VIRGINIA ELECTRIC AND POWER COMPANY Richmond, Virginia 23261

February 27, 1995

United States Nuclear Regulatory Commission Attention: Document Control Desk Washington, D.C. 20555 Serial No. 95-097 NL&P/EJW Docket No. 50-338 License No. NPF-4

Gentlemen:

VIRGINIA ELECTRIC AND POWER COMPANY NORTH ANNA POWER STATION UNIT 1 INSERVICE INSPECTION PROGRAM RELIEF REQUESTS

North Anna Power Station Unit 1 is currently in the second period of its second ten year inservice inspection (ISI) interval. The component examination program is conducted in accordance with ASME Section XI 1983 Edition, Summer 1983 Addendum. The NRC has authorized the incorporation of ASME Code Case N-460 into the ISI Program as an alternative for examination coverage of Class 1 and Class 2 welds.

However, as reported in our 1994 Refuling Outage Inservice Inspection Summary Report (Virginia power Serial No. 94-688) dated December 29, 1994, five examinations performed during the September 1994 North Anna Unit 1 Refueling Outage did not achieve the required examination coverage of ASME Code Case N-460 and the ASME Section XI Code. Pursuant to the 1994 Refuling Outage Inservice Inspection Summary Report and 10 CFR 50.55a, paragraph g(5), relief is requested from the examination coverage requirements of ASME Section XI. The attached relief requests are hereby submitted for approval and inclusion in the current second interval ISI Program for North Anna Unit 1.

Justification for the proposed exemptions from the impractical examination requirements is provided in the attached relief requests. These relief requests will be included in Revision 6 of the North Anna Unit 1 Inservice Inspection Program which will be transmitted under a separate letter.

If you have any questions or require any additional information, please contact us.

Very truly yours,

James P. OF anton

James P. O'Hanlon Senior Vice President - Nuclear

Attachments

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Mr. R. D. McWhorter NRC Senior Resident Inspector North Anna Power Station

CC:

I. IDENTIFICATION OF COMPONENT

Mark/Weld#	Line#	Drawing#	Class
46H	6"-SI-132-1502-Q1	11715-WMKS-0103W	1

II. IMPRACTICABLE CODE REQUIREMENTS

The 1983 Edition, Summer 1983 Addenda (inclusive) of ASME Section XI Table IWB-2500-1, examination category B-K-1, item number B10.10 does not allow any limitations to the required volumetric or surface examinations. Code Case N-460, Alternative Examination Coverage for Class 1 and Class 2 Welds, allows a reduction in coverage, if it is less than 10%.

III. BASIS FOR RELIEF

The component listed above has been examined to the extent practical as required by the Code. Due to interferences from a pipe clamp the reduction in coverage of the surface examination was 12.5%. Figure NDE-21-1 is provided detailing the limitations experienced. Tube steel, above and below the pipe clamp, obstructs the removal of the pipe clamp. Alternative components could not be substituted for examination due to the mandatory selection requirements of the Code.

IV. ALTERNATE PROVISIONS

It is proposed that the examination already completed at the reduced coverage be counted as meeting the Code requirements.

V. STATUS



I. IDENTIFICATION OF COMPONENTS

Mark/Weld#	Line#	Drawing#	Class
8	31"-RC-2-2501-Q1	11715-WMKS-0109E-1	1
20	31"-RC-5-2501-Q1	11715-WMKS-0109F-1	1

II. IMPRACTICABLE CODE REQUIREMENTS

The 1983 Edition, Summer 1983 Addenda (inclusive) of ASME Section XI Table IWB-2500-1, examination category B-J, item number B9.11 does not allow any limitations to the required volumetric or surface examinations. Code Case N-460, Alternative Examination Coverage for Class 1 and Class 2 Welds, allows a reduction in coverage, if it is less than 10%.

III. BASIS FOR RELIEF

The components listed above have been examined to the extent practical as required by the Code. Due to interferences caused by an insulation ring welded to the pump and weld joint geometry the reduction in coverage of the volumetric examination was greater than 10%. Table NDE-22-1 is provided detailing the limitations experienced. Amplifying sketch, Figure NDE-22-1 is also provided. Alternative components could not be substituted for examination due to the mandatory selection requirements of the Code.

IV. ALTERNATE PROVISIONS

It is proposed that the examinations already completed at the reduced coverage be counted as meeting the Code requirements.

