



**Nebraska Public Power District**

*'Always there when you need us'*

NLS2007013  
February 20, 2007

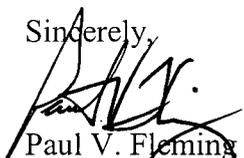
U.S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, D.C. 20555-0001

Subject: Inservice Inspection Summary Report  
Cooper Nuclear Station  
NRC Docket No. 50-298, DPR-46

The purpose of this letter is to provide to the Nuclear Regulatory Commission the Inservice Inspection (ISI) Summary Report for the Fall 2006 Refueling Outage at Cooper Nuclear Station (CNS). This report is submitted in accordance with the requirements of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI. Enclosure 1 provides the Owner's Reports for Inservice Inspections, and Repairs or Replacements. Certain non-ASME Section XI augmented ISI results are also included.

Should you have any questions regarding this matter, please contact me at (402) 825-2774.

Sincerely,



Paul V. Fleming  
Licensing Manager

/wv  
Enclosure

cc: Regional Administrator w/enclosure  
USNRC Region IV

Senior Resident Inspector w/enclosure  
USNRC - CNS

Cooper Project Manager w/enclosure  
USNRC - NRR Project Directorate IV-1

NPG Distribution w/o enclosure

CNS Records w/enclosure

A047

Correspondence Number: NLS2007013

The following table identifies those actions committed to by Nebraska Public Power District (NPPD) in this document. Any other actions discussed in the submittal represent intended or planned actions by NPPD. They are described for information only and are not regulatory commitments. Please notify the Licensing Manager at Cooper Nuclear Station of any questions regarding this document or any associated regulatory commitments.

COMMITMENT	COMMITMENT NUMBER	COMMITTED DATE OR OUTAGE
None		

NLS2007013  
Enclosure

Enclosure 1

ASME B&PV Code, Section XI, Summary Report

**ASME B&PV Code, Section XI, Summary Report  
Cooper Nuclear Station  
Refueling Outage RE23, Fall 2006**

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## **Abstract of Examinations, Tests, Results, and Corrective Measures**

### **Introduction**

This report documents the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) Code, Section XI, Inservice Inspection (ISI) Examinations, and Repair or Replacements performed from February 19, 2005 to November 22, 2006 that corresponds with the end of Refueling Outage 23 (RE23) at Cooper Nuclear Station (CNS). CNS completed the Third ISI Interval for Class 1, 2 and 3 components on February 28, 2006. However, for four (4) component examinations that are credited to the Third ISI Interval, the interval was extended to include Refueling Outage 23 (RE23) in accordance with IWA-2430(d). For the other examinations, RE23 is the first outage of the first period in the Fourth ISI Interval for Class 1, 2 and 3 components that started on March 1, 2006. RE23 is the first outage of the third period in the First Interval for Class MC containment inspections.

Examinations, repairs, and replacements were performed to the applicable requirements of the ASME B&PV Code, Section XI as delineated on the attached NIS-1 and NIS-2 forms. Three NIS-1 forms are included to encompass examinations for: a) the end of the Third ISI Interval (including the 4 examinations for which the interval was extended), b) the beginning of the Fourth ISI Interval, and c) the third period of the First IWE Interval for Class MC components. Two NIS-2 forms are included to encompass repairs and replacements covering: a) the end of the Third ISI Interval, and b) the beginning of the Fourth ISI Interval.

The Core Shroud is considered a Class 1 “core support structure” in the CNS ISI Program and is therefore subject to the visual examination requirements for Category B-N-2, Item B13.40 components per Table IWB-2500-1. A flaw on the outside surface of the shroud was identified in RE23 requiring analysis per IWB-3142.4 to accept the flaw for continued operation. IWB-3144 requires analyses of examination results as required by IWB-3142.4 to be submitted to the NRC. Therefore, CNS Calculation NEDC 05-001, Revision 1 is included in this enclosure for information. The vendor-supplied attachments with proprietary information have not been included, but are available upon request.

### **Examinations**

#### ASME Section XI Class 1, 2, and 3 Components

The examinations of ASME Code Class 1, 2, and 3 components performed during and prior to RE23 are provided in the NIS-1 summary tables. For those examinations that were conducted as part of the third period of the Third ISI Interval, the examinations were performed in accordance with ASME Section XI 1989 Edition No Addenda and ASME Section XI Risk-Informed. Those examinations that were conducted as part of the first period of the Fourth ISI Interval, the examinations were performed in accordance with ASME Section XI 2001 Edition 2003 Addenda. See Attachment 1 to the RE22-EXT NIS-1 and RE23 NIS-1 Forms for details.

## Containment

The containment inservice inspection program implements the examinations schedule of the primary containment pressure boundary in accordance with ASME Section XI, 1992 Edition, 1992 Addenda. The examinations were credited to the third period of the First IWE Interval for Class MC components. See Attachment 1 to the RE23 IWE NIS-1 Form for details.

## Pressure Testing

The Class 1 system leakage test was performed to test the primary coolant system boundary, Code Category BP, and the Class 2 portion of the Control Rod Drive system boundary credited to the Fourth 10 Year ISI Interval. The vessel flange seal leak detection system was pressure tested with the refueling cavity flooded as permitted by Relief Request PR-04. See Attachment 1 to the RE23 NIS-1 Form for details.

Code Category C-H ten (10) year pressure tests were performed and credited to the third period of the Third 10 Year Interval for the Residual Heat Removal, High Pressure Coolant Injection (HPCI) and Reactor Core Isolation Cooling systems. Code Category D-B ten (10) year pressure tests were performed on the Service Water system and secondary HPCI supply piping from the Condensate storage tanks. See Attachment 1 to the RE22-EXT NIS-1 Form for details.

## Owner-Elected and Augmented Examinations

Owner-elected component examinations were performed and credited to the Boiling Water Reactor Vessel Internals Project (BWRVIP) and to General Electric Service Information Letters. The Owner-elected examinations included ultrasonic and visual examinations as required by the CNS Vessel Internals Program that implements the recommendations by BWRVIP and other industry operating experiences.

Component examinations were also credited to NUREG-0619, CNS Management directives, etc. The augmented examinations included visual examinations of the four (4) Feedwater nozzles and ultrasonic examinations of Class 3 Reactor Equipment Cooling system welds. See Attachment 1 to the RE23 NIS-1 Form for details.

## Snubber Inspection Program

The CNS Snubber Inspection Program implements examination and testing based on Relief Request RI-13. The CNS snubber population consists of two-hundred and eight (208) safety-related snubbers that require periodic visual examination, functional testing, and service life monitoring and seal replacement. The 10% sample consisted of twenty-two (22) snubbers which were functionally tested this cycle. Snubbers were removed and replaced as part of the service life monitoring program. The snubbers that were replaced with new snubbers are listed on the summary attachment table of the NIS-2 form.

## **Repairs or Replacements**

The ASME Section XI repairs or replacements are as summarized in the Form NIS-2 Owner's Report and summary table.



### FORM NIS-1 (Back)

8. Examination Dates 2/19/2005 to 11/22/2006  
 9. Inspection Period Identification: Period 3, 11/01/2002 to 02/28/2006  
 10. Inspection Interval Identification: Interval 3, 03/01/1996 to 02/28/2006  
 11. Applicable Edition of Section XI 1989 Addenda None  
 12. Date/Revision of Inspection Plan: 10/16/2006

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

14. Abstract of Results of Examinations and Tests.  
 See Attachment 1

15. Abstract of Corrective Measures.  
 See Attachment 1

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) N/A Expiration Date \_\_\_\_\_  
 Date 2/12/07 Signed Nebraska Public Power District By Vasant N. Bhardwaj/  
 Owner T.D. Thomas for

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			
<u>Nebraska</u>	and employed by	<u>Hartford Steam Boiler Inspection and Insurance Co. of Connecticut</u>	of
<u>Hartford, Connecticut</u>	have inspected the components described in this Owner's Report during the period		
<u>02-19-05</u>	to	<u>11-22-06</u>	, 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.			
Todd Ward/ _____ Inspector's Signature	Commissions	<u>MB11557 AB24 NE10101</u> National Board, State, Province, and Endorsements	
Date <u>2-14-07</u>			

(\*) SEE "ATTACHMENT 1" FOR APPLICABLE INFORMATION

**Attachment 1: Inservice Inspection Report, Interval 3, Period 3, RE22-EXT**

- |  |   |
|--|---|
| 1. Owner, Address: Nebraska Public Power District 1414 15th St. Columbus, NE 68602                 | 4. Commercial Service Date: 07/01/1974                      |
| 2. Plant, Address: Cooper Nuclear Station, 72676 648A Avenue, PO Box 98, Brownville, NE 68321-0098 | 5. Owner Certificate of Authorization (If Required): N/A    |
| 3. Plant Unit: 1   | 6. National Certificate of Authorization (If Required): N/A |

<b>Exam Credit:</b> PSI Equal: 13
<b>Category:</b> B-G-2 Equal: 10
<b>Item No.:</b> B7.80 Equal: 10

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
B7.80.06-31	CRD-BG2-06-31	1	CRD	CRD Housing Flange Bolting Eight (8) Total

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4442572	VT-1	PSI-F06-001	Accept	N/A	Examination SAT.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
B7.80.10-15	CRD-BG2-10-15	1	CRD	CRD Housing Flange Bolting Eight (8) Total

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4451679	VT-1	PSI-F06-002	Accept	N/A	Examination SAT.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
B7.80.10-27	CRD-BG2-10-27	1	CRD	CRD Housing Flange Bolting Eight (8) Total

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4451780	VT-1	PSI-F06-003	Accept	N/A	Examination SAT.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
B7.80.10-35	CRD-BG2-10-35	1	CRD	CRD Housing Flange Bolting Eight (8) Total

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4451781	VT-1	PSI-F06-004	Accept		

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
B7.80.14-19	CRD-BG2-14-19	1	CRD	CRD Housing Flange Bolting Eight (8) Total

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4451782	VT-1	PSI-F06-005	Accept	N/A	Examination SAT.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
B7.80.18-11	CRD-BG2-18-11	1	CRD	CRD Housing Flange Bolting Eight (8) Total

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4451783	VT-1	PSI-F06-006	Accept	N/A	Examination SAT.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
B7.80.18-19	CRD-BG2-18-19	1	CRD	CRD Housing Flange Bolting Eight (8) Total

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4451785	VT-1	PSI-F06-007	Accept	N/A	Examination SAT.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
B7.80.22-47	CRD-BG2-22-47	1	CRD	CRD Housing Flange Bolting Eight (8) Total

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4451787	VT-1	PSI-F06-008	Accept	N/A	Examination SAT.

**Attachment 1: Inservice Inspection Report, Interval 3, Period 3, RE22-EXT**

- |  |   |
|--|---|
| 1. Owner, Address: Nebraska Public Power District 1414 15th St. Columbus, NE 68602                 | 4. Commercial Service Date: 07/01/1974                      |
| 2. Plant, Address: Cooper Nuclear Station, 72676 648A Avenue, PO Box 98, Brownville, NE 68321-0098 | 5. Owner Certificate of Authorization (If Required): N/A    |
| 3. Plant Unit: 1   | 6. National Certificate of Authorization (If Required): N/A |

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B7.80.46-31	CRD-BG2-46-31	1	CRD	CRD Housing Flange Bolting Eight (8) Total	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4451791	VT-1	PSI-F06-009	Accept	N/A	Examination SAT.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B7.80.50-27	CRD-BG2-50-27	1	CRD	CRD Housing Flange Bolting Eight (8) Total	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4451793	VT-1	PSI-F06-010	Accept	N/A	Examination SAT.

Category: D-A	Equal: 1
Item No.: D1.30	Equal: 1

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
D1.30.0004	SW-PD-A1	3	SW	Pump Support Integrally Welded AttAchment	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4368343	VT-1	PSI-F06-012	Accept	N/A	Examination SAT

Category: F-A	Equal: 2
Item No.: F1.40.B	Equal: 2

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
F1.40.B.0017	SW-BPD-S1	3	SW	Booster Pump Support	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4345743	VT-3	PSI-F06-013	Accept	N/A	Examination SAT.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
F1.40.B.0021	SW-PD-S1	3	SW	Main Pump Support	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4368343	VT-3	PSI-F06-011	Accept	N/A	Examination SAT.

Exam Credit: Sec.XI	Equal: 22
Category: B-N-2	Equal: 2
Item No.: B13.40	Equal: 2

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.0004	SHRD-UPCLYASEM@0>180	1	NB	Core Shroud Assembly Upper Cylinder, Accessible surfaces from top of Shroud (steam dam) to H7 Weld area 0 to 180 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448817	VT-3	VT-F06-180	Accept	N/A	Examination SAT. Examination credited to 3rd ISI Interval. Examination performed to the 2001, 2003 Addenda using Code Case N-686 but reconciled to the 1989 Edition as referenced in Section 5 of the AREVA RE23 IVVI Outage Report. Accessible areas were examined. See Section 3, Tab 5 of AREVA IVVI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 3, Period 3, RE22-EXT**

- |  |   |
|--|---|
| 1. Owner, Address: Nebraska Public Power District 1414 15th St. Columbus, NE 68602                 | 4. Commercial Service Date: 07/01/1974                      |
| 2. Plant, Address: Cooper Nuclear Station, 72676 648A Avenue, PO Box 98, Brownville, NE 68321-0098 | 5. Owner Certificate of Authorization (If Required): N/A    |
| 3. Plant Unit: 1   | 6. National Certificate of Authorization (If Required): N/A |

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
B13.40.0005	SHRD-UPCLYASEM@180>360	1	NB	Core Shroud Assembly Upper Cylinder, Accessible surfaces from top of Shroud (steam dam) to H7 Weld area 180 to 360 degrees azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448817	VT-3	VT-F06-181	Accept	N/A	Examination SAT. Examination credited to 3rd ISI Interval. Examination performed to the 2001, 2003 Addenda using Code Case N-686 but reconciled to the 1989 Edition as referenced in Section 5 of the AREVA RE23 IVVI Outage Report. Accessible areas were examined. An indication was identified between jet pumps 18 and 19 and documented per AREVA indication notification form INF#CNS-RFO-23-05 and CNS Condition Report CR-CNS-2006-08297. Indication was evaluated per NEDC 05-001, Rev 1 as acceptable for continued operation. See Section 3, Tab 5 of AREVA IVVI Outage Report.

<u>Category:</u>	C-H	<u>Equal:</u>	14
<u>Item No.:</u>	C7.20	<u>Equal:</u>	2

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
C7.20.RHR-A.PV.SHT01	RHR-A.PV.PR.B.SHT	2	RHR	Pressure Vessels, Pressure Retaining Boundary System Hydrostatic Test

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4361267	VT-2	6.1RHR.501-3301	Accept	N-498-4	10 Year Pressure Test SAT in accordance with IWC-5222 and CNS Surveillance Procedure 6.1RHR.501

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
C7.20.RHR-B.PV.SHT01	RHR-B.PV.PR.B.SHT	2	RHR	Pressure Vessels, Pressure Retaining Boundary System Hydrostatic Test

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4401009	VT-2	6.2RHR.501-3301	Accept	N-498-4	10 Year Pressure Test SAT in accordance with IWC-5222 and CNS Surveillance Procedure 6.2RHR.501

<u>Item No.:</u>	C7.40	<u>Equal:</u>	4
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<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
C7.40.HPCI.PE.SHT01	HPCI.PE.PR.B.SHT	2	HPCI	Piping, Pressure Retaining Boundary System Hydrostatic Test

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4361098	VT-2	6.HPCI.501-3301	Accept	N-498-4	10 Year Pressure Test SAT in accordance with IWC-5222 and CNS Surveillance Procedure 6.HPCI.501

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
C7.40.RCIC.PE.SHT01	RCIC.PE.PR.B.SHT	2	RCIC	Piping, Pressure Retaining Boundary System Hydrostatic Test

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4373693	VT-2	6.RCIC.501-3301	Accept	N-498-4	10 Year Pressure Test SAT in accordance with IWC-5222 and CNS Surveillance Procedure 6.RCIC.501

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
C7.40.RHR-A.PE.SHT01	RHR-A.PE.PR.B.SHT	2	RHR	Piping, Pressure Retaining Boundary System Hydrostatic Test

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4361267	VT-2	6.1RHR.501-3302	Accept	N-498-4	10 Year Pressure Test SAT in accordance with IWC-5222 and CNS Surveillance Procedure 6.1RHR.501

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
C7.40.RHR-B.PE.SHT01	RHR-B.PE.PR.B.SHT	2	RHR	Piping, Pressure Retaining Boundary System Hydrostatic Test

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4401009	VT-2	6.2RHR.501-3302	Accept	N-498-4	10 Year Pressure Test SAT in accordance with IWC-5222 and CNS Surveillance Procedure 6.2RHR.501

**Attachment 1: Inservice Inspection Report, Interval 3, Period 3, RE22-EXT**

- 1. Owner, Address: Nebraska Public Power District 1414 15th St. Columbus, NE 68602
- 2. Plant, Address: Cooper Nuclear Station, 72676 648A Avenue, PO Box 98, Brownville, NE 68321-0098
- 3. Plant Unit: 1
- 4. Commercial Service Date: 07/01/1974
- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

Item No.: C7.60 Equal: 4

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
C7.60.HPCI.PUMP.SHT01	HPCI.PUMP.PR.B.SHT	2	HPCI	Pumps, Pressure Retaining Boundary System Hydrostatic Test	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4361098	VT-2	6.HPCI.501-3302	Accept	N-498-4	10 Year Pressure Test SAT in accordance with IWC-5222 and CNS Surveillance Procedure 6.HPCI.501

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
C7.60.RCIC.PUMP.SHT01	RCIC.PUMP.PR.B.SHT	2	RCIC	Pumps, Pressure Retaining Boundary System Hydrostatic Test	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4373693	VT-2	6.RCIC.501.3302	Accept	N-498-4	10 Year Pressure Test SAT in accordance with IWC-5222 and CNS Surveillance Procedure 6.RCIC.501

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
C7.60.RHR-A.PUMP.SHT01	RHR-A.PUMP.PR.B.SHT	2	RHR	Pumps, Pressure Retaining Boundary System Hydrostatic Test	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4361267	VT-2	6.1RHR.501-3303	Accept	N-498-4	10 Year Pressure Test SAT in accordance with IWC-5222 and CNS Surveillance Procedure 6.1RHR.501

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
C7.60.RHR-B.PUMP.SHT01	RHR-B.PUMP.PR.B.SHT	2	RHR	Pumps, Pressure Retaining Boundary System Hydrostatic Test	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4401009	VT-2	6.2RHR.501.3303	Accept	N-498-4	110 Year Pressure Test SAT in accordance with IWC-5222 and Code Case N-498-4.

Item No.: C7.80 Equal: 4

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
C7.80.HPCI.VALVE.SHT01	HPCI.VALVE.PR.B.SHT	2	HPCI	Valves, Pressure Retaining Boundary System Hydrostatic Test	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4361098	VT-2	6.HPCI.501-3303	Accept	N-498-4	10 Year Pressure Test SAT in accordance with IWC-5222 and CNS Surveillance Procedure 6.HPCI.501.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
C7.80.RCIC.VALVE.SHT01	RCIC.VALVE.PR.B.SHT	2	RCIC	Valves, Pressure Retaining Boundary System Hydrostatic Test	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4373693	VT-2	6.RCIC.501-3303	Accept	N-498-4	10 Year Pressure Test SAT in accordance with IWC-5222 and CNS Surveillance Procedure 6.RCIC.501

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
C7.80.RHR-A.VALVE.SHT01	RHR-A.VALVE.PR.B.SHT	2	RHR	Valves, Pressure Retaining Boundary System Hydrostatic Test	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4361267	VT-2	6.1RHR.501-3304	Accept	N-498-4	10 Year Pressure Test SAT in accordance with IWC-5222 and CNS Surveillance Procedure 6.1RHR.501.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
C7.80.RHR-B.VALVE.SHT01	RHR-B.VALVE.PR.B.SHT	2	RHR	Valves, Pressure Retaining Boundary, System Hydrostatic Test	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4401009	VT-2	6.2RHR.501-3304	Accept	N-498-4	10 Year Pressure Test SAT in accordance with IWC-5222 and CNS Surveillance Procedure 6.2RHR.501

**Attachment 1: Inservice Inspection Report, Interval 3, Period 3, RE22-EXT**

- |  |   |
|--|---|
| 1. Owner, Address: Nebraska Public Power District 1414 15th St. Columbus, NE 68602                 | 4. Commercial Service Date: 07/01/1974                      |
| 2. Plant, Address: Cooper Nuclear Station, 72676 648A Avenue, PO Box 98, Brownville, NE 68321-0098 | 5. Owner Certificate of Authorization (If Required): N/A    |
| 3. Plant Unit: 1   | 6. National Certificate of Authorization (If Required): N/A |

<b>Category:</b> D-B	<b>Equal:</b> 4
<b>Item No.:</b> D2.10	<b>Equal:</b> 4

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
D2.10.ECS.PRC.SHT01	ECSTK.HPCI.PR.B.SHT	3	CM	Emergency Condensate Storage Tanks A and B Pressure Retaining Boundaries, System Hydrostatic Test

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4361098	VT-2	6.HPCI.501-3304	Accept		

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
D2.10.HPCI.PRC.SHT01	HPCI.SUPPLY.ECS.PR.B.SHT	3	HPCI	HPCI Supply Piping From Emergency Condensate Storage Pressure Retaining Boundaries, System Hydrostatic Test

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4361098	VT-2	6.HPCI.501-3305	Accept	N-498-4	10 Year Pressure Test SAT in accordance with IWD-5222 and CNS Surveillance Procedure 6.HPCI.501.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
D2.10.SW-A.PRC.SHT01	SW-A.PR.B.SHT	3	SW	Service Water Loop A Pressure Retaining Boundaries, System Hydrostatic Test

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4401061	VT-2	6.1SW.501-3301	Accept	N-498-4	10 Year Pressure Test SAT in accordance with IWD-5222 and CNS Surveillance Procedure 6.HPCI.501.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
D2.10.SW-B.PRC.SHT01	SW-B.PR.B.SHT	3	SW	Service Water Loop B Pressure Retaining Boundaries, System Hydrostatic Test

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4361219	VT-2	6.2SW.501-3301	Accept	N-498-4	10 Year Pressure Test SAT in accordance with IWD-5222 and CNS Surveillance Procedure 6.2SW..501

<b>Category:</b> F-A	<b>Equal:</b> 2
<b>Item No.:</b> F1.40.A	<b>Equal:</b> 2

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
F1.40.A.0020	RPV-STB-2A	1	NB	Reactor Vessel Stabilizer

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448891	VT-3	VT-F06-169	Accept	N/A	Examination SAT. Examination credited to the 3rd Interval ISI Program. Examination was performed to the 2001 Edition, 2003 Addenda and reconciled to the 1989 Edition of ASME Section XI as documented on the data sheet. See AREVA RE23 Manual ISI Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
F1.40.A.0021	RPV-STB-3A	1	NB	Reactor Vessel Stabilizer

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448891	VT-3	VT-F06-182	Accept	N/A	Examination SAT. Examination credited to the 3rd Interval ISI Program. Examination was performed to the 2001 Edition, 2003 Addenda and reconciled to the 1989 Edition of ASME Section XI as documented on the data sheet. See AREVA RE23 Manual ISI Report.



## FORM NIS-1 (Back)

8. Examination Dates 3/1/2006 to 11/22/2006
9. Inspection Period Identification: Period 1, 03/01/2006 to 06/30/2009
10. Inspection Interval Identification: Interval 4, 03/01/2006 to 02/29/2016
11. Applicable Edition of Section XI 2001 Addenda 2003
12. Date/Revision of Inspection Plan: 12/4/2006 Revision 0.2
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
14. Abstract of Results of Examinations and Tests.  
See Attachment 1
15. Abstract of Corrective Measures.  
See Attachment 1

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) N/A Expiration Date \_\_\_\_\_

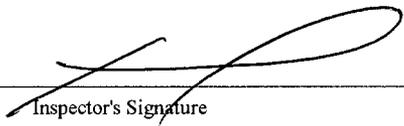
Date 2/12/07 Signed Nebraska Public Power District By Vasant N. Bhardwaj/  
Owner KB Chomra for 2/12/07

### 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 Nebraska and employed by Hartford Steam Boiler Inspection and Insurance Co. of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 02-19-05 to 11-22-06, 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.

Todd Ward/

  
Inspector's Signature

Commissions

NB1157 ABW NE 10101

National Board, State, Province, and Endorsements

Date

02-14-07

(\*) SEE "ATTACHMENT 1" FOR APPLICABLE INFORMATION

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

- 1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602
- 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098
- 3. Plant Unit: 1
- 4. Commercial Service Date: 07/01/1974
- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

<b>Exam Credit: PSI Equal: 10</b>
<b>Category: B-G-2 Equal: 1</b>
<b>Item No.: B7.50 Equal: 1</b>

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B7.50.0011	MSD-BG2-31	1	MS	Main Run Pipe Flange to Valve Flange Bolting	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4446762	VT-1	PSI-F06-015	Accept		

<b>Category: F-A Equal: 8</b>
<b>Item No.: F1.20.A Equal: 2</b>

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
F1.20.A.0066	PVH-104B	2	PNC	Sway Strut	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4534069	VT-3	PSI-F06-021	Accept	N-686	Examination SAT.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
F1.20.A.0071	PVS-1B&R	2	PNC	Sway Strut	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4533334	VT-3	PSI-F06-022	Accept	N-686	Examination SAT.

<b>Item No.: F1.20.D Equal: 5</b>
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<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
F1.20.D.0024	RHS-30B	2	RHR	Hydraulic Snubber, Fig.200, one (1) of two (2)	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4443492	VT-3	PSI-F06-017	Accept	N/A	Examination SAT.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
F1.20.D.0026	RHS-37	2	RHR	Hydraulic Snubber, Fig.201	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4443342	VT-3	PSI-F06-O16	Accept	N/A	Examination SAT.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
F1.20.D.0027	RHS-40	2	RHR	Hydraulic Snubber, Fig.201	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4443493	VT-3	PSI-F06-018	Accept	N/A	Examination SAT.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
F1.20.D.0030	RHS-43	2	RHR	Hydraulic Snubber, Fig.201	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4443490	VT-3	PSI-F06-019	Accept	N/A	Examination SAT.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

- 1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602
- 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098
- 3. Plant Unit: 1
- 4. Commercial Service Date: 07/01/1974
- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
F1.20.D.0044	RHS-80	2	RHR	Hydraulic Snubber, Fig.200	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4443487	VT-3	PSI-F06-020	Accept	N/A	01/16/2007

Item No.: F1.40.B Equal: 1

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
F1.40.B.0014	SW-BPA-S1	3	SW	Booster Pump Support	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4529307	VT-3	PSI-F06-014	Accept	N/A	Examination SAT.

Category: R-A Equal: 1

Item No.: R1.20-6 Equal: 1

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B9.21.0029.RI	MSDR-BJ-72R2	1	MSDR	Pipe to Valve	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4426440	MT	MT-F06-006	Accept	N-460	Examination SAT. See AREVA RE23 Manual ISI Outage Report.

