

NLS2002040 March 28, 2002

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

References:

(1) ASME Section XI, 1989 Edition, No Addenda

(2) ASME Section XI, 1992 Edition, 1992 Addenda, Subsection IWE

The purpose of this submittal is to provide to the Nuclear Regulatory Commission the Inservice Inspection Summary Report for the Fall 2001 Refueling Outage at Cooper Nuclear Station. This report, submitted in accordance with the provisions of 10CFR50.55a and References 1 and 2, includes the Owner's Report for Inservice Inspections and the Owner's Report for Repairs and Replacements. Also included are the results of augmented examinations of the Reactor Pressure Vessel internal Core Spray piping performed in accordance with the Boiling Water Reactor Vessel Internals Project guidelines, BWRVIP-18 and the additional information required by 10CFR50.55a(b)(2)(ix)(D) for each flaw or area of degradation identified during the containment inspection which exceeded acceptance standards.

If you require any additional information regarding this report, please contact me at 402-825-2760 or David F. Kunsemiller, Risk and Regulatory Affairs Manager, at 402-825-5236.

Sincerely,

David L. Wilson

Vice President - Nuclear

/dnm

Attachment

Cox

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cc:

Regional Administrator

USNRC-Region IV

Senior Project Manager

USNRC - NRR Project Directorate IV-1

Senior Resident Inspector

USNRC

NPG Distribution w/o attachments

Records

ATTACHMENT 3	LIST OF REGULATORY COMMITMENTS

Correspondence Number: <u>NLS2002040</u>

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

COMMITMENT	COMMITTED DATE OR OUTAGE
None	N/A

PROCEDURE 0.42	REVISION 10	PAGE 12 OF 14

COOPER NUCLEAR STATION ASME SECTION XI SUMMARY REPORT FALL 2001 REFUELING OUTAGE - RE20

ASME Section XI Summary Report Cooper Nuclear Station RE 20, Fall 2001

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Commonly U	<u>Jsed Abbreviations</u>
CB - Counter Bore	used in Table 1.1
FD - Fabrication Discontinuity	used in Table 1.1
•	used in Table 1.1
INOP - Inoperable	used in Table 1.5
NGI - No Geometric Indication	used in Table 1.1
NRI - No Recordable Indication	used in Table 1.1 and Table 1.3 (UT exams)
NRI - None Relevant Indication	used in Table 1.3 (IVVI VT exams)
ODG - Outside Surface Geometry	used in Table 1.1
OP - Operable	used in Table 1.5
RG - Root Geometry	used in Table 1.1
RI - Recordable Indication	used in Table 1.1 and 1.3 (UT exams)
RI - Relevant Indication	used in Table 1.3 (IVVI VT exams)
SAT - Satisfactory	used in Table 1.5
SI - Spot Indication	used in Table 1.5

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

98 PAGES

1.	Owner: Nebraska Public Power District,
2.	Plant: Cooper Nuclear Station, PO Box 98, Brownville, NE 68321
3.	Plant Unit: One 4. Owner Certificate of Authorization (if required): N/A
5.	Commercial Service Date: July, 1974 6. National Board Number for Unit: 20762
7.	Components Inspected: See Attached Report Summary
8.	Examination Dates: 05/30/2000 (End of Last Outage RE19) to 03/11/2002 (62 days following end of outage RE20)
9.	Inspection Period Identification: (ISI) Second Period - 7/01/99 to 10/31/02, (IWE) First Period 9/09/96 to 9/08/2001
10.	Inspection Interval Identification: Third Interval - 3/1/96 to 2/28/06
11.	Applicable Edition of Section XI: (ISI) 1989 Edition, No Addenda. (IWE) 1992 Edition, 1992 Addenda
12.	Date/Revision of Inspection Plan: (ISI) Revision 2, March 11, 2002, (IWE) Revision 0.1, March 8, 2000
13.	Abstract of Examinations and Tests: See Attached Report Summary.
14.	Abstract of Results of Examinations and Tests: See Attached Report Summary
15.	Abstract of Corrective Measures: See Attached Report Summary
ASME	CERTIFICATE OF COMPLIANCE rtify that a) the statements made in this report are correct, b) the examinations and tests meet the Inspection Plan as required by the E Code, Section XI, and c) corrective measures taken conform to the rules of the ASME Code, Section XI. cate of Authorization No. N/A Expiration Date N/A Date 3/27/2002
r	V
Nebra inspec my kn in acco exami	CERTIFICATE OF INSERVICE INSPECTION undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of ska and Employed by Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford Connecticut have ted the components described in this Owner's Report during the period May 30, 2000 to March 11, 2002, and state that to the best of owledge and belief, the Owner has performed examinations and tests and taken corrective measures described in this Owner's Report ordance 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 nations, tests, and corrective measures described in this Owners's Report. Furthermore, neither the Inspector nor his employer shall be in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection. Commissions MB 1/047 A N, I, C, NS Inspector's Signature National Board, State, Province, and Endorsements May 27 2002

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

Item No.	System	Component ID	Configuration	Work Order	Performed By	Report No	. Exam	Procedure	Results	Commments/Corrective Measures
and an artist of the second order	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	ory Components Ex			***************************************					
B1.21	NB	HMC-BB-1	BHD-C 0° - 360°	4160194	Westinghouse	R-114	Zone 1 60°RL Zone 2 60°RL Zone 2 60°RL	PDI-UT-6 / E PDI-UT-6 / E PDI-UT-6 / E	NRI NRI NRI	Axial Scans 44% Coverage From Bottom Side And 56% From Top Side. 100% Of Circumferential Scans Achieved. Notification 10128962 was written to document reduced coverage.
B1.22	NB	НМА-ВВ-1	ВНО-М @ 39°	4160194	Westinghouse	R-100	Zone 1 60°RL Zone 2 60°RL	PDI-UT-6 / E PDI-UT-6 / E	NRI NRI	Reference Relief Request: RI-26. 100% ASME Code Coverage Achieved.
B1.22	NB	HMA-BB-2	BHD-M @ 84°	4160194	Westinghouse	R-101	Zone 1 60°RL Zone 2 60°RL	PDI-UT-6 / E PDI-UT-6 / E	NRI NRI	Reference Relief Request: RI-26. 100% ASME Code Coverage Achieved.
B1.22	NB	HMA-BB-3	ВНО-М @ 129°	4160194	Westinghouse	R-102	Zone 1 60°RL Zone 2 60°RL	PDI-UT-6 / E PDI-UT-6 / E	NRI NRI	Reference Relief Request: RI-26. 100% ASME Code Coverage Achieved.
B1.22	NB	HMA-BB-4	ВНD-М @ 174°	4160194	Westinghouse	R-103	Zone 1 60°RL Zone 2 60°RL	PDI-UT-6 / E PDI-UT-6 / E	NRI NRI	Reference Relief Request: RI-26. 100% ASME Code Coverage Achieved.
B1.22	NB	HMA-BB-5	ВНD-М @ 219°	4160194	Westinghouse	R-104	Zone 1 60°RL Zone 2 60°RL	PDI-UT-6 / E PDI-UT-6 / E	NRI NRI	Reference Relief Request: RI-26. 100% ASME Code Coverage Achieved.
B1.22	NB	HMA-BB-6	внр-м @ 264°	4160194	Westinghouse	R-105	Zone 1 60°RL Zone 2 60°RL	PDI-UT-6 / E PDI-UT-6 / E	NRI NRI	Reference Relief Request: RI-26. 100% ASME Code Coverage Achieved.
B1.22	NB	HMA-BB-7	ВНD-М @ 309°	4160194	Westinghouse	R-106	Zone 1 60°RL Zone 2 60°RL	PDI-UT-6 / E PDI-UT-6 / E	NRI NRI	Reference Relief Request: RI-26. 100% ASME Code Coverage Achieved.
B1.22	NB	НМА-ВВ-8	ВН D-М @ 354°	4160194	Westinghouse	R-107	Zone 1 60°RL Zone 2 60°RL	PDI-UT-6 / E PDI-UT-6 / E	NRI NRI	Reference Relief Request: RI-26. 100% ASME Code Coverage Achieved.
B1.22	NB	HMB-BB-1	ВНО-М @ 5°	4160194	Westinghouse	R-108	Zone 1 60°RL Zone 2 60°RL	PDI-UT-6 / E PDI-UT-6 / E	NRI NRI	Reference Relief Request: RI-06. Estimated Coverage: 100% Perpendicular Scans, 18% Of Parallel Scan Looking Up and 47% Of Parallel Scan Looking Down.
B1.22	NB	HMB-BB-2	ВН D-М @ 65°	4160194	Westinghouse	R-109	Zone 1 60°RL Zone 2 60°RL	PDI-UT-6 / E PDI-UT-6 / E	NRI NRI	Reference Relief Request: RI-06. Estimated Coverage: 100% Perpendicular Scans, 18% Of Parallel Scan Looking Up and 47% Of Parallel Scan Looking Down.

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NIS-1, Table 1.1, RE20: ISI Examinations

Owner: NPPD P.O. Box 499 Columbus, NE 68602 Plant: Cooper Nuclear Station P.O. Box 98, Brownville, NE 68321 Plant Unit: 1

8321

Item No.	System	Component ID	Configuration	Work Order	Performed By	Report No	o. Exam	Procedure	Results	Commments/Corrective Measures
B1.22	NB	HMB-BB-3	BHD-M @ 125°	4160194	Westinghouse	R-110	Zone 1 60°RL Zone 2 60°RL	PDI-UT-6 / E PDI-UT-6 / E	NRI	Reference Relief Request: RI-06. Estimated Coverage: 100% Perpendicular Scans, 18% Of Parallel Scan Looking Up and 47% Of Parallel Scan Looking Down.
B1.22	NB	HMB-BB-4	ВНD-М @ 185°	4160194	Westinghouse	R-111	Zone 1 60°RL Zone 2 60°RL	PDI-UT-6 / E PDI-UT-6 / E	NRI NRI	Reference Relief Request: RI-06. Estimated Coverage: 100% Perpendicular Scans, 18% Of Parallel Scan Looking Up and 47% Of Parallel Scan Looking Down.
B1.22	NB	HMB-BB-5	вно-м @ 245°	4160194	Westinghouse	R-112	Zone 1 60°RL Zone 2 60°RL	PDI-UT-6 / E PDI-UT-6 / E	NRI NRI	Reference Relief Request: RI-06. Estimated Coverage: 100% Perpendicular Scans, 18% Of Parallel Scan Looking Up and 47% Of Parallel Scan Looking Down.
B1.22	NB	HMB-BB-6	ВН D-М @ 305°	4160194	Westinghouse	R-113	Zone 1 60°RL Zone 2 60°RL	PDI-UT-6 / E PDI-UT-6 / E	NRI NRI	Reference Relief Request: RI-06. Estimated Coverage: 100% Perpendicular Scans, 18% Of Parallel Scan Looking Up and 47% Of Parallel Scan Looking Down.

