertain
TEH	Tube End Hot
TSH	Tubesheet Hot
BPH	Baffle Plate Hot
1H	Hot Leg, One Hot
2H	Hot Leg, Two Hot
3H	Hot Leg, Three Hot
4H	Hot Leg, Four Hot
5H	Hot Leg, Five Hot
6H	Hot Leg, Six Hot
7H	Hot Leg, Seven Hot
AV1	U-bend, Anti-vibration Bar One
AV2	U-bend, Anti-vibration Bar Two
AV3	U-bend, Anti-vibration Bar Three
AV4	U-bend, Anti-vibration Bar Four
7C	Cold Leg, Seven Cold
6C	Cold Leg, Six Cold
5C	Cold Leg, Five Cold

4C	Cold Leg, Four Cold
3C	Cold Leg, Three Cold
2C	Cold Leg, Two Cold
1C	Cold Leg, One Cold
BPC	Baffle Plate Cold
TSC	Tube Sheet Cold
TEC	Tube End Cold

**Attachment 2**

**Surry Power Station Unit 2**

**Inservice Inspections**

**Repairs and Replacements**

**Abstract of Examinations**

**NIS-2 Forms**

### **Abstract of Examinations Performed Repair and Replacements**

Repair and replacements completed for Unit 2 from May 24, 1999 through October 31, 2000 were performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code, 1989 Edition.

The following paragraphs and the attached NIS-2 forms represent those repairs and replacements performed on Class 1 and Class 2 systems:

RR# 99-074, replace studs on 2-RC-MOV-2591 under work order 00413086-01, completed on 07/11/99.

RR# 00-006, replace valve 2-DA-TV-200B under work order 00423772-01, completed on 01/28/00.

RR# 00-063, replace operator and body to bonnet bolting on 2-CH-MOV-2115C under work order 00426904-01, completed on 10/10/00.

RR# 00-064, replace valve stem disc on 2-RC-MOV-2591 under work order 00413086-24, completed on 10/8/00.

RR # 00-065, replace body to bonnet bolts on 2-RC-MOV-2591 under work order 00413086-20, completed on 10/16/00.

RR# 00-114, replace studs and nuts on 2-RC-P-1A under work order 00414752-01, completed on 10/09/00.

RR# 00-115, overhaul 2-RH-HCV-2142 and replace trim assembly under work order 00413289-01, completed on 10/12/00.

RR# 00-116, replace trim assembly on 2-RC-PCV-2456 under work order 00411069-01, completed on 10/16/00.

RR# 00-117, replace trim assembly on 2-RC-PCV-2455C under work order 00411064-01, completed on 10/16/00.

RR# 00-118, replace operating valve for 2-RH-HCV-2758 under work order 00409797-01, completed on 10/14/00.

RR# 00-122, replace 12" pipe, flange and 6" pipe on 2-RH-12.00-PIPE under work order 00403857-01, completed on 10/16/00.

RR# 00-123, replace check valve 2-CS-45 under work order 00433000-02 completed on 07/26/00.

RR# 00-129, replace studs, nuts and valve 2-DA-TV-200A under work order 00424391-01 completed on 10/18/00.

RR# 00-130, replace studs and valve, 2-DA-TV-200B under work order 00424392-01 completed on 10/19/00.

RR# 00-131, replace studs and nuts on 2-RC-SV-2551A under work order 00421144-01, completed on 10/23/00.

RR# 00-132, replace studs and nuts on 2-RC-SV-2551B under work order 00421145-01, completed on 10/22/00.

RR# 00-133, replace studs and nuts on 2-RC-SV-2551C under work order 00421146-01, completed on 10/22/00.

RR# 00-144, replace valve bonnet, studs and nuts on 2-CH-27 under work order 00435673-01, completed on 9/8/00.

RR# 00-151, replace 14" pipe and elbow on 2-FW-PPS-218 under work order 00422454-10, completed on 10/18/00.

RR# 00-153, replace studs and nuts on flow element 2-RH-FE-2605 under work order 00403857-02, completed on 10/16/00.

RR# 00-154, replace valve 2-MS-196 and 3" pipe under work order 00425593-03, completed on 10/18/00.

RR# 00-155, repair valve 2-FW-12 body under work order 0438149-01, completed on 10/13/00.

RR# 00-156, replace relief valve, studs and nuts on 2-CH-RV-2382B under work order 00421007-01; completed on 10/12/00.

RR# 00-157, replace studs and nuts on 2-RC-MOV-2535 under work order 00438176-01, completed on 10/25/00.

RR# 00-158, U-bolt added to hanger H-2 on 2-RC-PP-12.00-RC-PIPE-310-2501R under work order 00438144-01, completed on 10/19/00.

RR# 00-159, replace relief valve 2-CH-RV-2203 under work order 00413896-01, completed on 10/12/00.

RR# 00-162, replace valve 2-IA-704 under work order 00438377-01, completed on 10/21/00.



**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner Virginia Electric & Power Company Date July 16, 1999  
Name \_\_\_\_\_  
5000 Dominion Blvd., Glen Allen, VA 23060 Sheet 1 of 1  
Address \_\_\_\_\_

2. Plant Surry Power Station Unit: 2  
Name \_\_\_\_\_  
5570 Hog Island Road, Surry, VA 23883 R/R 99-074 Work Order 00413086-01  
Address \_\_\_\_\_ Repair Organization P.O. No. Job No. . etc.

3. Work Performed By Virginia Electric & Power Company Type Code Symbol Stamp N/A  
Name \_\_\_\_\_ Authorization No. N/A  
5000 Dominion Blvd., Glen Allen, VA 23060 Expiration Date N/A  
Address \_\_\_\_\_

4. Identification of System Reactor Coolant

5. (a) Applicable Construction Code ANSI B31.1 1955 Edition, N/A Addenda, N-1 through N-13 Code Case  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989 Edition with Summer 1983 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, Or Replacement	ASME Code Stamped (Yes or No)
Stud	Anchor/Darling	Heat #41549	N/A	02-RC-MOV-2591	N/A	Replacement	No

7. Description of Work Replaced Studs

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure   
Other  Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks P.O.#CNT450013(Studs)  
Applicable Manufacturer's Data Reports to be attached

**CERTIFICATE OF COMPLIANCE**

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp NA

Certificate of Authorization No. NA Expiration Date NA

Signed D. L. Rogers III Date 7/16/99, 1999  
Owner or Owner's Designee, Title

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Virginia and employed by HSBI and I Co. of Hartford, Ct. have inspected the components described in this Owner's Report during the period 7/8/99 to 7/16/99, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

D. Smith Commissions Va. 883(R)  
Inspector's Signature National Board, State, Province, and Endorsements

Date 7/16 1999

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner Virginia Electric & Power Company Date May 30, 2000

Name \_\_\_\_\_  
5000 Dominion Blvd., Glen Allen, VA 23060 Sheet 1 of 1  
Address \_\_\_\_\_

2. Plant Surry Power Station Unit: 1, 2  
Name \_\_\_\_\_  
5570 Hog Island Road, Surry, VA 23883 R/R-00-006 W.O.00423772-01  
Address \_\_\_\_\_ Repair Organization P.O. No. Job No. , etc.

3. Work Performed By Virginia Electric & Power Company Type Code Symbol Stamp N/A  
Name \_\_\_\_\_ Authorization No. N/A  
5000 Dominion Blvd., Glen Allen, VA 23060 Expiration Date N/A  
Address \_\_\_\_\_

4. Identification of System Drains Aerated

5. (a) Applicable Construction Code ANSI B31.1 1955 Edition, N/A Addenda, N-1 through N-13 Code Case  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, Or Replacement	ASME Code Stamped (Yes or No)
2" Trip Valve	N/A	N/A	N/A	Mark #38-02-DA-TV-200B-Valve	N/A	Replacement	No

7. Description of Work Replaced Valve/Actuator with Refurbished

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure   
Other  Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Installed Rebuilt Spare. Quality Documents Reviewed At Initial Installation.  
Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp NA

Certificate of Authorization No. NA Expiration Date NA

Signed D. L. Brown ISI ENGINEER Date 5/30 15 2000  
Owner or Owner's Designee, Title ISI

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of VIRGINIA and employed by HSBI and I Co. of HARTFORD, CT.