Exam Credit: Sec.XI Equal: 90

Category: B-G-2 Equal: 5

Item No.: B7.50 Equal: 4

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B7.50.0004	MSB-BG2-16	1	MS	Main Run Pipe Flange to Valve Flange Bolting	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448890	VT-1	VT-F06-080	Accept	N-686	Examination SAT. See AREVA RE23 Manual ISI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B7.50.0005	MSB-BG2-21	1	MS	Main Run Pipe Flange to Valve Flange Bolting	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448890	VT-1	VT-F06-087	Accept	N-686	Examination SAT. See AREVA RE23 Manual ISI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B7.50.0006	MSC-BG2-19	1	MS	Main Run Pipe Flange to Valve Flange Bolting	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448890	VT-1	VT-F06-118	Accept	N-686	Examination SAT. See AREVA RE23 Manual ISI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B7.50.0007	MSC-BG2-24	1	MS	Main Run Pipe Flange to Valve Flange Bolting	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448890	VT-1	VT-F06-117	Accept	N-686	Examination SAT. See AREVA RE23 Manual ISI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

- 1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602
- 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098
- 3. Plant Unit: 1
- 4. Commercial Service Date: 07/01/1974
- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

Item No.: B7.70 Equal: 1

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B7.70.0008	MS-AO-86A	1	MS	Valve Body Bolting	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448890	VT-1	VT-F06-168	Accept	N-686	Examination SAT. See AREVA RE23 Manual ISI Outage Report.

Category: B-K Equal: 3

Item No.: B10.20 Equal: 3

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B10.20.0043	FWB-BK1-8	1	RF	Lugs	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448888	MT	MT-F06-003	Accept	N-460	Examination SAT. See AREVA RE23 Manual ISI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B10.20.0030	PSA-BK1-19	1	MS	Lugs (4 total 1 1/2 x 1 3/4 x 1 3/4 inches)	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448889	MT	MT-F06-004	Accept	N-460	Examination SAT. See AREVA RE23 Manual ISI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B10.20.0060	RHC-BK1-24	1	RHR	Stanchion	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448892	MT	MT-F06-005	Accept	N-460	Examination SAT. See AREVA RE23 Manual ISI Outage Report.

Category: B-M-2 Equal: 1

Item No.: B12.50 Equal: 1

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B12.50.0036	RHR-MO-25A-BM2	1	RHR	Valve Body Internal Surfaces	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4534360	VT-3	VE-F06-013	Accept	N-686	Examination SAT.

Category: B-N-1 Equal: 1

Item No.: B13.10 Equal: 1

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.10.0004	VES-INTER@180>360	1	NB	RPV Interior Surfaces (One Half RPV Accessible Areas)	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448817	VT-3	VT-F06-232	Accept	N-686	Examination SAT. Examined Interior Surfaces 180-270 and 270-360; Access limited to areas above Shroud Flange. See Section 3, Tab 6 of AREVA RE23 IVVI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

- 1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602
- 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098
- 3. Plant Unit: 1
- 4. Commercial Service Date: 07/01/1974
- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

Category: B-N-2 Equal: 51
Item No.: B13.30 Equal: 12

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
B13.30.0001	CSA-BKTATTWLDS@150	1	CS	Core Spray A Internal Piping Bracket Attachment Welds to RPV at 150 Degrees Azimnth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448881	VT-3	VT-F06-136	Accept	N-686	Examination SAT. VT-3 and EVT-1 (BWRVIP-18-A) obtained 100% coverage. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
B13.30.0002	CSA-BKTATTWLDS@30	1	CS	Core Spray A Internal Piping Bracket Attachment Welds to RPV at 30 Degrees Azimnth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448881	VT-3	VT-F06-138	Accept	N-686	Examination SAT. VT-3 and EVT-1 (BWRVIP-18-A) obtained 100% coverage. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
B13.30.0003	CSB-BKTATTWLDS@210	1	CS	Core Spray B Internal Piping Bracket Attachment Welds to RPV at 210 Degrees Azimnth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448881	VT-3	VT-F06-140	Accept	N-686	Examination SAT. VT-3 and EVT-1 (BWRVIP-18-A) obtained 100% coverage. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
B13.30.0004	CSB-BKTATTWLDS@330	1	CS	Core Spray B Internal Piping Bracket Attachment Welds to RPV at 330 Degrees Azimnth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448881	VT-3	VT-F06-142	Accept	N-686	Examination SAT. VT-3 and EVT-1 (BWRVIP-18-A) obtained 100% coverage. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
B13.30.0005	FW-ASPRBKT-ATTWLDS@5	1	RF	Feedwater Sparger Bracket Attachment Welds at 5 degrees azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448817	VT-3	VT-F06-121	Accept	N-686	Examination SAT. Bracket to Vessel attachment weld. VT-3 and EVT-1 (BWRVIP-48-A) exams limited to 75% coverage due to interference of Feedwater Spargers. See Section 3, Tab 8 of the AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
B13.30.0006	FW-ASPRBKT-ATTWLDS@85	1	RF	Feedwater Sparger Bracket Attachment at 85 degrees azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448817	VT-3	VT-F06-123	Accept	N-686	Examination SAT. Bracket to Vessel attachment weld. VT-3 and EVT-1 (BWRVIP-48-A) exams limited to 75% coverage due to interference of Feedwater Spargers. See Section 3, Tab 8 of the AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
B13.30.0007	FW-BSPRBKT-ATTWLDS@175	1	RF	Feedwater Sparger Bracket Attachment Welds at 175 degrees azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448817	VT-3	VT-F06-170	Accept	N-686	Examination SAT. Bracket to Vessel attachment weld. VT-3 exam limited to 90% and EVT-1 (BWRVIP-48-A) exam limited to 70% coverage due to Guide Rod interference. See Section 3, Tab 8 of the AREVA RE23 IVVI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

- 1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602
- 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098
- 3. Plant Unit: 1
- 4. Commercial Service Date: 07/01/1974
- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.30.0008	FW-BSPRBKT-ATTWLDS@95	1	RF	Feedwater Sparger Bracket Attachment at 95 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448817	VT-3	VT-F06-172	Accept	N-686	Examination SAT. Bracket to Vessel attachment weld. 100% coverage for VT-3, 75% coverage for EVT-1 (BWRVIP-48-A). See Section 3, Tab 8 of the AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.30.0009	FW-CSPRBKT-ATTWLDS@185	1	RF	Feedwater Sparger Bracket Attachment Welds at 185 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448817	VT-3	VT-F06-174	Accept	N-686	Examination SAT. Bracket to Vessel attachment weld. VT-3 obtained 100% coverage. EVT-1 (BWRVIP-48-A) obtained 75% coverage, limited by configuration and Guide Rod interference. See Section 3, Tab 8 of the AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.30.0010	FW-CSPRBKT-ATTWLDS@265	1	RF	Feedwater Sparger Bracket Attachment Welds at 265 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448817	VT-3	VT-F06-176	Accept	N-686	Examination SAT. Bracket to Vessel attachment weld. VT-3 exam limited to 75% due to interference of Feedwater Sparger. EVT-1 (BWRVIP-48-A) was limited to 75% due to interference of Feedwater Sparger and Cattle Chute above. See Section 3, Tab 8 of the AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.30.0011	FW-DSPRBKT-ATTWLDS@275	1	RF	Feedwater Sparger Bracket Attachment Welds at 275 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448817	VT-3	VT-F06-178	Accept	N-686	Examination SAT. Bracket to Vessel attachment weld. VT-3 and EVT-1(BWRVIP-48-A) exams limited to 60% due to interference of Feedwater Sparger and Cattle Chute above. See Section 3, Tab 8 of the AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.30.0012	FW-DSPRBKT-ATTWLDS@355	1	RF	Feedwater Sparger Bracket Attachment Welds at 355 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448817	VT-3	VT-F06-125	Accept	N-686	Examination SAT. Bracket to Vessel attachment weld. Exam limited due to interference of Feedwater Sparger. Both VT-3 and EVT-1(BWRVIP-48-A) limited to 75% coverage. See Section 3, Tab 8 of the AREVA RE23 IVVI Outage Report.

Item No.: B13.40 Equal: 39

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.0001	CORE-PLATE	1	NB	Core Plate Assembly, Accessible surfaces including Rim Hold-Down Bolts (Total of 72, Critical Number 36)	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4452896	VT-3	VT-F06-301	Accept	N-686	Examination SAT. Examined core plate at CRD locations as made accessible. CR locations are as follows: 06-19, 06-35, 10-11, 10-35, 14-35, 18-11, 18-15, 22-31, 30-11, 30-35, 30-39, 34-15, 34-43, 38-19, 42-11, 42-19, 42-27, 42-35. See Section 3, Tab 7 of the AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.GT06-19	CRGT-(06-19)	1	NB	Control Rod Guide Tube	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4452896	VT-3	VT-F06-280	Accept	N-686	Examination SAT. Examined the Core Plate area around the Guide Tube, Guide Tube for Debris and Uncoupling Pin position. See Section 3, Tab 7 of AREVA RE23 IVVI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

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|--|---|
| 1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602                 | 4. Commercial Service Date: 07/01/1974                      |
| 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098 | 5. Owner Certificate of Authorization (If Required): N/A    |
| 3. Plant Unit: 1   | 6. National Certificate of Authorization (If Required): N/A |

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.GT06-35	CRGT-(06-35)	1	NB	Control Rod Guide Tube	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4452896	VT-3	VT-F06-257	Accept	N-686	Examination SAT. Examined the Core Plate area around the Guide Tube, Guide Tube for Debris and Uncoupling Pin position. See Section 3, Tab 7 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.GT10-11	CRGT-(10-11)	1	NB	Control Rod Guide Tube	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4452896	VT-3	VT-F06-281	Accept	N-686	Examination SAT. Examined the Core Plate area around the Guide Tube, Guide Tube for Debris and Uncoupling Pin position. See Section 3, Tab 7 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.GT10-35	CRGT-(10-35)	1	NB	Control Rod Guide Tube	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4452896	VT-3	VT-F06-258	Accept	N-686	Examination SAT. Examined the Core Plate area around the Guide Tube, Guide Tube for Debris and Uncoupling Pin position. See Section 3, Tab 7 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.GT14-35	CRGT-(14-35)	1	NB	Control Rod Guide Tube	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4452896	VT-3	VT-F06-282	Accept	N-686	Examination SAT. Examined the Core Plate area around the Guide Tube, Guide Tube for Debris and Uncoupling Pin position. See Section 3, Tab 7 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.GT18-11	CRGT-(18-11)	1	NB	Control Rod Guide Tube	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4452896	VT-3	VT-F06-283	Accept	N-686	Examination SAT. Examined the Core Plate area around the Guide Tube, Guide Tube for Debris and Uncoupling Pin position. See Section 3, Tab 7 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.GT18-15	CRGT-(18-15)	1	NB	Control Rod Guide Tube	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4452896	VT-3	VT-F06-259	Accept	N-686	Examination SAT. Examined the Core Plate area around the Guide Tube, Guide Tube for Debris and Uncoupling Pin position. See Section 3, Tab 7 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.GT22-31	CRGT-(22-31)	1	NB	Control Rod Guide Tube	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4452896	VT-3	VT-F06-284	Accept	N-686	Examination SAT. Examined the Core Plate area around the Guide Tube, Guide Tube for Debris and Uncoupling Pin position. See Section 3, Tab 7 of AREVA RE23 IVVI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

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|--|---|
| 1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602                 | 4. Commercial Service Date: 07/01/1974                      |
| 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098 | 5. Owner Certificate of Authorization (If Required): N/A    |
| 3. Plant Unit: 1   | 6. National Certificate of Authorization (If Required): N/A |

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.GT30-11	CRGT-(30-11)	1	NB	Control Rod Guide Tube	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4452896	VT-3	VT-F06-285	Accept	N-686	Examination SAT. Examined the Core Plate area around the Guide Tube, Guide Tube for Debris and Uncoupling Pin position. FME (Small Debris) Located on Core Plate in NW corner of cell. Item Removed, Ref. CR-CNS-2006-8675. See Section 3, Tab 7 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.GT30-35	CRGT-(30-35)	1	NB	Control Rod Guide Tube	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4452896	VT-3	VT-F06-260	Accept	N-686	Examination SAT. Examined the Core Plate area around the Guide Tube, Guide Tube for Debris and Uncoupling Pin position. See Section 3, Tab 7 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.GT30-39	CRGT-(30-39)	1	NB	Control Rod Guide Tube	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4452896	VT-3	VT-F06-261	Accept	N-686	Examination SAT. Examined the Core Plate area around the Guide Tube, Guide Tube for Debris and Uncoupling Pin position. See Section 3, Tab 7 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.GT34-15	CRGT-(34-15)	1	NB	Control Rod Guide Tube	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4452896	VT-3	VT-F06-262	Accept	N-686	Examination SAT. Examined the Core Plate area around the Guide Tube, Guide Tube for Debris and Uncoupling Pin position. See Section 3, Tab 7 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.GT34-43	CRGT-(34-43)	1	NB	Control Rod Guide Tube	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4452896	VT-3	VT-F06-263	Accept	N-686	Examination SAT. Examined the Core Plate area around the Guide Tube, Guide Tube for Debris and Uncoupling Pin position. See Section 3, Tab 7 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.GT38-19	CRGT-(38-19)	1	NB	Control Rod Guide Tube	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4452896	VT-3	VT-F06-286	Accept	N-686	Examination SAT. Examined the Core Plate area around the Guide Tube, Guide Tube for Debris and Uncoupling Pin position. See Section 3, Tab 7 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.GT42-11	CRGT-(42-11)	1	NB	Control Rod Guide Tube	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4452896	VT-3	VT-F06-287	Accept	N-686	Examination SAT. Examined the Core Plate area around the Guide Tube, Guide Tube for Debris and Uncoupling Pin position. See Section 3, Tab 7 of AREVA RE23 IVVI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602  
 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098  
 3. Plant Unit: 1
4. Commercial Service Date: 07/01/1974  
 5. Owner Certificate of Authorization (If Required): N/A  
 6. National Certificate of Authorization (If Required): N/A

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.GT42-19	CRGT-(42-19)	1	NB	Control Rod Guide Tube	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4452896	VT-3	VT-F06-264	Accept	N-686	Examination SAT. Examined the Core Plate area around the Guide Tube, Guide Tube for Debris and Uncoupling Pin position. See Section 3, Tab 7 of AREVA RE23 IVVI Outage Report.
<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.GT42-27	CRGT-(42-27)	1	NB	Control Rod Guide Tube	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4452896	VT-3	VT-F06-265	Accept	N-686	Examination SAT. Examine the Core Plate area around the Guide Tube, CRGT-1, Guide Tube and Uncoupling Pin position. See Section 3, Tab 7 of AREVA RE23 IVVI Outage Report.
<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.GT42-35	CRGT-(42-35)	1	NB	Control Rod Guide Tube	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4452896	VT-3	VT-F06-266	Accept	N-686	Examination SAT. Examined the Core Plate area around the Guide Tube, Guide Tube for Debris and Uncoupling Pin position. See Section 3, Tab 7 of AREVA RE23 IVVI Outage Report.
<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.OF06-19	OFSC-(06-19)	1	NB	Four Lobed Orificed Fuel Support Casting Assembly	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4452896	VT-3	VT-F06-288	Accept	N-686	Examination SAT. Examine FSC exterior surfaces including flow holes and tack welds. See Section 3, Tab 7 of AREVA RE23 IVVI Outage Report.
<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.OF06-35	OFSC-(06-35)	1	NB	Four Lobed Orificed Fuel Support Casting Assembly	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4452896	VT-3	VT-F06-229	Accept	N-686	Examination SAT. Examine FSC exterior surfaces including flow holes and tack welds. See Section 3, Tab 7 of AREVA RE23 IVVI Outage Report.
<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.OF10-11	OFSC-(10-11)	1	NB	Four Lobed Orificed Fuel Support Casting Assembly	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4452896	VT-3	VT-F06-289	Accept	N686	Examination SAT. Examine FSC exterior surfaces including flow holes and tack welds. See Section 3, Tab 7 of AREVA RE23 IVVI Outage Report.
<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.OF10-35	OFSC-(10-35)	1	NB	Four Lobed Orificed Fuel Support Casting Assembly	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4452896	VT-3	VT-F06-290	Accept	N-686	Examination SAT. Examine FSC exterior surfaces including flow holes and tack welds. See Section 3, Tab 7 of AREVA RE23 IVVI Outage Report.
<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.OF14-35	OFSC-(14-35)	1	NB	Four Lobed Orificed Fuel Support Casting Assembly	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4452896	VT-3	VT-F06-291	Accept	N-686	Examination SAT. Examine FSC exterior surfaces including flow holes and tack welds. See Section 3, Tab 7 of AREVA RE23 IVVI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

- |  |   |
|--|---|
| 1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602                 | 4. Commercial Service Date: 07/01/1974                      |
| 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098 | 5. Owner Certificate of Authorization (If Required): N/A    |
| 3. Plant Unit: 1   | 6. National Certificate of Authorization (If Required): N/A |

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.OF18-11	OFSC-(18-11)	1	NB	Four Lobed Orificed Fuel Support Casting Assembly	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4452896	VT-3	VT-F06-292	Accept	N-686	Examination SAT. Examine FSC exterior surfaces including flow holes and tack welds. See Section 3, Tab 7 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.OF18-15	OFSC-(18-15)	1	NB	Four Lobed Orificed Fuel Support Casting Assembly	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4452896	VT-3	VT-F06-293	Accept	N-686	Examination SAT. Examine FSC exterior surfaces including flow holes and tack welds. See Section 3, Tab 7 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.OF22-31	OFSC-(22-31)	1	NB	Four Lobed Orificed Fuel Support Casting Assembly	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4452896	VT-3	VT-F06-294	Accept	N-686	Examination SAT. Examine FSC exterior surfaces including flow holes and tack welds. See Section 3, Tab 7 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.OF30-11	OFSC-(30-11)	1	NB	Four Lobed Orificed Fuel Support Casting Assembly	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4452896	VT-3	VT-F06-295	Accept	N-686	Examination SAT. Examine FSC exterior surfaces including flow holes and tack welds. See Section 3, Tab 7 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.OF30-35	OFSC-(30-35)	1	NB	Four Lobed Orificed Fuel Support Casting Assembly	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4452896	VT-3	VT-F06-267	Accept	N-686	Examination SAT. Examine FSC exterior surfaces including flow holes and tack welds. See Section 3, Tab 7 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.OF30-39	OFSC-(30-39)	1	NB	Four Lobed Orificed Fuel Support Casting Assembly	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4452896	VT-3	VT-F06-268	Accept	N-686	Examination SAT. Examine FSC exterior surfaces including flow holes and tack welds. See Section 3, Tab 7 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.OF34-15	OFSC-(34-15)	1	NB	Four Lobed Orificed Fuel Support Casting Assembly	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4452896	VT-3	VT-F06-269	Accept	N-686	Examination SAT. Examine FSC exterior surfaces including flow holes and tack welds. See Section 3, Tab 7 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.OF34-43	OFSC-(34-43)	1	NB	Four Lobed Orificed Fuel Support Casting Assembly	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4452896	VT-3	VT-F06-270	Accept	N-686	Examination SAT. Examine FSC exterior surfaces including flow holes and tack welds. See Section 3, Tab 7 of AREVA RE23 IVVI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602  
 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098  
 3. Plant Unit: 1
4. Commercial Service Date: 07/01/1974  
 5. Owner Certificate of Authorization (If Required): N/A  
 6. National Certificate of Authorization (If Required): N/A

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.OF38-19	OFSC-(38-19)	1	NB	Four Lobed Orificed Fuel Support Casting Assembly	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4452896	VT-3	VT-F06-296	Accept	N-686	Examination SAT. Examine FSC exterior surfaces including flow holes and tack welds. See Section 3, Tab 7 of AREVA RE23 IVVI Outage Report.

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<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.OF42-11	OFSC-(42-11)	1	NB	Four Lobed Orificed Fuel Support Casting Assembly	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4452896	VT-3	VT-F06-297	Accept	N-686	Examination SAT. Examine FSC exterior surfaces including flow holes and tack welds. See Section 3, Tab 7 of AREVA RE23 IVVI Outage Report.

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<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.OF42-19	OFSC-(42-19)	1	NB	Four Lobed Orificed Fuel Support Casting Assembly	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4452896	VT-3	VT-F06-230	Accept	N-686	Examination SAT. Examine FSC exterior surfaces including flow holes and tack welds. See Section 3, Tab 7 of AREVA RE23 IVVI Outage Report.

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<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.OF42-27	OFSC-(42-27)	1	NB	Four Lobed Orificed Fuel Support Casting Assembly	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4452896	VT-3	VT-F06-231	Accept	N-686	Examination SAT. Examine FSC exterior surfaces including flow holes and tack welds. See Section 3, Tab 7 of AREVA RE23 IVVI Outage Report.

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<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.OF42-35	OFSC-(42-35)	1	NB	Four Lobed Orificed Fuel Support Casting Assembly	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4452896	VT-3	VT-F06-271	Accept	N-686	Examination SAT. Examine FSC exterior surfaces including flow holes and tack welds. See Section 3, Tab 7 of AREVA RE23 IVVI Outage Report.

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<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.0006	TPGD-ASEM	1	NB	Top Guide Assembly consisting of grid beams, rim welds, rim pins,wedges	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448819	VT-3	VT-F06-300	Accept	N-686	Examination SAT. Examined top guide at CRD locations as made accessible. CR locations are as follows: 06-19, 06-35, 10-11, 10-35, 14-35, 18-11, 18-15, 22-31, 30-11, 30-35, 30-39, 34-15, 34-43, 38-19, 42-11, 42-19, 42-27, 42-35. See Section 3, Tab 7 of the AREVA RE23 IVVI Outage Report.

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<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.40.0007	TPGD-HRDWARE	1	NB	Top Guide Assembly Hardware and Rim Weld (Hold Down Latches and Horizontal Alignment Pins at 0, 90, 180, and 270 degree azimuth)	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448819	VT-3	VT-F06-129	Accept	N-686	Examination SAT. Examined accessible areas of the Top Guide including the Rim, Hold downs, Rim Bolts and Lattice Structure from 0 to 360°. See Section 3, Tab 9 of AREVA RE23 IVVI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

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|--|---|
| 1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602                 | 4. Commercial Service Date: 07/01/1974                      |
| 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098 | 5. Owner Certificate of Authorization (If Required): N/A    |
| 3. Plant Unit: 1   | 6. National Certificate of Authorization (If Required): N/A |

Category: B-O Equal: 2  
 Item No.: B14.10 Equal: 2

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B14.10.02-27-1	CRD-02-27-1	1	CRD	Peripheral Control Rod Drive Housing to Flange weld	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448893	PT	PT-F06-002	Accept	N-460	Examination SAT. See AREVA RE23 Manual ISI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B14.10.02-31-1	CRD-02-31-1	1	CRD	Peripheral Control Rod Drive Housing to Flange weld	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448893	PT	PT-F06-001	Accept	N-460	Examination SAT. See AREVA RE23 Manual ISI Outage Report.

Category: B-P Equal: 2  
 Item No.: B15.10 Equal: 2

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B15.10.PRC.SLT01	PRC.CLS1	1	NB	All Pressure Retaining Components, System Leakage Test	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4429682	VT-2	6.MISC.502-4101	Accept	N/A	Examination SAT

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B15.10.PRC.SLT02	VS.HD.FLGSEL.LEK.DETEC	1	NB	Pressure Retaining Component, Reactor Pressure Vessel, RPV Flange Seal Leak Detection System, System Leakage Test	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4446598	VT-2	PM10606-F06-01	Accept	N-498-4	Examination SAT.

Category: C-A Equal: 1  
 Item No.: C1.20 Equal: 1

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
C1.20.0001	RHR-CA-1A	2	RHR	Top Head to Shell	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448896	Manual UT	UT-F06-097	Accept	N-460	Examination SAT. See AREVA RE23 Manual ISI Outage Report.
4448896	Manual UT	UT-F06-096	Accept		
4448896	Manual UT	UT-F06-095	Accept		
4448896	Manual UT	UT-F06-098	Accept		

Category: C-C Equal: 2  
 Item No.: C3.20 Equal: 2

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
C3.20.0022	HPID-CC-5	2	HPCI	Stachion	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448894	MT	MT-F06-001	Accept	N-460	Examination SAT. See AREVA RE23 Manual ISI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

- 1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602
- 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098
- 3. Plant Unit: 1
- 4. Commercial Service Date: 07/01/1974
- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
C3.20.0034	PSA-CE1-1	2	MS	Stanchion	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448895	MT	MT-F06-002	Accept	N-460	Examination SAT. See AREVA RE23 Manual ISI Outage Report.

<u>Category:</u>	C-H	<u>Equal:</u>	1
<u>Item No.:</u>	C7.10	<u>Equal:</u>	1

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
C7.10.PRC.CRD.SLT01	PRC.CLS2.CRD	2	CRD	Pressure Retaining Components, CRD System Leakage Test	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4429682	VT-2	6.MISC.502-4402	Accept	N-686	Examination SAT.

<u>Category:</u>	F-A	<u>Equal:</u>	12
<u>Item No.:</u>	F1.10.C	<u>Equal:</u>	3

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
F1.10.C.0021	MSH-134	1	MS	Constant Support	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448889	VT-3	VT-F06-302	Reject	N-686	Examination SAT based on review of support setting against acceptance criteria in CNS Procedure 7.2.57. See AREVA RE23 Manual ISI Outage Report.

Evaluation Acceptable Evaluation Comments: Examination SAT

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
F1.10.C.0042	RFH-70	1	RF	Constant Support	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448888	VT-3	VT-F06-026	Accept	N-686	Examination SAT. See AREVA RE23 Manual ISI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
F1.10.C.0047	RFH-73	1	RF	Constant Support Trapeze	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448888	VT-3	VT-F06-027	Accept	N-686	Examination SAT. See AREVA RE23 Manual ISI Outage Report.

<u>Item No.:</u>	F1.20.A	<u>Equal:</u>	3
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<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
F1.20.A.0018	HPH-6	2	HPCI	Stanchion	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448894	VT-3	VT-F06-003	Accept	N-686	Examination SAT. See AREVA RE23 Manual ISI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
F1.20.A.0019	HPH-6A	2	HPCI	Rod Hanger	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448894	VT-3	VT-F06-004	Reject	N-686	Examination SAT based on attached Civil Engineering evaluation. See AREVA RE23 Manual ISI Outage Report.

Evaluation Acceptable Evaluation Comments: CR-CNS-2006-07790 was written to document the indication but administratively closed following evaluation by Civil Engineering concluding a condition did not exist. Therefore, examination SAT.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

- 1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602
- 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098
- 3. Plant Unit: 1
- 4. Commercial Service Date: 07/01/1974
- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
F1.20.A.0046	MSH-157A	2	MS	Sway Strut	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448894	VT-3	VT-F06-024	Reject	N-686	Engineering review has determined that the configuration discrepancy meets the acceptance standards of IWF-3410, therefore the examination is SAT. See AREVA RE23 Manual ISI Outage Report.