Owner: NPPD P.O. Box 499 Columbus, NE 68602 Plant: Cooper Nuclear Station P.O. Box 98, Brownville, NE 68321

Plant Unit: 1

Item No	System	Component ID	Configuration	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
B-0	G-1 Categ	ory Components Exa	mined Equal: 7						***************************************	
B6.10	NB	PRB-BG1-19 Thru 36	RPV NUT's	4160193	Westinghouse	R-121	VT-1	CSP-ISI-8 / 0	RI	Examined RPV Nuts PRB-BG1-19 thru PRB-BG1-36. Reference Relief Request: RI-16. Notification 10123836 was written to document the condition and evaluate for re-use. Indications appear to be caused by tooling used to remove and install the nuts. Indications are SAT.
B6.180	RR	RRP-1A-BG1 1 thru 16	PUMP STUDS	4160205	Westinghouse	R-160	UT-0°	CSP-PDI-UT-5 / 0	NRI	Examined RR-A Pump Studs RRP-1A-BG-1 thru RRP-1A-BG-16.
B6.20	NB	PRA-BG1-1 Thru 52	RPV STUD's	4160191	Westinghouse	R-120	UT-0°	CSP-PDI-UT-5 / 0	NRI	Examined RPV Studs PRA-BG1-1 thru PRA-BG1-52.
B6.200	RR	RRPN-1A-BG1 1 thru 16	NUT	4160205	Westinghouse	R-162	VT-1	CSP-ISI-8 / 0	NRI	Examined RR-A Pump Nuts RRPN-1A-BG1-1 thru RRPN-1A-BG1-16.
B6.200	RR	RRPW-1A-BG1 1 thru 16	WASHER	4160205	Westinghouse	R-163	VT-1	CSP-ISI-8 / 0	NRI	Examined RR-A Pump Washers RRPW-1A-BG1-1 thru RRPW-1A-BG1-16.
B6.30	NB	PRA-BG1-38 Thru 41	RPV STUD'S	4160192	Westinghouse	R-170	MT UT-0°	CSP-ISI-70 / 2 CSP-PDI-UT-5 / 0	NRI NRI	Examined RPV Studs PRA-BG1-38 thur PRA-BG1-41. These studs were temporarily removed during vessel dissassembly.
B6.50	NB	PRC-BG1-19 Thru 36	WASHER's	4160193	Westinghouse	R-122	VT-1	CSP-ISI-8 / 0	NRI	Examined RPV Washers PRC-BG1-19 thru PRC-BG1-36.

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Plant Unit: 1

em No.	System	Component ID	Configuration	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
B-G	G-2 Catego	ry Components Ex	xamined Equal: 14			***************************************	***************************************			
B7.70	CS	CS-CV-19CV	Valve - Bolting	4160210	Westinghouse	R-086	VT-1	CSP-ISI-8 / 0	NRI	Examined Bolts and Nuts in place and under tension.
B7.70	HPCI	HPCI-CV-29CV	Valve - Bolting	4160197	Westinghouse	R-092	VT-1	CSP-ISI-8 / 0	NRI	Examined Bolts and Nuts in place and under tension.
B7.80	CRD	CRD-BG2-02-27	CRD-Bolting	4159884	NPPD	4159884	VT-1	3.28.1.1 Rev.2	RI	Bolting Examined when CRD was Disassembled. Inspection results documented in referenced CNS Work Order. Surface corrosion was detected, however, within Code allowable limits. Exam SAT. Condition was documented on Notification 10132330.
B7.80	CRD	CRD-BG2-06-23	CRD-Bolting	4189197	NPPD	4189197	VT-1	3.28.1.1 Rev.2	NRI	Bolting Examined when CRD was Disassembled. Inspection results documented in referenced CNS Work Order.
B7.80	CRD	CRD-BG2-14-47	CRD-Bolting	4189306	NPPD	4189306	VT-1	3.28.1.1 Rev.2	RI	Bolting Examined when CRD was Disassembled. Inspection results documented in referenced CNS Work Order. Surface corrosion was detected, however, within Code allowable limits. Exam SAT. Condition was documented on Notification 10132330.
B7.80	CRD	CRD-BG2-18-31	CRD-Bolting	4189309	NPPD	4189309	VT-1	3.28.1.1 Rev.2	NRI	Bolting Examined when CRD was Disassembled. Inspection results documented in referenced CNS Work Order.
B7.80	CRD	CRD-BG2-22-03	CRD-Bolting	4189312	NPPD	4189312	VT-1	3.28.1.1 Rev.2	RI	Bolting Examined when CRD was Disassembled. Inspection results documented in referenced CNS Work Order. Surface corrosion was detected, however, within Code allowable limits. Exam SAT. Condition was documented on Notification 10135680.
B7.80	CRD	CRD-BG2-26-07	CRD-Bolting	4189317	NPPD	4189317	VT-1	3.28.1.1 Rev.2	RI	Bolting Examined when CRD was Disassembled. Inspection results documented in referenced CNS Work Order. Surface corrosion was detected, however, within Code allowable limits. Exam SAT. Condition was documented on Notification 10132330.
B7.80	CRD	CRD-BG2-26-27	CRD-Bolting	4189302	NPPD	4189302	VT-1	3.28.1.1 Rev.2	NRI	Bolting Examined when CRD was Disassembled. Inspection results documented in referenced CNS Work Order.

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NIS-1, Table 1.1, RE20: ISI Examinations

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

Item No.	System	Component ID	Configuration	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
B7.80	CRD	CRD-BG2-26-51	CRD-Bolting	4189342	NPPD	4189342	VT-1	3.28.1.1 Rev.2	RI	Bolting Examined when CRD was Disassembled. Inspection results documented in referenced CNS Work Order. Surface corrosion was detected, however, within Code allowable limits. Exam SAT. Condition was documented on Notification 10132330.
B7.80	CRD	CRD-BG2-30-39	CRD-Bolting	4189345	NPPD	4189345	VT-1	3.28.1.1 Rev.2	RI	Bolting Examined when CRD was Disassembled. Inspection results documented in referenced CNS Work Order. Surface corrosion was detected, however, within Code allowable limits. Exam SAT. Condition was documented on Notif
B7.80	CRD	CRD-BG2-34-51	CRD-Bolting	4189347	NPPD	4189347	VT-1	3.28.1.1 Rev.2	NRI	Bolting Examined when CRD was Disassembled. Inspection results documented in referenced CNS Work Order.
B7.80	CRD	CRD-BG2-38-19	CRD-Bolting	4189349	NPPD	4189349	VT-1	3.28.1.1 Rev.2	NRI	Bolting Examined when CRD was Disassembled. Inspection results documented in referenced CNS Work Order.
B7.80	CRD	CRD-BG2-50-23	CRD-Bolting	4189356	NPPD	4189356	VT-1	3.28.1.1 Rev.2	NRI	Bolting Examined when CRD was Disassembled. Inspection results documented in referenced CNS Work Order.

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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Plant Unit: 1

ltem No	. System	Component ID	Configuration	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
	B-J Catego	ry Components E	xamined Equal: 8							
B9.11	cs	CSB-BJ-18	Valve - Pipe	4160210	Westinghouse	R-087	MT UT-45°S UT-60°S	CSP-ISI-70 / 2 PDI-UT-1 / C PDI-UT-1 / C	NRI CB CB	Examination was performed from the downstream pipe side only due to valve to pipe configuration, however 100% ASME code coverage was achieved.
B9.11	cs	CSB-BJ-26	Pipe - Flued Head	4160212	Westinghouse	R-088	MT UT-45°S UT-60°S	CSP-ISI-70 / 2 PDI-UT-1 / C PDI-UT-1 / C	NRI RG RG	Examination was performed from the downstream pipe side only due to valve to pipe configuration, however 100% ASME code coverage was achieved.
B9.11	RF	FWD-BJ-18*	Tee - Reducer	4160211	Westinghouse	R-135	MT UT-45°S	CSP-ISI-70 / 2 PDI-UT-1 / C	NRI NRI	100% ASME code coverage was achieved.
B9.11	RF	FWD-BJ-23*	Elbow - Pipe	4160211	Westinghouse	R-136	MT UT-45°S	CSP-ISI-70 / 2 PDI-UT-1 / C	NRI NRI	100% ASME code coverage was achieved.
B9.11	MS	MSB-BJ-42	Flued Head - Pipe	4160198	Westinghouse	R-093	MT UT-45°S	CSP-ISI-70 / 2 PDI-UT-1 / C	NRI NRI	100% ASME code coverage was achieved.
B9.21	MSDR	MSDR-BJ-4	Flued Head - Pipe	4160198	Westinghouse	R-099	MT	CSP-ISI-70 / 2	NRI	100% ASME code coverage was achieved.
B9.40	CS	CSB-BJ-32	Valve - Pipe	4160210	Westinghouse	R-089	MT	CSP-ISI-70 / 2	NRI	100% ASME code coverage was achieved.
B9.40	cs	CSB-BJ-35	Valve - Pipe	4160210	Westinghouse	R-090	MT	CSP-ISI-70 / 2	NRI	100% ASME code coverage was achieved.

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NIS-1, Table 1.1, RE20: ISI Examinations

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Item No.	. System	Component ID	Configuration	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
E	3-K Catego	ory Components Ex	kamined Equal: 2							
B10.10	NB	HNC-BH-C1	Vessel - Skirt 0° - 360°	4160194	Westinghouse	R-115	MT UT-0° UT-45°S UT-60°S	CSP-ISI-70 / 2 CSP-ISI-210 / 1 CSP-ISI-210 / 1 CSP-ISI-210 / 1	NRI NRI NRI NRI	Reference Relief Request No.: RI-07. Examined In Accordance With Code Case N-509. Estimated ASME Code Required Volume From 60° = 74.5%. This Component Was Previously Examined Under Component Numbers HNC-C1-1, HNC-C1-2 and HNC-C1-3.
B10.20	RF	FWC-BK1-8	8 Welded Lugs	4160211	Westinghouse	R-134	мт	CSP-ISI-70 / 2	NRI	Examined In Accordance With Code Case N-509. 85.19% Estimated Code Coverage Achieved. Notification 10126153 was written to document the less than 90% coverage.

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item No.	System	Component ID	Configuration	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
B-N	/I-2 Catego	ory Components Ex	camined Equal: 3							
B12.50	CS	CS-MO-12A-BM2	Valve-Body	4159957	NPPD	4159957	VT-3	3.28.1.3 Rev.4		Inspection results documented in referenced CNS Work Order.
B12.50	HPCI	HPCI-MO-15-BM2	Valve-Body	4211015	NPPD	4211015	VT-3	3.28.1.3 Rev.4	NRI	Inspection results documented in referenced CNS Work Order.
B12.50	RF	RF-16-CV-BM2	Valve-Body	4209932	NPPD	4209932	VT-3	3.28.1.3 Rev.4		Inspection results documented in referenced CNS Work Order.

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NIS-1, Table 1.1, RE20: ISI Examinations

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Plant Unit: 1

Item No.	. System	Component ID	Configuration	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
E	3-O Catego	ory Components Ex	kamined Equal: 2							
B14.10	CRD	CRD-50-23-1	CRD Housing - Fange	4160206	Westinghouse	R-084	PT	CSP-ISI-11 / 3		Reference Relief Request RI-15. 100% ASME code coverage was achieved.
B14.10	CRD	CRD-50-27-1	CRD Housing - Fange	4160206	Westinghouse	R-085	PT	CSP-ISI-11 / 3	NRI	Reference Relief Request RI-15. 100% ASME code coverage was achieved.

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NIS-1, Table 1.1, RE20: ISI Examinations

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Plant Unit: 1

Item No.	System	Component ID	Configuration	Work Order	Performed By	Report No.	Exam	Procedure Result	s Commments/Corrective Measures
annual to the second section and defended	and the second of the contraction of the Second Second	gory Components Exar	mined Equal: 5						
B15.10	NB	6.MISC.502	Pressure Vessels	6.MISC.50	NPPD	6.MISC.502	VT-2	6.MISC.502 Rev.10C1 SAT	Pressure testing performed in accordance to ASME Section XI, 1989 Edition, No Addenda and all applicable procedure sections.
B15.50	NB	6.MISC.502.PIP	Pressure Retaining Piping	6.MISC.50	NPPD	6.MISC.502	VT-2	6.MISC.502 Rev.10C1 SAT	Pressure testing performed in accordance to ASME Section XI, 1989 Edition, No Addenda and all applicable procedure sections.
B15.50	NBI	VS.HD.FLGSEL.LEK.DETEC	RPV-Pipe	4184927	NPPD	PM 10606	VT-2	7.0.8.1 Rev.12 SAT	Pressure testing performed in accordance to ASME Section XI, 1989 Edition, No Addenda and all applicable procedure sections. Reference PM 10606.
B15.60	NB	6.MISC.502.PMP	Pumps	6.MISC.50	NPPD	6.MISC.502	VT-2	6.MISC.502 Rev.10C1 SAT	Pressure testing performed in accordance to ASME Section XI, 1989 Edition, No Addenda and all applicable procedure sections.
B15.70	NB	6.MISC.502.VAL	Valves	6.MISC.50	NPPD	6.MISC.502	VT-2	6.MISC.502 Rev.10C1 SAT	Pressure testing performed in accordance to ASME Section XI, 1989 Edition, No Addenda and all applicable procedure sections.