V. STATUS

Table NDE-22-1 North Anna Unit 1 Examination Coverage Estimates

Mark/Weld#	UT Scan Coverage % <u>2 5 7 8</u>	Surface Examination Coverage %	Reason For Partial
8	0 100 100 100	100	No 2 scan due to insulation ring and elbow-to-pump transition. Material type, ASTM A-351 austentic steel casting, limits the use of an extended V-path examination.
20	0 100 100 100	100	No 2 scan due to insulation ring and elbow-to-pump transition. Material type, ASTM A-351 austentic steel casting, limits the use of an extended V-path examination.

UT Scan Direction Definitions

2 - Axial scan, 180 degrees from isometric flow direction.

5 - Axial scan, the same direction as the isometric flow.

7 - Circumferential scan, clockwise rotation when viewing in the direction of isometric flow.

8 - Circumferential scan, counterclockwise rotation when viewing in the direction of isometric flow.



I. IDENTIFICATION OF COMPONENT

Mark/Weld#	Line#	Drawing#	Class
SW-31	29"-RC-7-2501-Q1	11715-WMKS-0109G-2	1

II. IMPRACTICABLE CODE REQUIREMENTS

The 1983 Edition, Summer 1983 Addenda (inclusive) of ASME Section XI Table IWB-2500-1, examination category B-J, item number B9.31 does not allow any limitations to the required volumetric or surface examinations. Code Case N-460, Alternative Examination Coverage for Class 1 and Class 2 Welds, allows a reduction in coverage, if it is less than 10%.

III. BASIS FOR RELIEF

The component listed above has been examined to the extent practical as required by the Code. Due to weld joint geometry the reduction in coverage of the volumetric examination was greater than 10%. Table NDE-23-1 is provided detailing the limitations experienced. Amplifying sketch, Figure NDE-23-1 is also provided. Alternative components could not be substituted for examination due to the mandatory selection requirements of the Code.

IV. ALTERNATE PROVISIONS

It is proposed that the examinations already completed at the reduced coverage be counted as meeting the Code requirements.

V. STATUS

Table NDE-23-1 North Anna Unit 1 Examination Coverage Estimates

UT S_an Coverage %				Surface Examination		
<u>Mark/Weld#</u> SW-31	<u>2</u> 90	50	$\frac{7}{27}$	<u>8</u> 27	Coverage %	Reason For Partial Nozzle & weld joint configuration and material type, ASTM A-351 austentic steel casting, limit the use of an

UT Scan Direction Definitions

2 - Axial scan, 180 degrees from isometric flow direction.

5 - Axial scan, the same direction as the isometric flow.

7 - Circumferential scan, clockwise rotation when viewing in the direction of isometric flow.

8 - Circumferential scan, counterclockwise rotation when viewing in the direction of isometric flow.



I. IDENTIFICATION OF COMPONENTS

 Mark/Weld#
 Line#
 Drawing#
 Class

 SW-42
 27 1/2"-RC-9-2501R-Q1
 11715-WMKS-0109G-2
 1

II. IMPRACTICABLE CODE REQUIREMENTS

The 1983 Edition, Summer 1983 Addenda (inclusive) of ASME Section XI in Tables IWB-2500-1, examination category B-J, item number B9.31 does not allow any limitations to the required volumetric or surface examinations. Code Case N-460, Alternative Examination Coverage for Class 1 and Class 2 Welds, allows a reduction in coverage, if it is less than 10%.

III. BASIS FOR RELIEF

The component listed above have been examined to the extent practical as required by the Code. Due to weld joint geometry the reduction in coverage for the listed components was greater than 10%. Table NDE-24-1 is provided detailing the limitations experienced. Amplifying sketch, Figure NDE-24-1 is also provided. Alternative components could not be substituted for examination due to the mandatory selection requirements of the Code.

IV. ALTERNATE PROVISIONS

It is proposed that the examinations already completed at the reduced coverage be counted as meeting the Code requirements.

V. STATUS

Table NDE-24-1 North Anna Unit 1 Examination Coverage Estimates

Mark/Weld#	Coverage	n % 7	8	Surface Examination Coverage %	Reason For Partial
S₩-42	52.6625.66	50	50	100	Nozzle and weld joint configuration and RCS loop pipe material, ASTM A- 351 austentic steel casting, limit the use of an extended V-path. The 5 scan was examined from the 2 side (nozzle) using an extended beam path. Two search units, 45° and 60°, were used to maximize the examination volume.

UT Scan Direction Definitions

2 - Axial scan, 180 degrees from isometric flow direction.

5 - Axial scan, the same direction as the isometric flow.

7 - Circumferential scan, clockwise rotation when viewing in the direction of isometric flow.

8 - Circumferential scan, counterclockwise rotation when viewing in the direction of isometric flow.