Evaluation Acceptable Evaluation Comments: Based on engineering evaluation, the recordable indication meets the Acceptance Standards of IWF-3410 therefore this examination is SAT.

Item No.: F1.20.B Equal: 1

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
F1.20.B.0017	RFH-41	2	HPCI	Rigid Brace	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448894	VT-3	VT-F06-005	Accept	N-686	Examination SAT. See AREVA RE23 Manual ISI Outage Report.

Item No.: F1.20.C Equal: 1

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
F1.20.C.0028	MSH-109	2	MS	Variable Spring	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448895	VT-3	VT-F06-025	Reject	N-686	Examination SAT. Spring Can setting within tolerance as allowed by procedure. See AREVA RE23 Manual ISI Outage Report.

Evaluation Acceptable Evaluation Comments: Examination SAT.

Item No.: F1.40.A Equal: 2

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
F1.40.A.0019	RPV-STB-1A	1	NB	Reactor Vessel Stabilizer	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448891	VT-3	VT-F06-119	Accept	N-686	Examination SAT. See AREVA RE23 Manual ISI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
F1.40.A.0022	RPV-STB-4A	1	NB	Reactor Vessel Stabilizer	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448891	VT-3	VT-F06-120	Accept	N-686	Examination SAT. See AREVA RE23 Manual ISI Outage Report.

Item No.: F1.40.B Equal: 2

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
F1.40.B.0003	HPCI-BP-S1	2	HPCI	Booster Pump Support	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448894	VT-3	VT-F06-006	Accept	N-686	Examination SAT. See AREVA RE23 Manual ISI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
F1.40.B.0004	HPCI-MP-S1	2	HPCI	Main Pump Support	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448894	VT-3	VT-F06-007	Accept	N-686	Examination SAT. See AREVA RE23 Manual ISI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

- 1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602
- 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098
- 3. Plant Unit: 1
- 4. Commercial Service Date: 07/01/1974
- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

<b>Category:</b> R-A	<b>Equal:</b> 9
<b>Item No.:</b> R1.11-5	<b>Equal:</b> 1

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
C5.51.0269.RI	HPEX-CF-10	2	MS	Pipe to Cap	
<b><u>Work Order</u></b>	<b><u>Exam Method</u></b>	<b><u>Report No.</u></b>	<b><u>Results</u></b>	<b><u>Code Case</u></b>	<b><u>Comments / Corrective Measures</u></b>
4448894	Manual UT	UT-F06-109	Accept	N-460	Examination SAT.
4448894	Manual UT	UT-F06-108	Accept		

<b>Item No.:</b> R1.20-4	<b>Equal:</b> 8
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<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B9.11.0206.RI	FWD-BJ-24x	1	RF	Pipe to Elbow	
<b><u>Work Order</u></b>	<b><u>Exam Method</u></b>	<b><u>Report No.</u></b>	<b><u>Results</u></b>	<b><u>Code Case</u></b>	<b><u>Comments / Corrective Measures</u></b>
4448888	Manual UT	UT-F06-112	Accept	N-460	Examination SAT. See AREVA RE23 Manual ISI Outage Report.
4448888	Manual UT	UT-F06-113	Accept		

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B9.11.0207.RI	FWD-BJ-25	1	RF	Elbow to Pipe	
<b><u>Work Order</u></b>	<b><u>Exam Method</u></b>	<b><u>Report No.</u></b>	<b><u>Results</u></b>	<b><u>Code Case</u></b>	<b><u>Comments / Corrective Measures</u></b>
4448888	Manual UT	UT-F06-111	Accept	N-460	Examination SAT. See AREVA RE23 Manual ISI Outage Report.
4448888	Manual UT	UT-F06-110	Accept		

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B9.11.0044.RI	MSA-BJ-35x	1	MS	Pipe to Elbow	
<b><u>Work Order</u></b>	<b><u>Exam Method</u></b>	<b><u>Report No.</u></b>	<b><u>Results</u></b>	<b><u>Code Case</u></b>	<b><u>Comments / Corrective Measures</u></b>
4448889	Manual UT	UT-F06-116	Accept	N-460	Examination SAT.
4448889	Manual UT	UT-F06-117	Accept		

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B9.11.0045.RI	MSA-BJ-36x	1	MS	Elbow to Pipe	
<b><u>Work Order</u></b>	<b><u>Exam Method</u></b>	<b><u>Report No.</u></b>	<b><u>Results</u></b>	<b><u>Code Case</u></b>	<b><u>Comments / Corrective Measures</u></b>
4448889	Manual UT	UT-F06-114	Accept	N-460	Examination SAT. See AREVA RE23 Manual ISI Outage Report.
4448889	Manual UT	UT-F06-115	Accept		

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B9.11.0064.RI	MSB-BJ-28x	1	MS	Pipe to Elbow	
<b><u>Work Order</u></b>	<b><u>Exam Method</u></b>	<b><u>Report No.</u></b>	<b><u>Results</u></b>	<b><u>Code Case</u></b>	<b><u>Comments / Corrective Measures</u></b>
4448889	Manual UT	UT-F06-119	Accept	N-460	Examination SAT. See AREVA RE23 Manual ISI Outage Report.
4448889	Manual UT	UT-F06-118	Accept		

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

- 1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602
- 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098
- 3. Plant Unit: 1
- 4. Commercial Service Date: 07/01/1974
- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B9.11.0093.RI	MSC-BJ-35x	1	MS	Elbow to Pipe	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448889	Manual UT	UT-F06-122	Accept	N-460	Examination SAT. See AREVA RE23 Manual ISI Outage Report.
4448889	Manual UT	UT-F06-123	Accept		

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B9.11.0119.RI	MSD-BJ-39x	1	MS	Pipe to Elbow	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448889	Manual UT	UT-F06-125	Accept	N-460	Examination SAT. See AREVA RE23 Manual ISI Outage Report.
4448889	Manual UT	UT-F06-124	Accept		

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B9.11.0121.RI	MSD-BJ-40x	1	MS	Elbow to Pipe	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448889	Manual UT	UT-F06-121	Accept	N-460	Examination SAT. See AREVA RE23 Manual ISI Outage Report.
4448889	Manual UT	UT-F06-120	Accept		

<b>Exam Credit: VIP Equal: 212</b>
<b>Category: B-N-2 Equal: 12</b>
<b>Item No.: B13.30 Equal: 12</b>

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.30.0001	CSA-BKTATTWLDS@150	1	CS	Core Spray A Internal Piping Bracket Attachment Welds to RPV at 150 Degrees Azimnth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448881	EVT-1	VT-F06-137	Accept	N-686	Examination SAT. VT-3 and EVT-1 (BWRVIP-18-A) obtained 100% coverage. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.30.0002	CSA-BKTATTWLDS@30	1	CS	Core Spray A Internal Piping Bracket Attachment Welds to RPV at 30 Degrees Azimnth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448881	EVT-1	VT-F06-139	Accept	N-686	Examination SAT. VT-3 and EVT-1 (BWRVIP-18-A) obtained 100% coverage. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.30.0003	CSB-BKTATTWLDS@210	1	CS	Core Spray B Internal Piping Bracket Attachment Welds to RPV at 210 Degrees Azimnth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448881	EVT-1	VT-F06-141	Accept	N-686	Examination SAT. VT-3 and EVT-1 (BWRVIP-18-A) obtained 100% coverage. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

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|--|---|
| 1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602                 | 4. Commercial Service Date: 07/01/1974                      |
| 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098 | 5. Owner Certificate of Authorization (If Required): N/A    |
| 3. Plant Unit: 1   | 6. National Certificate of Authorization (If Required): N/A |

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.30.0004	CSB-BKTATTWLDS@330	1	CS	Core Spray B Internal Piping Bracket Attachment Welds to RPV at 330 Degrees Azimnht	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448881	EVT-1	VT-F06-143	Accept	N-686	Examination SAT. VT-3 and EVT-1 (BWRVIP-18-A) obtained 100% coverage. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.30.0005	FW-ASPRBKT-ATTWLDS@5	1	RF	Feedwater Sparger Bracket Attachment Welds at 5 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448817	EVT-1	VT-F06-122	Accept	N-686	Examination SAT. Bracket to Vessel attachment weld. VT-3 and EVT-1 (BWRVIP-48-A) exams limited to 75% coverage due to interference of Feedwater Spargers. See Section 3, Tab 8 of the AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.30.0006	FW-ASPRBKT-ATTWLDS@85	1	RF	Feedwater Sparger Bracket Attachment at 85 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448817	EVT-1	VT-F06-124	Accept	N-686	Examination SAT. Bracket to Vessel attachment weld. VT-3 and EVT-1 (BWRVIP-48-A) exams limited to 75% coverage due to interference of Feedwater Spargers. See Section 3, Tab 8 of the AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.30.0007	FW-BSPRBKT-ATTWLDS@175	1	RF	Feedwater Sparger Bracket Attachment Welds at 175 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448817	EVT-1	VT-F06-171	Accept	N-686	Examination SAT. Bracket to Vessel attachment weld. VT-3 exam limited to 90% and EVT-1 (BWRVIP-48-A) exam limited to 70% coverage due to Guide Rod interference. See Section 3, Tab 8 of the AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.30.0008	FW-BSPRBKT-ATTWLDS@95	1	RF	Feedwater Sparger Bracket Attachment at 95 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448817	EVT-1	VT-F06-173	Accept	N-686	Examination SAT. Bracket to Vessel attachment weld. 100% coverage for VT-3, 75% coverage for EVT-1 (BWRVIP-48-A). See Section 3, Tab 8 of the AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.30.0009	FW-CSPRBKT-ATTWLDS@185	1	RF	Feedwater Sparger Bracket Attachment Welds at 185 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448817	EVT-1	VT-F06-175	Accept	N-686	Examination SAT. Bracket to Vessel attachment weld. VT-3 obtained 100% coverage. EVT-1 (BWRVIP-48-A) obtained 75% coverage, limited by configuration and Guide Rod interference. See Section 3, Tab 8 of the AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.30.0010	FW-CSPRBKT-ATTWLDS@265	1	RF	Feedwater Sparger Bracket Attachment Welds at 265 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448817	EVT-1	VT-F06-177	Accept	N-686	Examination SAT. Bracket to Vessel attachment weld. VT-3 exam limited to 75% due to interference of Feedwater Sparger. EVT-1 (BWRVIP-48-A) was limited to 75% due to interference of Feedwater Sparger and Cattle Chute above. See Section 3, Tab 8 of the AREVA RE23 IVVI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

- 1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602
- 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098
- 3. Plant Unit: 1
- 4. Commercial Service Date: 07/01/1974
- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.30.0011	FW-DSPRBKT-ATTWLDS@275	1	RF	Feedwater Sparger Bracket Attachment Welds at 275 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448817	EVT-1	VT-F06-179	Accept	N-686	Examination SAT. Bracket to Vessel attachment weld. VT-3 and EVT-1(BWRVIP-48-A) exams limited to 60% due to interference of Feedwater Sparger and Cattle Chute above. See Section 3, Tab 8 of the AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B13.30.0012	FW-DSPRBKT-ATTWLDS@355	1	RF	Feedwater Sparger Bracket Attachment Welds at 355 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448817	EVT-1	VT-F06-126	Accept	N-686	Examination SAT. Bracket to Vessel attachment weld. Exam limited due to interference of Feedwater Sparger. Both VT-3 and EVT-1(BWRVIP-48-A) limited to 75% coverage. See Section 3, Tab 8 of the AREVA RE23 IVVI Outage Report.

<u>Category:</u>	R-A	<u>Equal:</u>	1
<u>Item No.:</u>	R1.20-4	<u>Equal:</u>	1

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
B5.20.0005.RI	SLC-BJ-1	1	SLC	Safe-End to RPV Partial Penetration Nozzle	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
6.MISC.502	EVT-2	VE-F06-014	Accept	N-686	Examination SAT.

<u>Category:</u>	VI12.13	<u>Equal:</u>	2
<u>Item No.:</u>	SIL462	<u>Equal:</u>	2

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
S462.SSAHC.0	SSAHC-0	N/A	NB	Core Shroud Access Hole Cover to Core Shroud Support Plate	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448883	EVT-1	VT-F06-255	Accept	SIL 462	Examination SAT to SIL 462. See Section 3, Tab 5 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
S462.SSACH.180	SSAHC-180	N/A	NB	Core Shroud Access Hole Cover to Core Shroud Support Plate	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448883	EVT-1	VT-F06-256	Accept	SIL 462	Examination SAT to SIL 462. See Section 3, Tab 5 of AREVA RE23 IVVI Outage Report.

<u>Category:</u>	VI12.15	<u>Equal:</u>	78
<u>Item No.:</u>	SIL474	<u>Equal:</u>	33

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
S474.STMDY.DRCH1H.23	STMDRY-DRCHWLD-1H@23	N/A	NB	Steam Dryer Drain Channel Weld One (1) Horizontal at 23 degree azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-036	Accept	N-686, SIL-474	Examination SAT to SIL 474. See Section 3, Tab 4 of AREVA RE23 IVVI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602  
 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098  
 3. Plant Unit: 1
4. Commercial Service Date: 07/01/1974  
 5. Owner Certificate of Authorization (If Required): N/A  
 6. National Certificate of Authorization (If Required): N/A

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
S474.STMDY.DRCH1VL.23	STMDRY-DRCHWLD-1VL@23	N/A	NB	Steam Dryer Drain Channel Weld One (1) Vertical Left Side at 23 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-037	Accept	N-686, SIL-474	Examination SAT to SIL 474. Previously recorded indication (# 1) ~ 65" down from upper Support Ring; No change from previous examination. Indication was previously evaluated per EE01-127, Rev 1 as acceptable. See Section 3, Tab 4 of AREVA RE23 IVVI Outage Report for data and RFO-23 Steam Dryer Report, Figure 1.
<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
S474.STMDY.DRCH1VR.23	STMDRY-DRCHWLD-1VR@23	N/A	NB	Steam Dryer Drain Channel Weld One (1) Vertical Right Side at 23 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-038	Accept	N-686, SIL-474	Examination SAT to SIL 474. Previously recorded Nonrelevant indication (#2): Area of corrosion ~ 65" down from upper Support Ring. Also noted minor cracking associated with Indication #4. No Change from previous examination. Indications were previously evaluated per EE-1-127, Rev 1 as acceptable. See Section 3, Tab 4 of AREVA RE23 IVVI Outage Report.
<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
S474.STMDY.DRCH2H.40	STMDRY-DRCHWLD-2H@40	N/A	NB	Steam Dryer Drain Channel Weld Two (2) Horizontal at 40 degree azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-039	Accept	N-686, SIL-474	Examination SAT to SIL 474. See Section 3, Tab 4 of AREVA IVVI Outage Report.
<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
S474.STMDY.DRCH2VL.40	STMDRY-DRCHWLD-2VL@40	N/A	NB	Steam Dryer Drain Channel Weld Two (2) Vertical Left Side at 40 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-040	Accept	N-686, SIL-474	Examination SAT to SIL 474. Indication noted on bottom toe of skirt Horiz weld. Indication identified as Indication #6 on Figure 1 of Steam Dryer Report. See AREVA RE23 IVVI Outage Report, INF # CNS-RFO-23-02 and CNS Condition Report CR-CNS-2006-7881. Indication evaluated as acceptable.
<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
S474.STMDY.DRCH2VR.40	STMDRY-DRCHWLD-2VR@40	N/A	NB	Steam Dryer Drain Channel Weld Two (2) Vertical Right Side at 40 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-041	Accept	N-686, SIL-474	Examination SAT to SIL 474. See Section 3, Tab 4 of AREVA RE23 IVVI Outage Report.
<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
S474.STMDY.DRCH3H.140	STMDRY-DRCHWLD-3H@140	N/A	NB	Steam Dryer Drain Channel Weld Three (3) Horizontal at 140 degree azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-042	Accept	N-686, SIL-474	Examination SAT to SIL 474. Minor scaling & corrosion products noted on both sides of the weld. See Section 3, Tab 4 of AREVA RE23 IVVI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602  
 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098  
 3. Plant Unit: 1
4. Commercial Service Date: 07/01/1974  
 5. Owner Certificate of Authorization (If Required): N/A  
 6. National Certificate of Authorization (If Required): N/A

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
S474.STMDY.DRCH3VL.140	STMDRY-DRCHWLD-3VL@140	N/A	NB	Steam Dryer Drain Channel Weld Three (3) Vertical Left Side at 140 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-043	Accept	N-686, SIL-474	Examination SAT to SIL 474. Minor scaling & corrosion products noted on both sides of the weld. See Section 3, Tab 4 of AREVA RE23 IVVI Outage Report.
<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
S474.STMDY.DRCH3VR.140	STMDRY-DRCHWLD-3VR@140	N/A	NB	Steam Dryer Drain Channel Weld Three (3) Vertical Right Side at 140 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-044	Accept	N-686, SIL-474	Examination SAT to SIL 474. Minor scaling & corrosion products noted on both sides of the weld. See Section 3, Tab 4 of AREVA RE23 IVVI Outage Report.
<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
S474.STMDY.DRCH4H.158	STMDRY-DRCHWLD-4H@158	N/A	NB	Steam Dryer Drain Channel Weld Four (4) Horizontal at 158 degree azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-045	Accept	N-686, SIL-474	Examination SAT to SIL 474. Minor scaling & corrosion products noted on both sides of the weld. See Section 3, Tab 4 of AREVA RE23 IVVI Outage Report.
<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
S474.STMDY.DRCH4VL.158	STMDRY-DRCHWLD-4VL@158	N/A	NB	Steam Dryer Drain Channel Weld Four (4) Vertical Left Side at 158 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-046	Accept	N-686, SIL-474	Examination SAT to SIL 474. Minor scaling & corrosion products noted on both sides of the weld. See Section 3, Tab 4 of AREVA RE23 IVVI Outage Report.
<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
S474.STMDY.DRCH4VR.158	STMDRY-DRCHWLD-4VR@158	N/A	NB	Steam Dryer Drain Channel Weld Four (4) Vertical Right Side at 158 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-047	Accept	N-686, SIL-474	Examination SAT to SIL 474. Minor scaling & corrosion products noted on both sides of the weld. See Section 3, Tab 4 of AREVA RE23 IVVI Outage Report.
<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
S474.STMDY.DRCH5H.193	STMDRY-DRCHWLD-5H@193	N/A	NB	Steam Dryer Drain Channel Weld Five (5) Horizontal at 193 degree azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-048	Accept	N-686, SIL-474	Examination SAT to SIL 474. Minor scaling & corrosion products noted on both sides of the weld. See Section 3, Tab 4 of AREVA RE23 IVVI Outage Report.
<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
S474.STMDY.DRCH5VL.193	STMDRY-DRCHWLD-5VL@193	N/A	NB	Steam Dryer Drain Channel Weld Five (5) Vertical Left side at 193 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-049	Accept	N-686, SIL-474	Examination SAT to SIL 474. Previously recorded Nonrelevant Indication ~ 65" down from upper Support Ring; Ref. EE-01-127 Rev.1. Indication identified as Indication #5 on Figure 1 of Steam Dryer Report. See Section 3, Tab 4 of AREVA RE23 IVVI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

- |  |   |
|--|---|
| 1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602                 | 4. Commercial Service Date: 07/01/1974                      |
| 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098 | 5. Owner Certificate of Authorization (If Required): N/A    |
| 3. Plant Unit: 1   | 6. National Certificate of Authorization (If Required): N/A |

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
S474.STMDY.DRCH5VR.193	STMDRY-DRCHWLD-5VR@193	N/A	NB	Steam Dryer Drain Channnel Weld Five (5) Vertical Right Side at 193 degrees azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-050	Accept	N-686, SIL-474	Examination SAT to SIL 474. Minor scaling & corrosion products noted on both sides of the weld. See Section 3, Tab 4 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
S474.STMDY.DRCH6H.220	STMDRY-DRCHWLD-6H@220	N/A	NB	Steam Dryer Drain Channnel Weld Six (6) Horizontal at 220 degree azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-051	Accept	N-686, SIL-474	Examination SAT to SIL474. See Section 3, Tab 4 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
S474.STMDY.DRCH6VL.220	STMDRY-DRCHWLD-6VL@220	N/A	NB	Steam Dryer Drain Channnel Weld Six (6) Vertical Left Side at 220 degrees azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-052	Accept	N-686, SIL-474	Examination SAT to SIL 474. Minor scaling & corrosion products noted on both sides of the weld. Nonrelevant line of Dark corrosion product located on Drain channel about 1/2 way down. See Section 3, Tab 4 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
S474.STMDY.DRCH6VR.220	STMDRY-DRCHWLD-6VR@220	N/A	NB	Steam Dryer Drain Channnel Weld Six (6) Vertical Right Side at 220 degrees azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-053	Accept	N-686, SIL-474	Examination SAT to SIL 474. Minor scaling & corrosion products noted on both sides of the weld. See Section 3, Tab 4 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
S474.STMDY.DRCH7H.310	STMDRY-DRCHWLD-7H@310	N/A	NB	Steam Dryer Drain Channnel Weld Seven Horizontal at 310 degree azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-054	Accept	N-686, SIL-474	Examination SAT to SIL 474. See Section 3, Tab 4 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
S474.STMDY.DRCH7VL.310	STMDRY-DRCHWLD-7VL@310	N/A	NB	Steam Dryer Drain Channnel Weld Seven (7) Vertical Left Side at 310 degrees azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-055	Accept	N-686, SIL-474	Examination SAT to SIL 474. Minor scaling & corrosion products noted on both sides of the weld. See Section 3, Tab 4 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
S474.STMDY.DRCH7VR.310	STMDRY-DRCHWLD-7VR@310	N/A	NB	Steam Dryer Drain Channnel Weld Seven (7) Vertical Right Side at 310 degrees azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-056	Accept	N-686, SIL-474	Examination SAT to SIL 474. Minor scaling & corrosion products noted on both sides of the weld. See Section 3, Tab 4 of AREVA RE23 IVVI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

- 1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602
- 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098
- 3. Plant Unit: 1
- 4. Commercial Service Date: 07/01/1974
- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
S474.STMDY.DRCH8H.347	STMDRY-DRCHWLD-8H@347	N/A	NB	Steam Dryer Drain Channel Weld Eight (8) Horizontal at 347 degree azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-057	Accept	N-686, SIL-474	Examination SAT to SIL 474. See Section 3, Tab 4 of AREVA RE23 IVVI Outage Report.
<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
S474.STMDY.DRCH8VL.347	STMDRY-DRCHWLD-8VL@347	N/A	NB	Steam Dryer Drain Channel Weld Eight (8) Vertical Left Side at 347 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-058	Accept	N-686, SIL-474	Examination SAT to SIL 474. Minor scaling & corrosion products noted on both sides of the weld. See Section 3, Tab 4 of AREVA RE23 IVVI Outage Report.
<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
S474.STMDY.DRCH8VR.347	STMDRY-DRCHWLD-8VR@347	N/A	NB	Steam Dryer Drain Channel Weld Eight (8) Vertical Right Side at 347 dgrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-059	Accept	N-686, SIL-474	Examination SAT to SIL 474. Minor scaling & corrosion products noted on both sides of the weld. See Section 3, Tab 4 of AREVA RE23 IVVI Outage Report.
<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
S474.STMDYSKT.1-2	STMDRY-SKT-BTWDC1-2	N/A	NB	Steam Dryer Skirt Area between Drain Channels 1 and 2, 23 to 40 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-061	Accept	N-686, SIL-474	Examination SAT to SIL 474. Water marks, crud lines, deposits, and scale. No change in the non relevant indications. See Section 3, Tab 4 of AREVA RE23 IVVI Outage Report.
<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
S474.STMDYSKT.2-3	STMDRY-SKT-BTWDC2-3	N/A	NB	Steam Dryer Skirt Area between Drain Channels 2 and 3, 40 to 140 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-062	Accept	N-686, SIL-474	Examination SAT to SIL 474. Water marks, crud lines, deposits, and scale. No change in the non relevant indications. See Section 3, Tab 4 of AREVA RE23 IVVI Outage Report.
<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
S474.STMDYSKT.3-4	STMDRY-SKT-BTWDC3-4	N/A	NB	Steam Dryer Skirt Area between Drain Channels 3 and 4, 140 to 158 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-063	Accept	N-686, SIL-474	Examination SAT to SIL 474. Water marks, crud lines, deposits, and scale. No change in the non relevant indications. See Section 3, Tab 4 of AREVA RE23 IVVI Outage Report.
<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
S474.STMDYSKT.4-5	STMDRY-SKT-BTWDC4-5	N/A	NB	Steam Dryer Skirt Area between Drain Channels 4-5, 158 to 193 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-064	Accept	N-686, SIL-474	Examination SAT to SIL 474. Water marks, crud lines, deposits, and scale. No change in the non relevant indications. See Section 3, Tab 4 of AREVA RE23 IVVI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

- |  |   |
|--|---|
| 1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602                 | 4. Commercial Service Date: 07/01/1974                      |
| 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098 | 5. Owner Certificate of Authorization (If Required): N/A    |
| 3. Plant Unit: 1   | 6. National Certificate of Authorization (If Required): N/A |

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
S474.STMDYSKT.5-6	STMDRY-SKT-BTWDC5-6	N/A	NB	Steam Dryer Skirt Area between Drain Channels 5 and 6, 193 to 220 degrees azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-065	Accept	N-686, SIL-474	Examination SAT to SIL 474. Water marks, crud lines, deposits, and scale. No change in the non relevant indications. See Section 3, Tab 4 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
S474.STMDYSKT.6-7	STMDRY-SKT-BTWDC6-7	N/A	NB	Steam Dryer Skirt Area between Drain Channel 6 and 7, 220 to 310 degrees azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-066	Accept	N-686, SIL-474	Examination SAT TO SIL 474. Scaling & corrosion products noted on the skirt consistent with previous outages. Nonrelevant Crud line located at 63" below the Upper Support Ring and 11.75 " from the 300° Drain Pipe. See Section 3, Tab 4 of AREVA RE23 IVVI Outage Report, INF-CNS-RFO-23-03. Condition documented in CNS Condition Report CR-CNS-2006-07953 but dispositioned as acceptable.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
S474.STMDYSKT.7-8	STMDRY-SKT-BTWDC7-8	N/A	NB	Steam Dryer Skirt Area between Drain Channel 7 and 8, 310 to 347 degrees azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-067	Accept	N-686, SIL-474	Examination SAT to SIL 474. Water marks, crud lines, deposits, and scale. No change in the non relevant indications. See Section 3, Tab 4 of AREVA RE23 Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
S474.STMDYSKT.8-1	STMDRY-SKT-BTWDC8-1	N/A	NB	Steam Dryer Skirt Area between Drain Channel 8 and 1, 347 to 23 degrees azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-068	Accept	N-686, SIL-474	Examination SAT to SIL 474. Water marks, crud lines, deposits, and scale. Previously recorded indications (# 3 & 4) ~ 36" down from upper Support Ring; Ref. EE-01-127 Rev. 1, No change in the non relevant indications. See Section 3, Tab 4 of AREVA RE23 IVVI Outage Report.