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NIS-1, Table 1.1, RE20: ISI Examinations

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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Plant Unit: 1

Item No	. System	Component ID	Configuration	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
(C-A Catego	ory Components Ex	xamined Equal: 2							
C1.10	RHR	RHR-CA-2A	SH-DRET	4160200	Westinghouse	R-153	UT-45°S UT-45°S	CSP-ISI-209 / 0 CSP-ISI-209 / 0	NRI NRI	These examinations were limited on the shell side due to welded attachment, however 92.25% code coverage of the exam volume was achieved. Reference Code Case N-460.
C1.10	RHR	RHR-CA-4A	DRET-DR	4160200	Westinghouse	R-154	UT-45°S UT-45°S	CSP-ISI-209 / 0 CSP-ISI-209 / 0	NRI NRI	This examination was limited on the downstream side of the weld due to N4 nozzle, however 92% code coverage was achieved. Reference Code Case N-460.

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NIS-1, Table 1.1, RE20: ISI Examinations

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

Item No	o. System	Component ID	Configuration	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
	C-B Catego	ory Components E	xamined Equal: 2				, , ,			
C2.21	RHR	RHR-CB-1A	THD-NOZ	4160201	Westinghouse	R-155	MT UT-45°S UT-60°S	CSP-ISI-70 / 2 CSP-ISI-209 / 0 CSP-ISI-209 / 0	NRI	A limited examination was performed on the upstream side of weld due to head to nozzle configuration, however 90.3% code coverage was achieved.
C2.22	RHR	RHR-IR-1A	THD-NIR	4160201	Westinghouse	R-157	UT-70°S UT-80°S	CSP-ISI-211 / 0C1 CSP-ISI-211 / 0C1		

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NIS-1, Table 1.1, RE20: ISI Examinations

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

item No.	System	Component ID	Configuration	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
C	-C Catego	ory Components Ex	xamined Equal: 5							
C3.10	RHR	RHR-CC-2A	SP-VES	4160200	Westinghouse	R-156	MT	CSP-ISI-70 / 2	NRI	Examined In Accordance With Code Case N-509.
C3.20	PNC	PNC-CE1-5	Welded Attachment	4160216	Westinghouse	R-124	MT	CSP-ISI-70 / 2	NRI	Examined In Accordance With Code Case N-509.
C3.20	MS	RSA-CC-25	Welded Lugs	4160218	Westinghouse	R-098	MT	CSP-ISI-70 / 2	NRI	Examined In Accordance With Code Case N-509. 85.48% Estimated ASME Code Coverage Achieved. Notification 10126100 was written to address the less than 90% coverage.
C3.20	RCIC	RWA-CC-52A	Welded Attachment	4160219	Westinghouse	R-132	MT	CSP-ISI-70 / 2	NRI	Examined In Accordance With Code Case N-509.
C3.30	RHR	RPA-CC-9	Integrally Welded Attachmen	t 4160202	Westinghouse	R-158	MT	CSP-ISI-70 / 2	NRI	Examined In Accordance With Code Case N-509.

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

em No.	System	Component ID	Configuration	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
C-F	-2 Catego	ory Components Ex	camined Equal: 11							
5.51	CS-A	CSA-CF-42	ELBOW - PIPE	4160053	Westinghouse	R-071	MT UT-0° UT-45°S UT-60°S	CSP-ISI-70 / 1C1 CSP-ISI-209 / 0 PDI-UT-1 / C PDI-UT-1 / C	NRI NRI NRI NRI	100% ASME Code coverage was achieved.
5.51	CS-A	CSA-CF-53	PIPE - ELBOW	4160053	Westinghouse	R-072	MT UT-0° UT-45°S UT-60°S	CSP-ISI-70 / 1C1 CSP-ISI-209 / 0 PDI-UT-1 / C PDI-UT-1 / C	NRI NRI NRI NRI	100% ASME Code Coverage Was Achieved. This is a Base-Line exam on this component.
5.51	PNC	PNC-CG-10	Elbow - Flange	4160216	Westinghouse	R-125	MT UT-0° UT-45°S UT-70°S	CSP-ISI-70 / 2 CSP-ISI-209 / 0 PDI-UT-1 / C PDI-UT-1 / C	NRI NRI NRI ID RG	Code Case N-460, 90.9% ASME Code Coverag Was Achieved.
5.51	MS	PSA-CF-9	Pipe - Elbow	4160218	Westinghouse	R-097	MT UT-45°S	CSP-ISI-70 / 2 PDI-UT-1 / C	NRI IDG	100% ASME Code coverage was achieved.
5.51	RHR	RAS-CF-10	Reducer - Reducer	4160201	Westinghouse	R-138	MT UT-0° UT-45°S	CSP-ISI-70 / 2 CSP-ISI-209 / 0 PDI-UT-1 / C	NRI NRI NRI	100% ASME Code coverage was achieved.
5.51	RHR	RAS-CF-4	Pipe - Elbow	4160201	Westinghouse	R-139	MT UT-45°S	CSP-ISI-70 / 2 PDI-UT-1 / C	NRI ID RG	100% ASME Code coverage was achieved. On recordable indication was detected and determine to be ID root geometry.
5.51	RHR	RAW-CF-25	Pipe - Elbow	4160204	Westinghouse	R-140	MT UT-45°S	CSP-ISI-70 / 2 PDI-UT-1 / C	NRI NRI	100% ASME Code coverage was achieved.
5.51	RHR	RBW-CF-18	Pipe - Tee	4160204	Westinghouse	R-141	MT UT-45°S	CSP-ISI-70 / 2 PDI-UT-1 / C	NRI NRI	100% ASME Code coverage was achieved.
5.51	RHR	RCT-CF-9	Elbow - Pipe	4160203	Westinghouse	R-142	PT UT-45°S UT-70°S	CSP-ISI-11 / 3 PDI-UT-1 / C PDI-UT-1 / C	NRI NRI NRI	100% ASME Code coverage was achieved.
5.51	RHR	RHA-CF-2	Pipe - Elbow	4160204	Westinghouse	R-143	MT UT-45°S	CSP-ISI-70 / 2 PDI-UT-1 / C	NRI NRI	100% ASME Code coverage was achieved.
5.51	RHR	RHB-CF-2	Elbow - Pipe	4160201	Westinghouse	R-144	MT UT-45°S	CSP-ISI-70 / 2 PDI-UT-1 / C	NRI NRI	100% ASME Code coverage was achieved.

Owner: NPPD P.O. Box 499 Columbus, NE 68602 Plant: Cooper Nuclear Station P.O. Box 98, Brownville, NE 68321

Plant Unit: 1

tem No.	System	Component ID	Configuration	Work Order	Performed By	Report No.	Exam	Procedure I	Results	Commments/Corrective Measures
C	C-H Catego	ory Components Ex	amined Equal: 24					***************************************	. / / / .	
C7.10	RHR	6.1RHR.501	Pressure Vessels	6.1RHR.5	NPPD	6.1RHR.501	VT-2	6.1RHR.501 Rev.6	SAT	Pressure testing performed in accordance to ASME Section XI, 1989 Edition, No Addenda and all applicable procedure sections.
C7.10	CRD	6.MISC.502.CRD	Pressure Vessels	6.MISC.50	NPPD	6.MISC.502	VT-2	6.MISC.502 Rev.10C1	SAT	Pressure testing performed in accordance to ASME Section XI, 1989 Edition, No Addenda and all applicable procedure sections.
C7.10	REC	6.REC.501	Pressure Vessels	6.REC.501	NPPD	6.REC.501	VT-2	6.REC.501 Rev.6	SAT	Pressure testing performed in accordance to ASME Section XI, 1989 Edition, No Addenda and all applicable procedure sections.
C7.30	cs	6.1CS.501	Piping	6.1CS.501	NPPD	6.1CS.501	VT-2	6.1CS.501 Rev.5	SAT	Pressure testing performed in accordance to ASMI Section XI, 1989 Edition, No Addenda and aii applicable procedure sections.
C7.30	RHR	6.1RHR.501.PIP	Piping	6.1RHR.5	NPPD	6.1RHR.501	VT-2	6.1RHR.501 Rev.6	SAT	Pressure testing performed in accordance to ASME Section XI, 1989 Edition, No Addenda and all applicable procedure sections.
C7.30	cs	6.2CS.501	Piping	6.2CS.501	NPPD	6.2CS.501	VT-2	6.2CS.501 Rev.4	SAT	Pressure testing performed in accordance to ASME Section XI, 1989 Edition, No Addenda and all applicable procedure sections.
07.30	HPCI	6.HPCI.502	Piping	6.HPCI.50	NPPD	6.HPCI.502	VT-2	6.HPCI.502 Rev.0	SAT	Pressure testing performed in accordance to ASMI Section XI, 1989 Edition, No Addenda and all applicable procedure sections.
C7.30	CRD	6.MISC.502.CRD.PIP	Piping	6.MISC.50	NPPD	6.MISC.502	VT-2	6.MISC.502 Rev.10C1	SAT	Pressure testing performed in accordance to ASMI Section XI, 1989 Edition, No Addenda and all applicable procedure sections.
27.30	RCIC	6.RCIC.501	Piping	6.RCIC.50	NPPD	6.RCIC.501	VT-2	6.RCIC.501 Rev.5	SAT	Pressure testing performed in accordance to ASME Section XI, 1989 Edition, No Addenda and all applicable procedure sections.
C7.30	RCIC	6.RCIC.502	Piping	6.RCIC.50	NPPD	6.RCIC.502	VT-2	6.RCIC.502 Rev.0	SAT	Pressure testing performed in accordance to ASMI Section XI, 1989 Edition, No Addenda and all applicable procedure sections.
27.30	REC	6.REC.501.PIP	Piping	6.REC.501	NPPD	6.REC.501	VT-2	6.REC.501 Rev.6	SAT	Pressure testing performed in accordance to ASM Section XI, 1989 Edition, No Addenda and all applicable procedure sections.