ISI have inspected the components described in this Owner's Report during the period 1/31/00 to 6/14/00, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Al Smith Commissions Va. 883(2)  
Inspector's Signature National Board, State, Province, and Endorsements

Date 6/14/2000

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner Virginia Electric & Power Company Date November 30, 2000  
Name \_\_\_\_\_  
5000 Dominion Blvd., Glen Allen, VA 23060 Sheet 1 of 2  
Address \_\_\_\_\_

2. Plant Surry Power Station Unit: 2  
Name \_\_\_\_\_  
5570 Hog Island Road, Surry, VA 23883 R/R 00-063 W.O. 00426904-01  
Address \_\_\_\_\_ Repair Organization P.O. No. Job No. . etc. \_\_\_\_\_

3. Work Performed By Virginia Electric & Power Company Type Code Symbol Stamp \_\_\_\_\_ N/A  
Name \_\_\_\_\_ Authorization No. \_\_\_\_\_ N/A  
5000 Dominion Blvd., Glen Allen, VA 23060 Expiration Date \_\_\_\_\_ N/A  
Address \_\_\_\_\_

4. Identification of System Charging

5. (a) Applicable Construction Code ANSI B31.1 1955 Edition, N/A Addenda, N-1 through N-13 Code Case  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, Or Replacement	ASME Code Stamped (Yes or No)
9/16" Stud	Mackson, Inc	Heat #516984 Heat Code JYU	N/A	Mark #38-02-CH-MOV-2115C-Vaive	N/A	Replacement	No
9/16" Hex Nut	Mackson, Inc.	Heat #40544	N/A	Mark #38-02-CH-MOV-2115C-Vaive	N/A	Replacement	No

7. Description of Work Replace Operator / Body to Bonnet Bolting

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure   
Other  Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks P.O.BNT-467650 (9/16" Stud) NUTS  
Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this placement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp NA

Certificate of Authorization No. NA Expiration Date NA

Signed D. J. Brown IST Engineer Date 12/4 2000  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Virginia and employed by HSBI and I Co. of Hampton, Va. have inspected the components described in this Owner's Report during the period 3/20/00 to 12/4/00, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

D. Smith Commissions Va. 883 (R)  
Inspector's Signature National Board, State, Province, and Endorsements

Date 12/4 2000

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner Virginia Electric & Power Company Date November 15, 2000  
Name  
5000 Dominion Blvd., Glen Allen, VA 23060 Sheet 1 of 2  
Address

2. Plant Surry Power Station Unit: 2  
Name  
5570 Hog Island Road, Surry, VA 23883 R/R 00-064 W.O.00413086-24  
Address Repair Organization P.O. No. Job No. . etc.

3. Work Performed By Virginia Electric & Power Company Type Code Symbol Stamp N/A  
Name Authorization No. N/A  
5000 Dominion Blvd., Glen Allen, VA 23060 Expiration Date N/A  
Address

4. Identification of System Reactor Coolant

5. (a) Applicable Construction Code ANSI B31.1 1955 Edition, N/A Addenda, N-1 through N-13 Code Case  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, Or Replacement	ASME Code Stamped (Yes or No)
Valve Disc	Anchor Darling	Heat #N147	NA	Mark #02-RC-MOV-2591	N/A	Replacement	No

7. Description of Work Assemble Valve Stem Disc

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure   
Other  Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.





**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner Virginia Electric & Power Company Date November 15, 2000  
Name \_\_\_\_\_  
5000 Dominion Blvd., Glen Allen, VA 23060 Sheet 1 of 2  
Address \_\_\_\_\_

2. Plant Surry Power Station Unit: 2  
Name \_\_\_\_\_  
5570 Hog Island Road, Surry, VA 23883 R/R 00-065 W.O. 00413086-20  
Address \_\_\_\_\_ Repair Organization P.O. No. Job No., etc. \_\_\_\_\_

3. Work Performed By Virginia Electric & Power Company Type Code Symbol Stamp \_\_\_\_\_ N/A  
Name \_\_\_\_\_ Authorization No. \_\_\_\_\_ N/A  
5000 Dominion Blvd., Glen Allen, VA 23060 Expiration Date \_\_\_\_\_ N/A  
Address \_\_\_\_\_

4. Identification of System Reactor Coolant

5. (a) Applicable Construction Code ANSI B31.1 1955 Edition, N/A Addenda, N-1 through N-13 Code Case  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No.	Other Identification	Year Built	Repaired, Replaced, Or Replacement	ASME Code Stamped (Yes or No)
Bonnet Stud Nut	Anchor Darling	Heat #531923	N/A	Mark #38-02-RC-MOV-2591-Valve	N/A	Replacement	No
Bonnet Studs	Anchor Darling	Heat #41549	N/A	Mark #38-02-RC-MOV-2591-Valve	N/A	Replacement	No
1 1/8" Hex Nut	Mackson, Inc	Heat #1-8023JC	N/A	Mark #38-02-RC-MOV-2591-Valve	N/A	Replacement	No
1 1/8" Stud	Mackson, Inc	Heat #11863	N/A	Mark #38-02-RC-MOV-2591-Valve	N/A	Replacement	No

7. Description of Work Replace Two Body To Bonnet Bolts

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure   
Other  Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks P.O. CSY-154208 (Bonnet Stud Nut ) P.O. CNT-450013 ( Bonnet Stud)  
Applicable Manufacturer's Data Reports to be attached  
P.O. BNT-467650 (Hex Nut ) P.O. CNT-575929 (Stud )

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp NA

Certificate of Authorization No. NA Expiration Date NA

Signed W. J. Rogers, IST Engineer Date 11/22 29  
Owner or Owner's Designee, Title 21

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of VIRGINIA and employed by HSBI and I Co. of Hartford, Ct. have inspected the components described in this Owner's Report during the period 3/21/00 to 11/27/00, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Al Smith Commissions Va. 887 (R)  
Inspector's Signature National Board, State, Province, and Endorsements

Date 11/27 11/2000

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner Virginia Electric & Power Company Date December 18, 2000  
Name \_\_\_\_\_  
5000 Dominion Blvd., Glen Allen, VA 23060 Sheet 1 of 2  
Address \_\_\_\_\_

2. Plant Surry Power Station Unit: 2  
Name \_\_\_\_\_  
5570 Hog Island Road, Surry, VA 23883 R/R 00-114 W.O. 00414752-01  
Address \_\_\_\_\_ Repair Organization P.O. No. Job No. , etc. \_\_\_\_\_

3. Work Performed By Virginia Electric & Power Company Type Code Symbol Stamp N/A  
Name \_\_\_\_\_ Authorization No. N/A  
5000 Dominion Blvd., Glen Allen, VA 23060 Expiration Date N/A  
Address \_\_\_\_\_

4. Identification of System Reactor Coolant

5. (a) Applicable Construction Code ANSI B31.1 1955 Edition, N/A Addenda, N-1 through N-13 Code Case \_\_\_\_\_  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No	Other Identification	Year Built	Repaired, Replaced, Or Replacement	ASME Code Stamped (Yes or No)
Studs	Framatone Industnes	Heat #G6779	N/A	Mark #38-02-RC-P-1A	N/A	Replacement	No
Nuts	Framatone Industnes	Heat #G6779	N/A	Mark #38-02-RC-P-1A	N/A	Replacement	No

7. Description of Work Replacement of RCP 1A Main Flange Bolts per DCP-98-083

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure   
Other  Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks P.O.BKI-575904 (Studs & Nuts)  
Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp NA

Certificate of Authorization No. NA Expiration Date NA

Signed W. H. Logan IST Engineer Date 12/19 29  
Owner or Owner's Designee, Title 1800

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of VIRGINIA and employed by HSBI and I Co. of HARTFORD, CT. have inspected the components described in this Owner's Report during the period 6/15/00 to 12/19/00, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

W. H. Logan Commissions Va. 883(R)  
Inspector's Signature National Board, State, Province, and Endorsements

Date 12/19 2000

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner Virginia Electric & Power Company Date November 8, 2000  
Name \_\_\_\_\_  
5000 Dominion Blvd., Glen Allen, VA 23060 Sheet 1 of 2  
Address \_\_\_\_\_

2. Plant Surry Power Station Unit: 2  
Name \_\_\_\_\_  
5570 Hog Island Road, Surry, VA 23883 R/R 00-115 W. O.#00413289-01  
Address \_\_\_\_\_ Repair Organization P.O. No. Job No. . etc.