Item No.: V139.H Equal: 4

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V139.SD.90B1.H001	SD-90B1-H1	N/A	NB	Steam Dryer Slanted Hood Outer Dryer Bank 1 Hood Lower Horizontal Weld

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-071	Accept	N-686, BWRVIP139	Examination SAT to BWRVIP-139. Non-relevant stain noted. See Section 3, Tab 4 of the AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V139.SD.90B1.H002	SD-90B1-H2	N/A	NB	Steam Dryer Slanted Hood Outer Dryer Bank 1 Hood Upper Horizontal Weld

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-072	Accept	N-686, BWRVIP139	Examination SAT to BWRVIP-139. See Section 3, Tab 4 of the AREVA RE23 IVVI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

- 1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602
- 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098
- 3. Plant Unit: 1
- 4. Commercial Service Date: 07/01/1974
- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

Item No.: V139.HS Equal: 4

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V139.SD.270B5A.HS003	SD-270B5-HS-A1	N/A	NB	Steam Dryer Slanted Hood Outer Dryer Bank 5 Hood Vertical Stiffener Plate Weld Exterior Location

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-073	Accept	N-686, BWRVIP139	Examination SAT to BWRVIP-139. Non-relevant stains and scratches noted. See Section 3, Tab 4 of the AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V139.SD.270B5A.HS004	SD-270B5-HS-A2	N/A	NB	Steam Dryer Slanted Hood Outer Dryer Bank 5 Hood Vertical Stiffener Plate Weld Exterior Location

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-074	Accept	N-686, BWRVIP139	Examination SAT to BWRVIP-139. Non-relevant stains and scratches noted. See Section 3, Tab 4 of the AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V139.SD.90B1E.HS001	SD-90B1-HS-E1	N/A	NB	Steam Dryer Slanted Hood Outer Dryer Bank 1 Hood Vertical Stiffener Plate Weld Exterior Location

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-075	Accept	N-686, BWRVIP139	Examination SAT to BWRVIP-139. See Section 3, Tab 4 of the AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V139.SD.90B1E.HS002	SD-90B1-HS-E2	N/A	NB	Steam Dryer Slanted Hood Outer Dryer Bank 1 Hood Vertical Stiffener Plate Weld Exterior Location

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-076	Accept	N-686, BWRVIP139	Examination SAT to BWRVIP-139. Non-relevant flaking crud line about 5" long. See Section 3, Tab 4 of the AREVA RE23 IVVI Outage Report.

Item No.: V139.LR Equal: 4

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V139.SD.LR.R002	SD-LR145	N/A	NB	Steam Dryer Slanted Hood Lifting Rod Assembly and Attachment Welds at 145 degrees azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-077	Accept	N-686, BWRVIP139	Examination SAT to BWRVIP-139. An indication was identified on a tack weld between the lifting rod and lug. The indication is documented in CNS Condition Report CR-CNS-2006-07863 and evaluated as acceptable. See AREVA INF# CNS-RFO-23-01 in Section 2, Tab 2 of the AREVA RE23 IVVI Outage Report for details and Section 3, Tab 4 for examination results. Indication was identified as Indication #7 in Figure 1 of the Steam Dryer Report also located in Tab 4.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V139.SD.LR.R003	SD-LR215	N/A	NB	Steam Dryer Slanted Hood Lifting Rod Assembly and Attachment Welds at 139 degrees azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-078	Accept	N-686, BWRVIP139	Examination SAT to BWRVIP-139. See Section 3, Tab 4 of AREVA RE23 IVVI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

- 1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602
- 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098
- 3. Plant Unit: 1
- 4. Commercial Service Date: 07/01/1974
- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V139.SD.LR.R004	SD-LR325	N/A	NB	Steam Dryer Slanted Hood Lifting Rod Assembly and attachment Welds at 325 degrees azimuth consisting of attachment welds and tack welds	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-079	Accept	N-686, BWRVIP139	Examination SAT to BWRVIP-139. See Section 3, Tab 4 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V139.SD.LR.R001	SD-LR35	N/A	NB	Steam Dryer Slanted Hood Lifting Rod Assembly and Attachment Welds at 35 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-081	Accept	N-686, BWRVIP139	Examination SAT to BWRVIP-139. Nonrelevant indication noted in the center of the lifting Rod bracket due to a lap on the seam weld in the bracket. See Section 3, Tab 4 of the AREVA RE23 IVVI Outage Report.

Item No.: V139.R Equal: 2

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V139.SD.270B5.R002	SD-270B5-R1	N/A	NB	Steam Dryer Slanted Hood Outer Dryer Bank 5 Cover Plate to Support Ring Weld	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-082	Accept	N-686, BWRVIP139	Examination SAT to BWRVIP-139. See Section 3, Tab 4 of the AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V139.SD.90B1.R001	SD-90B1-R1	N/A	NB	Steam Dryer Slanted Hood Outer Dryer Bank 1 Cover Plate to Support Ring Weld	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-083	Accept	N-686, BWRVIP139	Examination SAT to BWRVIP-139. See Section 3, Tab 4 of the AREVA RE23 IVVI Outage Report.

Item No.: V139.SR Equal: 1

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V139.SD.UPSP.R001	SD-UPSUPRING	N/A	NB	Steam Dryer Slanted Hood Upper Support Ring Assembly	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-084	Accept	N-686, BWRVIP139	Examination SAT to BWRVIP-139. Scale and normal wear on Dryer Support Brackets was noted. See Section 3, Tab 4 of AREVA RE23 IVVI Outage Report.

Item No.: V139.TB Equal: 10

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V139.SD.B2B1.TB010	SD-B2B1-TB10	N/A	NB	Steam Dryer Slanted Hood Top of Dryer Bank 2 to Top of Bank 1 Tie Bar Welds (180 degree end, east end)	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-085	Accept	N-686, BWRVIP139	Examination SAT to BWRVIP-139. See Section 3, Tab 4 of the AREVA RE23 IVVI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

- 1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602
- 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098
- 3. Plant Unit: 1
- 4. Commercial Service Date: 07/01/1974
- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V139.SD.B2B1.TB009	SD-B2B1-TB9	N/A	NB	Steam Dryer Slanted Hood Top of Dryer Bank 2 to Top of Bank 1 Tie Bar Welds (0 degree end, west end)

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-086	Accept	N-686, BWRVIP139	Examination SAT to BWRVIP-139. Non-relevant indication identified on a non-structural tack weld outside the examination area. The indication is documented in INF-CNS-RO-23-04 in Section 2, Tab 2 of the AREVA RE23 IVVI Outage Report. See Section 3, Tab 4 of the AREVA RE23 IVVI Outage Report for examination results.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V139.SD.B3B2.TB006	SD-B3B2-TB6	N/A	NB	Steam Dryer Slanted Hood Top of Dryer Bank 3 to Top of Bank 2 Tie Bar Welds (0 degree end, west end)

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-088	Accept	N-686, BWRVIP139	Examination SAT to BWRVIP-139. Bar is slightly bent but considered non-relevant. See Section 3, Tab 4 of the AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V139.SD.B3B2.TB007	SD-B3B2-TB7	N/A	NB	Steam Dryer Slanted Hood Top of Dryer Bank 4 to Top of Bank 3 Tie Bar Welds (center tie bar)

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-089	Accept	N-686, BWRVIP139	Examination SAT to BWRVIP-139. See Section 3, Tab 4 of the AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V139.SD.B3B2.TB008	SD-B3B2-TB8	N/A	NB	Steam Dryer Slanted Hood Top of Dryer Bank 3 to Top of Bank 2 Tie Bar Welds (180 degree end, east end)

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-090	Accept	N-686, BWRVIP139	Examination SAT to BWRVIP-139. See Section 3, Tab 4 of the AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V139.SD.B4B3.TB003	SD-B4B3-TB3	N/A	NB	Steam Dryer Slanted Hood Top of Dryer Bank 4 to Top of Bank 3 Tie Bar Welds (0 degree end, west end)

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-091	Accept	N-686, BWRVIP139	Examination SAT to BWRVIP-139. See Section 3, Tab 4 of the AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V139.SD.B4B3.TB004	SD-B4B3-TB4	N/A	NB	Steam Dryer Slanted Hood Top of Dryer Bank 4 to Top of Bank 3 Tie Bar Welds (center tie bar)

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-092	Accept	N-686, BWRVIP139	Examination SAT to BWRVIP-139. See Section 3, Tab 4 of the AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V139.SD.B4B3.TB005	SD-B4B3-TB5	N/A	NB	Steam Dryer Slanted Hood Top of Dryer Bank 4 to Top of Bank 3 Tie Bar Welds (180 degree end, east end)

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-093	Accept	N-686, BWRVIP139	Examination SAT to BWRVIP-139. See Section 3, Tab 4 of the AREVA RE23 IVVI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

- 1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602
- 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098
- 3. Plant Unit: 1
- 4. Commercial Service Date: 07/01/1974
- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V139.SD.B5B4.TB001	SD-B5B4-TB1	N/A	NB	Steam Dryer Slanted Hood Top of Dryer Bank 5 to Top of Bank 4 Tie Bar Welds (0 degree end, west end)	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-094	Accept	N-686, BWRVIP139	Examination SAT to BWRVIP-139. See Section 3, Tab 4 of the AREVA RE23 IVVI Outage Report..

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V139.SD.B5B4.TB002	SD-B5B4-TB2	N/A	NB	Steam Dryer Slanted Hood Top of Dryer Bank 5 to Top of Bank 4 Tie Bar Welds (180 degree end, east end)	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-095	Accept	N-686, BWRVIP139	Examination SAT to BWRVIP-139. Non-relevant indication identified on a non-structural tack weld outside the examination area. The indication is documented in INF-CNS-RO-23-04 in Section 2, Tab 2 of the AREVA RE23 IVVI Outage Report. See Section 3, Tab 4 of the AREVA RE23 IVVI Outage Report for examination results.

Item No.: V139.V Equal: 20

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V139.SD.0B1.V001	SD-0B1-V1	N/A	NB	Steam Dryer Slanted Hood Outer Dryer Bank 1 End Plate Vertical Weld (0 degree side, southwest weld)	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-097	Accept	N-686, BWRVIP139	Examination SAT. Reference BWRVIP-139. See Section 3, Tab 4 of the AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V139.SD.0B1.V002	SD-0B1-V2	N/A	NB	Steam Dryer Slanted Hood Outer Dryer Bank 1 End Plate Vertical Weld (0 degree side, northwest weld)	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-098	Accept	N-686, BWRVIP139	Examination SAT. Reference BWRVIP-139. See Section 3, Tab 4 of the AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V139.SD.0B2.V005	SD-0B2-V1	N/A	NB	Steam Dryer Slanted Hood Inner Dryer Bank 2 End Plate Vertical Weld (0 degree side, northwest weld)	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-099	Accept	N-686, BWRVIP139	Examination SAT. Reference BWRVIP-139. See Section 3, Tab 4 of the AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V139.SD.0B2.V006	SD-0B2-V2	N/A	NB	Steam Dryer Slanted Hood Inner Dryer Bank 2 End Plate Vertical Weld (0 degree side, northwest weld)	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-100	Accept	N-686, BWRVIP139	Examination SAT. Reference BWRVIP-139. See Section 3, Tab 4 of the AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V139.SD.0B3.V009	SD-0B3-V1	N/A	NB	Steam Dryer Slanted Hood Inner Dryer Bank 3 End Plate Vertical Weld (0 degree side, southwest weld)	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-101	Accept	N-686, BWRVIP139	Examination SAT. Reference BWRVIP-139. See Section 3, Tab 4 of the AREVA RE23 IVVI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602  
 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098  
 3. Plant Unit: 1
4. Commercial Service Date: 07/01/1974  
 5. Owner Certificate of Authorization (If Required): N/A  
 6. National Certificate of Authorization (If Required): N/A

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V139.SD.0B3.V010	SD-0B3-V2	N/A	NB	Steam Dryer Slanted Hood Inner Dryer Bank 3 End Plate Vertical Weld (0 degree side, northwest weld)	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-102	Accept	N-686, BWRVIP139	Examination SAT. Reference BWRVIP-139. See Section 3, Tab 4 of the AREVA RE23 IVVI Outage Report.
<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V139.SD.0B4.V013	SD-0B4-V1	N/A	NB	Steam Dryer Slanted Hood Inner Dryer Bank 4 End Plate Vertical Weld (0 degree side, southwest weld)	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-103	Accept	N-686, BWRVIP139	Examination SAT. Scale and corrosion products adjacent to weld. Reference BWRVIP-139. See Section 3, Tab 4 of the AREVA RE23 IVVI Outage Report.
<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V139.SD.0B4.V014	SD-0B4-V2	N/A	NB	Steam Dryer Slanted Hood Inner Dryer Bank 4 End Plate Vertical Weld (0 degree side, northwest weld)	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-104	Accept	N-686, BWRVIP139	Examination SAT. Reference BWRVIP-139. See Section 3, Tab 4 of the AREVA RE23 IVVI Outage Report.
<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V139.SD.0B5.V017	SD-0B5-V1	N/A	NB	Steam Dryer Slanted Hood Inner Dryer Bank 5 End Plate Vertical Weld (0 degree side, southwest weld)	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-105	Accept	N-686, BWRVIP139	Examination SAT. Scale and corrosion flaking. Reference BWRVIP-139. See Section 3, Tab 4 of the AREVA RE23 IVVI Outage Report.
<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V139.SD.0B5.V018	SD-0B5-V2	N/A	NB	Steam Dryer Slanted Hood Inner Dryer Bank 5 End Plate Vertical Weld (0 degree side, northwest weld)	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-106	Accept	N-686, BWRVIP139	Examination SAT. Scale and corrosion flaking. Reference BWRVIP-139. See Section 3, Tab 4 of the AREVA RE23 IVVI Outage Report.
<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V139.SD.180B1.V003	SD-180B1-V3	N/A	NB	Steam Dryer Slanted Hood Outer Dryer Bank 1 End Plate Vertical Weld (180 degree, northeast weld)	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-107	Accept	N-686, BWRVIP139	Examination SAT. Scale and corrosion products adjacent to weld. Reference BWRVIP-139. See Section 3, Tab 4 of AREVA RE23 IVVI Outage Report.
<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V139.SD.180B1.V004	SD-180B1-V4	N/A	NB	Steam Dryer Slanted Hood Outer Dryer Bank 1 End Plate Vertical Weld (180 degree side, southeast weld)	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-108	Accept	N-686, BWRVIP139	Examination SAT. Scale and corrosion products adjacent to weld. Reference BWRVIP-139. See Section 3, Tab 4 of AREVA RE23 IVVI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

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|--|---|
| 1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602                 | 4. Commercial Service Date: 07/01/1974                      |
| 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098 | 5. Owner Certificate of Authorization (If Required): N/A    |
| 3. Plant Unit: 1   | 6. National Certificate of Authorization (If Required): N/A |

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V139.SD.180B2.V007	SD-180B2-V3	N/A	NB	Steam Dryer Slanted Hood Inner Dryer Bank 2 End Plate Vertical Weld (180 degree side, northeast weld)	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-109	Accept	N-686, BWRVIP139	Examination SAT to BWRVIP-139. Previously recorded indication: Nonrelevant indication (lap or scale layer) on right side of weld just above the leveling screw. See Section 3, Tab 4 of AREVA RE23 Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V139.SD.180B2.V008	SD-180B2-V4	N/A	NB	Steam Dryer Slanted Hood Inner Dryer Bank 2 End Plate Vertical Weld (180 degree side, southeast weld)	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-110	Accept	N-686, BWRVIP139	Examination SAT. Scale and corrosion products adjacent to weld. Reference BWRVIP-139. See Section 3, Tab 4 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V139.SD.180B3.V011	SD-180B3-V3	N/A	NB	Steam Dryer Slanted Hood Inner Dryer Bank 3 End Plate Vertical Weld (180 degree side, northeast weld)	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-111	Accept	N-686, BWRVIP139	Examination SAT to BWRVIP-139. See Section 3, Tab 4 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V139.SD.180B3.V012	SD-180B3-V4	N/A	NB	Steam Dryer Slanted Hood Inner Dryer Bank 3 End Plate Vertical Weld (180 degree side, southeast weld)	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-112	Accept	N-686, BWRVIP139	Examination SAT. Scale and corrosion products adjacent to weld. Reference BWRVIP-139. See Section 3, Tab 4 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V139.SD.180B4.V015	SD-180B4-V3	N/A	NB	Steam Dryer Slanted Hood Outer Dryer Bank 4 End Plate Vertical Weld (180 degree, northeast weld)	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448816	VT-1	VT-F06-113	Accept	N-686, BWRVIP139	Examination SAT to BWRVIP-139. See Section 3, Tab 4 of the AREVA RE23 IVVI Outage Report.

Category: VIP18 Equal: 78
Item No.: V18.P1 Equal: 2

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V18.P1.TBJ.90	CS-A-TJB@90-(P1)	N/A	CS	Core Spray Piping Tee Junction Box at 90 degrees azimuth, Thermal Sleeve to Junction Box Weld (hidden) Examine the accessible top and bottom outside surfaces of the Tee Junction Box	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448881	EVT-1	VT-F06-144	Accept	BWRVIP18A	Examination SAT. Examined the accessible top and bottom surfaces of the Tee Junction Box. Previously recorded Ind. from 180° - 200° No apparent change from previously recorded indications. Ref. CNS Condition Report CR-CNS-2006-8668. Previous indication was evaluated as acceptable per NEDC 02-052. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

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|--|---|
| 1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602                 | 4. Commercial Service Date: 07/01/1974                      |
| 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098 | 5. Owner Certificate of Authorization (If Required): N/A    |
| 3. Plant Unit: 1   | 6. National Certificate of Authorization (If Required): N/A |

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V18.P1.TBJ.270	CS-B-TJB@270-(P1)	N/A	CS	Core Spray Piping Tee Junction Box at 270 degrees azimuth, Thermal Sleeve to Junction Box Weld (hidden) Examine the accessible top and bottom outside surfaces of the Tee Junction Box	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448881	EVT-1	VT-F06-225	Accept	BWRVIP18A	Examination SAT. Examination limited to 75% of all adjacent surfaces due to the proximity of the RPV and the Junction box configuration. Thermal sleeve is welded on the OD. Nonrelevant scratch mark located adjacent to weld at approx. 45°. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report.

Item No.: V18.P2 Equal: 2

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V18.P2.A11.90	CS-A11@90-(P2)	N/A	CS	Core Spray Piping Tee Junction Box at 90 degrees azimuth, Cover Plate to Junction Box Weld	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448881	EVT-1	VT-F06-145	Accept	BWRVIP18A	Examination SAT. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V18.P2.B11.270	CS-B11@270-(P2)	N/A	CS	Core Spray Piping Tee Junction Box at 270 degrees azimuth, Cover Plate to Junction Box Weld	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448881	EVT-1	VT-F06-226	Accept	BWRVIP18A	Examination SAT. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report.

Item No.: V18.P3 Equal: 4

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V18.P3.A10.90	CS-A10@90-(P3)	N/A	CS	Core Spray Piping Tee Junction Box at 90 degrees azimuth, Horizontal Pipe to Junction Box Weld, from Downcomer "C"	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448881	EVT-1	VT-F06-146	Accept	BWRVIP18A	Examination SAT. Examination limited to 50% due to proximity of the RPV. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V18.P3.A12.90	CS-A12@90-(P3)	N/A	CS	Core Spray Piping Tee Junction Box at 90 degree azimuth, Horizontal Pipe to Junction Box Weld, to Downcomer "A"	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448881	EVT-1	VT-F06-147	Accept	BWRVIP18A	Examination SAT. Grinding noted on core side of header piping. Exam limited to 50 % due to proximity of the RPV. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V18.P3.B10.270	CS-B10@270-(P3)	N/A	CS	Core Spray Piping Tee Junction Box at 270 degrees azimuth, Horizontal Pipe to Junction Box Weld, from Downcomer "B"	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448881	EVT-1	VT-F06-227	Accept	BWRVIP18A	Examination SAT. Examination limited to 60% due to proximity of the RPV. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V18.P3.B12.270	CS-B12@270-(P3)	N/A	CS	Core Spray Piping Tee Junction Box at 270 degrees azimuth, Horizontal Pipe to Junction Box Weld, to Downcomer "D"	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448881	EVT-1	VT-F06-228	Accept	BWRVIP18A	Examination SAT. Examination limited to 60% due to proximity of the RPV. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

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- 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098
- 3. Plant Unit: 1
- 4. Commercial Service Date: 07/01/1974
- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

Item No.: V18.P4 Equal: 4

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.P4d.B3.350	CS-B3@350-(P4d)	N/A	CS	Core Spray Piping, Elbow to Shroud Pipe, off Downcomer "B" at 350 degrees azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448881	EVT-1	VT-F06-148	Accept	BWRVIP18A	Examination SAT. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.P4c.B4.350	CS-B4@350-(P4c)	N/A	CS	Core Spray Piping, Lower Downcomer "B" to Elbow at 350 degrees azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448881	EVT-1	VT-F06-149	Accept	BWRVIP18A	Examination SAT. Examination limited to 60% due to proximity of the RPV. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.P4b.B8.350	CS-B8@350-(P4b)	N/A	CS	Core Spray Piping, Elbow to Pipe Downcomer "B" at 350 degree azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448881	EVT-1	VT-F06-150	Accept	BWRVIP18A	Examination SAT. Examination limited to 70% due to proximity of the RPV. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.P4a.B9.350	CS-B9@350-(P4a)	N/A	CS	Core Spray Piping, Horizontal Pipe to Elbow, off Downcomer "B" at 350 degrees azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448881	EVT-1	VT-F06-151	Accept	BWRVIP18A	Examination SAT. Examination limited to 50% due to proximity of the RPV and FW spargers. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report.

Item No.: V18.P5 Equal: 4

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.P5.A15.10	CS-A15@10-(P5)	N/A	CS	Core Spray Piping, Sliding Sleeve to Upper Downcomer "A" at 10 degrees azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448881	EVT-1	VT-F06-152	Accept	BWRVIP18A	Examination SAT. Examination limited to 70% due to proximity of the RPV. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.P5.A7.170	CS-A7@170-(P5)	N/A	CS	Core Spray Piping, Sliding Sleeve to Upper Downcomer "C" at 170 degrees azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448881	EVT-1	VT-F06-153	Accept	BWRVIP18A	Examination SAT. Examination limited to 60% due to proximity of the RPV and Shroud. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.P5.B15.190	CS-B15@190-(P5)	N/A	CS	Core Spray Piping, Sliding Sleeve to Upper Downcomer "D" at 190 degrees azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448881	EVT-1	VT-F06-154	Accept	BWRVIP18A	Examination SAT. Examination limited to 60% due to proximity of the RPV. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report.

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- 3. Plant Unit: 1
- 4. Commercial Service Date: 07/01/1974
- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V18.P5.B7.350	CS-B7@350-(P5)	N/A	CS	Core Spray Piping, Sliding Sleeve to Upper Downcomer "B" at 350 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448881	EVT-1	VT-F06-155	Accept	BWRVIP18A	Examination SAT. Examination limited to 60% due to proximity of the RPV and shroud. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report.

Item No.: V18.P6 Equal: 4

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V18.P6.A16.10	CS-A16@10-(P6)	N/A	CS	Core Spray Piping, Sliding Sleeve Weld to Outer Sleeve, off Downcomer "A" at 10 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448881	EVT-1	VT-F06-156	Accept	BWRVIP18A	Examination SAT. Examination limited to 70% due to proximity of the RPV. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V18.P6.A6.170	CS-A6@170-(P6)	N/A	CS	Core Spray Piping, Sliding Sleeve Weld to Outer Sleeve, off Downcomer "C" at 170 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448881	EVT-1	VT-F06-157	Accept	BWRVIP18A	Examination SAT. Examination limited to 60% due to proximity of the RPV and Shroud. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V18.P6.B16.190	CS-B16@190-(P6)	N/A	CS	Core Spray Piping, Sliding Sleeve Weld to Outer Sleeve, off Downcomer "D" at 190 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448881	EVT-1	VT-F06-158	Accept	BWRVIP18A	Examination SAT. Examination limited to 60% due to proximity of the RPV. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V18.P6.B6.350	CS-B6@350-(P6)	N/A	CS	Core Spray Piping, Sliding Sleeve Weld to Outer Sleeve, off Downcomer "B" at 350 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448881	EVT-1	VT-F06-159	Accept	BWRVIP18A	Examination SAT. Examination limited to 60% due to proximity of the RPV and shroud. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report.

Item No.: V18.P7 Equal: 4

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V18.P7.A17.10	CS-A17@10-(P7)	N/A	CS	Core Spray Piping, Outer Sleeve to Lower Downcomer "A" at 10 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448881	EVT-1	VT-F06-160	Accept	BWRVIP18A	Examination SAT. Examination limited to 55% due to proximity of the RPV. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V18.P7.A5.170	CS-A5@170-(P7)	N/A	CS	Core Spray Piping, Outer Sleeve to Lower Downcomer "C" at 170 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448881	EVT-1	VT-F06-161	Accept	BWRVIP18A	Examination SAT. Examination limited to 50% due to proximity of the RPV, Shroud and guide rod interference. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

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- 3. Plant Unit: 1
- 4. Commercial Service Date: 07/01/1974
- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V18.P7.B17.190	CS-B17@190-(P7)	N/A	CS	Core Spray Piping, Outer Sleeve to Lower Downcomer "D" at 190 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448881	EVT-1	VT-F06-162	Accept	BWRVIP18A	Examination SAT. Examination limited to 60% due to proximity of the RPV. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V18.P7.B5.350	CS-B5@350-(P7)	N/A	CS	Core Spray Piping, Outer Sleeve to Lower Downcomer "B" at 350 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448881	EVT-1	VT-F06-163	Accept	BWRVIP18A	Examination SAT. Examination limited to 50% due to proximity of the RPV and shroud. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report.