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

Item No.	System	Component ID	Configuration	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
C7.50	CS	6.1CS.501.PMP	Pump	6.1CS.501	NPPD	6.1CS.501	VT-2	6.1CS.501 Rev.5	SAT	Pressure testing performed in accordance to ASME Section XI, 1989 Edition, No Addenda and all applicable procedure sections.
C7.50	RHR	6.1RHR.501.PMP	Pumps	6.1RHR.5	NPPD	6.1RHR.501	VT-2	6.1RHR.501 Rev.6	SAT	Pressure testing performed in accordance to ASME Section XI, 1989 Edition, No Addenda and all applicable procedure sections.
C7.50	cs	6.2CS.501.PMP	Pump	6.2CS.501	NPPD	6.2CS.501	VT-2	6.2CS.501 Rev.4	SAT	Pressure testing performed in accordance to ASME Section XI, 1989 Edition, No Addenda and all applicable procedure sections.
C7.50	RCIC	6.RCIC.501.PMP	Pumps	6.RCIC.50	NPPD	6.RCIC.501	VT-2	6.RCIC.501 Rev.5	SAT	Pressure testing performed in accordance to ASME Section XI, 1989 Edition, No Addenda and all applicable procedure sections.
C7.50	REC	6.REC.501.PMP	Pumps	6.REC.501	NPPD	6.REC.501	VT-2	6.REC.501 Rev.6	SAT	Pressure testing performed in accordance to ASME Section XI, 1989 Edition, No Addenda and all applicable procedure sections.
C7.70	cs	6.1CS.501.VAL	Valves	6.1CS.501	NPPD	6.1CS.501	VT-2	6.1CS.501 Rev.5	SAT	Pressure testing performed in accordance to ASME Section XI, 1989 Edition, No Addenda and all applicable procedure sections.
C7.70	RHR	6.1RHR.501.VAL	Valves	6.1RHR.5	NPPD	6.1RHR.501	VT-2	6.1RHR.501 Rev.6		Pressure testing performed in accordance to ASME Section XI, 1989 Edition, No Addenda and all applicable procedure sections.
C7.70	CS	6.2CS.501.VAL	Valves	6.2CS.501	NPPD	6.2CS.501	VT-2	6.2CS.501 Rev.4	SAT	Pressure testing performed in accordance to ASME Section XI, 1989 Edition, No Addenda and all applicable procedure sections.
C7.70	HPCI	6.HPCI.502.VAL	Valves	6.HPCI.50	NPPD	6.HPCI.502	VT-2	6.HPCI.502 Rev.0	SAT	Pressure testing performed in accordance to ASME Section XI, 1989 Edition, No Addenda and all applicable procedure sections.
C7.70	CRD (6.MISC.502.CRD.VAL	Vlaves	6.MISC.50	NPPD	6.MISC.502	VT-2	6.MISC.502 Rev.10C		Pressure testing performed in accordance to ASME Section XI, 1989 Edition, No Addenda and all applicable procedure sections.
C7.70	RCIC	6.RCIC.501.VAL	Valves	6.RCIC.50	NPPD	6.RCIC.501	VT-2	6.RCIC.501 Rev.5		Pressure testing performed in accordance to ASME Section XI, 1989 Edition, No Addenda and all applicable procedure sections.
C7.70	RCIC	6.RCIC.502.VAL	Pumps	6.RCIC.50	NPPD	6.RCIC.502	VT-2	6.RCIC.502 Rev.0		Pressure testing performed in accordance to ASME Section XI, 1989 Edition, No Addenda and all applicable procedure sections.

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NIS-1, Table 1.1, RE20: ISI Examinations

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

Commerical Service Date: July, 1974 Owner Certificate of Authorization: N/A National Board Number for Unit: 20762

Item No. System REC C7.70

Component ID 6.REC.501.VAL

Configuration Valves

Work Order 6.REC.501

Performed By Report No. Exam NPPD

6.REC.501 VT-2

Procedure 6.REC.501 Rev.6 SAT

Results Commments/Corrective Measures

Pressure testing performed in accordance to ASME Section XI, 1989 Edition, No Addenda and all applicable procedure sections.

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NIS-1, Table 1.1, RE20: ISI Examinations

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

System	Component ID	Configuration	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
-A Catego	ry Components Ex	xamined Equal: 1							
NBI	6.NBI.501	Pressure Retaining Com	ponent 6.NBI.501	NPPD	6.NBI.501	VT-2	6.NBI.501 Rev.6	SAT	Pressure testing performed in accordance to ASME Section XI, 1989 Edition, No Addenda and all applicable procedure sections.
	-A Catego	-A Category Components E	-A Category Components Examined Equal: 1						

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NIS-1, Table 1.1, RE20: ISI Examinations

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

Commerical Service Date: July, 1974 Owner Certificate of Authorization: N/A National Board Number for Unit: 20762

Item No	. System	Component ID	Configuration	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
I	D-B Catego	ory Components Ex	xamined Equal: 4							
D2.10	SW	6.1SW.501	Pressure Retaining Componer	nt 6.1SW.50	NPPD	R-226	VT-2	6.1SW.501 Rev.8	SAT	Pressure testing performed in accordance to ASME Section XI, 1989 Edition, No Addenda and all applicable procedure sections.
D2.10	SW	6.2SW.502	Pressure Retaining Componer	nt 6.2SW.50	NPPD	R-227	VT-2	6.2SW.502 Rev.7	SAT	Pressure testing performed in accordance to ASME Section XI, 1989 Edition, No Addenda and all applicable procedure sections.
D2.10	NBI	6.NBI.501.PRC	Pressure Retaining Componer	nt 6.NBI.501	NPPD	6.NBI.501	VT-2	6.NBI.501 Rev.6	SAT	Pressure testing performed in accordance to ASME Section XI, 1989 Edition, No Addenda and all applicable procedure sections.
D2.10	REC	6.REC.501.PRC	Pressure Retaining Compone	nt 6.REC.501	NPPD	6.REC.501	VT-2	6.REC.501 Rev.6	SAT	Pressure testing performed in accordance to ASME Section XI, 1989 Edition, No Addenda and all applicable procedure sections.

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Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

Item No.	. System	Component ID	Configuration	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
F	F-A Catego	ory Components Ex	amined Equal: 22							
F1.10.A	RF	RFH-61	Sway Strut	4160211	Westinghouse	R-137	VT-3	CSP-ISI-8 / 0	RI	Examined In Accordance With Code Case N-491. Notification 10124859 was written to document the missing jam nut and Notification 10124860 was written to document stiffener plates that were not identified on the support drawing. Engineering evaluation determined both conditions to be SAT.
F1.10.C	RWCU	CU-H50	Constant Spring Trapeze	4160213	Westinghouse	R-164	VT-3	CSP-ISI-8 / 0	NRI	Examined In Accordance With Code Case N-491.
F1.20.A	PNC	PVH-108	Sway Strut	4160216	Westinghouse	R-126	VT-3	CSP-ISI-8 / 0	NRI	Examined In Accordance With Code Case N-491.
F1.20.A	PNC	PVH-109	Sway Strut	4160216	Westinghouse	R-127	VT-3	CSP-ISI-8 / 0	NRI	Examined In Accordance With Code Case N-491.
F1.20.A	PNC	PVH-110	Stanchion	4160216	Westinghouse	R-128	VT-3	CSP-ISI-8 / 0	NRI	Examined In Accordance With Code Case N-491.
F1.20.A	PNC	PVS-1B&R	Sway Strut	4160216	Westinghouse	R-129	VT-3	CSP-ISI-8 / 0	NRI	Examined In Accordance With Code Case N-491.
F1.20.A	PNC	PVS-2B&R	Sway Strut	4160216	Westinghouse	R-130	VT-3	CSP-ISI-8 / 0	NRI	Examined In Accordance With Code Case N-491.
F1.20.A	RHR	RHH-2	Stanchion	4160202	Westinghouse	R-146	VT-3	CSP-ISI-8 / 0	NRI	Examined In Accordance With Code Case N-491.
F1.20.A	RHR	RHH-52A	Sway Strut	4160203	Westinghouse	R-147	VT-3	CSP-ISI-8 / 0	NRI	Examined In Accordance With Code Case N-491.
F1.20.B	MS	MSH-99	Ridged Restraint	4160218	Westinghouse	R-096	VT-3	CSP-ISI-8 / 0	NRI	Examined In Accordance With Code Case N-491.

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

thousa Nic	Custom	Component ID	Configuration	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
Item No. F1.20.C	MS	MSH-106	Constant Spring Trapeze	4160218	Westinghouse	R-094	VT-3	CSP-ISI-8 / 0	RI	Examined In Accordance With Code Case N-491. The two recordable indications are considered SAT base Engineering Evaluation.
										Notification 10127173 was written to document the condition. 11/24/01. TPM
F1.20.C	MS	MSH-121	Dual Spring Hanger	4160218	Westinghouse	R-095	VT-3	CSP-ISI-8 / 0	NRI	Examined In Accordance With Code Case N-491.
F1.20.C	RCIC	RCH-6	Variable Spring Hanger	4160219	Westinghouse	R-131	VT-3	CSP-ISI-8 / 0	RI	Examined In Accordance With Code Case N-491. The recordable condition is considered SAT based on Engineering Evaluation. Notification 10125143 was written to document condition.
F1.20.C	RHR	RHH-10	Variable Spring Hanger	4160204	Westinghouse	R-145	VT-3	CSP-ISI-8 / 0	NRI	Examined In Accordance With Code Case N-491.
F1.20.C	RHR	RHH-62	Variable Spring Hanger Trape	ez 4160203	Westinghouse	R-148	VT-3	CSP-ISI-8 / 0	RI	Examined In Accordance With Code Case N-491. Notification 10129110 was written to document a missing load scale on the north west spring can. Condition determined SAT based on Engineering evaluation.
F1.30.B	sw	SW-H-62A	Ridgid Hanger	4160217	Westinghouse	R-169	VT-3	CSP-ISI-8 / 0	NRI	Examined In Accordance With Code Case N-491.
F1.30.C	sw	SW-H-60	Variable Spring Hanger	4160217	Westinghouse	R-168	VT-3	CSP-ISI-8 / 0	NRI	Examined In Accordance With Code Case N-491.
F1.40.A	RHR	RHHX-1A1	PW	4160200	Westinghouse	R-149	VT-3	CSP-ISI-8 / 0	NRI	Examined In Accordance With Code Case N-491.
F1.40.A	RHR	RHHX-1A2	PW	4160200	Westinghouse	R-150	VT-3	CSP-ISI-8 / 0	NRI	Examined In Accordance With Code Case N-491.
F1.40.A	RHR	RHHX-1A3	PVV	4160200	Westinghouse	R-151	VT-3	CSP-ISI-8 / 0	NRI	Examined In Accordance With Code Case N-491.
F1.40.A	RHR	RHHX-1A4	PVV	4160200	Westinghouse	R-152	VT-3	CSP-ISI-8 / 0	NRI	Examined In Accordance With Code Case N-491.

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NIS-1, Table 1.1, RE20: ISI Examinations

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

Commerical Service Date: July, 1974 Owner Certificate of Authorization: N/A National Board Number for Unit: 20762

Item No. System F1.40.A NB

Component ID RPV-SKIRT

Configuration Ridge Structual Fram Work Order 4160194

Performed By Report No. Exam Westinghouse

VT-3

Procedure CSP-ISI-8 / 0 Results Commments/Corrective Measures

Examined In Accordance With Code Case N-491.