3. Work Performed By Virginia Electric & Power Company Type Code Symbol Stamp N/A  
Name \_\_\_\_\_ Authorization No. N/A  
5000 Dominion Blvd., Glen Allen, VA 23060 Expiration Date N/A  
Address \_\_\_\_\_

4. Identification of System Residual Heat

5. (a) Applicable Construction Code ANSI B31.1 1955 Edition, N/A Addenda, N-1 through N-13 Code Case  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No.	Other Identification	Year Built	Repaired, Replaced, Or Replacement	ASME Code Stamped (Yes or No)
Plug (Trim Assembly)	Copes-Vulcan, Inc.	Heat #521584	N/A	Mark #38-02-RH-HCV-2142-Valve	N/A	Replacement	No

7. Description of Work Overhaul Valve/Replace Trim Assembly

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure   
Other  Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks P.O.45011834 (Plug -Trim Assembly)

Applicable Manufacturer's Data Reports to be attached

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CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp NA

Certificate of Authorization No. NA Expiration Date NA

Signed *D. L. Jensen* ISI ENGINEER Date 11/22 28 cc  
Owner or Owner's Designee, Title ISI

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Virginia and employed by HSBI and I Co. of HARRISBURG, CT.

         have inspected the components described in this Owner's Report during the period 6/15/00 to 11/22/00, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

*D. Smith* Commissions Va. BB? (R)  
Inspector's Signature National Board, State, Province, and Endorsements

Date 11/27/2000

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner Virginia Electric & Power Company Date November 23, 2000  
Name \_\_\_\_\_  
5000 Dominion Blvd., Glen Allen, VA 23060 Sheet 1 of 2  
Address \_\_\_\_\_

2. Plant Surry Power Station Unit: 2  
Name \_\_\_\_\_  
5570 Hog Island Road, Surry, VA 23883 R/R 00-116 W.O. 00411069-01  
Address \_\_\_\_\_ Repair Organization P.O. No. Job No. , etc.

3. Work Performed By Virginia Electric & Power Company Type Code Symbol Stamp \_\_\_\_\_ N/A  
Name \_\_\_\_\_ Authorization No. \_\_\_\_\_ N/A  
5000 Dominion Blvd., Glen Allen, VA 23060 Expiration Date \_\_\_\_\_ N/A  
Address \_\_\_\_\_

4. Identification of System Reactor Coolant

5. (a) Applicable Construction Code ANSI B31.1 1955 Edition, N/A Addenda, N-1 through N-13 Code Case  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, Or Replacement	ASME Code Stamped (Yes or No)
Trim Assembly (Plug)	Copes-Vulcan	Heat #524603	N/A	Mark #38-02-RC-PCV-2456-Vaive	N/A	Replacement	No

7. Description of Work Install Converter Kit/Trim Assembly

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure   
Other  Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks P.O. 45020273 ( Trim Assembly- Plug )

Applicable Manufacturer's Data Reports to be attached

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CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp NA

Certificate of Authorization No. NA

Expiration Date NA

Signed D. L. Roane, ISE Engineer Date 11/22 3rd  
Owner or Owner's Designee, Title 18 2000

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Virginia and employed by HSBI and I Co. of MARLBOROUGH, CT.

have inspected the components described in this Owner's Report during the period 6/15/00 to 12/5/00, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

D. L. Smith Commissions Va. BB2 (R)  
Inspector's Signature National Board, State, Province, and Endorsements

Date 12/5 18 2000



**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner Virginia Electric & Power Company Date November 20, 2000  
Name \_\_\_\_\_  
5000 Dominion Blvd., Glen Allen, VA 23060 Sheet 1 of 2  
Address \_\_\_\_\_

2. Plant Surry Power Station Unit: 2  
Name \_\_\_\_\_  
5570 Hog Island Road, Surry, VA 23883 R/R 00-117 W.O.00411064-01  
Address \_\_\_\_\_ Repair Organization P.O. No. Job No. , etc.

3. Work Performed By Virginia Electric & Power Company Type Code Symbol Stamp \_\_\_\_\_ N/A  
Name \_\_\_\_\_ Authorization No. \_\_\_\_\_ N/A  
5000 Dominion Blvd., Glen Allen, VA 23060 Expiration Date \_\_\_\_\_ N/A  
Address \_\_\_\_\_

4. Identification of System Reactor Coolant

5. (a) Applicable Construction Code ANSI B31.1 1955 Edition, N/A Addenda, N-1 through N-13 Code Case  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, Or Replacement	ASME Code Stamped (Yes or No)
Trm Assembly (Plug)	Copes - Vulcan	Heat #524603	N/A	Mark #38-02-RC-PCV-2455c-Valve	N/A	Replacement	No

7. Description of Work Install Converter Kit/Trim Assembly

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure   
Other  Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks P.O. 45020273 ( Trim Assembly- Plug )

Applicable Manufacturer's Data Reports to be attached

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\_\_\_\_\_  
\_\_\_\_\_

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp NA

Certificate of Authorization No. NA

Expiration Date NA

Signed

W. L. Brown ISE ENGINEER  
Owner or Owner's Designee, Title

Date

11/22

12/2000

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Virginia and employed by HSBI and I Co. of HARRISON, GA.

6/15/00 have inspected the components described in this Owner's Report during the period N/A 12/5/00 to 12/5/00, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

W. L. Smith  
Inspector's Signature

Commissions

VA. BB3 (R)

National Board, State, Province, and Endorsements

Date

12/05 18 2000

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner Virginia Electric & Power Company Date November 15, 2000  
Name \_\_\_\_\_  
5000 Dominion Blvd., Glen Allen, VA 23060 Sheet 1 of 2  
Address \_\_\_\_\_

2. Plant Surry Power Station Unit: 2  
Name \_\_\_\_\_  
5570 Hog Island Road, Surry, VA 23883 R/R 00-118 W.O.00409797-01  
Address \_\_\_\_\_ Repair Organization P.O. No. Job No. . etc.