Item No.: V18.P8 Equal: 8

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V18.P8b.A1.170	CS-A1@170-(P8b)	N/A	CS	Core Spray Piping Downcomer "C" at 170 degrees azimuth, Collar to Shroud Weld	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448882	Remote Auto UT	VE-F06-009	Accept	BWRVIP18A	Examination SAT. EVT-1 examination limited to 90% due to proximity of the downcommer above. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report. UT examination reported NRI however was limited to 50% coverage. See Sections 1 and 3 of AREVA RE23 Automated UT Outage Report.
4448882	EVT-1	VT-F06-028	Accept		

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V18.P8a.A2.170	CS-A2@170-(P8a)	N/A	CS	Core Spray Piping Downcomer "C" at 170 degrees azimuth, Collar to Shroud Weld	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448882	Remote Auto UT	VE-F06-005	Accept	BWRVIP18A	Examination SAT. EVT-1 examination limited to 90% due to proximity of the downcommer above. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report. UT examination reported NRI however was limited to 50% coverage. See Sections 1 and 3 of AREVA RE23 Automated UT Outage Report.
4448882	EVT-1	VT-F06-029	Accept		

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V18.P8a.A20.10	CS-A20@10-(P8a)	N/A	CS	Core Spray Piping Downcomer "A" at 10 degrees azimuth, Collar to Shroud Weld	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448882	Remote Auto UT	VE-F06-006	Accept	BWRVIP18A	Examination SAT. EVT-1 examination limited to 90% due to proximity of the downcommer above. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report. UT examination reported NRI however was limited to 50% coverage. See Sections 1 and 3 of AREVA RE23 Automated UT Outage Report.
4448882	EVT-1	VT-F06-030	Accept		

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- 3. Plant Unit: 1
- 4. Commercial Service Date: 07/01/1974
- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.P8b.A21.10	CS-A21@10-(P8b)	N/A	CS	Core Spray Piping Downcomer "A" at 10 degrees azimuth, Collar to Shroud Weld

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448882	Remote Auto UT	VE-F06-010	Accept	BWRVIP18A	Examination SAT. Ref. EVT-1 exam limited to 90% due to proximity of the downcommer above. No apparent change from prev. recorded indications at AZ 310 -10. Ref. CNS Condition Report CR-CNS-2006-8668. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report. UT examination confirmed the visual indication with no apparent change from UT previous examination however UT was limited to 50%. See Sections 1 and 3 of AREVA RE23 Automated UT Outage Report. Previous indication was evaluated as acceptable per NEDC 98-054.
4448882	EVT-1	VT-F06-031	Accept		

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.P8b.B1.350	CS-B1@350-(P8b)	N/A	CS	Core Spray Piping Downcomer "B" at 350 degrees azimuth, Collar to Shroud Weld

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448882	EVT-1	VT-F06-032	Accept	BWRVIP18A	Examination SAT. EVT-1 examination limited to 90% due to proximity of the downcommer above. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report. UT examination reported NRI however was limited to 50% coverage. See Sections 1 and 3 of AREVA RE23 Automated UT Outage Report.
4448882	Remote Auto UT	VE-F06-011	Accept		

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.P8a.B2.350	CS-B2@350-(P8a)	N/A	CS	Core Spray Piping Downcomer "B" at 350 degrees azimuth, Collar to Shroud Weld

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448882	EVT-1	VT-F06-033	Accept	BWRVIP18A	Examination SAT. EVT-1 examination limited to 90% due to proximity of the downcommer above. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report. UT examination reported NRI however was limited to 50% coverage. See Sections 1 and 3 of AREVA RE23 Automated UT Outage Report.
4448882	Remote Auto UT	VE-F06-007	Accept		

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.P8a.B20.190	CS-B20@190-(P8a)	N/A	CS	Core Spray Piping Downcomer "D" at 190 degrees azimuth, Collar to Shroud Weld

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448882	Remote Auto UT	VE-F06-008	Accept	BWRVIP18A	Examination SAT. Ref. EVT-1 exam limited to 90% due to proximity of the downcommer above. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report. UT examination was limited to 50%. An indication previously identified in RE20 by UT did not show any appreciable change. See Sections 1 and 3 of AREVA RE23 Automated UT Outage Report. Previous indication was evaluated as acceptable per NEDC 98-054.
4448882	EVT-1	VT-F06-034	Accept		

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- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.P8b.B21.190	CS-B21@190-(P8b)	N/A	CS	Core Spray Piping Downcomer "D" at 190 degrees azimuth, Collar to Shroud Pipe Weld

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448882	Remote Auto UT	VE-F06-012	Accept	BWRVIP18A	Examination SAT. EVT-1 examination limited to 90% due to proximity of the downcommer above. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report. UT examination reported NRI however was limited to 50% coverage. See Sections 1 and 3 of AREVA RE23 Automated UT Outage Report.
4448882	EVT-1	VT-F06-035	Accept		

Item No.: V18.PB Equal: 4

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.PB.A.150	PB-CSA@150	N/A	CS	Core Spray A Internal Piping Brackets (bracket to RPV Welds Heat-Affected zones on bracket side, bolting, and tack welds to bolting) Downcomer "C" side at 150 degree azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448881	EVT-1	VT-F06-164	Accept	BWRVIP18A	Examination SAT. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.PB.A.30	PB-CSA@30	N/A	CS	Core Spray A Internal Piping Brackets (Includes Attachment Welds to RPV, Heat-Affected zones, and Tack Welds to Bolting) Downcomer "A" side at 30 degree azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448881	EVT-1	VT-F06-165	Accept	BWRVIP18A	Examination SAT. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.PB.B.210	PB-CSB@210	N/A	CS	Core Spray B Internal Piping Brackets (Includes Attachment Welds to RPV, Heat-Affected zones, and Tack Welds to Bolting) Downcomer "D" side at 210 degree azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448881	EVT-1	VT-F06-166	Accept	BWRVIP18A	Examination SAT. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.PB.B.330	PB-CSB@330	N/A	CS	Core Spray B Internal Piping Brackets (Includes Attachment Welds to RPV, Heat-Affected zones, and Tack Welds to Bolting) Downcomer "B" side at 330 degree azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448881	EVT-1	VT-F06-167	Accept	BWRVIP18A	Examination SAT. See Section 3, Tab 1 of AREVA RE23 IVVI Outage Report.

Item No.: V18.S Equal: 2

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.S.BLX.346	S-BL-XTRW@346	N/A	CS	Core Spray Sparger "B" Lower, Sparger Pipe to Sparger Pipe, Extra Weld at 346 degrees azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	EVT-1	VT-F06-132	Accept	BWRVIP18A	Examination SAT. This is an additional field weld added during construction. Examination limited to 45% Coverage. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

- 1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602
- 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098
- 3. Plant Unit: 1
- 4. Commercial Service Date: 07/01/1974
- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.S.BLX.354	S-BL-XTRW@354	N/A	CS	Core Spray Sparger "B" Lower, Sparger Pipe to Sparger Pipe, Extra Weld at 354 degrees azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	EVT-1	VT-F06-133	Accept	BWRVIP18A	Examination SAT. This is an additional field weld added during construction. Examination limited to 50% Coverage. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.

Item No.: V18.S1 Equal: 4

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.S1.AUTB.10	S1-AU-TB@10	N/A	CS	Core Spray Sparger "A" Upper Tee Box at 10 degrees azimuth, Cover Plate to Sparger Tee Box Weld

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	EVT-1	VT-F06-234	Accept	BWRVIP18A	Examination SAT. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.S1.BLTB.350	S1-BL-TB@350	N/A	CS	Core Spray Sparger "B" Lower Tee Box at 350 degrees azimuth, Cover Plate to Sparger Tee Box Weld

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	EVT-1	VT-F06-134	Accept	BWRVIP18A	Examination SAT. NRI however, arc strike and scratch were noted. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.S1.CUTB.170	S1-CU-TB@170	N/A	CS	Core Spray Sparger "C" Upper Tee Box at 170 degrees azimuth, Cover Plate to Sparger Tee Box Weld

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	EVT-1	VT-F06-236	Accept	BWRVIP18A	Examination SAT. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.S1.DLTB.190	S1-DL-TB@190	N/A	CS	Core Spray Sparger "D" Lower Tee Box at 190 degrees azimuth, Cover Plate to Sparger Tee Box Weld

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	EVT-1	VT-F06-235	Accept	BWRVIP18A	Examination SAT. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.

Item No.: V18.S2 Equal: 8

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.S2.AUTB.12	S2@12-AU-TB@10	N/A	CS	Core Spray Sparger "A" Upper Tee Box at 10 degrees azimuth, Sparger Pipe to Tee Box Weld at 12 degrees azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	EVT-1	VT-F06-237	Accept	BWRVIP18A	Examination SAT. Examination limited to 45% due to proximity of the Shroud and Sparger Nozzles. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.S2.CUTB.168	S2@168-CU-TB@170	N/A	CS	Core Spray Sparger "C" Upper Tee Box at 170 degrees azimuth, Sparger Pipe to Tee Box Weld at 168 degrees azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	EVT-1	VT-F06-238	Accept	BWRVIP18A	Examination SAT. Examination limited to 45% due to proximity of the Shroud and Sparger Nozzles. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

- |  |   |
|--|---|
| 1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602                 | 4. Commercial Service Date: 07/01/1974                      |
| 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098 | 5. Owner Certificate of Authorization (If Required): N/A    |
| 3. Plant Unit: 1   | 6. National Certificate of Authorization (If Required): N/A |

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.S2.CUTB.172	S2@172-CU-TB@170	N/A	CS	Core Spray Sparger "C" Upper Tee Box at 170 degrees azimuth, Sparger Pipe to Tee Box Weld at 172 degrees azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	EVT-1	VT-F06-239	Accept	BWRVIP18A	Examination SAT. Examination limited to 45% due to proximity of the Shroud and Sparger Nozzles. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.S2.DLTB.188	S2@188-DL-TB@190	N/A	CS	Core Spray Sparger "D" Lower Tee Box at 190 degrees azimuth, Sparger Pipe to Tee Box Weld at 188 degrees azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	EVT-1	VT-F06-240	Accept	BWRVIP18A	Examination SAT. Examination limited to 40% due to proximity of the Shroud, Sparger Nozzles and Top Guide. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.S2.DLTB.192	S2@192-DL-TB@190	N/A	CS	Core Spray Sparger "D" Lower Tee Box at 190 degrees azimuth, Sparger Pipe to Tee Box Weld at 192 degrees azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	EVT-1	VT-F06-241	Accept	BWRVIP18A	Examination SAT. Examination limited to 40% due to proximity of the Shroud, Sparger Nozzles and Top Guide. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.S2.BLTB.348	S2@348-BL-TB@350	N/A	CS	Core Spray Sparger "B" Lower Tee Box at 350 degrees azimuth, Sparger Pipe to Tee Box Weld at 348 degrees azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	EVT-1	VT-F06-135	Accept	BWRVIP18A	Examination SAT. Examination limited to 45% due to proximity of the Shroud, Sparger Nozzles, and Top Guide. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.S2.BLTB.352	S2@352-BL-TB@350	N/A	CS	Core Spray Sparger "B" Lower Tee Box at 350 degrees azimuth, Sparger Pipe to Tee Box Weld at 352 degrees azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	EVT-1	VT-F06-216	Accept	BWRVIP18A	Examination SAT. Examination limited to 45% due to proximity of the Shroud, Sparger Nozzles and Top Guide. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.S2.AUTB.8	S2@8-AU-TB@10	N/A	CS	Core Spray Sparger "A" Upper Tee Box at 10 degrees azimuth, Sparger Pipe to Tee Box Weld at 8 degrees azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	EVT-1	VT-F06-242	Accept	BWRVIP18A	Examination SAT. Examination limited to 45% due to proximity of the Shroud and Sparger Nozzles. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.

Item No.: V18.S3a Equal: 2

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.S3a.BLNSW	S3a-BL-NSPW@271>89	N/A	CS	Core Spray Sparger "B" Lower, Nozzle to Sparger Pipe Welds, all spray nozzles from 89 to 271 degrees azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	VT-1	VT-F06-272	Accept	BWRVIP18A	Examination SAT. Examined the accessible areas of the nozzles and tack welds. Coverage was limited to 50%. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

- 1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602
- 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098
- 3. Plant Unit: 1
- 4. Commercial Service Date: 07/01/1974
- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.S3a.DLNSW	S3a-DL-NSPW@92>269	N/A	CS	Core Spray Sparger "D" Lower, Nozzle to Sparger Pipe Welds, all spray nozzles from 92 to 269 degrees azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	VT-1	VT-F06-273	Accept	BWRVIP18A	Examination SAT. Examined the accessible areas of the nozzles and tack welds. Coverage was limited to 50%. See Section 3, Tab 2 of AREVA RE23.IVVI Outage Report.

Item No.: V18.S3b Equal: 2

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.S3b.BLNOW	S3b-BL-NOW@271>89	N/A	CS	Core Spray Sparger "B" Lower, Nozzle to Orifice Welds, all spray nozzles from 89 to 271 degrees azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	VT-1	VT-F06-274	Accept	BWRVIP18A	Examination SAT. Examined the accessible areas of the nozzles and tack welds. Coverage was limited to 50%. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.S3b.DLNOW	S3b-DL-NOW@92>269	N/A	CS	Core Spray Sparger "D" Lower, Nozzle to Orifice Welds, all spray nozzles from 92 to 269 degrees azimuth

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	VT-1	VT-F06-275	Accept	BWRVIP18A	Examination SAT. Examined the accessible areas of the nozzles and tack welds. Coverage was limited to 50%. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.

Item No.: V18.S3c Equal: 2

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.S3c.BLD.279	S3c-BL-DRSPW@279	N/A	CS	Core Spray Sparger "B" Lower, Drain to Sparger Pipe Weld at 279 degrees azimuth, Includes Tack Weld on Drain Plug

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	VT-1	VT-F06-276	Accept	BWRVIP18A	Examination SAT. Examination limited to 50% coverage. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.S3c.BLD.81	S3c-BL-DRSPW@81	N/A	CS	Core Spray Sparger "B" Lower, Drain to Sparger Pipe Weld at 81 degrees azimuth, Includes Tack Weld on Drain Plug

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	VT-1	VT-F06-243	Accept	BWRVIP18A	Examination SAT. Examination limited to 50% coverage. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.

Item No.: V18.S4 Equal: 8

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.S4.AUEC.271	S4-AU-ECSPW@271	N/A	CS	Core Spray Sparger "A" Upper, End Cap to Sparger Pipe Weld at 271 degrees azimuth Assumed to be creviced internally

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	EVT-1	VT-F06-217	Accept	BWRVIP18A	Examination SAT. Examination limited to 50% due to proximity of the Shroud and Sparger brackets. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.S4.AUEC.89	S4-AU-ECSPW@89	N/A	CS	Core Spray Sparger "A" Upper, End Cap to Sparger Pipe Weld at 89 degrees azimuth Assumed to be creviced internally

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	EVT-1	VT-F06-244	Accept	BWRVIP18A	Examination SAT. Examination limited to 40% due to proximity of the Shroud and Sparger brackets. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

- 1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602
- 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098
- 3. Plant Unit: 1
- 4. Commercial Service Date: 07/01/1974
- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V18.S4.BLEC.271	S4-BL-ECSPW@271	N/A	CS	Core Spray Sparger "B" Lower, End Cap to Sparger Pipe Weld at 271 degrees azimuth Assumed to be creviced internally	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	EVT-1	VT-F06-218	Accept	BWRVIP18A	Examination SAT. Examination limited to 35% due to proximity of the Shroud and Sparger brackets. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V18.S4.BLEC.89	S4-BL-ECSPW@89	N/A	CS	Core Spray Sparger "B" Lower, End Cap to Sparger Pipe Weld at 89 degrees azimuth Assumed to be creviced internally	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	EVT-1	VT-F06-245	Accept	BWRVIP18A	Examination SAT. Examination limited to 35% due to proximity of the Shroud and Sparger brackets. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V18.S4.CUEC.269	S4-CU-ECSPW@269	N/A	CS	Core Spray Sparger "C" Upper, End Cap to Sparger Pipe Weld at 269 degrees azimuth Assumed to be creviced internally	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	EVT-1	VT-F06-219	Accept	BWRVIP18A	Examination SAT. Examination limited to 40% due to proximity of the Shroud and Sparger brackets. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V18.S4.CUEC.91	S4-CU-ECSPW@91	N/A	CS	Core Spray Sparger "C" Upper, End Cap to Sparger Pipe Weld at 93 degrees azimuth Assumed to be creviced internally	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	EVT-1	VT-F06-246	Accept	BWRVIP18A	Examination SAT. Examination limited to 40% due to proximity of the Shroud and Sparger brackets. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V18.S4.DLEC.269	S4-DL-ECSPW@269	N/A	CS	Core Spray Sparger "D" Lower, End Cap to Sparger Pipe Weld at 269 degrees azimuth Assumed to be creviced internally	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	EVT-1	VT-F06-220	Accept	BWRVIP18A	Examination SAT. Examination limited to 40% due to proximity of the Shroud and Sparger brackets. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V18.S4.DLEC.91	S4-DL-ECSPW@91	N/A	CS	Core Spray Sparger "D" Lower, End Cap to Sparger Pipe Weld at 91 degrees azimuth Assumed to be creviced internallyN/A	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	EVT-1	VT-F06-247	Accept	BWRVIP18A	Examination SAT. Examination limited to 35% due to proximity of the Shroud and Sparger brackets. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.

Item No.: V18.SB Equal: 14

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V18.SB.AUBL.272	SB-AU-BL-SPR@272	N/A	CS	Core Spray Sparger Bracket at 272 degrees azimuth between CS Sparger "A" Upper and CS Sparger "B" Lower	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	VT-1	VT-F06-248	Accept	BWRVIP18A	Examination SAT. Examination coverage limited to 70%. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

- 1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602
- 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098
- 3. Plant Unit: 1
- 4. Commercial Service Date: 07/01/1974
- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.SB.AUBL.299	SB-AU-BL-SPR@299	N/A	CS	Core Spray Sparger Bracket at 299 degrees azimuth between CS Sparger "A" Upper and CS Sparger "B" Lower

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	VT-1	VT-F06-249	Accept	BWRVIP18A	Examination SAT. Examination coverage limited to 80%. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.SB.AUBL.30	SB-AU-BL-SPR@30.5	N/A	CS	Core Spray Sparger Bracket at 30.5 degrees azimuth between CS Sparger "A" Upper and CS Sparger "B" Lower

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	VT-1	VT-F06-250	Accept	BWRVIP18A	Examination SAT. Examination coverage limited to 80%. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.SB.AUBL.329	SB-AU-BL-SPR@329.5	N/A	CS	Core Spray Sparger Bracket at 329.5 degrees azimuth between CS Sparger "A" Upper and CS Sparger "B" Lower

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	VT-1	VT-F06-251	Accept	BWRVIP18A	Examination SAT. Examination coverage limited to 80%. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.SB.AUBL.61	SB-AU-BL-SPR@61	N/A	CS	Core Spray Sparger Bracket at 61 degrees azimuth between CS Sparger "A" Upper and CS Sparger "B" Lower

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	VT-1	VT-F06-252	Accept	BWRVIP18A	Examination SAT. Examination coverage limited to 80%. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.SB.AUBL.88	SB-AU-BL-SPR@88	N/A	CS	Core Spray Sparger Bracket at 88 degree azimuth between CS Sparger "A" Upper and CS Sparger "B" Lower

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	VT-1	VT-F06-253	Accept	BWRVIP18A	Examination SAT. Examination coverage limited to 80%. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.SB.BL.DL.270	SB-BL-DL-SPR@270	N/A	CS	Core Spray Sparger Bracket at 270 degrees azimuth between CS Sparger "B" Lower and CS Sparger "D" Lower

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	VT-1	VT-F06-221	Accept	BWRVIP18A	Examination SAT. Examination coverage limited to 65%. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V18.SB.BLDL.90	SB-BL-DL-SPR@90	N/A	CS	Core Spray Sparger Bracket at 90 degrees azimuth between CS Sparger "B" Lower and CS Sparger "D" Lower

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	VT-1	VT-F06-277	Accept	BWRVIP18A	Examination SAT. Examination coverage limited to 50%. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

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|--|---|
| 1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602                 | 4. Commercial Service Date: 07/01/1974                      |
| 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098 | 5. Owner Certificate of Authorization (If Required): N/A    |
| 3. Plant Unit: 1   | 6. National Certificate of Authorization (If Required): N/A |

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V18.SB.CUDL.119	SB-CU-DL-SPR@119	N/A	CS	Core Spray Sparger Bracket at 119 degrees azimuth between CS Sparger "C" Upper and CS Sparger "D" Lower	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	VT-1	VT-F06-254	Accept	BWRVIP18A	Examination SAT. Examination coverage limited to 90%. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.
<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V18.SB.CUDL.149	SB-CU-DL-SPR@149.5	N/A	CS	Core Spray Sparger Bracket at 149.5 degrees azimuth between CS Sparger "C" Upper and CS Sparger "D" Lower	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	VT-1	VT-F06-278	Accept	BWRVIP18A	Examination SAT. Examination coverage limited to 90%. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.
<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V18.SB.CUDL.210	SB-CU-DL-SPR@210.5	N/A	CS	Core Spray Sparger Bracket at 210.5 degrees azimuth between CS Sparger "C" Upper and CS Sparger "D" Lower	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	VT-1	VT-F06-222	Accept	BWRVIP18A	Examination SAT. Examination coverage limited to 90%. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.
<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V18.SB.CUDL.241	SB-CU-DL-SPR@241	N/A	CS	Core Spray Sparger Bracket at 241 degrees azimuth between CS Sparger "C" Upper and CS Sparger "D" Lower	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	VT-1	VT-F06-223	Accept	BWRVIP18A	Examination SAT. Examination coverage limited to 90%. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.
<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V18.SB.CUDL.268	SB-CU-DL-SPR@268	N/A	CS	Core Spray Sparger Bracket at 268 degrees azimuth between CS Sparger "C" Upper and CS Sparger "D" Lower	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	VT-1	VT-F06-224	Accept	BWRVIP18A	Examination SAT. Examination coverage limited to 90%. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.
<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V18.SB.CUDL.92	SB-CU-DL-SPR@92	N/A	CS	Core Spray Sparger Bracket at 92 degree azimuth between CS Sparger "C" Upper and Sparger "D" Lower	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448880	VT-1	VT-F06-279	Accept	BWRVIP18A	Examination SAT. Examination coverage limited to 75%. See Section 3, Tab 2 of AREVA RE23 IVVI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

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- 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098
- 3. Plant Unit: 1
- 4. Commercial Service Date: 07/01/1974
- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

Category: VIP26 Equal: 4  
 Item No.: V26.HLDAS Equal: 2

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V26.TGHLDNAS.270	TG-HLDWN-ASEM@270	N/A	NB	Top Guide Hold Down Assembly consisting of two bolts top and botton and a central, spring loaded tensioning locking bolt, which is fillet welded in the locked position at 266 degrees azimuth, 4 degrees counter-clockwise from 180 degrees azimuth.	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448819	VT-1	VT-F06-130	Accept	N-686, BWRVIP26A	Examination SAT. Examined accessible areas of the Hold-Down assembly. This assembly can only be seen from the top. Limited exam area due to Top Guide inference. See Section 3, Tab 9 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V26.TGHLDNAS.90	TG-HLDWN-ASEM@90	N/A	NB	Top Guide Hold Down Assembly consisting of two bolts top and botton and a central, spring loaded tensioning locking bolt, which is fillet welded in the locked position at 86 degrees azimuth, 4 degrees counter-clockwise from 90 degrees azimuth.	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448819	VT-1	VT-F06-131	Accept	N-686, BWRVIP26A	Examination SAT. Examined accessible areas of the Hold-Down assembly. This assembly can only be seen from the top. Limited exam area due to Top Guide inference. See Section 3, Tab 9 of AREVA RE23 IVVI Outage Report.

Item No.: V26.HZAPN Equal: 2

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V26.HZALPN.270	TG-HOZALNPIN-ASEM@270	N/A	NB	Top Guide Horizontal Aligner Assembly Pins, Sockets, and Welds at 270 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448819	EVT-1	VT-F06-303	Accept	BWRVIP26A	Examination SAT. Examined accessible areas of the Horizontal Alignment Pin assembly and attachment welds. Access from Core Loc. 02-27 Examined approx. 50% of assembly. Located 3 separate indications as documented in AREVA indication notice form INF-CNS-RFO-23-007. Indicaitions documented in CNS Condition Report CR-CNS-2006-08457 and were evaluated as acceptable. See Section 3, Tab 9 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V26.HZALPN.90	TG-HOZALNPIN-ASEM@90	N/A	NB	Top Guide Horizontal Aligner Assembly Pins, Sockets, and Welds at 90 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448819	EVT-1	VT-F06-233	Accept	BWRVIP26A	Examination SAT. Examined accessible areas of the Horizontal Alignment Pin assembly and attachment welds. Access from Core Loc. 50-27 Examined approx. 50% of assembly. Located 3 separate indications as documented in AREVA indication notice form INF-CNS-RFO-23-006. Indications documented in CNS Condition Report CR-CNS-2006-08386 and were evaluated as acceptable. See Section 3, Tab 9 of AREVA RE23 IVVI Outage Report.

Category: VIP38 Equal: 1  
 Item No.: V38.SDSPW Equal: 1

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V38.SRDWLD.H8	SHRD-SUPLTWLD-H8	N/A	NB	Core Shroud Support Plate Horizontal Circumferential Weld to Shroud Lower Cylinder, 0 to 360 degrees azimuth, including intersections of vertical seam welds	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448818	EVT-1	VT-F06-185	Accept	BWRVIP-38	Examination SAT. See Section 3, Tab 5 in the AREVA RE23 IVVI Outage Report for specific locations and coverages between various jet pumps.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

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- 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098
- 3. Plant Unit: 1
- 4. Commercial Service Date: 07/01/1974
- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

<b>Category:</b> VIP41 Equal: 30
<b>Item No.:</b> V41.AD1 Equal: 4

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V41.AD1.JP15	AD-1-JP15	N/A	NB	Jet Pump Adapter Top to Adapter Bottom Weld (Bi-metallic weld)	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448818	EVT-1	VT-F06-186	Accept	BWRVIP-41, Rev 1	Examination SAT. Examination limited to 15% due to proximity of the RPV, Shroud and Sensing Line. See Section 3, Tab 3 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V41.AD1.JP16	AD-1-JP16	N/A	NB	Jet Pump Adapter Top to Adapter Bottom Weld (Bi-metallic weld)	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448818	EVT-1	VT-F06-187	Accept	BWRVIP-41, Rev 1	Examination SAT. Examination limited to 15% due to proximity of the RPV, Shroud and Sensing Line. See Section 3, Tab 3 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V41.AD1.JP19	AD-1-JP19	N/A	NB	Jet Pump Adapter Top to Adapter Bottom Weld (Bi-metallic weld)	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448818	EVT-1	VT-F06-188	Accept	BWRVIP-41, Rev 1	Examination SAT. Examination limited to 40% due to proximity of the RPV, Shroud and Gusset.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V41.AD1.JP20	AD-1-JP20	N/A	NB	Jet Pump Adapter Top to Adapter Bottom Weld (Bi-metallic weld)	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448818	EVT-1	VT-F06-189	Accept	BWRVIP-41, Rev 1	Examination SAT. Examination limited to 20% due to proximity of the RPV, Shroud and Gusset. See Section 3, Tab 3 of AREVA RE23 IVVI Outage Report.