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NIS-1, Table 1.1, RE20: ISI Examinations

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

(MA-AUG Ca Augm RR		Components Ex RRPC-1A-BG1	amined Equal: 3 Pump - Cover					***************************************	***************************************	
Augm RR	R	RRPC-1A-BG1	Pump Cover							
			rump - Covei	4160205	Westinghouse	R-161	VT-1	CSP-ISI-8 / 0		This exam was performed for information only. Examined visible portions of RR-1A pump cover, pump was assembled, in conjunction with requirer Cat: B-G-1 RR-1A pump bolting, nuts, and washe examinations. Examination of pump cover / flange surface areas is only required when RR pump is disassembled.
Augm RWC	CH	RWCU-13	Pipe - Elbow	4160214	Westinghouse	R-166	UT-45°S	PDI-UT-2 / C	NRI	
, tugiii 11110					·		UT-70°S	PDI-UT-2 / C	IDG	
Augm RWC	/CU	RWCU-26	Pipe - Elbow	4160215	Westinghouse	R-167	UT-45°S	PDI-UT-2 / C	NRI	

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

tem No.	System	Component ID	Configuration	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
XMA-RI	EC Catego	ry Components Ex	xamined Equal: 72							
A11.12	REC-A	2848-14-W10	ELBOW - PIPE	4160048	Westinghouse	R-001	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12. Two (2) indications were detected and determined to be root geometry.
A11.12	REC-A	2848-14-W11	PIPE - TEE	4160048	Westinghouse	R-002	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12. Two (2) indications were detected with one to be root geometry and the other was determined to be a fabrication discontinuity.
A11.12	REC-A	2848-14-W12	TEE - PIPE	4160048	Westinghouse	R-003	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12. One (1) recordable indication was detected and determined to be ID root geometry.
A11.12	REC-A	2848-14-W13	PIPE - CAP	4160048	Westinghouse	R-004	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.
A11.12	REC-A	2848-14-W9	PIPE - ELBOW	4160048	Westinghouse	R-005	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.
 A11.12	REC-NCL	2848-16-W31	PIPE - PIPE	4160051	Westinghouse	R-006	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.
A11.12	REC-NCL	2848-16-W36	PIPE - PIPE	4160051	Westinghouse	R-007	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.
A11.12	REC-NCL	2848-16-WP	PIPE - ELBOW	4160045	Westinghouse	R-008	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.
A11.12	REC-B	2848-2-W34	PIPE - ELBOW	4160050	Westinghouse	R-009	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination was perforemd to meet the requirements of the Augmented ISI Program Section 11.12.
A11.12	REC-B	2848-2-W36	PIPE - TEE	4160050	Westinghouse	R-010	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12. Examined repair area pe WO 4203836-35.

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Item No.	System	Component ID	Configuration	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
A11.12	REC-B	2848-2-W36	PIPE - TEE	4160050	Westinghouse	R-010	UT-45°S UT-70°S UT-60°RL	CSP-ISI-208 / 0C1 CSP-ISI-208 / 0C1 CSP-ISI-299 / 0		Examination performed per the Augmented ISI Program Section 11.12. A non-geometric indication was detected. Notification 10118213 was written to identify the condition. The notification recommended the indication be repaired as good practice. Repair completed per WO 4203836 and re-examined. One geometric indication of the repair was determined to be root geometry.
A11.12	REC-B	2848-2-W37	TEE - PIPE	4160050	Westinghouse	R-011	UT-45°S UT-70°S	CSP-ISI-208 / 0C1 CSP-ISI-208 / 0C1		Examination performed per the Augmented ISI Program Section 11.12.
A11.12	REC-B	2848-2-W37A	PIPE - PIPE	4160050	Westinghouse	R-012	UT-45°S UT-70°S	CSP-ISI-208 / 0C1 CSP-ISI-208 / 0C1		Examination performed per the Augmented ISI Program Section 11.12.
A11.12	REC-B	2848-2-W38	PIPE - FLANGE	4160050	Westinghouse	R-013	UT-45°S UT-70°S	CSP-ISI-208 / 0C1		Examination performed per the Augmented ISI Program Section 11.12.
A11.12	REC-B	2848-2-W39	TEE - PIPE	4160050	Westinghouse	R-014	UT-45°S UT-70°S	CSP-ISI-208 / 0C1 CSP-ISI-208 / 0C1		Examination performed per the Augmented ISI Program Section 11.12.
A11.12	REC-SCL	2848-2-W51	Pipe - Tee	4159603	Westinghouse	R-171	UT-45°S UT-70°S	CSP-ISI-208 / 0C1		Examination performed following a repair during RE20. Original indication was found during RE19 and documented on Westinghouse Report No.R-047 as part of the ISI Augumented Program Section 11.12.
A11.12	REC-SCL	2848-2-W62	ELBOW - PIPE	4160047	Westinghouse	R-015	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.
A11.12	REC-SCL	2848-2-W69	REDUCER - TEE	4160047	Westinghouse	R-016	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.
A11.12	REC-SCL	2848-2-W70	REDUCER - TEE	4160047	Westinghouse	R-017	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.
A11.12	REC-NCL	2848-2-W72	ELBOW - PIPE	4160045	Westinghouse	R-018	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.
A11.12	REC-B	2848-2-W81	REDUCER - FLANGE	4160050	Westinghouse	R-019	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.

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Item No. System	Component ID	Configuration	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
A11.12 REC-B	2848-2-WM	ELBOW - PIPE	4160050	Westinghouse	R-020	UT-45°S UT-70°S	CSP-ISI-208 / 0C1 CSP-ISI-208 / 0C1		Examination performed per the Augmented ISI Program Section 11.12.
A11.12 REC-SCL	2848-2-WO	VALVE - REDUCER	4160047	Westinghouse	R-021	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.
A11.12 REC-SCL	2848-2-WP	VAVLE - PIPE	4160047	Westinghouse	R-022	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.
A11.12 REC-NCL	2848-2-WR	ELBOW - VALVE	4160045	Westinghouse	R-023	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.
A11.12 REC-SCL	2848-2-WT	PIPE - ELBOW	4160047	Westinghouse	R-024	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.
A11.12 REC-NCL	2848-50-WF	TEE - PIPE	4160051	Westinghouse	R-025	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.
A11.12 REC-NCL	2848-50-WFG	PIPE - ELBOW	4160051	Westinghouse	R-026	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.
A11.12 REC-SCL	2848-50-WL	ELBOW - PIPE	4160052	Westinghouse	R-027	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.
A11.12 REC-ENC	2848-51-WAL	PIPE - PIPE	4160043	Westinghouse	R-028	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.
A11.12 REC-ENC	2848-51-WCA	PIPE - WOL	4160043	Westinghouse	R-029	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.
A11.12 REC-ENC	2848-51-WCB	WOL - FLANGE	4160043	Westinghouse	R-030	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.
A11.12 REC-ENC	2848-51-WW	ELBOW - PIPE	4160043	Westinghouse	R-031	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.

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Item No. System	Component ID	Configuration	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
A11.12 REC-ENC	2848-51-WX	PIPE - ELBOW	4160043	Westinghouse	R-032	UT-45°S UT-70°S	CSP-ISI-208 / 0C ² CSP-ISI-208 / 0C ²		Examination performed per the Augmented ISI Program Section 11.12.
A11.12 REC-ENC	2848-51-WZ	PIPE - ELBOW	4160043	Westinghouse	R-033	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.
A11.12 REC-SCL	2848-55-W1	PIPE - VALVE	4160049	Westinghouse	R-034	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.
A11.12 REC-SCL	2848-55-W14	REDUCER - ELBOW	4160049	Westinghouse	R-035	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.
A11.12 REC-SCL	2848-55-W16	ELBOW - PIPE	4160049	Westinghouse	R-036	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.
A11.12 REC-SCL	2848-55-W17	PIPE - ELBOW	4160049	Westinghouse	R-037	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.
A11.12 REC-SCL	2848-55-W18	ELBOW - PIPE	4160049	Westinghouse	R-038	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.
A11.12 REC-SCL	2848-55-W19	PIPE - ELBOW	4160049	Westinghouse	R-039	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.
A11.12 REC-SCL	2848-55-W2	ELBOW - PIPE	4160049	Westinghouse	R-040	UT-45°\$ UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.
A11.12 REC-SCL	2848-55-W20	ELBOW - PIPE	4160049	Westinghouse	R-041	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.
A11.12 REC-SCL	2848-55-W3	PIPE - ELBOW	4160049	Westinghouse	R-042	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.
A11.12 REC-SCL	2848-55-W4	ELBOW - PIPE	4160049	Westinghouse	R-043	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.

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Item No. System A11.12 REC-SCL	Component ID 2848-55-W5	Configuration PIPE - ELBOW	Work Order 4160049	Performed By Westinghouse	Report No. R-044	Exam UT-45°S UT-70°S	Procedure CSP-ISI-208 / 0C1 CSP-ISI-208 / 0C1		Comments/Corrective Measures Examination performed per the Augmented ISI Program Section 11.12.
A11.12 REC-NCL	2848-57-W1	REDUCER - ELBOW	4160044	Westinghouse	R-045	UT-45°S UT-70°S	CSP-ISI-208 / 0C1	NRI	Examination performed per the Augmented ISI Program Section 11.12.
A11.12 REC-NCL	2848-57-W14A	PIPE - REDUCER	4160044	Westinghouse	R-046	UT-45°S UT-70°S	CSP-ISI-208 / 0C1		Examination performed per the Augmented ISI Program Section 11.12.
A11.12 REC-NCL	2848-57-W15	ELBOW - PIPÉ	4160044	Westinghouse	R-047	UT-45°S UT-70°S	CSP-ISI-208 / 0C1 CSP-ISI-208 / 0C1		Examination performed per the Augmented ISI Program Section 11.12.
A11.12 REC-NCL	2848-57-W16	PUP PIECE - ELBOW	4160044	Westinghouse	R-048	UT-45°S UT-70°S	CSP-ISI-208 / 0C/ CSP-ISI-208 / 0C/		Examination performed per the Augmented ISI Program Section 11.12.
A11.12 REC-NCL	2848-57-W17	ELBOW - PUP PIECE	4160044	Westinghouse	R-049	UT-45°S UT-70°S	CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.
A11.12 REC-NCL	2848-57-W18	PIPE - ELBOW	4160044	Westinghouse	R-050	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.
A11.12 REC-NCL	2848-57-W19	ELBOW - PIPE	4160044	Westinghouse	R-051	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.
A11.12 REC-NCL	2848-57-W20	PIPE - ELBOW	4160044	Westinghouse	R-052	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.
A11.12 REC-NCL	2848-57-W3	ELBOW - PIPE	4160044	Westinghouse	R-053	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.
A11.12 REC-NCL	2848-57-W34	PIPE - PIPE	4160044	Westinghouse	R-054	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.
A11.12 REC-NCL	2848-57-W4	PIPE - ELBOW	4160044	Westinghouse	R-055	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.

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Item No. System	Component ID 2848-57-W5	Configuration ELBOW - PIPE	Work Order 4160044	Performed By Westinghouse	Report No.	Exam UT-45°S	Procedure CSP-ISI-208 / 0C1		Commments/Corrective Measures Examination performed per the Augmented ISI
A11.12 REC-NCL	2640-91-949	ELBOW - FIFE	4100044	VVCStilightouse		UT-70°S	CSP-ISI-208 / 0C1		Program Section 11.12.
A11.12 REC-SCL	2848-9-W0	PIPE - ELBOW	4160049	Westinghouse	R-057	UT-45°S UT-70°S	CSP-ISI-208 / 0C1		Examination performed per the Augmented ISI Program Section 11.12.
A11.12 REC-SCL	2848-9-W3	PIPE - PIPE	4160052	Westinghouse	R-058	UT-45°S UT-70°S	CSP-ISI-208 / 0C1 CSP-ISI-208 / 0C1		Examination performed per the Augmented ISI Program Section 11.12.
A11.12 REC-SCL	2848-9-W37	PIPE - PIPE	4160049	Westinghouse	R-059	UT-45°S UT-70°S	CSP-ISI-208 / 0C1 CSP-ISI-208 / 0C1		Examination performed per the Augmented ISI Program Section 11.12.
A11.12 REC-SCL	2848-9-W38	PIPE - ELBOW	4160049	Westinghouse	R-060	UT-45°S UT-70°S	CSP-ISI-208 / 0C/ CSP-ISI-208 / 0C/	I NRI	Examination performed per the Augmented ISI Program Section 11.12.
A11.12 REC-SCL	2848-9-W41	ELBOW - PIPE	4160049	Westinghouse	R-061	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C	I NRI	Examination performed per the Augmented ISI Program Section 11.12. Examination performed per the Augmented ISI
A11.12 REC-SCL	2848-9-W75	PIPE - PIPE	4160049	Westinghouse	R-062	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C	1 NRI	Program Section 11.12. Examination performed per the Augmented ISI
A11.12 REC-SCL	2848-9-W76	ELBOW - PIPE	4160049	Westinghouse	R-063	UT-45°S UT-70°S UT-45°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C	1 RG	Program Section 11.12. Examination performed per the Augmented ISI
A11.12 REC-SCL	2848-9-W77	PIPE - ELBOW	4160049	Westinghouse Westinghouse	R-065	UT-45°S	CSP-ISI-208 / 0C	1 NRI	Program Section 11.12. Examination performed per the Augmented ISI
A11.12 REC-SCL	2848-9-W78 2848-9-W82	REDUCER - PIPE	4160049	Westinghouse	R-066	UT-70°S	CSP-ISI-208 / 0C	1 NRI	Program Section 11.12. Examination performed per the Augmented ISI
A11.12 REC-SCL		VALVE - REDUCER	4160049	Westinghouse	R-067	UT-70°S	CSP-ISI-208 / 0C	1 NRI	Program Section 11.12. Examination performed per the Augmented ISI
A11.12 REC-SCL	2848-9-W83	VALVE - REDUCER	4100049	vvestingriouse	11-001	UT-70°S	CSP-ISI-208 / 0C		Program Section 11.12.