3. Work Performed By Virginia Electric & Power Company Type Code Symbol Stamp \_\_\_\_\_ N/A  
Name \_\_\_\_\_ Authorization No. \_\_\_\_\_ N/A  
5000 Dominion Blvd., Glen Allen, VA 23060 Expiration Date \_\_\_\_\_ N/A  
Address \_\_\_\_\_

4. Identification of System Residual Heat

5. (a) Applicable Construction Code ANSI B31.1 1955 Edition, N/A Addenda, N-1 through N-13 Code Case  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, Or Replacement	ASME Code Stamped (Yes or No)
1 1/8 Hex Nut	Mackson, Inc.	Heat #6072700	N/A	Mark #38-02-RH-HCV-2758-Valve	N/A	Replacement	No
1 1/8 Stud	Mackson, Inc.	Heat #79734	N/A	Mark #38-02-RH-HCV-2758-Valve	N/A	Replacement	No
12" Butterfly Valve	Fisher Controls	Heat #626109	N/A	Mark #38-02-RH-HCV-2758-Valve	N/A	Replacement	No

7. Description of Work Replace Operating Valve

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure   
Other  Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks P.O. SNT-367468 (12" Butterfly Valve) P.O. BNT-467650 (1 1/8 Hex Nut)  
Applicable Manufacturer's Data Reports to be attached  
P.O. CNT-549563 (1 1/8 Stud)

**CERTIFICATE OF COMPLIANCE**

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp NA

Certificate of Authorization No. NA Expiration Date NA

Signed [Signature] Date 11/22 11/2000  
Owner or Owner's Designee, Title

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Virginia and employed by HSBI and I Co. of Hartford, Ct. have inspected the components described in this Owner's Report during the period 7/7/00 to 11/27/00, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions VA. 883 (R)  
Inspector's Signature National Board, State, Province, and Endorsements

Date 11/27 11/2000

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner Virginia Electric & Power Company Date December 13, 2000  
Name \_\_\_\_\_  
5000 Dominion Blvd., Glen Allen, VA 23060 Sheet 1 of 2  
Address \_\_\_\_\_

2. Plant Surry Power Station Unit: 2  
Name \_\_\_\_\_  
5570 Hog Island Road, Surry, VA 23883 R/R 00-122 W.O. 00403857-01  
Address \_\_\_\_\_ Repair Organization P.O. No. Job No., etc. \_\_\_\_\_

3. Work Performed By Virginia Electric & Power Company Type Code Symbol Stamp N/A  
Name \_\_\_\_\_ Authorization No. N/A  
5000 Dominion Blvd., Glen Allen, VA 23060 Expiration Date N/A  
Address \_\_\_\_\_

4. Identification of System Residual Heat

5. (a) Applicable Construction Code ANSI B31.1 1955 Edition, N/A Addenda, N-1 through N-13 Code Case  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, Or Replacement	ASME Code Stamped (Yes or No)
12" Pipe Flange	Heat #26411	Energy & Process Corp.	N/A	Mark #38-02-RH-12.00-Pipe	N/A	Replacement	No
12" Pipe	Heat #27882	Energy & Process Corp.	N/A	Mark #38-02-RH-12.00-Pipe	N/A	Replacement	No
6" Pipe	Heat #SW481	Dubose National Energy Services Inc	N/A	Mark #38-02-RH-12.00-Pipe	N/A	Replacement	No

7. Description of Work Replace 12" Piping / N-416-1 Code Case Applies

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure   
Other  Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks P.O. 45047645 ( 12" Pipe Flange ) P.O. 45013604 ( 12 " Pipe ) P.O. CNT-452680 ( 6 " Pipe )  
Applicable Manufacturer's Data Reports to be attached

**CERTIFICATE OF COMPLIANCE**

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp NA

Certificate of Authorization No. NA Expiration Date NA

Signed W. Y. Brown ISI ENGINEER Date 12/18 2000  
Owner or Owner's Designee, Title

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Virginia and employed by HSBI and I Co. of HARRISON, CT. have inspected the components described in this Owner's Report during the period 7/14/00 to 12/20/00, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

W. Smith Commissions Va. BB3 (R)  
Inspector's Signature National Board, State, Province, and Endorsements

Date 12/20 12 2000

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner Virginia Electric & Power Company Date December 13, 2000  
Name \_\_\_\_\_  
5000 Dominion Blvd., Glen Allen, VA 23060 Sheet 1 of 2  
Address \_\_\_\_\_

2. Plant Surry Power Station Unit: 2  
Name \_\_\_\_\_  
5570 Hog Island Road, Surry, VA 23883 R/R 00-123 W.O.00433000-02  
Address \_\_\_\_\_ Repair Organization P.O. No. Job No. . etc.

3. Work Performed By Virginia Electric & Power Company Type Code Symbol Stamp \_\_\_\_\_ N/A  
Name \_\_\_\_\_ Authorization No. \_\_\_\_\_ N/A  
5000 Dominion Blvd., Glen Allen, VA 23060 Expiration Date \_\_\_\_\_ N/A  
Address \_\_\_\_\_

4. Identification of System Containment Spray

5. (a) Applicable Construction Code ANSI B31.1 1955 Edition, N/A Addenda, N-1 through N-13 Code Case  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No	Other Identification	Year Built	Repaired, Replaced, Or Replacement	ASME Code Stamped (Yes or No)
2" Check Valve	Framatone Technologies	Heat #BJ124 Serial #941081	N/A	Mark #38-02-CS-45	1994	Replacement	No

7. Description of Work Replace 2" Check Valve and Piping / Code Case N-416-1 Applies

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure   
Other  Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks P.O. CNT-559011 ( 2" Check Valve )

Applicable Manufacturer's Data Reports to be attached

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\_\_\_\_\_  
\_\_\_\_\_

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp NA

Certificate of Authorization No. NA Expiration Date NA

Signed W. L. Rogers ISI Engineer Date 12/18 2000  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Virginia and employed by HSBI and I Co. of HARTFORD, CT.

have inspected the components described in this Owner's Report during the period 7/18/00 to 12/18/2000, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

W. L. Smith Commissions Va. BB? (R)  
Inspector's Signature National Board, State, Province, and Endorsements

Date 12/18/ 2000



**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner Virginia Electric & Power Company Date December 5, 2000  
Name \_\_\_\_\_  
5000 Dominion Blvd., Glen Allen, VA 23060 Sheet 1 of 2  
Address \_\_\_\_\_

2. Plant Surry Power Station Unit: 2  
Name \_\_\_\_\_  
5570 Hog Island Road, Surry, VA 23883 R/R 00-129 W.O.00424391-01  
Address \_\_\_\_\_ Repair Organization P.O. No. Job No., etc. \_\_\_\_\_

3. Work Performed By Virginia Electric & Power Company Type Code Symbol Stamp N/A  
Name \_\_\_\_\_ Authorization No. N/A  
5000 Dominion Blvd., Glen Allen, VA 23060 Expiration Date N/A  
Address \_\_\_\_\_

4. Identification of System Vents & Drains

5. (a) Applicable Construction Code ANSI B31.1 1955 Edition, N/A Addenda, N-1 through N-13 Code Case  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, Or Replacement	ASME Code Stamped (Yes or No)
5/8" Stud	Meckson, Inc.	Heat #S16949	N/A	Mark #38-02-DA-TV-200A-Valve	N/A	Replacement	No
5/8" Hex Nut	Meckson, Inc.	Heat #31937OF	N/A	Mark #38-02-DA-TV-200A-Valve	N/A	Replacement	No
2" Valve	BNL Industrials	Serial # 1 of the Following B000-207-1-1,2,3,4	N/A	Mark #38-02-DA-TV-200A-Valve	N/A	Replacement	No

7. Description of Work Replace 2" Valve

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure   
Other  Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks P.O.45017502 (5/8" Stud) P.O.45046917 (5/8" Hex Nut) P.O.45035353 (2" Valve)  
Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this work conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp NA

Certificate of Authorization No. NA Expiration Date NA

Signed [Signature] ISE ENGINEER Date 12/5 60  
Owner or Owner's Designee, Title ISE

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of VIRGINIA and employed by HSBI and I Co. of HARRISBURG, CT.