<b>Item No.:</b> V41.AD2 Equal: 4
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<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V41.AD2.JP15	AD-2-JP15	N/A	NB	Jet Pump Adapter Bottom to Core Shroud Support Plate	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448818	EVT-1	VT-F06-190	Accept	BWRVIP-41, Rev 1	Examination SAT. Examination limited to 15% due to proximity of the RPV, Shroud, Gusset, and Sensing Line. See Section 3, Tab 3 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V41.AD2.JP16	AD-2-JP16	N/A	NB	Jet Pump Adapter Bottom to Core Shroud Support Plate	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448818	EVT-1	VT-F06-191	Accept	BWRVIP-41, Rev 1	Examination SAT. Examination limited to 20%. See Section 3, Tab 3 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V41.AD2.JP19	AD-2-JP19	N/A	NB	Jet Pump Adapter Bottom to Core Shroud Support Plate	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448818	EVT-1	VT-F06-192	Accept	BWRVIP-41, Rev 1	Examination SAT. Examination limited to 40% due to proximity of the RPV, Shroud and Gusset. See Section 3, Tab 3 of AREVA RE23 IVVI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

- 1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602
- 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098
- 3. Plant Unit: 1
- 4. Commercial Service Date: 07/01/1974
- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V41.AD2.JP20	AD-2-JP20	N/A	NB	Jet Pump Adapter Bottom to Core Shroud Support Plate	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448818	EVT-1	VT-F06-193	Accept	BWRVIP-41, Rev 1	Examination SAT. Examination limited to 40% due to proximity of the RPV, Shroud and Gusset. See Section 3, Tab 3 of AREVA RE23 IVVI Outage Report.

Item No.: V41.AD3a Equal: 4

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V41.AD3a.JP15	AD-3a-JP15	N/A	NB	Jet Pump Adapter Backing Ring Fillet Welds at the Diffuser Tailpipe-to-Adapter Interface	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448818	EVT-1	VT-F06-194	Accept	BWRVIP-41, Rev 1	Examination SAT. Examination limited to 15% due to proximity of the RPV, Shroud, Gusset, and Sensing Line. See Section 3, Tab 3 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V41.AD3a.JP16	AD-3a-JP16	N/A	NB	Jet Pump Adapter Backing Ring Fillet Welds at the Diffuser Tailpipe-to-Adapter Interface	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448818	EVT-1	VT-F06-195	Accept	BWRVIP-41, Rev 1	Examination SAT. Examination limited to 15%. See Section 3, Tab 3 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V41.AD3a.JP19	AD-3a-JP19	N/A	NB	Jet Pump Adapter Backing Ring Fillet Welds at the Diffuser Tailpipe-to-Adapter Interface	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448818	EVT-1	VT-F06-196	Accept	BWRVIP-41, Rev 1	Examination SAT. Examination limited to 40% due to proximity of the RPV, Shroud and Gusset. See Section 3, Tab 3 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V41.AD3a.JP20	AD-3a-JP20	N/A	NB	Jet Pump Adapter Backing Ring Fillet Welds at the Diffuser Tailpipe-to-Adapter Interface	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448818	EVT-1	VT-F06-197	Accept	BWRVIP-41, Rev 1	Examination SAT. Examination limited to 20% due to proximity of the RPV, Shroud and Gusset. See Section 3, Tab 3 of AREVA RE23 IVVI Outage Report.

Item No.: V41.AD3b Equal: 4

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V41.AD3b.JP15	AD-3b-JP15	N/A	NB	Jet Pump Adapter Backing Ring Fillet Welds at the Diffuser Tailpipe-to-Adapter Interface	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448818	EVT-1	VT-F06-198	Accept	BWRVIP-41, Rev 1	Examination SAT. Examination limited to 15% due to proximity of the RPV, Shroud and Sensing Line. See Section 3, Tab 3 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V41.AD3b.JP16	AD-3b-JP16	N/A	NB	Jet Pump Adapter Backing Ring Fillet Welds at the Diffuser Tailpipe-to-Adapter Interface	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448818	EVT-1	VT-F06-199	Accept	BWRVIP-41, Rev 1	Examination SAT. Examination limited to 15%. See Section 3, Tab 3 of AREVA RE23 IVVI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

- |  |   |
|--|---|
| 1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602                 | 4. Commercial Service Date: 07/01/1974                      |
| 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098 | 5. Owner Certificate of Authorization (If Required): N/A    |
| 3. Plant Unit: 1   | 6. National Certificate of Authorization (If Required): N/A |

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V41.AD3b.JP19	AD-3b-JP19	N/A	NB	Jet Pump Adapter Backing Ring Fillet Welds at the Diffuser Tailpipe-to-Adapter Interface

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448818	EVT-1	VT-F06-200	Accept	BWRVIP-41, Rev 1	Examination SAT. Examination limited to 40% due to proximity of the RPV, Shroud and Gusset. See Section 3, Tab 3 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V41.AD3b.JP20	AD-3b-JP20	N/A	NB	Jet Pump Adapter Backing Ring Fillet Welds at the Diffuser Tailpipe-to-Adapter Interface

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448818	EVT-1	VT-F06-201	Accept	BWRVIP-41, Rev 1	Examination SAT. Examination limited to 25% due to proximity of the RPV, Shroud and Gusset. See Section 3, Tab 3 of AREVA RE23 IVVI Outage Report.

Item No.: V41.DF1 Equal: 6

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V41.DF1.JP15	DF-1-JP15	N/A	NB	Jet Pump Diffuser Collar to Diffuser Shell Weld

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448818	EVT-1	VT-F06-202	Accept	BWRVIP-41, Rev 1	Examination SAT. Examination limited to 40% due to proximity of the RPV and Shroud. See Section 3, Tab 3 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V41.DF1.JP16	DF-1-JP16	N/A	NB	Jet Pump Diffuser Collar to Diffuser Shell Weld

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448818	EVT-1	VT-F06-203	Accept	BWRVIP-41, Rev 1	Examination SAT. Examination limited to 40% due to proximity of the RPV and Shroud. See Section 3, Tab 3 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V41.DF1.JP17	DF-1-JP17	N/A	NB	Jet Pump Diffuser Collar to Diffuser Shell Weld

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448818	EVT-1	VT-F06-204	Accept	BWRVIP-41, Rev 1	Examination SAT. Examination limited to 40% due to proximity of the RPV, Shroud and Sensing Line. See Section 3, Tab 3 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V41.DF1.JP18	DF-1-JP18	N/A	NB	Jet Pump Diffuser Collar to Diffuser Shell Weld

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448818	EVT-1	VT-F06-205	Accept	BWRVIP-41, Rev 1	Examination SAT. Examination limited to 40% due to proximity of the RPV and Shroud. See Section 3, Tab 3 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V41.DF1.JP19	DF-1-JP19	N/A	NB	Jet Pump Diffuser Collar to Diffuser Shell Weld

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448818	EVT-1	VT-F06-206	Accept	BWRVIP-41, Rev 1	Examination SAT. Examination limited to 40% due to proximity of the RPV, Shroud and Sensing Line. See Section 3, Tab 3 of AREVA RE23 IVVI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

- 1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602
- 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098
- 3. Plant Unit: 1
- 4. Commercial Service Date: 07/01/1974
- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V41.DF1.JP20	DF-1-JP20	N/A	NB	Jet Pump Diffuser Collar to Diffuser Shell Weld	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448818	EVT-1	VT-F06-207	Accept	BWRVIP-41, Rev 1	Examination SAT. See Section 3, Tab 3 of AREVA RE23 IVVI Outage Report.

Item No.: V41.DF2 Equal: 4

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V41.DF2.JP15	DF-2-JP15	N/A	NB	Jet Pump Diffuser Shell to Tailpipe Weld	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448818	EVT-1	VT-F06-208	Accept	BWRVIP-41, Rev 1	Examination SAT. Examination limited to 15% due to proximity of the RPV, Shroud and Sensing line. See Section 3, Tab 3 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V41.DF2.JP16	DF-2-JP16	N/A	NB	Jet Pump Diffuser Shell to Tailpipe Weld	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448818	EVT-1	VT-F06-209	Accept	BWRVIP-41, Rev 1	Examination SAT. Examination limited to 15%. See Section 3, Tab 3 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V41.DF2.JP19	DF-2-JP19	N/A	NB	Jet Pump Diffuser Shell to Tailpipe Weld	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448818	EVT-1	VT-F06-210	Accept	BWRVIP-41, Rev 1	Examination SAT. Examination limited to 40% due to proximity of the RPV, Shroud and Gusset. See Section 3, Tab 3 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V41.DF2.JP20	DF-2-JP20	N/A	NB	Jet Pump Diffuser Shell to Tailpipe Weld	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448818	EVT-1	VT-F06-211	Accept	BWRVIP-41, Rev 1	Examination SAT. Examination limited to 20% due to proximity of the RPV, Shroud and Gussets. See Section 3, Tab 3 of AREVA RE23 IVVI Outage Report.

Item No.: V41.RS1 Equal: 2

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V41.RS1.JP15-16	RS-1-JP15&JP16	N/A	NB	Recirc Thermal Sleeve to Jet Pump Riser Elbow Weld	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448818	EVT-1	VT-F06-212	Accept	BWRVIP-41, Rev 1	Examination SAT. See Section 3, Tab 3 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V41.RS1.JP19-20	RS-1-JP19&JP20	N/A	NB	Recirc Thermal Sleeve to Jet Pump Riser Elbow Weld	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448818	EVT-1	VT-F06-213	Accept	BWRVIP-41, Rev 1	Examination SAT. See Section 3, Tab 3 of AREVA RE23 IVVI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

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|--|---|
| 1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602                 | 4. Commercial Service Date: 07/01/1974                      |
| 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098 | 5. Owner Certificate of Authorization (If Required): N/A    |
| 3. Plant Unit: 1   | 6. National Certificate of Authorization (If Required): N/A |

Item No.: V41.RS2 Equal: 2

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V41.RS2.JP15-16	RS-2-JP15&JP16	N/A	NB	Jet Pump Riser Elbow to Riser Pipe Weld	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448818	EVT-1	VT-F06-214	Accept	BWRVIP-41, Rev 1	Examination SAT. Examination limited to 50%. See Section 3, Tab 3 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V41.RS2.JP19-20	RS-2-JP19&JP20	N/A	NB	Jet Pump Riser Elbow to Riser Pipe Weld	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448818	EVT-1	VT-F06-215	Accept	BWRVIP-41, Rev 1	Examination SAT. Examination limited to 50%. See Section 3, Tab 3 of AREVA RE23 IVVI Outage Report.

Category: VIP47 Equal: 2

Item No.: V47.GT2 Equal: 1

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V47.CRGT2.42-27	CRGT-2-(42-27)	N/A	NB	Control Rod Drive Gудie Tube Assembly Upper Circ Weld	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4452896	EVT-1	VT-F06-298	Accept	BWRVIP-47-A	Examination SAT. See Section 3, Tab 7 of AREVA RE23 IVVI Outage Report.

Item No.: V47.GT3 Equal: 1

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V47.CRGT3.42-27	CRGT-3-(42-27)	N/A	NB	Control Rod Drive Gудie Tube Assembly Lower Circ Weld	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4452896	EVT-1	VT-F06-299	Accept	BWRVIP-47-A	Examination SAT. See Section 3, Tab 7 of AREVA RE23 IVVI Outage Report.

Category: VIP76 Equal: 4

Item No.: V76.HCSW Equal: 4

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V76.SHDWLDH5	CORESHDWLD-H5	N/A	NB	Core Shroud Horizontal Circumferential Weld including intersections of vertical seam welds	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448815	Remote Auto UT	VE-F06-001	Accept	BWRVIP-76	Examination SAT. Examination was performed as a two-sided exam with a total coverage of 72.44%. Three indications, one previous, and two new indications were identified and documented in CNS Condition Report CNS-CR-2006-08462. Previous indication showed no apparent change in length of 2.32". The two new indications were in material not previously scanned in 1995. Indication lengths were 2.32", 2.17" and 1.39" in length. Indications were evaluated as acceptable for another 10 years of service per NEDC 05-001, Rev 1. See AREVA RE23 Automated Ultrasonic Examinations Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
V76.SHDWLDH6a	CORESHDWLD-H6a	N/A	NB	Core Shroud Horizontal Circumferential Weld including intersections of vertical seam welds	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448815	Remote Auto UT	VE-F06-002	Accept	BWRVIP-76	Examination SAT. Examination was performed as a two-sided exam with total coverage of 72.44%. One previous indication was identified with no apparent change in length at 2.17". Indications were evaluated as acceptable for 10 more years of service per NEDC 05-001, Rev 1 as acceptable. Reference CNS Condition Report CR-CNS-2006-08462. See AREVA RE23 Automated Ultrasonic Examinations Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

- 1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602
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- 3. Plant Unit: 1
- 4. Commercial Service Date: 07/01/1974
- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V76.SHDWLDH6b	CORESHDWLD-H6b	N/A	NB	Core Shroud Horizontal Circumferential Weld including intersections of vertical seam welds

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448815	Remote Auto UT	VE-F06-003	Accept	BWRVIP-76	Examination SAT. Examination was performed as a two-sided exam with a total coverage of 72.44%. One new indication was identified at 1.86" in length. Indication was analyzed as acceptable for 10 more years of service per NEDC 05-001, Rev 1. Reference CR-CNS-2006-08462. See AREVA RE23 Automated Ultrasonic Examination Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
V76.SHDWLDH7	CORESHDWLD-H7	N/A	NB	Core Shroud Horizontal Circumferential Weld including intersections of vertical seam welds

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448815	Remote Auto UT	VE-F06-004	Accept	BWRVIP-76	Examination SAT. Examination was performed as single sided examination due to gusset locations. Total coverage achieved was 53.78%. Two new indications were identified at 2.10" and 2.54" in length. Indications were evaluated as acceptable for another 10 years of service per NEDC 05-001, Rev 1. Reference CNS Condition Report CR-CNS-2006-08462. See AREVA RE23 Automated Ultrasonic Examination Outage Report.

<b>Exam Credit: XMAUG Equal: 43</b>
<b>Category: REC Equal: 39</b>
<b>Item No.: A11.12.37 Equal: 8</b>

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
A11.12.37078	2848-2-W109	3	REC	FLANGE TO RED. (PI-449C)

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448948	Manual UT	UT-F06-018	Accept	11.12	Examination performed per the Augmented ISI Program Section 11.12. See AREVA RE23 Manual ISI Outage Report.
4448948	Manual UT	UT-F06-017	Accept		

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
A11.12.37036	2848-2-W110	3	REC	(PI-449C) RED. TO FLANGE

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448948	Manual UT	UT-F06-002	Accept	11.12	Examination performed per the Augmented ISI Program Section 11.12. See AREVA RE23 Manual ISI Outage Report.
4448948	Manual UT	UT-F06-001	Accept		

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
A11.12.37052	2848-2-W12	3	REC	PIPE TO ELBOW

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448948	Manual UT	UT-F06-011	Accept	11.12	Examination performed per the Augmented ISI Program Section 11.12. See AREVA RE23 Manual ISI Outage Report.
4448948	Manual UT	UT-F06-012	Accept		

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- 3. Plant Unit: 1
- 4. Commercial Service Date: 07/01/1974
- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
A11.12.37107	2848-2-W40	3	REC	PIPE TO ELBOW	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448948	Manual UT	UT-F06-009	Accept	11.12	Examination performed per the Augmented ISI Program Section 11.12. See AREVA RE23 Manual ISI Outage Report.
4448948	Manual UT	UT-F06-010	Accept		

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
A11.12.37109	2848-2-W42	3	REC	FLANGE TO TEE	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448948	Manual UT	UT-F06-008	Accept	11.12	Examination performed per the Augmented ISI Program Section 11.12. See AREVA RE23 Manual ISI Outage Report.
4448948	Manual UT	UT-F06-007	Accept		

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
A11.12.37110	2848-2-W45	3	REC	PIPE TO TEE	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448948	Manual UT	UT-F06-006	Accept	11.12	Examination performed per the Augmented ISI Program Section 11.12. See AREVA RE23 Manual ISI Outage Report.
4448948	Manual UT	UT-F06-005	Accept		

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
A11.12.37112	2848-2-W47	3	REC	FLANGE TO ELBOW	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448948	Manual UT	UT-F06-004	Accept	11.12	Examination performed per the Augmented ISI Program Section 11.12. See AREVA RE23 Manual ISI Outage Report.
4448948	Manual UT	UT-F06-003	Accept		

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
A11.12.37061	2848-2-WJ	3	REC	ELBOW TO VALVE (REC-CV-13CV)	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448948	Manual UT	UT-F06-015	Accept	11.12	Examination performed per the Augmented ISI Program Section 11.12. See AREVA RE23 Manual ISI Outage Report.
4448948	Manual UT	UT-F06-016	Accept		

Item No.: A11.12.40 Equal: 7

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
A11.12.40062	2848-9-W22	3	REC	PIPE TO PIPE	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448954	Manual UT	UT-F06-041	Accept	11.12	Examination performed per the Augmented ISI Program Section 11.12. See AREVA RE23 Manual ISI Outage Report.
4448954	Manual UT	UT-F06-042	Accept		

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- 3. Plant Unit: 1
- 4. Commercial Service Date: 07/01/1974
- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
A11.12.40086	2848-9-W60	3	REC	PIPE TO PIPE	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448954	Manual UT	UT-F06-037	Accept	11.12	Examination performed per the Augmented ISI Program Section 11.12. See AREVA RE23 Manual ISI Outage Report.
4448954	Manual UT	UT-F06-038	Accept		

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
A11.12.40087	2848-9-W61	3	REC	PIPE TO ELBOW	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448954	Manual UT	UT-F06-036	Accept	11.12	Examination performed per the Augmented ISI Program Section 11.12. See AREVA RE23 Manual ISI Outage Report.
4448954	Manual UT	UT-F06-035	Accept		

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
A11.12.40088	2848-9-W62	3	REC	ELBOW TO PIPE	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448954	Manual UT	UT-F06-034	Accept	11.12	Examination performed per the Augmented ISI Program Section 11.12. See AREVA RE23 Manual ISI Outage Report.
4448954	Manual UT	UT-F06-033	Accept		

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
A11.12.40089	2848-9-W63	3	REC	PIPE TO PIPE	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448954	Manual UT	UT-F06-031	Accept	11.12	Examination performed per the Augmented ISI Program Section 11.12.
4448954	Manual UT	UT-F06-032	Accept		

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
A11.12.40090	2848-9-W64	3	REC	PIPE TO TEE	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448954	Manual UT	UT-F06-029	Accept	11.12	Examination performed per the Augmented ISI Program Section 11.12. See AREVA RE23 Manual ISI Outage Report.
4448954	Manual UT	UT-F06-030	Accept		

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
A11.12.40091	2848-9-W65	3	REC	TEE TO 4X3 CONC. REDUCER	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448954	Manual UT	UT-F06-028	Accept	11.12	Examination performed per the Augmented ISI Program Section 11.12. See AREVA RE23 Manual ISI Outage Report.
4448954	Manual UT	UT-F06-050	Accept		

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

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- 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098
- 3. Plant Unit: 1
- 4. Commercial Service Date: 07/01/1974
- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

Item No.: A11.12.41 Equal: 5

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
A11.12.41033	2848-14-W16	3	REC	TEE TO 6X4 CONC. REDUCER

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448950	Manual UT	UT-F06-100	Accept	11.12	Examination performed per the Augmented ISI Program Section 11.12. See AREVA RE23 Manual ISI Outage Report.
4448950	Manual UT	UT-F06-099	Accept		
4448950	Manual UT	UT-F06-101	Accept		

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
A11.12.41039	2848-14-WB	3	REC	ELBOW TO VALVE (REC-MOV-711MV)

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448950	Manual UT	UT-F06-106	Accept	11.12	Examination performed per the Augmented ISI Program Section 11.12. See AREVA RE23 Manual ISI Outage Report.
4448950	Manual UT	UT-F06-105	Accept		
4448950	Manual UT	UT-F06-107	Accept		

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
A11.12.41020	2848-14-WFA	3	REC	RED. TEE TO TEE

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448949	Manual UT	UT-F06-024	Accept	11.12	Examination performed per the Augmented ISI Program Section 11.12. See AREVA RE23 Manual ISI Outage Report.
4448949	Manual UT	UT-F06-019	Accept		
4448949	Manual UT	UT-F06-020	Accept		
4448949	Manual UT	UT-F06-021	Accept		
4448949	Manual UT	UT-F06-022	Accept		
4448949	Manual UT	UT-F06-023	Accept		

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
A11.12.41021	2848-14-WFC	3	REC	RED. TEE TO TEE

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448950	Manual UT	UT-F06-102	Accept	11.12	Examination performed per the Augmented ISI Program 11.12. See AREVA RE23 Manual ISI Outage Report.
4448950	Manual UT	UT-F06-104	Accept		
4448950	Manual UT	UT-F06-103	Accept		

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- 3. Plant Unit: 1
- 4. Commercial Service Date: 07/01/1974
- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
A11.12.41041	2848-14-WH	3	REC	VALVE (REC-MOV-714MV) TO RED. TEE	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448949	Manual UT	UT-F06-060	Accept	11.12	Examination performed per the Augmented ISI Program Section 11.12. See AREVA RE23 Manual ISI Outage Report.
4448949	Manual UT	UT-F06-013	Accept		
4448949	Manual UT	UT-F06-014	Accept		
4448949	Manual UT	UT-F06-061	Accept		

Item No.: A11.12.42 Equal: 3

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
A11.12.42019	2848-15-W1	3	REC	PIPE TO ELBOW (CONTINUED FROM CNS-REC-40)	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448954	Manual UT	UT-F06-046	Accept	11.12	Examination performed per the Augmented ISI Program Section 11.12. See AREVA RE23 Manual ISI Outage Report.
4448954	Manual UT	UT-F06-045	Accept		

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
A11.12.42020	2848-15-W2	3	REC	ELBOW TO PIPE	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448954	Manual UT	UT-F06-044	Accept	11.12	Examination performed per the Augmented ISI Program Section 11.12. See AREVA RE23 Manual ISI Outage Report.
4448954	Manual UT	UT-F06-043	Accept		

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
A11.12.42030	2848-15-W23	3	REC	ELBOW TO PIPE (CONTINUED ON CNS-REC-40)	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448954	Manual UT	UT-F06-039	Accept	11.12	Examination performed per the Augmented ISI Program Section 11.12. See AREVA RE23 Manual ISI Outage Report.
4448954	Manual UT	UT-F06-040	Accept		

Item No.: A11.12.48 Equal: 4

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
A11.12.48009	2848-54-W12	3	REC	PIPE TO ELBOW	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448955	Manual UT	UT-F06-083	Accept	11.12	Examination performed per the Augmented ISI Program Section 11.12. See AREVA RE23 Manual ISI Outage Report.
4448955	Manual UT	UT-F06-085	Accept		
4448955	Manual UT	UT-F06-084	Accept		

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- 3. Plant Unit: 1
- 4. Commercial Service Date: 07/01/1974
- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
A11.12.48010	2848-54-W13	3	REC	ELBOW TO PIPE

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448955	Manual UT	UT-F06-055	Accept	11.12	Examination performed per the Augmented ISI Program Section 11.12. See AREVA RE23 Manual ISI Outage Report.
4448955	Manual UT	UT-F06-056	Accept		
4448955	Manual UT	UT-F06-054	Accept		

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
A11.12.48011	2848-54-W16	3	REC	PIPE TO ELBOW

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448955	Manual UT	UT-F06-052	Accept	11.12	Examination performed per the Augmented ISI Program Section 11.12. See AREVA RE23 Manual ISI Outage Report.
4448955	Manual UT	UT-F06-053	Accept		
4448955	Manual UT	UT-F06-051	Accept		

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
A11.12.48012	2848-54-W17	3	REC	ELBOW TO FLANGE SOCKET WELD

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448955	Manual UT	UT-F06-086	Accept	11.12	Examination performed per the Augmented ISI Program Section 11.12. See AREVA RE23 Manual ISI Outage Report.
4448955	Manual UT	UT-F06-087	Accept		
4448955	Manual UT	UT-F06-088	Accept		

Item No.: A11.12.49 Equal: 7

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
A11.12.49014	2848-55-W21	3	REC	FLANGE (FLEX HOSE) TO ELBOW

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448951	Manual UT	UT-F06-094	Accept	11.12	Examination performed per the Augmented ISI Program Section 11.12. See AREVA RE23 Manual ISI Outage Report.
4448951	Manual UT	UT-F06-093	Accept		
4448951	Manual UT	UT-F06-092	Accept		

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

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- 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098
- 3. Plant Unit: 1
- 4. Commercial Service Date: 07/01/1974
- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
A11.12.49015	2848-55-W22	3	REC	ELBOW TO PIPE	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448951	Manual UT	UT-F06-026	Accept	11.12	Examination performed per the Augmented ISI Program Section 11.12. See AREVA RE23 Manual ISI Outage Report.
4448951	Manual UT	UT-F06-025	Accept		
4448951	Manual UT	UT-F06-027	Accept		

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<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
A11.12.49016	2848-55-W25	3	REC	PIPE TO FLANGE	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448951	Manual UT	UT-F06-091	Accept	11.12	Examination performed per the Augmented ISI Program Section 11.12. See AREVA RE23 Manual ISI Outage Report.
4448951	Manual UT	UT-F06-089	Accept		
4448951	Manual UT	UT-F06-090	Accept		

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<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
A11.12.49017	2848-55-W28	3	REC	PIPE TO FLANGE (FLEX HOSE)	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448951	Manual UT	UT-F06-078	Accept	11.12	Examination performed per the Augmented ISI Program Section 11.12. See AREVA RE23 Manual ISI Outage Report.
4448951	Manual UT	UT-F06-079	Accept		
4448951	Manual UT	UT-F06-077	Accept		

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<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
A11.12.49018	2848-55-W29	3	REC	FLANGE (FLEX HOSE) TO PIPE	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448951	Manual UT	UT-F06-082	Accept	11.12	Examination performed per the Augmented ISI Program Section 11.12. See AREVA RE23 Manual ISI Outage Report.
4448951	Manual UT	UT-F06-080	Accept		
4448951	Manual UT	UT-F06-081	Accept		

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<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
A11.12.49006	2848-55-W6	3	REC	ELBOW TO FLANGE (FLEX HOSE)	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448951	Manual UT	UT-F06-064	Accept	11.12	Examination performed per the Augmented ISI Program Section 11.12. See AREVA RE23 Manual ISI Outage Report.
4448951	Manual UT	UT-F06-062	Accept		
4448951	Manual UT	UT-F06-063	Accept		

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- 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098
- 3. Plant Unit: 1
- 4. Commercial Service Date: 07/01/1974
- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
A11.12.49007	2848-55-W8	3	REC	FLANGE TO ELBOW

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448951	Manual UT	UT-F06-047	Accept	11.12	Examination performed per the Augmented ISI Program Section 11.12. See AREVA RE23 Manual ISI Outage Report.
4448951	Manual UT	UT-F06-049	Accept		
4448951	Manual UT	UT-F06-048	Accept		

Item No.: A11.12.51 Equal: 5

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
A11.12.51008	2848-57-W12	3	REC	PIPE TO ELBOW

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448953	Manual UT	UT-F06-058	Accept	11.12	Examination performed per the Augmented ISI Program Section 11.12. See AREVA RE23 Manual ISI Outage Report.
4448953	Manual UT	UT-F06-059	Accept		
4448953	Manual UT	UT-F06-057	Accept		

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
A11.12.51009	2848-57-W14	3	REC	ELBOW TO FLANGE

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448953	Manual UT	UT-F06-073	Accept	11.12	Examination performed per the Augmented ISI Program Section 11.12. See AREVA RE23 Manual ISI Outage Report.
4448953	Manual UT	UT-F06-075	Accept		
4448953	Manual UT	UT-F06-074	Accept		

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
A11.12.51005	2848-57-W6	3	REC	PIPE TO FLANGE (FLEX HOSE)

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448953	Manual UT	UT-F06-071	Accept	11.12	Examination performed per the Augmented ISI Program Section 11.12. See AREVA RE23 Manual ISI Outage Report.
4448953	Manual UT	UT-F06-070	Accept		
4448953	Manual UT	UT-F06-072	Accept		

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- 2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098
- 3. Plant Unit: 1
- 4. Commercial Service Date: 07/01/1974
- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
A11.12.51006	2848-57-W7	3	REC	FLANGE (FLEX HOSE) TO ELBOW	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448953	Manual UT	UT-F06-076	Accept	11.12	Examination performed per the Augmented ISI Program Section 11.12. See AREVA RE23 Manual ISI Outage Report.
4448953	Manual UT	UT-F06-069	Accept		
4448953	Manual UT	UT-F06-068	Accept		

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
A11.12.51007	2848-57-W9	3	REC	ELBOW TO PIPE	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448953	Manual UT	UT-F06-067	Accept	11/12	Examination performed per the Augmented ISI Program Section 11.12. See AREVA RE23 Manual ISI Outage Report.
4448953	Manual UT	UT-F06-066	Accept		
4448953	Manual UT	UT-F06-065	Accept		

Category: XM11.1 Equal: 4  
 Item No.: NR.0619.S Equal: 4

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
A11.1.FWSPRA.045	FW-ASparger-45	N/A	NB	Feedwater Sparger at 45 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448817	VT-3	VT-F06-183	Accept	N-686, NUREG-0619	Examination SAT. Examined accessible areas of FW sparger, nozzles, tee-box, and end brackets. See Section 3, TAB 8 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
A11.1.FWSPRB.135	FW-BSparger-135	N/A	NB	Feedwater Sparger at 135 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448817	VT-3	VT-F06-127	Accept	N-686, NUREG-0619	Examination SAT. Examined accessible areas of FW sparger, nozzles, tee-box, and end brackets. See Section 3, TAB 8 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
A11.1.FWSPRC.225	FW-CSparger-225	N/A	NB	Feedwater Sparger at 225 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448817	VT-3	VT-F06-184	Accept	N-686, NUREG-0619	Examination SAT. Examined accessible areas of Feedwater Sparger, Nozzles, Tee-Box, and End Brackets. See Section 3, TAB 8 of AREVA RE23 IVVI Outage Report.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
A11.1.FWSPRD.315	FW-DSparger-315	N/A	NB	Feedwater Sparger at 315 degrees azimuth	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448817	VT-3	VT-F06-128	Accept	N-686, NUREG-0619	Examination SAT. Examined accessible areas of Feedwater Sparger, Nozzles, Tee-Box, and End Brackets. See Section 3, TAB 8 of AREVA RE23 IVVI Outage Report.