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NIS-1, Table 1.1, RE20: ISI Examinations

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Plant Unit: 1

Item No. System A11.12 REC-SCL	Component ID 2848-9-W88	Configuration PIPE - PIPE	Work Order 4160052	Performed By Westinghouse	Report No. R-068	Exam UT-45°S UT-70°S	Procedure CSP-ISI-208 / 0C CSP-ISI-208 / 0C	I NRI	Commments/Corrective Measures Examination performed per the Augmented ISI Program Section 11.12.
A11.12 REC-SCL	2848-9-WJ	ELBOW - PIPE	4160049	Westinghouse	R-069	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.
A11.12 REC-SCL	2848-9-WX	ELBOW - PIPE	4160052	Westinghouse	R-070	UT-45°S UT-70°S	CSP-ISI-208 / 0C CSP-ISI-208 / 0C		Examination performed per the Augmented ISI Program Section 11.12.

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

Plant Unit: 1

Item No. Component ID	Containment Section	Report No. Ex	xam	Procedure	Results / Corrective Measures
	ponents Examined Equal:	49			
E4.11 B1-DWN-ID-SS Class: MC System: PC MWR No. 00-2410	Bay 1, Downcomer Submerged Section Interior Surface		∕T-1 ruction	01634-3, Rev 1 Corporation	VT-1 examinations were performed on the accessible interior surface areas (approximately 18" from the bottom)), including attachment welds, of the downcomers in the submerged section of the referenced Torus Bay in accordance with ASME Section XI, 1992 Edition, 1992 Addenda. Reference UCC Record number 1-1. These examinations were not scheduled, but were performed to provide information on surface conditions. Some isolated cells with slight metal loss was noted primarily near the bottom of the downcomer. Some tiger striping with discoloration and beginning of pinpoint rusting was observed. These conditions are noted but represent little or no degradation to the base metal and therefore are acceptable.
E4.11 B1-DWN-OD-SS Class: MC System: PC MWR No. 00-2410	Bay 1, Downcomer Submerged Section Exterior Surface Including Attachment Welds	CNS01-001 \ Performed By: Underwater Consti		01634-3, Rev 1 Corperation	VT-1 examinations were conducted for Code credit on the exterior surface areas, including attachment welds, or the downcomers in the submerged section of the referenced Torus Bay in accordance to ASME Section XI, 1992 Edition, 1992 Addenda. Reference UCC Record number 1-1. Tiger striping with uniform corrosion concentrated at the waterline and adjacent to bracing was observed. Random pitting, mostly within the tiger stiping was observed. None of the pitting exceeded the threshold for recoating or further engineering evaluation. Some isolated corrosion cells with slight metal loss and discoloration over most of the downcomer was observed. These conditions are noted but represent little or no degradation to the base metal and therefore are acceptable.
E4.11 B1-INT-SS Class: MC System: PC MWR No. 00-2410	Bay 1, Submerged Section Including Attachment Welds	CNS01-001 Performed By: Underwater Const		01634-3, Rev 1 Corperation	VT-1 examinations were conducted for Code credit in the submerged section, including attachment welds, of the referenced Torus Bay in accordance to ASME Section XI, 1992 Edition, 1992 Addenda. Reference UCC Record no. 1-1. Isolated to random areas of pitting corrosion, ranging from pinpoint rusting to uniform corrosion was observed. None of the pits exceeded the examination screening criteria requiring further engineering evaluation. Small areas of mechanical damage, especially near the invert weld seam were observed. Areas of discoloration were observed throughout and near the ring girders. At the waterlines, some tiger striping with pinpoint rusting with uniform corrosion were observed. At the ring girder adjacent to each gusset plate on the web of the girder, isolated areas of uniform rusting with 100% coating loss was discovered. Discoloration, pinpoint rusting and uniform corrosion concentrated at the invert weld seam. Random areas of discoloration and pinpoint rusting, with isolated pitting were found on the balance of the general shell. Near the ring girder regions, tiger striping was more prevalent and advanced, as was the pinpoint and uniform corrosion. These conditions are noted but represent little or no degradation to the base metal and therefore are acceptable.
E4.11 B10-DWN-ID-SS Class: MC System: PC MWR No. 00-2410	Bay 10, Downcomer Submerged Section Interior Surface	CNS01-010 Performed By: Underwater Cons		01634-3, Rev 1	VT-1 examinations were performed on the accessible interior surface areas, including attachment welds, of the downcomers in the submerged section of the referenced Torus Bay in accordance with ASME Section XI, 1992 Edition, 1992 Addenda. Reference UCC Record number 1-10. These examinations were not scheduled, but were performed to provide information on surface conditions. Some isolated corrosion cells with slight metal loss were observed near the bottom of the downcomers. Some tiger striping with discoloration and the beginning of pinpoint rusting were observed. These conditions are noted but represent little or no degradation to the base metal and therefore are acceptable.
E4.11 B10-DWN-OD-SS Class: MC System: PC MWR No. 00-2410	Bay 10, Downcomer Submerged Section Exterior Surface Including Attachment Welds	CNS01-010 Performed By Underwater Cons		01634-3, Rev 1	VT-1 examinations were conducted for Code credit on the exterior surface areas, including attachment welds, of the downcomers in the submerged section of the referenced Torus Bay in accordance to ASME Section XI, 1992 Edition 1992 Addenda. Reference UCC Record number 1-10. Tiger striping with uniform corrosion concentrated at the waterline and adjacent to the bracing were observed. Random pitting mostly within the tiger striping was observed. None of the pits exceeded the examination screening criteria requiring further engineering evaluation nor recoating. These conditions are noted but represent little or no degradation to the base metal and therefore are acceptable.
E4.11 B10-INT-SS Class: MC System: PC MWR No. 00-2410	Bay 10, Submerged Section Including Attachment Welds	CNS01-010 Performed By Underwater Cons		01634-3, Rev 1 n Corporation	Additional VT-1 examinations were conducted in the submerged section, including attachment welds, of the referenced Torus Bay as a result of indications discovered in Bays 1-5. Reference UCC Records numbered 1-10 an 3-10. These additional examinations were performed in accordance with 10 CFR 50.55a Codes and Standards, (D) Section 50.55a(b)2(D) as an alternative to IWE-2430(a) of ASME Section XI, 1992 Edition, 1992 Addenda. Pitting was observed. However, none of the pits exceeded the examination screening criteria requiring further engineering evaluation. Pits exceeding the examination screening criteria for recoating were recoated. Areas of discoloration and tiger striping were observed throughout. Small areas of mechanical damage were observed. Preservice VT-1 examinations were performed on the recoated areas and found to be acceptable. These conditions are noted but represent little or no degradation to the base metal and therefore are acceptable.

Bay 12, Submerged Section

Including Attachment Welds

Owner: NPPD P.O. Box 499 Columbus, NE 68602

Plant Unit: 1

MWR No. 00-2410

MWR No. 00-2410

B12-INT-SS

System: PC

E4.11

Class: MC

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

Item No. Compo	nent ID Containment Section	Report No. Exam Procedure	Results / Corrective Measures
E4.11 B11-DW			VT-1 examinations were performed on the accessible interior surface areas, including attachment welds, of the downcomers in the submerged section of the referenced Torus Bay in accordance with ASME Section XI, 1992 Edition, 1992 Addenda. Reference UCC Record number 1-11. These examinations were not scheduled, but were performed to provide information on surface conditions. Some isolated corrosion cells with slight metal loss were observed near the bottom of the downcomers. Some tiger striping with discoloration and the beginning of pinpoint rusting were observed. These conditions are noted but represent little or no degradation to the base metal and therefore are acceptable.
E4.11 B11-DW Class: MC Syste MWR No. 00-2410	N-OD-SS Bay 11, Downcomer Submerge Section Exterior Surface em: PC Including Attachment Welds	d CNS01-011 VT-1 01634-3, Rev 1 Performed By: Underwater Construction Corporation	VT-1 examinations were conducted on the exterior surface areas, including attachment welds, of the downcomers in the submerged section of the referenced Torus Bay in accordance with ASME Section XI, 1992 Edition, 1992 Addenda. Reference UCC Record number 1-11. These examinations were not scheduled at this time, but were performed to provide information on surface conditions. Tiger striping with uniform corrosion concentrated at the waterline and adjacent to the bracing were observed. Random pitting mostly within the tiger striping was observed. None of the pits exceeded the examination screening criteria requiring further engineering evaluation nor recoating. These conditions are noted but represent little or no degradation to the base metal and therefore are acceptable.
	NT-SS Bay 11, Submerged Section Including Attachment Welds em: PC	CNS01-011 VT-1 01634-3, Rev 1 Performed By: Underwater Construction Corporation	Additional VT-1 examinations were conducted in the submerged section, including attachment welds, of the referenced Torus Bay as a result of indications discovered in Bays 1-5. Reference UCC Records number 1-11, 2-11, and 3-11. The additional examinations were performed in accordance with 10 CFR 50.55a Codes and Standards, (D) Section 50.55a(b)2(D) as an alternative to IWE-2430(a). Pitting was observed, primarily around the piping penetrations. PIR S/N 4-14626 documented this condition. Pit depths exceeding pre-established examination criteric were evaluated by DED Civil Engineering and were recoated. Based on the Engineering Evaluation and calculation NEDC 92-213, Revision 2, none of the pits exceeded the design code allowable for maximum pit depth. This is documented in NEDC 94-214, Revision 3, which also establishes the revised corrosion rate for the Torus shell. Therefore, no conditions were found which effect the structural integrity of the Torus beyond Code Allowable criteria under postulated accident conditions. Preservice VT-1 examinations were performed on the recoated areas and found to be acceptable.
	VN-ID-SS Bay 12, Downcomer Submerg Section Interior Surface em: PC	ed CNS01-012 VT-1 01634-3, Rev 1 Performed By: Underwater Construction Corporation	downcomers in the submerged section of the referenced Torus Bay in accordance with Ashie Section, 1932 Edition, 1992 Addenda. Reference UCC Record number 1-12. These examinations were not scheduled, but were performed to provide information on surface conditions. ome isolated corrosion cells with slight metal loss near the bottom of the downcomers were observed. Heavy tiger striping with pinpoint rusting and general corrosion were observed on the bottom 12" of the downcomer. These conditions are noted but represent little or no degradation to the base metal and therefore are acceptable.
	/N-OD-SS Bay 12, Downcomer Submeron Section Exterior Surface Including Attachment Welds	ed CNS01-012 VT-1 01634-3, Rev Performed By: Underwater Construction Corporation	VT-1 examinations were conducted on the exterior surface areas, including attachment welds, of the downcomers in the submerged section of the referenced Torus Bay in accordance with ASME Section XI, 1992 Edition, 1992 Addenda. Reference UCC Record number 1-12. These examinations were not scheduled at this time, but were performed to provide information on surface conditions. Tiger string with uniform corrosion concentrated a the

Underwater Construction Corporation

VT-1

Underwater Construction Corporation

CNS01-012

Performed By:

01634-3, Rev 1

Commerical Service Date: July, 1974

National Board Number: 20762

Owner Certificate of Authorization: N/A

performed to provide information on surface conditions. Tiger striping with uniform corrosion concentrated a the waterline and adjacent to bracing was observed. Random pitting was observed primarily within the tiger striping. Some isolated corrosion cells with slight metal loss were observed. These conditions are noted but represent little or no degradation to the base metal and therefore are acceptable.