8/23/00 have inspected the components described in this Owner's Report during the period 12/20/00, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions Va. 883 (R)  
Inspector's Signature National Board, State, Province, and Endorsements

Date 12/20 2000

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner Virginia Electric & Power Company Date December 5, 2000  
Name \_\_\_\_\_  
5000 Dominion Blvd., Glen Allen, VA 23060 Sheet 1 of 2  
Address \_\_\_\_\_

2. Plant Surry Power Station Unit: 2  
Name \_\_\_\_\_  
5570 Hog Island Road, Surry, VA 23883 R/R 00-130 W.O.00424392-01  
Address \_\_\_\_\_ Repair Organization P.O. No. Job No., etc. \_\_\_\_\_

3. Work Performed By Virginia Electric & Power Company Type Code Symbol Stamp N/A  
Name \_\_\_\_\_ Authorization No. N/A  
5000 Dominion Blvd., Glen Allen, VA 23060 Expiration Date N/A  
Address \_\_\_\_\_

4. Identification of System Vents & Drains

5. (a) Applicable Construction Code ANSI B31.1 1955 Edition, N/A Addenda, N-1 through N-13 Code Case \_\_\_\_\_  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1989

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, Or Replacement	ASME Code Stamped (Yes or No)
5/8" Stud	Mackson, Inc.	Heat #S16949	N/A	Mark #38-02-DA-TV-200B-Valve	N/A	Replacement	No
2" Valve	BNL Industries	Serial # 1 of the Following B000-207-1-1, 2, 3, 4	N/A	Mark #38-02-DA-TV-200B-Valve	N/A	Replacement	No

7. Description of Work Replace 2" Valve

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure   
Other  Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks P.O.45017502 (5/8" Stud) P.O. 45035353 (2" Valve)

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp NA

Certificate of Authorization No. NA Expiration Date NA

Signed W. L. Deen ISI ENGINEER Date 12/5 2000  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of VIRGINIA and employed by HSBI and I Co. of HARRISON, CT.

have inspected the components described in this Owner's Report during the period 8/23/00 to 12/20/00, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Ali Spitzer Commissions Va. 883(R)  
Inspector's Signature National Board, State, Province, and Endorsements

Date 12/20 2000

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner Virginia Electric & Power Company Date November 21, 2000  
Name \_\_\_\_\_  
5000 Dominion Blvd., Glen Allen, VA 23060 Sheet 1 of 2  
Address \_\_\_\_\_

2. Plant Surry Power Station Unit: 2  
Name \_\_\_\_\_  
5570 Hog Island Road, Surry, VA 23883 R/R 00-131 W.O.00421145-01 <sup>4</sup> <sup>see notes</sup>  
Address \_\_\_\_\_ Repair Organization P.O. No. Job No. , etc.

3. Work Performed By Virginia Electric & Power Company Type Code Symbol Stamp \_\_\_\_\_ N/A  
Name \_\_\_\_\_ Authorization No. \_\_\_\_\_ N/A  
5000 Dominion Blvd., Glen Allen, VA 23060 Expiration Date \_\_\_\_\_ N/A  
Address \_\_\_\_\_

4. Identification of System Reactor Coolant

5. (a) Applicable Construction Code ANSI B31.1 1955 Edition, N/A Addenda, N-1 through N-13 Code Case  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, Or Replacement	ASME Code Stamped (Yes or No)
1 3/8" Hex Nut	Mackson, Inc.	Heat #60344	N/A	Mark #38-02-RC-SV-2551A-Valve	N/A	Replacement	No
Stud	Mackson, Inc.	Heat #M53417	N/A	Mark #38-02-RC-SV-2551A-Valve	N/A	Replacement	No
Hex Nut	Mackson, Inc.	Heat #34413PJ	N/A	Mark #38-02-RC-SV-2551A-Valve	N/A	Replacement	No
1/8" Cotter Pin	Southern Fastners & Supply Co.	Inspection Lot Number 14951	N/A	Mark #38-02-RC-SV-2551A-Valve	N/A	Replacement	No
1 3/8" Stud	Mackson, Inc.	Heat #69453	N/A	Mark #38-02-RC-SV-2551A-Valve	N/A	Replacement	No

7. Description of Work Remove and Install Safety Valve

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure   
Other  Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks P.O. 45014699 (Hex Nut) P.O. BNT-467650 (Stud) P.O. 45049644 (Hex Nut)  
P.O. 45040777 (Cotter Pin) P.O. BNT-467650 (Stud)  
Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp NA

Certificate of Authorization No. NA Expiration Date NA

Signed: W. L. Royce ISI Engineer Date 11/22/00  
Owner or Owner's Designee, Title ISI Engineer 20  
11/22/00

CERTIFICATE OF INSERVICE INSPECTION

The undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Virginia and employed by HSBI and I Co. of HARRISON, CT.

have inspected the components described in this Owner's Report during the period 8/23/00 to 12/4/00, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

W. L. Smith Commissions Va. 883 (R)  
Inspector's Signature National Board, State, Province, and Endorsements

Date 12/4 12/4/2000

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner Virginia Electric & Power Company Date November 21, 2000  
Name \_\_\_\_\_  
5000 Dominion Blvd., Glen Allen, VA 23060 Sheet 1 of 2  
Address \_\_\_\_\_

2. Plant Surry Power Station Unit: 2  
Name \_\_\_\_\_  
5570 Hog Island Road, Surry, VA 23883 R/R 00-132 W.O.00421145-01  
Address \_\_\_\_\_ Repair Organization P.O. No. Job No. . etc.

3. Work Performed By Virginia Electric & Power Company Type Code Symbol Stamp \_\_\_\_\_ N/A  
Name \_\_\_\_\_ Authorization No. \_\_\_\_\_ N/A  
5000 Dominion Blvd., Glen Allen, VA 23060 Expiration Date \_\_\_\_\_ N/A  
Address \_\_\_\_\_

4. Identification of System Reactor Coolant

5. (a) Applicable Construction Code ANSI B31.1 1955 Edition, N/A Addenda, N-1 through N-13 Code Case  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, Or Replacement	ASME Code Stamped (Yes or No)
1 3/8" Hex Nut	Mackson, Inc.	Heat #60344	N/A	Mark #38-02-RC-SV-2551B-Valve	N/A	Replacement	No
Stud	Mackson, Inc.	Heat #M53417	N/A	Mark #38-02-RC-SV-2551B-Valve	N/A	Replacement	No
Hex Nut	Mackson, Inc.	Heat #34413PJ	N/A	Mark #38-02-RC-SV-2551B-Valve	N/A	Replacement	No
1/8" Cotter Pin	Southern Fastners & Supply Co.	Inspection Lot Number 14951	N/A	Mark #38-02-RC-SV-2551B-Valve	N/A	Replacement	No
1 3/8" Stud	Mackson, Inc.	Heat #69453	N/A	Mark #38-02-RC-SV-2551B-Valve	N/A	Replacement	No

7. Description of Work Remove and Install Safety Valve

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure   
Other  Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks P.O. 45014699 (Hex Nut) P.O. BNT-467650 (Stud) P.O. 45049644 (Hex Nut)  
Applicable Manufacturer's Data Reports to be attached  
P.O. 45040777 (Cotter Pin) P.O. BNT-467650 (Stud)

**CERTIFICATE OF COMPLIANCE**

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp NA

Certificate of Authorization No. NA Expiration Date NA

Signed [Signature] Date 1/22  
Owner or Owner's Designee, Title 20  
18 00  
me

**CERTIFICATE OF INSERVICE INSPECTION**

The undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of VIRGINIA and employed by HSBI and I Co. of HARTFORD, CT. have inspected the components described in this Owner's Report during the period 8/22/00 to 12/4/00, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions Va. BB3 (R)  
Inspector's Signature National Board, State, Province, and Endorsements

Date 12/4 18 2000



**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner Virginia Electric & Power Company Date November 16, 2000  
Name \_\_\_\_\_  
5000 Dominion Blvd., Glen Allen, VA 23060 Sheet 1 of 2  
Address \_\_\_\_\_

2. Plant Surry Power Station Unit: 2  
Name \_\_\_\_\_  
5570 Hog Island Road, Surry, VA 23883 R/R 00-133 W.O.00421146-01  
Address \_\_\_\_\_ Repair Organization P.O. No. Job No. . etc.