**Attachment 1: Inservice Inspection Report, Interval 4, Period 1, RE23**

1. Owner, Address: Nebraska Public Power District, 1414 15th St., Columbus, NE 68602
2. Plant, Address: Cooper Nuclear Station, 72646 648A Avenue, P.O. Box 98, Brownville, NE 68321-0098
3. Plant Unit: 1
4. Commercial Service Date: 07/01/1974
5. Owner Certificate of Authorization (If Required): N/A
6. National Certificate of Authorization (If Required): N/A



## FORM NIS-1 (Back)

8. Examination Dates 2/19/2005 to 11/22/2006
9. Inspection Period Identification: Period 3, 01/09/2005 to 05/08/2008
10. Inspection Interval Identification: Interval 1, 09/09/1996 to 05/08/2008
11. Applicable Edition of Section XI 1992 Addenda 1992
12. Date/Revision of Inspection Plan: 12/28/2004 Revision 2
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
14. Abstract of Results of Examinations and Tests.  
See attachment 1
15. Abstract of Corrective Measures.  
See attachment 1

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) N/A Expiration Date \_\_\_\_\_

Date 2/12/07 Signed Nebraska Public Power District By Vasant N. Bhardwaj/  
Owner XB Chen for

### 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 Nebraska and employed by Hartford Steam Boiler Inspection and Insurance Co. of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 02-19-05 to 11-22-06, 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.

Todd Ward/

Inspector's Signature

Commissions

NB11557 ASD NE/0101

National Board, State, Province, and Endorsements

Date

2-14-07

(\*) SEE "ATTACHMENT 1" FOR APPLICABLE INFORMATION

**Attachment 1: Inservice Inspection Report, Interval 1, Period 3, RE23-IWE**

- 1. Owner, Address: Nebraska Public Power District 1414 15th St. Columbus, NE 68321
- 2. Plant, Address: Cooper Nuclear Station, 72676 648A, PO Box 98, Brownville, NE 68321-0098
- 3. Plant Unit: 1
- 4. Commercial Service Date: 07/01/1974
- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

Exam Credit: Sec.XI Equal: 20		
Category: E-A Equal: 20		
Item No.:	E1.12	Equal: 12

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
E1.12.0081	DW-HD	MC	PC	Drywell Head

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4449180	VT-3	VT-F06-001	Accept	N/A	Examination SAT.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
E1.12.0082	DW-HD-FLG	MC	PC	Drywell Head Flange

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4449180	VT-3	VT-F06-002	Accept	N-686 N-460	Examination SAT.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
E1.12.0083	DW-SH-FLG	MC	PC	Drywell Shell Flange

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4449180	VT-3	VT-F06-304	Accept	N/A	Examination SAT.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
E1.12.0086	DW-UC	MC	PC	Drywell Upper Cylinder

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448998	VT-3	VT-F06-096	Accept	N/A	Examination SAT.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
E1.12.0090	SIP-1-ATT	MC	PC	Stabilizer Attachment Welds

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448998	VT-3	VT-F06-012	Accept	N/A	Examination SAT.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
E1.12.0091	SIP-2-ATT	MC	PC	Stabilizer Attachment Welds

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448998	VT-3	VT-F06-013	Accept	N/A	Examination SAT.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
E1.12.0092	SIP-3-ATT	MC	PC	Stabilizer Attachment Welds

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448998	VT-3	VT-F06-014	Accept	N/A	Examination SAT.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
E1.12.0093	SIP-4-ATT	MC	PC	Stabilizer Attachment Welds

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448998	VT-3	VT-F06-015	Accept	N/A	Examination SAT.

**Attachment 1: Inservice Inspection Report, Interval 1, Period 3, RE23-IWE**

- 1. Owner, Address: Nebraska Public Power District 1414 15th St. Columbus, NE 68321
- 2. Plant, Address: Cooper Nuclear Station, 72676 648A, PO Box 98, Brownville, NE 68321-0098
- 3. Plant Unit: 1
- 4. Commercial Service Date: 07/01/1974
- 5. Owner Certificate of Authorization (If Required): N/A
- 6. National Certificate of Authorization (If Required): N/A

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
E1.12.0094	SIP-5-ATT	MC	PC	Stabilizer Attachment Welds	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448998	VT-3	VT-F06-016	Accept	N/A	Examination SAT.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
E1.12.0095	SIP-6-ATT	MC	PC	Stabilizer Attachment Welds	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448998	VT-3	VT-F06-017	Accept	N/A	Examination SAT.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
E1.12.0096	SIP-7-ATT	MC	PC	Stabilizer Attachment Welds	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448998	VT-3	VT-F06-018	Accept	N/A	Examination SAT.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
E1.12.0097	SIP-8-ATT	MC	PC	Stabilizer Attachment Welds	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448998	VT-3	VT-F06-019	Accept	N/A	Examination SAT.

Item No.: E1.20 Equal: 8

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
E1.20.0085	X201E-EB	MC	PC	Vent Line Expansion Bellows Bay 10	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448999	VT-3	VT-F06-011	Accept	N/A	Examination SAT.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
E1.20.0086	X201F-EB	MC	PC	Vent Line Expansion Bellows Bay 12	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448999	VT-3	VT-F06-010	Accept	N/A	Examination SAT.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
E1.20.0087	X201G-EB	MC	PC	Vent Line Expansion Bellows Bay 14	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448999	VT-3	VT-F06-009	Accept	N/A	Examination SAT.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
E1.20.0088	X201H-EB	MC	PC	Vent Line Expansion Bellows Bay 16	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448999	VT-3	VT-F06-008	Accept	N/A	Examination SAT.

<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>	
E1.20.0073	X5E-V	MC	PC	Drywell Penetration, Torus Vent Line, Drainage Channels to Bay 10	
<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448998	VT-3	VT-F06-020	Accept	N/A	Examination SAT.

**Attachment 1: Inservice Inspection Report, Interval 1, Period 3, RE23-IWE**

- |   |   |
|---|---|
| 1. Owner, Address: Nebraska Public Power District 1414 15th St. Columbus, NE 68321          | 4. Commercial Service Date: 07/01/1974                      |
| 2. Plant, Address: Cooper Nuclear Station, 72676 648A, PO Box 98, Brownville, NE 68321-0098 | 5. Owner Certificate of Authorization (If Required): N/A    |
| 3. Plant Unit: 1  | 6. National Certificate of Authorization (If Required): N/A |

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<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
E1.20.0075	X5F-V	MC	PC	Drywell Penetration, Torus Vent Line, Drainage Channels to Bay 12

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448998	VT-3	VT-F06-021	Accept	N/A	Examination SAT.

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<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
E1.20.0077	X5G-V	MC	PC	Drywell Penetration, Torus Vent Line, Drainage Channels to Bay 14

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448998	VT-3	VT-F06-022	Accept	N/A	Examination SAT.

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<u>Summary No.:</u>	<u>Component ID:</u>	<u>Class:</u>	<u>System:</u>	<u>Component Description</u>
E1.20.0079	X5H-V	MC	PC	Drywell Penetration, Torus Vent Line, Drainage Channels to Bay 16

<u>Work Order</u>	<u>Exam Method</u>	<u>Report No.</u>	<u>Results</u>	<u>Code Case</u>	<u>Comments / Corrective Measures</u>
4448998	VT-3	VT-F06-023	Accept	N/A	Examination SAT.

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

1. Owner: Nebraska Public Power District Date: \_\_\_\_\_  
P.O. Box 98  
Brownville, Nebraska 68321 Sheet 1 of 3
2. Plant: Cooper Nuclear Station Unit \_\_\_\_\_ One \_\_\_\_\_  
P.O. Box 98  
Brownville, Nebraska 68321 \_\_\_\_\_ N/A  
Repair Organization, P.O. No., Job No., etc.
3. Work Performed by: NPPD Type Code Symbol Stamp N/A  
P.O. Box 98 Authorization No. N/A  
Brownville, Nebraska 68321 Expiration Date N/A
4. Identification of System \_\_\_\_\_ As shown in the Attached Table
5. (a) Applicable Construction Code \_\_\_\_\_ As shown in the Attached Table  
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements:  
2001 Edition including 2003 Addenda
6. Identification of Components Repaired or Replaced and Replacement Components: As shown in the Attached Table
7. Description of Work: \_\_\_\_\_ As shown in the Attached Table
8. Tests Conducted: \_\_\_\_\_ As shown in the Attached Table
9. Remarks: \_\_\_\_\_

**CERTIFICATE OF COMPLIANCE**

We certify that the statements made in this report are correct and these repairs and replacements conform to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp \_\_\_\_\_ N/A

Certificate of Authorization No. \_\_\_\_\_ N/A Expiration Date \_\_\_\_\_ N/A

Signed Vas Bhardwaj <sup>Manager</sup> Eng. Support Date 1/17/07  
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 of Nebraska and Employed by Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period February 19, 2005 to November 22, 2006, 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 Owners'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.

\_\_\_\_\_  
 Inspector's Signature Commissions AB11557 ABIN NE 10101  
National Board, State, Province, and Endorsements

Date 01-18-07

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As required by the Provisions of the ASME Code Section XI**  
**Nebraska Public Power District**  
**Cooper Nuclear Station**  
**Unit 1, P.O. Box 98, Brownville, Nebraska 68321**

WO	R/R RECORD	SYST	Name of Component	Mfgr. Serial No	C I	Name of Manufacturer	Nat'l Board No.	Description of Work	Applicable Constr. Code	Year Built	Repaired or Replaced	ASME Code Stamp	Pressure Tests Conducted, Code Cases
4370565	06-013	REC	REC-V-20	N/A	3	HENRY PRATT	N/A	Replaced Valve	B31.1 - 1967	1969	Replaced	N/A	YES
4451987	06-015	RHR	RHR-RV-14RV	N/A	2	Dresser Valve/ NPPD	N/A	Replaced Spoolpiece including Valve	B31.7 - 1969	1969	Replaced	N/A	YES
4456074	06-016	REC	REC-V-97 & REC-V-98	N/A	3	ANCHOR VALVE	N/A	Replaced Valves	B31.1 - 1967	1969	Replaced	N/A	YES
4443342	06-017	RHR	RH-S37	N/A	2	ANVIL Intl.	N/A	Replaced Snubber	B31.7 - 1969	1969	Replaced	N/A	N/A
4443487	06-018	RHR	RH-S80	N/A	2	ANVIL Intl.	N/A	Replaced Snubber	B31.7 - 1969	1969	Replaced	N/A	N/A
4443490	06-019	RHR	RH-S43	N/A	2	ANVIL Intl.	N/A	Replaced Snubber	B31.7 - 1969	1969	Replaced	N/A	N/A
4443492	06-020	RHR	RH-S30B	N/A	2	ANVIL Intl.	N/A	Replaced Snubber	B31.7 - 1969	1969	Replaced	N/A	N/A
4443493	06-021	RHR	RH-S40	N/A	2	ANVIL Intl.	N/A	Replaced Snubber	B31.7 - 1969	1969	Replaced	N/A	N/A
4443496	06-022	RHR	RH-S44A	N/A	2	ANVIL Intl.	N/A	Replaced Snubber	B31.7 - 1969	1969	Replaced	N/A	N/A
4471800	06-023	SW	SW-STNR-A	N/A	3	ZURN IND.	N/A	Repaired Inspection Port & Cover	B31.1 - 1967	1969	Repaired	N/A	YES
4476380	06-024	SW	SW-STNR-B	N/A	3	ZURN IND.	N/A	Repaired Inspection Port & Cover	B31.1 - 1967	1969	Repaired	N/A	YES
4437651	06-025	DG	DG-D-1	N/A	3	Cooper Energy Svcs	N/A	Replaced Flex hose	B31.1 - 1967	1969	Replaced	N/A	YES
4437652	06-026	DG	DG-D-2	N/A	3	Cooper Energy Svcs	N/A	Replaced Flexhose	B31.1 - 1967	1969	Replaced	N/A	YES
7005942	06-027	MS	MS-RV-71 Spare	378	1	TARGET ROCK	N/A	Replaced Bolts	B31.7 - 1969	1969	Replaced	N/A	N/A
7005942	06-028	MS	MS-RV-71 Spare	386	1	TARGET ROCK	N/A	Replaced Bolt	B31.1 - 1969	1969	Replaced	N/A	N/A
7005942	06-029	MS	MS-RV-71 Spare	387	1	TARGET ROCK	N/A	Replaced Bolt	B31.1 - 1969	1969	Replaced	N/A	N/A
4472140	06-030	SW	SW-CV-ARA BALL	N/A	3	GA Industries	N/A	Replaccd Ball	B31.1 - 1967	1969	Replaced	N/A	N/A
4472141	06-031	SW	SW-CV-ARB BALL	N/A	3	GA Industries	N/A	Replaced Ball	B31.1 - 1967	1969	Replaced	N/A	N/A

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As required by the Provisions of the ASME Code Section XI**  
**Nebraska Public Power District**  
**Cooper Nuclear Station**  
**Unit 1, P.O. Box 98, Brownville, Nebraska 68321**

WO	R/R RECORD	SYST	Name of Component	Mfgr. Serial No	C I	Name of Manufacturer	Nat'l Board No.	Description of Work	Applicable Constr. Code	Year Built	Repaired or Replaced	ASME Code Stamp	Pressure Tests Conducted, Code Cases
4478526	06-032	RHR	RHR-Pipe	N/A	2	NPPD	N/A	Install Hydrolazer Taps on RHR Division 1	B31.7 - 1969	2006	Replaced	N/A	YES
4508474	06-034	RHR	RHR-Pipe	N/A	2	NPPD	N/A	R/R window in RHR	B31.7 - 1969	1969	Repaired	N/A	YES
4411762	06-035	SW	SW-MOV-MO89A	N/A	3	Control Components, Inc.	N/A	Replaced Disc	B31.1 - 1967	1969	Replaced	N/A	N/A
4426440	06-036	MS	MS-MOV-MO77	N/A	1	ANCHOR DARLING	N/A	Replaced Valve	B31.7 - 1969	1969	Replaced	N/A	6.MISC.502
4516272	06-039	SW	SW-P-BPA	N/A	3	BYRON JACKSON	N/A	Replaced Pump	B31.1 - 1967	1969	Replaced	N/A	YES
4485647	06-040	RCIC	RCIC-RD-S240	N/A	2	BLACK SIVALLS & BRYSON, INC.	N/A	Replaced Rupture Disc	B31.7 - 1969	1969	Replaced	N/A	YES
4483095	06-042	HPIC	HPIC-RD-S241	N/A	2	BLACK SIVALLS & BRYSON, INC.	N/A	Replaced Rupture Disc	B31.7 - 1969	1969	Replaced	N/A	YES
4529307	06-046	SW	SW-P-BPA	N/A	3	BYRON JACJSON	N/A	Replaced Pump	B31.1 -1967	1969	Replaced	N/A	YES
4533334	06-049	PC	PV-S1 B&R	N/A	2	NPPD	N/A	Replaced Support	ASME III, 77 w/S77 Add.	1969	Replaced	N/A	N/A
4534360	06-051	RHR	RHR-MOV-MO25A	N/A	2	ANCHOR VALVE	N/A	Repaired Valve Bonnet	B31.7 - 1969	1969	Repaired	N/A	YES
4446762	06-052	MS	MS-RV-71HRV	N/A	1	TARGET ROCK	N/A	Replaced studs & nuts	B31.7 - 1969	1969	Replaced	N/A	YES
4403913	06-053	SW	SW-CV-36CV & -38CV	N/A	3	ANCHOR DARLING	N/A	Replaced Discs	B31.1 - 1967	1969	Replaced	N/A	N/A
4534069	06-054	PC	PV-H104B	N/a	2	NPPD	N/A	Replaced Support	ASME III, 77 w/S77 Add.	1969	Replaced	N/A	N/A

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

1. Owner: Nebraska Public Power District  
P.O. Box 98  
Brownville, Nebraska 68321

Date: \_\_\_\_\_  
 Sheet 1 of 4

2. Plant: Cooper Nuclear Station  
P.O. Box 98  
Brownville, Nebraska 68321

Unit One  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
Repair Organization, P.O. No., Job No., etc.

3. Work Performed by: NPPD  
P.O. Box 98  
Brownville, Nebraska 68321

Type Code Symbol Stamp N/A  
 Authorization No. N/A  
 Expiration Date N/A

4. Identification of System As shown in the Attached Table

5. (a) Applicable Construction Code As shown in the Attached Table

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements:  
1989 Edition including 1989 Addenda & 1992 Edition including 1992 Addenda (IWE)

6. Identification of Components Repaired or Replaced and Replacement Components: As shown in the Attached Table

7. Description of Work: As shown in the Attached Table

8. Tests Conducted: As shown in the Attached Table

9. Remarks: Code Cases N-416-1 & N-416-2 were used for Repairs and Replacements:

**CERTIFICATE OF COMPLIANCE**

We certify that the statements made in this report are correct and these repairs and replacements conform to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Vas Bhardwaj Eng. Supv Date 1/17/07  
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 of Nebraska and Employed by Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period February 19, 2005 to November 22, 2006, 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 Owners'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.

\_\_\_\_\_  
Inspector's Signature Commissions NB11557 ABIN NE 10/01  
National Board, State, Province, and Endorsements

Date 01-18-07

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As required by the Provisions of the ASME Code Section XI**  
**Nebraska Public Power District**  
**Cooper Nuclear Station**  
**Unit 1, P.O. Box 98, Brownville, Nebraska 68321**

WO	R/R RECORD	SYST	Name of Component	Mfgr. Serial No	C I	Name of Manufacturer	Nat'l Board No.	Description of Work	Applicable Constr. Code	Year Built	Repaired or Replaced	ASME Code Stamp	Pressure Tests Conducted, Code Cases
4174359	02-002	SW	SW-CV-20CV	N/A	3	ANCHOR DARLING	N/A	Replaced valve	B31.1 - 1967	1969	Replaced	N/A	02-057
4297703	04-002	HPCI	HPCI-V-75	N/A	2	CRANE Valve	N/A	Replaced Valve & pipe	B31.7 - 1969	1969	Replaced	N/A	04-006
4349812	04-055	DG1	DG1 Intercooler	N/A	3	Thermal Eng. Int.	N/A	Replaced Intercooler	B31.1 - 1967	1969	Replaced	N/A	04-334
4349813	04-056	DG2	DG2 Intercooler	N/A	3	Thermal Eng. Int.	N/A	Replaced Intercooler	B31.1 - 1967	1969	Replaced	N/A	04-335
PO 45000 41329	04-079	SW	SW-P-BP-Spare	781-C-603	3	JOHNSTON PUMP	N/A	Repaired Worn areas of Pump Casing and machined to obtain fits	B31.1 - 1967	1969	Repaired	N/A	N/A
4429164	05-029	SW	SW-Pipe	N/A	3	NPPD	N/A	Replace Piping	B31.1 - 1967	1969	Replaced	N/A	05-074
4345743	05-030	SW	SW-P-BPD	N/A	3	BYRON JACKSON	N/A	Replaced Pump	B31.1 - 1967	1969	Replaced	N/A	05-030
4431710	05-031	SW	SW-Pipe	N/A	3	NPPD	N/A	Replaced Piping	B31.1 - 1967	1969	Replaced	N/A	05-086
4368343	05-035	SW	SW-P-D	280005/08	3	Johnston Pump Co.	N/A	Replaced bowl assy.	B31.1 - 1967	1969	Replaced	N/A	05-019
4368343	05-036	SW	SW-P-D	280005/08	3	BYRON JACKSON	N/A	Replaced pump columns and discharge head	B31.1 - 1967	1969	Replaced	N/A	05-019
4368343	05-037	SW	SW-EXPI-SWPD	N/A	3	GARLOCK	N/A	Replaced Expansion Joint	B31.1 - 1967	1969	Replaced	N/A	05-019
4368343	05-038	SW	SW-CV-13CV	N/A	3	Atwood & Morrill	N/A	Replaced Check Valve	B31.1 - 1967	1969	Replaced	N/A	05-019
4195503	05-039	SW	SW-Rad. Monitor	N/A	3	NPPD	N/A	Repaired SW Pipe	B31.1 - 1967	1969	Repaired	N/A	N/A
4421582	05-040	SW	SW-STNR-A	N/A	3	ZURN IND.	N/A	Repaired Insp. Port & Cover	B31.1 - 1967	1969	Repaired	N/A	05-150
4421583	05-041	SW	SW-STNR-B	N/A	3	ZURN IND.	N/A	Repaired Insp. Port & Cover	B31.1 - 1967	1969	Repaired	N/A	05-151
P.O. 45000 50412	05-042	SW	SW-P-BP-Spare	70495-C-1214528	3	JOHNSTON PUMP	N/A	Repaired worn areas of Pump Casing and machined to obtain fits	B31.1 - 1967	1969	Repaired	N/A	N/A
4438533	05-045	HPCI	HPCI-MOV-14MO	N/A	2	NOVA Machine	N/A	Replace Bonnet Capscrews	B31.7 - 1969	1969	Replaced	N/A	05-141

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**

As required by the Provisions of the ASME Code Section XI

Nebraska Public Power District

Cooper Nuclear Station

Unit 1, P.O. Box 98, Brownville, Nebraska 68321

WO	R/R RECORD	SYST	Name of Component	Mfgr. Serial No	C I	Name of Manufacturer	Nat'l Board No.	Description of Work	Applicable Constr. Code	Year Built	Repaired or Replaced	ASME Code Stamp	Pressure Tests Conducted, Code Cases
4442572	05-046	CRD	CRD-CRD-(06-31)	N/A	1	GENERAL ELECTRIC	N/A	Replaced Control Rod Drive & Flange Bolts	B31.7 - 1969	1969	Replaced	N/A	6.MISC.502
4451679	05-048	CRD	CRD-CRD-(10-15)	N/A	1	GENERAL ELECTRIC	N/A	Replaced Control Rod Drive & Flange Bolts	B31.7 - 1969	1969	Replaced	N/A	6.MISC.502
4451780	05-049	CRD	CRD-CRD-(10-27)	N/A	1	GENERAL ELECTRIC	N/A	Replaced Control Rod Drive & Flange Bolts	B31.7 - 1969	1969	Replaced	N/A	6.MISC.502
4451781	05-050	CRD	CRD-CRD-(10-35)	N/A	1	GENERAL ELECTRIC	N/A	Replaced Control Rod Drive & Flange Bolts	B31.7 - 1969	1969	Replaced	N/A	6.MISC.502
4451782	05-051	CRD	CRD-CRD-(14-19)	N/A	1	GENERAL ELECTRIC	N/A	Replaced Control Rod Drive & Flange Bolts	B31.7 - 1969	1969	Replaced	N/A	6.MISC.502
4451793	05-052	CRD	CRD-CRD-(50-27)	N/A	1	GENERAL ELECTRIC	N/A	Replaced Control Rod Drive & Flange Bolts	B31.7 - 1969	1969	Replaced	N/A	6.MISC.502
4451791	05-054	CRD	CRD-CRD-(46-31)	N/A	1	GENERAL ELECTRIC	N/A	Replaced Control Rod Drive & Flange Bolts	B31.7 - 1969	1969	Replaced	N/A	6.MISC.502
4451787	05-057	CRD	CRD-CRD-(22-47)	N/A	1	GENERAL ELECTRIC	N/A	Replaced Control Rod Drive & Flange Bolts	B31.7 - 1969	1969	Replaced	N/A	6.MISC.502
4451785	05-058	CRD	CRD-CRD-(18-19)	N/A	1	GENERAL ELECTRIC	N/A	Replaced Control Rod Drive & Flange Bolts	B31.7 - 1969	1969	Replaced	N/A	6.MISC.502
4451783	05-059	CRD	CRD-CRD-(18-11)	N/A	1	GENERAL ELECTRIC	N/A	Replaced Control Rod Drive & Flange Bolts	B31.7 - 1969	1969	Replaced	N/A	6.MISC.502
4457321	05-061	SW	SW-STNR-A	N/A	3	ZURN Industries	N/A	Replaced Cover Nuts	B31.1 - 1967	1969	Replaced	N/A	YES
4475302	05-070	SW	SW-EXPJ-SWPB	N/A	3	GARLOCK	N/A	Replaced Expansion Joint and Bolting	B31.1 - 1967	1969	Replaced	N/A	YES
4477239	05-073	SW	SW-EXPJ-SWPA	N/A	3	GARLOCK	N/A	Replaced Expansion Joint and bolting	B31.1 - 1967	1969	Replaced	N/A	YES
4477238	06-001	SW	SW-EXPJ-SWPC	N/A	3	GARLOCK	N/A	Replaced Expansion Joint	B31.1 - 1967	1969	Replaced	N/A	YES
4484087	06-002	RHR	RHR-RV-14RV Spare	N/A	2	BONNEY FORGE	N/A	Replaced Flange	B31.7 - 1969	1969	Replaced	N/A	N-416-2