Additional VT-1 examinations were conducted in the submerged section, including attachment welds, of the referenced Torus Bay as a result of indications discovered in Bays 1-5. Reference UCC Records numbered 1-12, 2-12, and 3-12. The additional examinations were performed in accordance with 10 CFR 50.55a Codes and Standards, (D) Section 50.55a(b)2(D) as an alternative to IWE-2430(a). Pitting was observed, primarily around the piping penetrations. PIR S/N 4-14626 documented this condition. Pit depths exceeding pre-established examination criteria were evaluated by DED Civil Engineering and were recoated. Based on the Engineering Evaluation and calculation NEDC 92-213, Revision 2, none of the pits exceeded the design code allowable for maximum pit depth. This is documented in NEDC 94-214, Revision 3, which also establishes the revised corrosion rate for the Torus shell. Some tiger striping and discoloration were noted throughout with pinpoint rusting and uniform corrosion near the waterline. No conditions were found which effect the structural integrity of the Torus beyond Code Allowable criteria under postulated accident conditions. Preservice VT-1 examinations were performed on the recoated areas and found to be acceptable. acceptable.

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

Results / Corrective Measures Procedure Report No. Exam Component ID **Containment Section** Item No. VT-1 examinations were performed on the accessible interior surface areas, including attachment welds, of the CNS01-013 01634-3, Rev 1 downcomers in the submerged section of the referenced Torus Bay in accordance with ASME Section XI, 1992 Edition, 1992 Addenda. Reference UCC Record number 1-13. These examinations were not scheduled, but were Bay 13, Downcomer Submeraed B13-DWN-ID-SS Section Interior Surface Performed By: performed to provide information on surface conditions. Some isolated cells with slight metal loss was noted primarily System: PC Class: MC Underwater Construction Corporation near the bottom of the downcomer. Some tiger striping with discoloration and beginning of pinpoint rusting was MWR No. 00-2410 observed. These conditions are noted but represent little or no degradation to the base metal and therefore are VT-1 examinations were conducted on the exterior surface areas, including attachment welds, of the downcomers in the submerged section of the referenced Torus Bay in accordance with ASME Section XI, 1992 Edition, 1992 Addenda. Reference UCC Record number 1-13. These examinations were not scheduled at this time, but were CNS01-013 VT-1 01634-3, Rev 1 Bay 13, Downcomer Submerged E4.11 B13-DWN-OD-SS Section Exterior Surface Performed By: Class: MC System: PC Including Attachment Welds performed to provide information on surface conditions. Tiger striping with uniform corrosion concentrated at the waterline and adjacent to bracing was observed. Random pitting, mostly within the tiger stiping was observed. None of the pitting exceeded the threshold for recoating or further engineering evaluation. Some isolated corrosion cells Underwater Construction Corporation MWR No. 00-2410 with slight metal loss and discoloration over most of the downcomer was observed. These conditions are noted but represent little or no degradation to the base metal and therefore are acceptable. Additional VT-1 examinations were conducted in the submerged section, including attachment welds, of the referenced Torus Bay as a result of indications discovered in Bays 1-5. Reference UCC Records numbered 1-13. These additional examinations were performed in accordance with 10 CFR 50.55a Codes and Standards, (D) Section 50.55a(b)2(D) as an alternative to IWE-2430(a) of ASME Section XI, 1992 Edition, 1992 Addenda. Isolated to random areas of pitting corrosion, ranging from pinpoint rusting to uniform corrosion was observed. None of the pits exceeded CNS01-013 01634-3, Rev 1 VT-1 Bay 13, Submerged Section E4.11 B13-INT-SS Including Attachment Welds Performed By: Class: MC System: PC Underwater Construction Corporation MWR No. 00-2410 the examination screening criteria requiring further engineering evaluation or coating. Small areas of mechanical damage, especially near the invert weld seam were observed. Areas of discoloration were observed throughout and near the ring girders. At the waterlines, some tiger striping with pinpoint rusting with uniform corrosion were observed. At the ring girder adjacent to each gusset plate on the web of the girder, isolated areas of uniform rusting with 100% coating loss was discovered. Discoloration, pinpoint rusting and uniform corrosion concentrated at the invert weld seam. Random areas of discoloration and pinpoint rusting, with isolated pitting were found on the balance of the general shell. Near the ring girder regions, tiger striping was more prevalent and advanced, as was the pinpoint and uniform corrosion. These conditions are noted but represent little or no degradation to the base metal and therefore are acceptable. VT-1 examinations were performed on the accessible interior surface areas, including attachment welds, of the Bay 14, Downcomer Submerged CNS01-014 VT-1 01634-3, Rev 1 downcomers in the submerged section of the referenced Torus Bay in accordance with ASME Section XI, 1992 Edition, 1992 Addenda. Reference UCC Record number 1-14. These examinations were not scheduled, but were E4.11 B14-DWN-ID-SS Section Interior Surface Performed By: System: PC performed to provide information on surface conditions. Some isolated cells with slight metal loss was noted primarily Class: MC Underwater Construction Corporation near the bottom of the downcomer. Some tiger striping with discoloration and beginning of pinpoint rusting was MWR No. 00-2410 observed. These conditions are noted but represent little or no degradation to the base metal and therefore are acceptable. VT-1 examinations were conducted on the exterior surface areas, including attachment welds, of the downcomers in the submerged section of the referenced Torus Bay in accordance with ASME Section XI, 1992 Edition, 1992 Addenda. Reference UCC Record number 1-14. These examinations were not scheduled at this time, but were CNS01-014 01634-3, Rev 1 Bay 14, Downcomer Submerged VT-1 B14-DWN-OD-SS E4.11 Section Exterior Surface Including Attachment Welds Performed By: System: PC Class: MC performed to provide information on surface conditions. Tiger striping with uniform corrosion concentrated a the waterline and adjacent to bracing was observed. Random pitting was observed primarily within the tiger striping. Some isolated corrosion cells with slight metal loss were observed. These conditions are noted but represent little or Underwater Construction Corporation MWR No. 00-2410 no degradation to the base metal and therefore are acceptable.

Commerical Service Date: July, 1974

National Board Number: 20762

Owner Certificate of Authorization: N/A

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

Results / Corrective Measures Report No. Procedure Exam **Containment Section** Item No. Component ID Additional VT-1 examinations were conducted in the submerged section, including attachment welds, of the Additional VI-1 examinations were conducted in the submerged section, including attachment welds, of the referenced Torus Bay as a result of indications discovered in Bays 1-5. Reference UCC Records numbered 1-14, 2-14, and 3-14. The additional examinations were performed in accordance with 10 CFR 50.55a Codes and Standards, (D) Section 50.55a(b)2(D) as an alternative to IWE-2430(a). Pitting was observed, primarily around the piping penetrations. PIR S/N 4-14626 documented this condition. Pit depths exceeding pre-established examination criteria were evaluated by DED Civil Engineering and were recoated. Based on the Engineering Evaluation and calculation NEDIC 92-213. Payieing 2, none of the nits exceeded the design code allowable for maximum nit death. This is CNS01-014 01634-3, Rev 1 B14-INT-SS Bay 14, Submerged Section Including Attachment Welds Performed By: System: PC Class: MC Underwater Construction Corporation MWR No. 00-2410 were evaluated by DED Civil Engineering and water toxact.

NEDC 92-213, Revision 2, none of the pits exceeded the design code allowable for maximum pit depth. This is documented in NEDC 94-214, Revision 3, which also establishes the revised corrosion rate for the Torus shell. Some tiger striping and discoloration were noted throughout with pinpoint rusting and uniform corrosion near the waterline. No conditions were found which effect the structural integrity of the Torus beyond Code Allowable criteria under postulated accident conditions. Preservice VT-1 examinations were performed on the recoated areas and found to be acceptable. VT-1 examinations were performed on the accessible interior surface areas, including attachment welds, of the 01634-3, Rev 1 Bay 15, Downcomer Submerged CNS01-015 VT-1 B15-DWN-ID-SS downcomers in the submerged section of the referenced Torus Bay in accordance with ASME Section XI, 1992 E4.11 Section Interior Surface Edition, 1992 Addenda. Reference UCC Record number 1-15. These examinations were not scheduled, but were Performed By: performed to provide information on surface conditions. Some isolated cells with slight metal loss was noted primarily Class: MC System: PC Underwater Construction Corporation near the bottom of the downcomer. Some tiger striping with discoloration and beginning of pinpoint rusting was MWR No. 00-2410 observed. These conditions are noted but represent little or no degradation to the base metal and therefore are acceptable. VT-1 examinations were conducted on the exterior surface areas, including attachment welds, of the downcomers in the submerged section of the referenced Torus Bay in accordance with ASME Section XI, 1992 Edition, 1992 Addenda. Reference UCC Record number 1-15. These examinations were not scheduled at this time, but were 01634-3, Rev 1 CNS01-015 VT-1 Bay 15, Downcomer Submerged E4.11 B15-DWN-OD-SS Section Exterior Surface Including Attachment Welds Performed By: System: PC performed to provide information on surface conditions. Tiger striping with uniform corrosion concentrated a the Class: MC Underwater Construction Corporation waterline and adjacent to bracing was observed. Random pitting was observed primarily within the tiger striping. MWR No. 00-2410 Some isolated corrosion cells with slight metal loss were observed. These conditions are noted but represent little or no degradation to the base metal and therefore are acceptable. Additional VT-1 examinations were conducted in the submerged section, including attachment welds, of the CNS01-015 VT-1 01634-3, Rev 1 referenced Torus Bay as a result of indications discovered in Bays 1-5. Reference UCC Records number 1-15, 2-15, and 3-15. The additional examinations were performed in accordance with 10 CFR 50.55a Codes and Standards, (D) Bay 15, Submerged Section B15-INT-SS E4.11 Including Attachment Welds Performed By: Class: MC System: PC Section 50.55a(b)2(D) as an alternative to IWE-2430(a). Pitting was observed, primarily around the piping penetrations. PIR S/N 4-14626 documented this condition. Pit depths exceeding pre-established examination criteria were evaluated by DED Civil Engineering and were recoated. Based on the Engineering Evaluation and calculation Underwater Construction Corporation MWR No. 00-2410 NEDC 92-213, Revision 2, none of the pits exceeded the design code allowable for maximum pit depth. This is documented in NEDC 94-214, Revision 3, which also establishes the revised corrosion rate for the Torus shell. Some tiger striping and discoloration were noted throughout with pinpoint rusting and uniform corrosion near the waterline. No conditions were found which effect the structural integrity of the Torus beyond Code Allowable criteria under postulated accident conditions. Preservice VT-1 examinations were performed on the recoated areas and found to be acceptable VT-1 examinations were performed on the accessible interior surface areas, including attachment welds, of the Bay 16, Downcomer Submerged CNS01-016 VT-1 01634-3, Rev 1 downcomers in the submerged section of the referenced Torus Bay in accordance with ASME Section XI, 1992 Edition, 1992 Addenda. Reference UCC Record number 1-16. These examinations were not scheduled, but were B16-DWN-ID-SS Section Interior Surface Performed By: performed to provide information on surface conditions. Some isolated cells with slight metal loss was noted primarily System: PC Class: MC Underwater Construction Corporation near the bottom of the downcomer. Some tiger striping with discoloration and beginning of pinpoint rusting was MWR No. 00-2410 observed. These conditions are noted but represent little or no degradation to the base metal and therefore are acceptable.