3. Work Performed By Virginia Electric & Power Company Type Code Symbol Stamp N/A  
Name \_\_\_\_\_ Authorization No. N/A  
5000 Dominion Blvd., Glen Allen, VA 23060 Expiration Date N/A  
Address \_\_\_\_\_

4. Identification of System Coolant Reactor

5. (a) Applicable Construction Code ANSI B31.1 1955 Edition, N/A Addenda, N-1 through N-13 Code Case  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Senal No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, Or Replacement	ASME Code Stamped (Yes or No)
1 3/8 Hex Nut	Mackson, Inc.	Heat #60344	N/A	Mark #38-02-RC-SV-2551C-Valve	N/A	Replacement	No
Stud	Mackson, Inc.	Heat #M53417	N/A	Mark #38-02-RC-SV-2551C-Valve	N/A	Replacement	No
Hex Nut	Mackson, Inc.	Heat #34413PJ	N/A	Mark #38-02-RC-SV-2551C-Valve	N/A	Replacement	No
1/8" Cotter Pin	Southern Fastners & Supply Co.	Inspection Lot Number 14951	N/A	Mark #38-02-RC-SV-2551C-Valve	N/A	Replacement	No
1 3/8 Stud	Mackson, Inc.	Heat #69453	N/A	Mark #38-02-RC-SV-2551C-Valve	N/A	Replacement	No

7. Description of Work Remove And Reinstall Safety Valve

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure   
Other  Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks P.O. 45014699 (Hex Nut) P.O. BNT-467650 (Stud) P.O. 45049644 (Hex Nut)  
Applicable Manufacturer's Data Reports to be attached  
P.O. 45040777 (Cotter Pin) P.O. BNT-467650 (Stud)

**CERTIFICATE OF COMPLIANCE**

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp NA

Certificate of Authorization No. NA Expiration Date NA

Signed: D. G. Rogers TSI ENGINEER Date 11/22 12 2000  
Owner or Owner's Designee, Title

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Virginia and employed by HSBI and I Co. of HARRISON, GA. have inspected the components described in this Owner's Report during the period 8/23/00 to 12/04/00, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

D. G. Smith Commissions Va. BB? (R)  
Inspector's Signature National Board, State, Province, and Endorsements

Date 12/4 12 2000

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner Virginia Electric & Power Company Date December 4, 2000  
Name \_\_\_\_\_  
5000 Dominion Blvd., Glen Allen, VA 23060 Sheet 1 of 2  
Address \_\_\_\_\_

2. Plant Surry Power Station Unit: 2  
Name \_\_\_\_\_  
5570 Hog Island Road, Surry, VA 23883 R/R 00-144 W.O. 00435673-01  
Address \_\_\_\_\_ Repair Organization P.O. No. Job No., etc. \_\_\_\_\_

3. Work Performed By Virginia Electric & Power Company Type Code Symbol Stamp \_\_\_\_\_ N/A  
Name \_\_\_\_\_ Authorization No. \_\_\_\_\_ N/A  
5000 Dominion Blvd., Glen Allen, VA 23060 Expiration Date \_\_\_\_\_ N/A  
Address \_\_\_\_\_

4. Identification of System Charging

5. (a) Applicable Construction Code ANSI B31.1 1955 Edition, N/A Addenda, N-1 through N-13 Code Case  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, Or Replacement	ASME Code Stamped (Yes or No)
7/16" Tap End Stud	Mackson, Inc.	Heat #Z6550MK	N/A	Mark #38-02-CH-27-Valve	N/A	Replacement	No
7/16" Hex Nut	Mackson, Inc.	Heat#8655134	N/A	Mark #38-02-CH-27-Valve	N/A	Replacement	No
Valve Bonnet	ITT Industries	Heat #B3894-7	N/A	Mark #38-02-CH-27-Valve	N/A	Replacement	No

7. Description of Work Replace 2" Grinnell Valve

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure   
Other  Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks P.O.CNT-539854 (7/16" Tap End Stud) P.O.CNT-542718 (7/16" Hex Nut)  
P.O.CNT-568653 (2" Valve)  
Applicable Manufacturer's Data Reports to be attached

**CERTIFICATE OF COMPLIANCE**

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp NA

Certificate of Authorization No. NA Expiration Date NA

Signed D. J. Rosen TST Engineer Date 12/4 20  
Owner of Owner's Designee, Title 15 00  
ml

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Virginia and employed by HSBI and I Co. of Hartford, Ct. have inspected the components described in this Owner's Report during the period 9/5/00 to 12/4/00, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

D. J. Smith Commissions Va. BB? (R)  
Inspector's Signature National Board, State, Province, and Endorsements

Date 12/4 16 2000

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner Virginia Electric & Power Company Date December 13, 2000  
Name \_\_\_\_\_  
5000 Dominion Blvd., Glen Allen, VA 23060 Sheet 1 of 2  
Address \_\_\_\_\_

2. Plant Surry Power Station Unit: 2  
Name \_\_\_\_\_  
5570 Hog Island Road, Surry, VA 23883 R/R 00-151 W.O. 00422454-10  
Address \_\_\_\_\_ Repair Organization P.O. No. Job No. . etc.

3. Work Performed By Virginia Electric & Power Company Type Code Symbol Stamp \_\_\_\_\_ N/A  
Name \_\_\_\_\_ Authorization No. \_\_\_\_\_ N/A  
5000 Dominion Blvd., Glen Allen, VA 23060 Expiration Date \_\_\_\_\_ N/A  
Address \_\_\_\_\_

4. Identification of System Feedwater

5. (a) Applicable Construction Code ANSI B31.1 1955 Edition, N/A Addenda, N-1 through N-13 Code Case  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, Or Replacement	ASME Code Stamped (Yes or No)
14" Pipe	Dubose National Energy Services	Heat #J736159	N/A	Mark #38-02-FW-PPS-218	N/A	Replacement	No
14" Elbow Pipe	N/A	Material Comp ASTM A234 Grade WP22	N/A	Mark #38-02-FW-PPS-218	N/A	Replacement	No

7. Description of Work Fac Replacement Component / N-416-1 Code Case Applies

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure   
Other  Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

A234

9. Remarks P.O.45006886 (14 " Pipe ) P.O.CSY-299679 (14" Elbow ) Material Comp ASTM Grade WP22  
Applicable Manufacturer's Data Reports to be attached

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp NA

Certificate of Authorization No. NA Expiration Date NA

Signed D. H. Rogers ISI ENGINEER Date 12/18 29  
Owner or Owner's Designee, Title 600

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Virginia and employed by HSBI and I Co. of Herndon, Va. have inspected the components described in this Owner's Report during the period 10/5/00 to 12/31/00, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

D. Smith Commissions Va. 883(R)  
Inspector's Signature National Board, State, Province, and Endorsements

Date 12/31 to 2000

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner Virginia Electric & Power Company Date November 15, 2000  
Name \_\_\_\_\_  
5000 Dominion Blvd., Glen Allen, VA 23060 Sheet 1 of 2  
Address \_\_\_\_\_

2. Plant Surry Power Station Unit: 2  
Name \_\_\_\_\_  
5570 Hog Island Road, Surry, VA 23883 R/R 00-153 W.O.00403857-02  
Address \_\_\_\_\_ Repair Organization P.O. No. Job No. , etc.