Title: <u>Evaluation of Core Shroud Inspection Results</u>		Calculation Number: <u>NEDC 05-001</u>			
from Refueling Outage 22 (RFO22) and Refueling		CED/EE Number: <u>EE 05-001</u>			
Outage 23 (RFO23)		Setpoint Change/Part Eval Number: <u>N/A</u>			
System/Structure: <u>NB / Core Shroud</u>		Discipline: <u>Civil/Structural</u>			
Component: <u>Core Shroud</u>		SQAP Requirements Met? [ ] Yes; [X] N/A			
Classification: [X] Essential; [ ] Non-Essential					
Proprietary Information Included? [X] Yes; [ ] No					
Description: The purpose of this calculation is to document the evaluation performed by Structural Integrity (SI) of the results of "Areva's" inspection of the CNS Core Shroud horizontal and vertical welds during RFO22 (Jan/Feb 2005) and RFO23 (Oct/Nov 2006). The evaluation performed by SI determines if identified cracks are acceptable based on the evaluation criteria specified in EPRI Report TR-114232, Final Report, Dated November 1999, BWR Vessel and Internals Project BWR Core Shroud Inspection and Flaw Evaluation Guidelines (BWRVIP-76). This evaluation is required by the CNS VIP document and accounts for projected crack growth until the next inspection.					
Conclusions and Recommendations: The conclusions provided in the SI calculation will be used for determining future core shroud inspection requirements. The evaluation of the coverage obtained for <b>H1 through H4</b> meets the criteria of BWRVIP-76. <b>These welds will be reinspected within 10 years (good until 2015).</b>					
The re-evaluation of the H5 through H7 welds using 1995 data was also performed in accordance with the criteria of BWRVIP-76. However, extending the re-examination interval to 12 years for the 1995 data is not addressed in the guideline. Thus a plant specific evaluation was performed under the guidance of BWRVIP-94. The plant specific evaluation shows that extending the reinspection interval for one additional cycle will not compromise the structural integrity of the shroud and will still meet the allowable safety factors used in BWRVIP-76. Therefore, deferring the reinspection of the <b>H5 through H7 welds for one cycle (until RFO 23)</b> is safe.					
Revision 1 incorporates a <b>second</b> plant-specific flaw evaluation of welds H5 through H7 performed in accordance with the criteria of BWRVIP-76 by SI, again using the 1995 inspection data. This evaluation determines the structural acceptability of these welds for ten additional years (until 2015) or fifteen 18-month operating cycles from 1995 (22.5 years from 1995). Again, since extending the re-examination interval to 20 years for the 1995 data is not addressed in the guideline, a plant specific evaluation was performed under the guidance of BWRVIP-94. The plant specific evaluation shows that extending the reinspection interval for 10 years will not compromise the structural integrity of the shroud and will still meet the allowable safety factors used in BWRVIP-76. However, the extension of the inspection of welds H5-H7 for another 10 years is contrary to Cooper Nuclear Station Vessel Internals Program (VIP), Revision 9, section 12.10.4, which states "Re-inspection shall be every ten (10) years".					
Revision 1 also incorporates a <b>third</b> plant-specific flaw evaluation (Attachment 6.4.3) of welds <b>H5 through H7</b> performed in accordance with the criteria of BWRVIP-76 by Structural Integrity, using 2006 inspection data obtained during RFO23. This evaluation determines the structural acceptability of these welds for ten additional years (until 2016). <b>Welds H5 through H7 will be reinspected within 10 years (good until 2016) in accordance to BWRVIP-76. The indication identified visually per ASME Section XI will require successive inspections for the next three Section XI periods.</b>					
1	1	Structural Integrity 4-8-05 / 11-09-06	Perry K. Adelung 11-12-06 PCA	N/A	<i>KE Adams</i> 11/13/06
Rev. Number	Status	Prepared By/Date	Reviewed By/Date	IDVed By/Date	Approved By/Date

## Status Codes

- |                     |                                      |            |
|---------------------|--------------------------------------|------------|
| 1. Active           | 4. Superseded or Deleted             | 7. PRA/PSA |
| 2. Information Only | 5. OD/OE Support Only                |            |
| 3. Pending          | 6. Maintenance Activity Support Only |            |

## Nebraska Public Power District

## DESIGN CALCULATION CROSS-REFERENCE INDEX

ITEM NO.	DESIGN INPUTS	REV. NO.	PENDING CHANGES TO DESIGN INPUTS
1	GE Drawing 730E854, Sheet 1	8	None
2	Areva Examination/Inspection Report (Appendix G of Structural Integrity Associates Calculation Package COOP-20Q-301, Rev. 0)	N/A	None
3	NEDC 95-191	0	None
4	TransWare Enterprises, Inc. Fluence Report (Appendix H of Structural Integrity Associates Calculation Package COOP-20Q-301, Rev. 0)	0	None
5	Willamette Iron & Steel Supply Drawing E854, Sheets1-4	E D D C	None for all four sheets



The purpose of this form is to assist the Preparer in screening new and revised design calculations to determine potential impacts to procedures and plant operations.<sup>①</sup>

<u>SCREENING QUESTIONS</u>		<u>YES</u>	<u>NO</u>	<u>UNCERTAIN</u>
1.	Does it involve the addition, deletion, or manipulation of a component or components which could impact a system lineup and/or checklist for valves, power supplies (breakers), process control switches, HVAC dampers, or instruments?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.	Could it impact system operating parameters (e.g., temperatures, flow rates, pressures, voltage, or fluid chemistry)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3.	Does it impact equipment operation or response such as valve closure time?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4.	Does it involve assumptions or necessitate changes to the sequencing of operational steps?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5.	Does it transfer an electrical load to a different circuit, or impact when electrical loads are added to or removed from the system during an event?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6.	Does it influence fuse, breaker, or relay coordination?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7.	Does it have the potential to affect the analyzed conditions of the environment for any part of the Reactor Building, Containment, or Control Room?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8.	Does it affect TS/TS Bases, USAR, or other Licensing Basis documents?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9.	Does it affect DCDs?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10.	Does it have the potential to affect procedures in any way not already mentioned (refer to review checklists in Procedure EDP-06)? If so, identify:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<hr/>				
<hr/>				
<hr/>				

If all answers are NO, then additional review or assistance is not required.

If any answers are YES or UNCERTAIN, then the Preparer shall obtain assistance from the System Engineer and other departments, as appropriate, to determine impacts to procedures and plant operations. Affected documents shall be listed on Attachment 2.

## Nebraska Public Power District

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**DESIGN CALCULATIONS SHEET**

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**1. PURPOSE****1.1 General**

The CNS Vessel Internals Program (VIP) document provides the administrative requirements for the implementation of the BWR Vessel Internals Project administered by EPRI. This program document requires that flaw evaluations are performed for relevant indications.

The purpose of this calculation is to document the evaluation performed by Structural Integrity (SI) of the results of "Areva's" inspection of the CNS **Core Shroud horizontal and vertical welds during RFO22 (Jan/Feb 2005) and RFO 23 (Oct/Nov 2006)**. The evaluation performed by SI determines if identified cracks are acceptable based on the evaluation criteria specified in EPRI Report TR-114232, Final Report, Dated November 1999, BWR Vessel and Internals Project BWR Core Shroud Inspection and Flaw Evaluation Guidelines (BWRVIP-76). This evaluation is required by the CNS VIP document and accounts for projected crack growth until the next inspection.

Four horizontal (circumferential) welds (H1, H2, H3, and H4) were inspected and one vertical weld was partially inspected during the 2005 refueling outage (RFO22) and are subject to this evaluation.

This portion of the calculation addresses the acceptability of the Consultant's purpose, assumptions, methodology, conclusions, references, and attachments as required by procedure 3.4.7, Revision 26, step 5.4. A review of a "draft" of the calculation (Attachment 6.4.1) was performed and comments were submitted to SI. Identified comments on the "draft" calculation are noted in the applicable section and were satisfactorily addressed by SI.

Revision 1 incorporates a **second** plant-specific flaw evaluation (Attachment 6.4.2) of welds H5 through H7 performed in accordance with the criteria of BWRVIP-76 by Structural Integrity, again using the 1995 inspection data. This evaluation determines the structural acceptability of these welds for ten additional years (until 2015) or fifteen 18-month operating cycles from 1995 (22.5 years from 1995). A review of a "draft" of the calculation (Attachment 6.4.2) was performed and comments were submitted to SI. Identified comments on the "draft" calculation are noted in the applicable section and were satisfactorily addressed by SI. Only the final document is attached to this calculation.

This analysis provides only the technical basis for operation of the shroud for up to

## Nebraska Public Power District

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**DESIGN CALCULATIONS SHEET**

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10 more years beyond RE22 completed in January 2005. This calculation is only an input to the CNS BWRVIP and **does not** supercede the inspection requirements of the CNS Vessel Internals Program that implements the requirements of the BWRVIP.

Revision 1 also incorporates a **third** plant-specific flaw evaluation (Attachment 6.4.3) of welds H5 through H7 performed in accordance with the criteria of BWRVIP-76 by Structural Integrity, using 2006 inspection data obtained during RFO23. This evaluation determines the structural acceptability of these welds for ten additional years (until 2016). This evaluation also determines the structural acceptability of a visual indication detected during an ASME Section XI VT-3 examination of the shroud in accordance to ASME Section XI, 1989 Edition, IWB-3142.4 "Acceptance by Analytical Evaluation". A review of a "draft" of the calculation (Attachment 6.4.3) was performed and comments were submitted to SI. Identified comments on the "draft" calculation are noted in the applicable section and were satisfactorily addressed by SI. Only the final document is attached to this calculation.

## 1.2 Background

CNS scheduled a re-examination of Core Shroud welds H1 through H7 in RE22. The scope of the examinations was intended to cover 100% of the accessible areas as required by BWRVIP-76, Section 2.2.1. During the outage problems with the inspection tool arose eventually impacting the critical path. A decision was made to reduce the scope of the examinations to cover at least 50% of welds H1 through H4 in general and the previously identified flaws in particular. Welds H5 through 57 were initially re-evaluated using the DLL code for additional cycle of operation. Furthermore, a flaw in horizontal weld H3 was in close proximity to vertical weld V16. The vertical weld was examined for a distance of 12 inches.

NEDC 05-001 provides the technical evaluation of the flaws detected during RE22 in Core Shroud welds H1 through H4. It also provides the re-evaluation of welds **H5 through H7** using the **1995** data. The evaluation was prepared in accordance with BWRVIP-76 criteria and the DLL Code. The analysis includes various safety margins depending on the controlling loads and the estimated neutron fluence at EOL. The neutron fluence was calculated using the BWRVIP RAMA code.

BWRVIP-76 is an accepted industry approach for inspecting and evaluating BWR Core Shrouds. Achieving less than 100% coverage of the accessible areas was not intended, however BWRVIP-94 provides some flexibility for unanticipated problems. The evaluation of the coverage obtained for H1 through H4 meets the criteria of BWRVIP-76. These welds will be reinspected within 10 years.

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The re-evaluation of the H5 through H7 welds using 1995 data was also performed in accordance with the criteria of BWRVIP-76. However, extending the re-examination interval to 12 years for the 1995 data is not addressed in the guideline. Thus a plant specific evaluation was performed under the guidance of BWRVIP-94. The plant specific evaluation shows that extending the reinspection interval for one additional cycle will not compromise the structural integrity of the shroud and will still meet the allowable safety factors used in BWRVIP-76. Therefore, deferring the reinspection of the H5 through H7 welds for one cycle is safe.

A second plant-specific flaw evaluation of welds H5 through H7 was performed in accordance with the criteria of BWRVIP-76 by SI, again using the 1995 inspection data. This evaluation determines the structural acceptability of these welds for ten additional years (until 2015) or fifteen 18-month operating cycles from 1995 (22.5 years from 1995). Again, since extending the re-examination interval to 20 years for the 1995 data is not addressed in the guideline, a plant specific evaluation was performed under the guidance of BWRVIP-94. The plant specific evaluation shows that extending the reinspection interval for 10 years will not compromise the structural integrity of the shroud and will still meet the allowable safety factors used in BWRVIP-76. However, the extension of the inspection of welds H5-H7 for another 10 years is contrary to Cooper Nuclear Station Vessel Internals Program (VIP), Revision 9, section 12.10.4, which states "Re-inspection shall be every ten (10) years".

Revision 1 also incorporates a **third** plant-specific flaw evaluation (Attachment 6.4.3) of welds H5 through H7 performed in accordance with the criteria of BWRVIP-76 by Structural Integrity, using 2006 inspection data obtained during RFO23. This evaluation determines the structural acceptability of these welds for ten additional years (until 2016).

Note: No credit for HWC and NMCA has been assumed for operation prior to 2005. NMCA was reapplied prior to the shutdown for RE22 and moderate HWC is assumed to be available for the balance of plant life.

### 1.3 Review of Contractor Calculation "Purpose" for COOP-20Q-301, Rev. 0

The Contractor's calculation "Purpose" section is acceptable. No changes were required.

### 1.4 Review of Contractor Calculation "Purpose" for COOP-20Q-302, Rev. 0

SI was requested to add "and BWRVIP-76" to the end of the second sentence in section 3.0 (renumbered in final report to section 4.0). After incorporation of this

Nebraska Public Power District

**DESIGN CALCULATIONS SHEET**

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comment, the Contractor's "Purpose" section is acceptable.

1.5 Review of Contractor Calculation "Purpose" for COOP-20Q-302, Rev. 1

The Contractor's calculation "Purpose" section is acceptable. No changes were required.

2. ASSUMPTIONS

2.1 Assumptions for this calculation

None

2.2 Review of Contractor Calculation "Assumptions" for COOP-20Q-301, Rev. 0

The Contractor's calculation "Assumptions" section is acceptable. No changes were required.

2.3 Review of Contractor Calculation "Assumptions" for COOP-20Q-302, Rev. 0

SI was requested to answer the question "Does BWRVIP require that the uninspected regions be considered completely flawed through wall?" in section 5.0 (renumbered in final report to section 6.0). After addressing this question, the Contractor's "Assumptions" section is acceptable.

2.4 Review of Contractor Calculation "Assumptions" for COOP-20Q-302, Rev. 1

SI was requested to address the following comment(s):

2.4.1 Add an additional assumption: "H7 was examined from one side only. Cracking is not assumed on the uninspected side of the weld."

After incorporation/resolution of this comment, the Contractor's "Assumptions" section is acceptable.

3. METHODOLOGY

3.1 Extent of Review

This calculation was reviewed to verify that all applicable design inputs were used and incorporated as requested under the Task Authorization to perform the work.

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The review did not include any checks of mathematical computations.

3.2 Review of Contractor Calculation "Methodology" for COOP-20Q-301, Rev. 0 |

The Contractor's calculation "Methodology" section is acceptable. No changes were required.

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**3.3 Review of Contractor Calculation "Methodology" for COOP-20Q-302, Rev. 0**

SI was requested to address the following comments:

- 3.3.1 Section 6 (renumbered in final report to section 7), last sentence of the first paragraph: Add period after "...welds" and delete rest of sentence.
- 3.3.2 Section 6 (renumbered in final report to section 7), Paragraph Number 1 beginning with "For welds H5-H7.....", add "the other" between "for" and "shroud" in the second sentence.
- 3.3.3 Table 1, add "(Max Stress)" to "Minimum Calculated Safety Factor" title. In addition, add a superscript "2" for the following note to be added below "Note 1" below the table. "2. For LEFM the maximum stress is listed."
- 3.3.4 Table 1 add "(Max Allowable Stress)" to "Minimum Required Safety Factor" title. In addition, add a superscript "2" for the above stated note.
- 3.3.5 Table 1, Should the fluence be shown?
- 3.3.6 Section 4 (Design Input) (renumbered in final report to section 5), On the ninth bullet, please state the applicable sections of BWVIP-76. Also, on the 10<sup>th</sup> bullet, please state where in BWRVIP-14 you are using the value of  $5 \times 10^{-5}$ .

After incorporation of these comments, the Contractor's "Methodology" section is acceptable.

**3.4 Review of Contractor Calculation "Methodology" for COOP-20Q-302, Rev. 1**

SI was requested to address the following comment(s):

- 3.4.1 The paragraph numbered 2. has a weld numbered "Hxx" which is in error.
- 3.4.2 In Table 2, is the 5<sup>th</sup> line designation of Weld "H5" correct?
- 3.4.3 Comment on "Editorial note/question: There were no BWRVIP vertical weld inspections performed. This flaw was detected during XI IVVI exams, and was conservatively evaluated as if it were both a circumferential and vertical indication on the adjacent shroud welds. Not sure how to treat this with respect to reinspection using BWRVIP-76 guidelines. Is it OK to say 10 years,

## Nebraska Public Power District

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or should it be 6 years consistent with a one-sided exam?": Ten years is acceptable from BWRVIP perspective since not actually on a vertical weld. ASME Section XI will require us to reexamine for 3 successive examinations in the next three periods.

After incorporation/resolution of these comments, the Contractor's "Methodology" section is acceptable.

**4. CONCLUSIONS****4.1 Review of Contractor Calculation "Conclusions" for COOP-20Q-301, Rev. 0**

The Contractor's calculation "Conclusions" section is acceptable. SI was requested to summarize Case #3 (Welds H1-H7, GE Inspection Data, 12-year Evaluation Period) in section 8 of their calculation.

**4.2 Review of Contractor Calculation "Conclusions" for COOP-20Q-302, Rev. 0**

The Contractor's calculation "Conclusions" section is acceptable. No changes were required.

**4.3 Review of Contractor Calculation "Conclusions" for COOP-20Q-302, Rev. 1**

SI was requested to address the following comment(s):

4.3.1 Add the following sentence to the last conclusion: "However, since the indication was determined via an ASME Section XI examination, three successive examinations will be required in accordance with IWB-2420."

After incorporation/resolution of this comment, the Contractor's "Conclusions" section is acceptable.

**4.4 Conclusions**

The conclusions provided in the SI calculation will be used for determining future core shroud inspection requirements.

The evaluation of the coverage obtained for **H1 through H4** meets the criteria of BWRVIP-76. **These welds will be reinspected within 10 years (good until 2015).**

## Nebraska Public Power District

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The re-evaluation of the H5 through H7 welds **using 1995 data** was also performed in accordance with the criteria of BWRVIP-76. However, extending the re-examination interval to 12 years for the 1995 data is not addressed in the guideline. Thus a plant specific evaluation was performed under the guidance of BWRVIP-94. The plant specific evaluation shows that extending the reinspection interval for one additional cycle will not compromise the structural integrity of the shroud and will still meet the allowable safety factors used in BWRVIP-76. Therefore, deferring the reinspection of the **H5 through H7 welds for one cycle (until RFO23)** is safe.

A second plant-specific flaw evaluation of welds **H5 through H7** was performed in accordance with the criteria of BWRVIP-76 by SI, again using the 1995 inspection data. This evaluation determines the structural acceptability of these welds for ten additional years (until 2015) or fifteen 18-month operating cycles from 1995 (22.5 years from 1995). Again, since extending the re-examination interval to 20 years for the 1995 data is not addressed in the guideline, a plant specific evaluation was performed under the guidance of BWRVIP-94. The plant specific evaluation shows that extending the reinspection interval for 10 years will not compromise the structural integrity of the shroud and will still meet the allowable safety factors used in BWRVIP-76. However, the extension of the inspection of welds H5-H7 for another 10 years is contrary to Cooper Nuclear Station Vessel Internals Program (VIP), Revision 9, section 12.10.4, which states "Re-inspection shall be every ten (10) years".

Revision 1 also incorporates a **third** plant-specific flaw evaluation (Attachment 6.2.3) of welds **H5 through H7** performed in accordance with the criteria of BWRVIP-76 by Structural Integrity, using 2006 inspection data obtained during RFO23. This evaluation determines the structural acceptability of these welds for ten additional years (until 2016). **Welds H5 through H7 will be volumetrically re-examined within 10 years (good until 2016) in accordance to BWRVIP-76. The indication identified by VT-3 to ASME Section XI, 1989 Edition, will require visual re-examination for the next three Section XI periods in accordance to IWB-2420 "Successive Inspections".**

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The following table summarizes the results of the inspections and evaluations:

Weld No.	% of Total Weld Length Examined	% of Weld Examined that is Flawed	% of Total Weld Length that is Flawed	Fluence at 32 EPFY	Evaluation	Reinspection Schedule
<b>Summary Data from COOP-20Q-301, Rev. 0 (Evaluation of RFO 22 inspection data in 2005)</b>						
H1	54.9	3.6	2	6.58E18	SAT - Limit Load	10 years (2015)
H2	55.7 <sup>(5)</sup>	0	0	3.57E19	SAT - Limit Load	10 years (2015)
H3	63.9 <sup>(5)</sup>	30.36	19.4	5.05E20	SAT - LEFM	10 years (2015)
H4	58.4 <sup>(5)</sup>	2.6	1.5	2.04E21	SAT - LEFM	10 years (2015)
H5	76.1	0.7	0.5	8.41E20	SAT - LEFM	1 more cycle (RFO23)
H6a	73.4	0.5	0.4	3.53E17	SAT - Limit Load	1 more cycle (RFO23)
H6b	73.4	0	0	1.11E17	SAT - Limit Load	1 more cycle (RFO23)
H7	68.6	0	0	<1E17	SAT - Limit Load	1 more cycle (RFO23)
<b>Summary Data from COOP-20Q-302, Rev. 0 (Re-evaluated for 10 years based on 1995 data) (FOR INFORMATION ONLY)</b>						
H5 <sup>(1)</sup>	76.1	0.7	0.5	8.41E20	SAT - LEFM	10 years
H6a <sup>(1)</sup>	73.4	0.5	0.4	3.53E17	SAT - Limit Load	10 years
H6b <sup>(1)</sup>	73.4	0	0	1.11E17	SAT - Limit Load	10 years
H7 <sup>(1)</sup>	68.6	0	0	<1E17	SAT - Limit Load	10 years
<b>Summary Data from COOP-20Q-302, Rev. 1 (Re-evaluated after RFO 23 inspection in 2006)</b>						
H5 <sup>(2)</sup>	71.01 <sup>(4)</sup>	4.03	2.86	8.41E20	SAT - LEFM	10 years (2016)
H6a <sup>(2)</sup>	71.01 <sup>(4)</sup>	0.55	0.39	3.53E17	SAT - Limit Load	10 years (2016)
H6b <sup>(2)</sup>	71.01 <sup>(4)</sup>	0.47	0.33	1.11E17	SAT - Limit Load	10 years (2016)
H7 <sup>(2)</sup>	53.23 <sup>(4)</sup>	1.62	0.86	<1E17	SAT - Limit Load	10 years (2016)
Vert <sup>(3)</sup> H4-H5	100	0.09	0.09	8.42E20	SAT - LEFM	10 years (2016)
<p>(1) Second plant-specific flaw evaluation of welds H5 through H7 (See Attachment 6.4.2)</p> <p>(2) Third plant-specific flaw evaluation of welds H5 through H7 (See Attachment 6.4.3)</p> <p>(3) One sided visual (VT-3) examination per ASME XI; <b>Will require re-examination of the indications identified visually for next 3 successive periods in accordance with IWB-2420, 2001 Edition, 2003 Addenda.</b></p> <p>(4) See assumption, bullet 4 in COOP20Q-302 regarding assumed inspection coverage.</p> <p>(5) Coverages revised to correlate to AREVA examination data sheets</p>						

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**5. REFERENCES****5.1 Review of Contractor Calculation "References" for COOP-20Q-301, Rev. 0**

The Contractor's calculation "References" section is acceptable. SI was requested to include two items listed as References as Appendices to their calculation. These two items were the Areva Examination/Inspection Report and the TransWare Enterprises Report.

**5.2 Review of Contractor Calculation "References" for COOP-20Q-302, Rev. 0**

The Contractor's calculation "References" section is acceptable. No changes were required.

**5.3 Review of Contractor Calculation "References" for COOP-20Q-302, Rev. 1**

SI was requested to address the following comment(s):

5.3.1 Add a reference to Willamette Iron & Steel Supply Drawings E854, Sheets 1-4. Add this reference to Section 5.0, Design Input, also.

After incorporation/resolution of this comment, the Contractor's "References" section is acceptable.

**5.4 References**

- 5.4.1 Cooper Nuclear Station Vessel Internals Program (VIP), Revision 9
- 5.4.2 EPRI Report TR-114232, Final Report, Dated November 1999, BWR Vessel and Internals Project BWR Core Shroud Inspection and Flaw Evaluation Guidelines (BWRVIP-76)
- 5.4.3 BWRVIP-94, Program Implementation Guideline
- 5.4.4 NEDC 95-191 Rev. 0, Evaluation of Core Shroud Inspection Results
- 5.4.5 EDP-06, Supporting Requirements for Configuration Change Control, Rev. 19
- 5.4.6 EE 05-001, Rev. 0, Evaluation of Core Shroud Inspection Results from Refueling Outage 22 (RFO22)
- 5.4.7 CR 2006-08462

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**6. ATTACHMENTS****6.1 Review of Contractor Calculation "Attachments" for COOP-20Q-301, Rev. 0**

The Contractor's calculation "Attachments/Appendices" section is acceptable. SI was requested to include two items listed as References as Appendices to their calculation. These two items were the Areva Examination/Inspection Report and the TransWare Enterprises Report.

**6.2 Review of Contractor Calculation "Attachments" for COOP-20Q-302, Rev. 0**

The Contractor's calculation "Attachments/Appendices" section is acceptable. No changes were required.

**6.3 Review of Contractor Calculation "Attachments" for COOP-20Q-302, Rev. 1**

SI was requested to address the following comment(s):

6.3.1 The exam summary sheet numbers do not correlate with the data on pages A2, A4, A6 and A8 of Appendix A. Unsure where the discrepancies are from...with AREVA's data sheet or the calculation sheets.

After incorporation/resolution of this comment, the Contractor's "References" section is acceptable.

**6.4 Attachments**

6.4.1 Structural Integrity Associates Calculation Package COOP-20Q-301, Rev. 0  
(Not attached to this revision, see Attachment 6.2.1 of Revision 0 of NEDC 05-001)

6.4.2 Structural Integrity Associates Calculation Package COOP-20Q-302, Rev. 0

6.4.3 Structural Integrity Associates Calculation Package COOP-20Q-302, Rev. 1