3. Work Performed By Virginia Electric & Power Company Type Code Symbol Stamp N/A  
Name \_\_\_\_\_ Authorization No. N/A  
5000 Dominion Blvd., Glen Allen, VA 23060 Expiration Date N/A  
Address \_\_\_\_\_

4. Identification of System Residual Heat

5. (a) Applicable Construction Code ANSI B31.1 1955 Edition, N/A Addenda, N-1 through N-13 Code Case  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, Or Replacement	ASME Code Stamped (Yes or No)
1 1/4" Hex Nut	Mackson, Inc.	Heat #33627	N/A	Mark #38-02-RH-FE-2605-Detect	N/A	Replacement	No
1 1/4" Stud	Mackson, Inc.	Heat #S24998	N/A	Mark #38-02-RH-FE-2605-Detect	N/A	Replacement	No

7. Description of Work Remove & Install Spoolpiece / Flow Element

8 Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure   
Other  Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks P.O. CNT-577316 (Hex Nut) P.O. CNT-575889 (Stud)

Applicable Manufacturer's Data Reports to be attached

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CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI repair or replacement

Type Code Symbol Stamp NA

Certificate of Authorization No. NA Expiration Date NA

Signed [Signature] ISE ENGINEER Date 11/29 20  
Owner or Owner's Designee Title 20

CERTIFICATE OF INSERVICE INSPECTION

The undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Province of Virginia and employed by HSB and I Co. of MANASSAS, VA.

have inspected the components described in this Owner's Report during the period 10/11/00 to 12/4/00 and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions Va. BB? (R)  
Inspector's Signature National Board, State, Province, and Endorsements

Date 12/4 2000



**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner Virginia Electric & Power Company Date December 18, 2000  
Name \_\_\_\_\_  
5000 Dominion Blvd., Glen Allen, VA 23060 Sheet 1 of 2  
Address \_\_\_\_\_

2. Plant Surry Power Station Unit: 2  
Name \_\_\_\_\_  
5570 Hog Island Road, Surry, VA 23883 R/R 00-154 W.O. 00425593-03  
Address \_\_\_\_\_ Repair Organization P.O. No. Job No. , etc. \_\_\_\_\_

3. Work Performed By Virginia Electric & Power Company Type Code Symbol Stamp \_\_\_\_\_ N/A  
Name \_\_\_\_\_ Authorization No. \_\_\_\_\_ N/A  
5000 Dominion Blvd., Glen Allen, VA 23060 Expiration Date \_\_\_\_\_ N/A  
Address \_\_\_\_\_

4. Identification of System Mainsteam

5. (a) Applicable Construction Code ANSI B31.1 1955 Edition, N/A Addenda, N-1 through N-13 Code Case  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No	Other Identification	Year Built	Repaired, Replaced, Or Replacement	ASME Code Stamped (Yes or No)
3" Valve	Crane Supply Co.	Model 171-1/2	N/A	Mark #38-02-MS-196-Valve	N/A	Replacement	No
3" Pipe	Consolidated Power Supply	Heat #Y67155	N/A	Mark #38-02-MS-196-Valve	N/A	Replacement	No

7. Description of Work Replace 3" Globe Valve N-416-1 Code Case Applies

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure   
Other  Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks P.O.CNS-143228 (3" Valve) P.O.45052340 (3" Pipe)

Applicable Manufacturer's Data Reports to be attached

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp NA

Certificate of Authorization No. NA Expiration Date NA

Signed W. L. Brown ISI ENGINEER Date 12/19 2000  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Virginia and employed by HSBI and I Co. of Hartford, Ct. have inspected the components described in this Owner's Report during the period 10/12/00 to 12/20/00, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

W. L. Smith Commissions Va. BB? (R)  
Inspector's Signature National Board, State, Province, and Endorsements

Date 12/20 19 2000

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner Virginia Electric & Power Company Date November 20, 2000  
Name \_\_\_\_\_  
5000 Dominion Blvd., Glen Allen, VA 23060 Sheet 1 of 2  
Address \_\_\_\_\_

2. Plant Surry Power Station Unit: 2  
Name \_\_\_\_\_  
5570 Hog Island Road, Surry, VA 23883 R/R 00-155 W.O.0438149-01  
Address \_\_\_\_\_ Repair Organization P.O. No. Job No. . etc. \_\_\_\_\_

3. Work Performed By Virginia Electric & Power Company Type Code Symbol Stamp N/A  
Name \_\_\_\_\_ Authorization No. N/A  
5000 Dominion Blvd., Glen Allen, VA 23060 Expiration Date N/A  
Address \_\_\_\_\_

4. Identification of System Feedwater

5. (a) Applicable Construction Code ANSI B31.1 1955 Edition, N/A Addenda, N-1 through N-13 Code Case  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, Or Replacement	ASME Code Stamped (Yes or No)
N/A	N/A	N/A	N/A	Mark #38-02-FW-12-CKVALV	N/A	Repair	No

7. Description of Work Repair Valve Body

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure   
Other  Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks \_\_\_\_\_  
Applicable Manufacturer's Data Reports to be attached \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this REPORT conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp NA

Certificate of Authorization No. NA Expiration Date NA

Signed: W. L. Rogers ISE Engineer Date 11/21 12/2000  
Owner or Owner Designee Title ISE

CERTIFICATE OF INSERVICE INSPECTION

The undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Virginia and employed by HSB and I Co. of Herndon, VA.

\_\_\_\_\_ have inspected the components described in this Owner's Report during the period 10/12/00 to 12/19/00 and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection

W. L. Smith Commissions Va. 883(R)  
Inspector's Signature National Board, State, Province, and Endorsements

Date 12/19/00 2000

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner Virginia Electric & Power Company Date November 17, 2000  
Name \_\_\_\_\_  
5000 Dominion Blvd., Glen Allen, VA 23060 Sheet 1 of 2  
Address \_\_\_\_\_

2. Plant Surry Power Station Unit: 2  
Name \_\_\_\_\_  
5570 Hog Island Road, Surry, VA 23883 R/R 00-156 W.O.00421007-01  
Address \_\_\_\_\_ Repair Organization P.O. No. Job No. . etc.

3. Work Performed By Virginia Electric & Power Company Type Code Symbol Stamp \_\_\_\_\_ N/A  
Name \_\_\_\_\_ Authorization No. \_\_\_\_\_ N/A  
5000 Dominion Blvd., Glen Allen, VA 23060 Expiration Date \_\_\_\_\_ N/A  
Address \_\_\_\_\_

4. Identification of System Charging System

5. (a) Applicable Construction Code ANSI B31.1 1955 Edition, N/A Addenda, N-1 through N-13 Code Case  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No	National Board No.	Other Identification	Year Built	Repaired, Replaced, Or Replacement	ASME Code Stamped (Yes or No)
Relief Valve	Serial # N78092-00-0002	Crosby Valve	N/A	Mark #38-02-CH-RV-2382B-Valve	N/A	Replacement	No
Hex Nut	Heat #31937of	Mackson, Inc.	N/A	Mark #38-02-CH-RV-2352B-Valve	N/A	Replacement	No
Stud	Heat #M60635	Mackson, Inc.	N/A	Mark #38-02-CH-RV-2382B-Valve	N/A	Replacement	No

7. Description of Work Replace Relief Valve

8 Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure   
Other  Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks P.O.BNT-562947 (Relief Valve) P.O.45046917 (Nut) P.O. 45026205(Stud)  
Applicable Manufacturer's Data Reports to be attached

**CERTIFICATE OF COMPLIANCE**

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp NA

Certificate of Authorization No. NA Expiration Date NA

Signed W. H. Bess ISI Engineer Date 11/22 12/2000  
Owner or Owner's Designee, Title

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of VIRGINIA and employed by HSBI and I Co. of HARTFORD, CT. have inspected the components described in this Owner's Report during the period 10/13/00 to 12/4/00 and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

W. H. Smith Commissions Va. 883(R)  
Inspector's Signature National Board, State, Province, and Endorsements

Date 12/04 12 2000

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner Virginia Electric & Power Company Date November 20, 2000  
Name \_\_\_\_\_  
5000 Dominion Blvd., Glen Allen, VA 23060 Sheet 1 of 2  
Address \_\_\_\_\_

2. Plant Surry Power Station Unit: 2  
Name \_\_\_\_\_  
5570 Hog Island Road, Surry, VA 23883 R/R 00-157 W.O.00438176-01  
Address \_\_\_\_\_ Repair Organization P.O. No. Job No. , etc. \_\_\_\_\_

3. Work Performed By Virginia Electric & Power Company Type Code Symbol Stamp \_\_\_\_\_ N/A  
Name \_\_\_\_\_ Authorization No. \_\_\_\_\_ N/A  
5000 Dominion Blvd., Glen Allen, VA 23060 Expiration Date \_\_\_\_\_ N/A  
Address \_\_\_\_\_

4. Identification of System Reactor Coolant

5. (a) Applicable Construction Code ANSI B31.1 1955 Edition, N/A Addenda, N-1 through N-13 Code Case  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No	Other Identification	Year Built	Repaired, Replaced, Or Replacement	ASME Code Stamped (Yes or No)
3/4" Hex Nut	Mackson, Inc.	Heat #11379090	N/A	Mark #38-02-RC-MOV-2535-Valvop	N/A	Replacement	No
3/4" Stud	Mackson, Inc	Heat #61870	N/A	Mark #38-02-RC-MOV-2535-Valvop	N/A	Replacement	No

7. Description of Work Disassemble, Inspect and Overhaul Valve

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure   
Other  Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks P.O. 45011652 (3/4" Stud ) P.O. 45053446 ( 3/4" Hex Nut )

Applicable Manufacturer's Data Reports to be attached

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CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp NA

Certificate of Authorization No. NA Expiration Date NA

Signed *W. C. Dagen* Date 11/22 82000  
Owner or Owner's Designee, Title dec

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of VIRGINIA and employed by HSB: and I Co. of HARTFORD, CT.

have inspected the components described in this Owner's Report during the period 10/13/00 to 12/4/00, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

*W. Smith* Commissions VA. 883 (R)  
Inspector's Signature National Board, State, Province, and Endorsements

Date 12/4 82000



**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner Virginia Electric & Power Company Date November 8, 2000  
Name \_\_\_\_\_  
5000 Dominion Blvd., Glen Allen, VA 23060 Sheet 1 of 2  
Address \_\_\_\_\_  
2. Plant Surry Power Station Name \_\_\_\_\_ Unit: 2  
Name \_\_\_\_\_  
5570 Hog Island Road, Surry, VA 23883 Address \_\_\_\_\_ R/R 00-158 W. O.#00438144-01  
Address \_\_\_\_\_ Repair Organization P.O. No. Job No. . etc  
3. Work Performed By Virginia Electric & Power Company Type Code Symbol Stamp \_\_\_\_\_ N/A  
Name \_\_\_\_\_ Authorization No. \_\_\_\_\_ N/A  
5000 Dominion Blvd., Glen Allen, VA 23060 Address \_\_\_\_\_ Expiration Date \_\_\_\_\_ N/A  
Address \_\_\_\_\_

4. Identification of System Reactor Coolant  
5. (a) Applicable Construction Code ANSI B31.1 1955 Edition, N/A Addenda, N-1 through N-13 Code Case  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes or No)
1" Round Bar	Dubose National Energy Services	Heat #JB6602	N/A	Mark #38-02-RC-PP-12.00-RC-Pipe-310-2501R	N/A	Replacement	No
1/2"x3" Flat Bar	Dubose National Energy Services	Heat #977219	N/A	Mark #38-02-RC-pp-12.00-RC-Pipe-310-2501R	N/A	Replacement	No

7. Description of Work Reposition Hanger and Performed <sup>see 11/22/00</sup> ET-S-00-0239-Rev 1  
8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure   
Other  Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks P.O.45051918 (1" Round Bar) P.O.CNT-568533 (1.2" Flat Bar)

Applicable Manufacturer's Data Reports to be attached

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CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp NA

Certificate of Authorization No. NA Expiration Date NA

Signed [Signature] TSI ENGINEER Date 11/29 29  
Owner or Owner's Designee Title 22

CERTIFICATE OF INSERVICE INSPECTION

The undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Virginia and employed by HSBI and I Co. of HARRISBURG, CT.

have inspected the components described in this Owner's Report during the period 10/16/00 to 11/22/00, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commissions VA - 882 (R)  
Inspector's Signature National Board, State, Province, and Endorsements

Date 11/27/2000

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner Virginia Electric & Power Company Date November 23, 2000  
Name \_\_\_\_\_  
5000 Dominion Blvd., Glen Allen, VA 23060 Sheet 1 of 2  
Address \_\_\_\_\_

2. Plant Surry Power Station Unit: 2  
Name \_\_\_\_\_  
5570 Hog Island Road, Surry, VA 23883 R/R 00-159 W.O. 00413896-01  
Address \_\_\_\_\_ Repair Organization P.O. No. Job No. , etc.

3. Work Performed By Virginia Electric & Power Company Type Code Symbol Stamp \_\_\_\_\_ N/A  
Name \_\_\_\_\_ Authorization No. \_\_\_\_\_ N/A  
5000 Dominion Blvd., Glen Allen, VA 23060 Expiration Date \_\_\_\_\_ N/A  
Address \_\_\_\_\_

4. Identification of System Charging System

5. (a) Applicable Construction Code ANSI B31.1 1955 Edition, N/A Addenda, N-1 through N-13 Code Case  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, Or Replacement	ASME Code Stamped (Yes or No)
Relief Valve	Crosby Valve	Serial Number N72390-00-0005	N/A	Mark #38-02-CH-RV-2203-Valve	N/A	Replacement	No

7. Description of Work Replace Relief Valve

8. Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure   
Other  Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9 Remarks P.O. CNT-463200 ( Relief Valve )

Applicable Manufacturer's Data Reports to be attached

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\_\_\_\_\_  
\_\_\_\_\_

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp NA

Certificate of Authorization No. NA Expiration Date NA

Signed D. L. Bena ISI ENGINEER Date 11/22 20  
Owner or Owner's Designee, Title ISI 00  
04

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Virginia and employed by HSBI and I Co. of HARRISON, CT.

have inspected the components described in this Owner's Report during the period 10/16/00 to 11/27/00, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

D. L. Smith Commissions Va. 883 (R)  
Inspector's Signature National Board, State, Province, and Endorsements

Date 11/27 102000

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner Virginia Electric & Power Company Date December 18, 2000  
Name \_\_\_\_\_  
5000 Dominion Blvd., Glen Allen, VA 23060 Sheet 1 of 2  
Address \_\_\_\_\_

2. Plant Surry Power Station Unit: 2  
Name \_\_\_\_\_  
5570 Hog Island Road, Surry, VA 23883 R/R 00-162 W.O.00438377-01  
Address \_\_\_\_\_ Repair Organization P.O. No. Job No. . etc.

3. Work Performed By Virginia Electric & Power Company Type Code Symbol Stamp N/A  
Name \_\_\_\_\_ Authorization No. N/A  
5000 Dominion Blvd., Glen Allen, VA 23060 Expiration Date N/A  
Address \_\_\_\_\_

4. Identification of System Instrument Air

5. (a) Applicable Construction Code ANSI B31.1 1955 Edition, N/A Addenda, N-1 through N-13 Code Case  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, Or Replacement	ASME Code Stamped (Yes or No)
2" Gate Valve	Valan. Inc.	Serial #971045-1 thru 12	N/A	Mark #38-02-1A-704-Valve	N/A	Replacement	No

7 Description of Work Replace 2" Valve / N-416-1 Code Case Applies

8 Tests Conducted: Hydrostatic  Pneumatic  Nominal Operating Pressure   
Other  Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks P.O.45045362 (2" Valve)

Applicable Manufacturer's Data Reports to be attached

Serial Number is one of the following 971045-1 thru 12

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI. repair or replacement

Type Code Symbol Stamp NA

Certificate of Authorization No. NA Expiration Date NA

Signed: W. J. Rogers ISI Engineer Date 12/20 12/2000  
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Virginia and employed by HSBI and I Co. of HARRISON, CT.

have inspected the components described in this Owner's Report during the period 10/17/00 to 12/21/00 and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

W. J. Smith Commissions VA. BB3(R)  
Inspector's Signature National Board, State, Province, and Endorsements

Date 12/21 12/2000