Commerical Service Date: July, 1974

National Board Number: 20762

Owner Certificate of Authorization: N/A

Commerical Service Date: July, 1974 Owner: NPPD P.O. Box 499 Columbus, NE 68602 Owner Certificate of Authorization: N/A Plant: Cooper Nuclear Station P.O. Box 98 Brownville, NE 68321 National Board Number: 20762 Plant Unit: 1

Hom No	Component ID	Containment Section	Report No. Exam	Procedure	Results / Corrective Measures
E4.11 Class: MC MWR No.	B16-DWN-OD-SS System: PC	Bay 16, Downcomer Submerged Section Exterior Surface Including Attachment Welds	CNS01-016 VT-1 Performed By: Underwater Construction	01634-3, Rev 1 Corporation	VT-1 examinations were conducted on the exterior surface areas, including attachment welds, of the downcomers in the submerged section of the referenced Torus Bay in accordance with ASME Section XI, 1992 Edition, 1992 Addenda. Reference UCC Record number 1-16. These examinations were not scheduled at this time, but were performed to provide information on surface conditions. Tiger striping with uniform corrosion concentrated at the waterline and adjacent to the bracing were observed. Random pitting mostly within the tiger striping was observed. None of the pits exceeded the examination screening criteria requiring further engineering evaluation nor recoating. These conditions are noted but represent little or no degradation to the base metal and therefore are acceptable.
E4.11 Class: MC MWR No.	B16-INT-SS System: PC 00-2401	Bay 16, Submerged Section Including Attachment Welds	CNS01-016 VT-1 Performed By: Underwater Construction	01634-3, Rev 1	Additional VT-1 examinations were conducted in the submerged section, including attachment werds, or the referenced Torus Bay as a result of indications discovered in Bays 1-5. Reference UCC Records numbered 1-16 and 3-16. These additional examinations were performed in accordance with 10 CFR 50.55a Codes and Standards, (D) Section 50.55a(b)2(D) as an alternative to IWE-2430(a) of ASME Section XI, 1992 Edition, 1992 Addenda. Pitting was observed. However, none of the pits exceeded the examination screening criteria requiring further engineering evaluation. Pits exceeding the examination screening criteria for recoated. Areas of discoloration and tiger striping were observed throughout. Small areas of mechanical damage were observed. Preservice VT-1 examinations were performed on the recoated areas and found to be acceptable. These conditions are noted but represent little or no degradation to the base metal and therefore are acceptable.
E4.11 Class: MC MWR No.	B2-DWN-ID-SS System: PC 00-2410	Bay 2, Downcomer Submerged Section Interior Surface	CNS01-002 VT-1 Performed By: Underwater Construction	01634-3, Rev 1	VT-1 examinations were performed on the accessible interior surface areas, including attachment welds, of the downcomers in the submerged section of the referenced Torus Bay in accordance with ASME Section XI, 1992 Edition, 1992 Addenda. Reference UCC Record number 1-2. These examinations were not scheduled, but were performed to provide information on surface conditions. Some isolated corrosion cells with slight metal loss were observed near the bottom of the downcomers. Some tiger striping with discoloration and the beginning of pinpoint rusting were observed. These conditions are noted but represent little or no degradation to the base metal and therefore are acceptable.
E4.11 Class: MC MWR No.	B2-DWN-OD-SS System: PC 00-2410	Bay 2, Downcomer Submerged Section Exterior Surface Including Attachment Welds	CNS01-002 VT-1 Performed By: Underwater Construction	01634-3, Rev 1	VT-1 examinations were conducted for Code credit on the exterior surface areas, including attachment welds, of the downcomers in the submerged section of the referenced Torus Bay in accordance to ASME Section XI, 1992 Edition, 1992 Addenda. Reference UCC Record number 1-2. Tiger striping with uniform corrosion concentrated at the waterline and adjacent to the bracing were observed. Random pitting mostly within the tiger striping was observed. None of the pits exceeded the examination screening criteria requiring further engineering evaluation nor recoating. These conditions are noted but represent little or no degradation to the base metal and therefore are acceptable.
E4.11 Class: MC MWR No.	B2-INT-SS System: PC 00-2410	Bay 2, Submerged Section Including Attachment Welds	CNS01-002 VT-1 Performed By: Underwater Constructio	01634-3, Rev 1	VT-1 examinations were conducted for Code credit in the submerged section, including attachment welds, of the referenced Torus Bay in accordance to ASME Section XI, 1992 Edition, 1992 Addenda. Reference UCC Records numbered 1-2 and 3-2. Pitting was observed. However, none of the pits exceeded the examination screening criteria requiring further engineering evaluation. Pits exceeding the examination screening criteria for recoating were recoated. Areas of discoloration and tiger striping were observed throughout. Small areas of mechanical damage were observed. Preservice VT-1 examinations were performed on the recoated areas and found to be acceptable. These conditions are noted but represent little or no degradation to the base metal and therefore are acceptable.
E4.11 Class: MC MWR No.	•	Bay 3, Downcomer Submerged Section Interior Surface	CNS01-003 VT-1 Performed By: Underwater Constructio	01634-3, Rev 1	VT-1 examinations were performed on the accessible interior surface areas, including attachment welds, of the downcomers in the submerged section of the referenced Torus Bay in accordance with ASME Section XI, 1992 Edition, 1992 Addenda. Reference UCC Record number 1-3. These examinations were not scheduled, but were performed to provide information on surface conditions. Some isolated corrosion cells with slight metal loss near the bottom of the downcomers were observed. Heavy tiger striping with pinpoint rusting and general corrosion were observed. These conditions are noted but represent little or no degradation to the base metal and therefore are acceptable.
E4.11 Class: MO MWR No.	-	Bay 3, Downcomer Submerged Section Exterior Surface Including Attachment Welds	CNS01-003 VT-1 Performed By: Underwater Construction	·	VT-1 examinations were conducted for Code credit on the exterior surface areas, including attachment welds, of the downcomers in the submerged section of the referenced Torus Bay in accordance to ASME Section XI, 1992 Edition, 1992 Addenda. Reference UCC Record number 1-3. Tiger striping with uniform corrosion concentrated a the waterline and adjacent to bracing was observed. Random pitting was observed primarily within the tiger striping. Some isolated corrosion cells with slight metal loss were observed. These conditions are noted but represent little or no degradation to the base metal and therefore are acceptable.

Owner: NPPD P.O. Box 499 Columbus, NE 68602

Plant Unit: 1 Item No. Component ID **B3-INT-SS** E4.11 Class: MC System: PC MWR No. 00-2410 **B4-DWN-ID-SS** E4.11 Class: MC System: PC MWR No. 00-2410 B4-DWN-OD-SS E4.11 System: PC Class: MC MWR No. 00-2410 B4-INT-SS System: PC Class: MC MWR No. 00-2410

E4.11

Class: MC

MWR No. 00-2410

B5-DWN-ID-SS

System: PC

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

Containment Section

Bay 3, Submerged Section

Including Attachment Welds

Bay 4, Downcomer Submerged

Bay 4, Downcomer Submerged

Section Exterior Surface

Including Attachment Welds

Bay 4, Submerged Section

Including Attachment Welds

Bay 5, Downcomer Submerged

Section Interior Surface

Section Interior Surface

Procedure Exam Report No. VT-1 CNS01-003

CNS01-004

CNS01-004

Performed By:

CNS01-004

CNS01-005

Performed By:

Performed Bv:

Performed By:

01634-3, Rev 1 Performed By:

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Underwater Construction Corperation

01634-3, Rev 1

01634-3, Rev 1

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Commerical Service Date: July, 1974 Owner Certificate of Authorization: N/A National Board Number: 20762

Results / Corrective Measures

VT-1 examinations were performed for Code credit in the submerged section, including attachment welds, of the referenced Torus Bay in accordance to ASME Section XI, 1992 Edition, 1992 Addenda. Pitting was observed, primarily around the piping penetrations. Reference UCC Records numbered 1-3, 2-3, and 3-3. PIR S/N 4-14626 documented this condition. Pit depths exceeding pre-established examination criteria were evaluated by DED Civil Engineering and were recoated. Based on the Engineering Evaluation, none of the pits exceeded the NEDC 92-213, Revision 2 design code allowable for maximum pit depth. This is documented in NEDC 94-214, Revision 3, which also establishes the revised corrosion rate for the Torus shell. Therefore, no conditions were found which effect the structural integrity of the Torus beyond Code Allowable criteria under postulated accident conditions. Some tiger striping and discoloration were noted throughout with pinpoint rusting and uniform corrosion near the waterline. Additional examinations of the remaining bays were performed in accordance with 10 CFR 50.55a Codes and Standards, (D) Section 50.55a(b)2(D) as an alternative to IWE-2430(a). The remaining bays exhibited similar or lesser levels of degradation from pitting. Preservice VT-1 examinations were performed on the recoated areas and found to be acceptable.

VT-1 examinations were performed on the accessible interior surface areas, including attachment welds, of the downcomers in the submerged section of the referenced Torus Bay in accordance with ASME Section XI, 1992 Edition, 1992 Addenda. Reference UCC Record number 1-4. These examinations were not scheduled, but were performed to provide information on surface conditions. Some isolated corrosion cells with slight metal loss near the bottom of the downcomers were observed. Heavy tiger striping with pinpoint rusting and general corrosion were observed. Near 100% coating loss on bottom 12" of downcomer. These conditions are noted but represent little or no degradation to the base metal and therefore are acceptable.

VT-1 examinations were conducted for Code credit on the exterior surface areas, including attachment welds, of the downcomers in the submerged section of the referenced Torus Bay in accordance to ASME Section XI, 1992 Edition, 1992 Addenda. Reference UCC Record number 1-4. Tiger striping with uniform corrosion concentrated a the waterline and adjacent to bracing was observed. Random pitting was observed primarily within the tiger striping Some isolated corrosion cells with slight metal loss were observed. These conditions are noted but represent little or no degradation to the base metal and therefore are acceptable.

VT-1 examinations were performed for Code credit in the submerged section, including attachment welds, of the referenced Torus Bay in accordance to ASME Section XI, 1992 Edition, 1992 Addenda. Pitting was observed, primarily around the piping penetrations. Reference UCC Records numbered 1-4, 2-4, 3-4. PIR S/N 4-14626 documented this condition. Pit depths exceeding pre-established examination criteria were evaluated by DED Civil Engineering and were recoated. Based on the Engineering Evaluation, none of the pits exceeded the NEDC 92-213, Revision 2 design code allowable for maximum pit depth. This is documented in NEDC 94-214, Revision 3, which also establishes the revised corrosion rate for the Torus shell. Therefore, no conditions were found which effect the structural integrity of the Torus beyond Code Allowable criteria under postulated accident conditions. Also areas of tiger striping with pinpoint rusting, uniform corrosion near the waterline, and random areas of discoloration were observed. Small areas of mechanical damage near the invert weld seam were observed. Additional examinations of the remaining bays were performed in accordance with 10 CFR 50.55a Codes and Standards, (D) Section 50.55a(b)2(D) as an alternative to IWE-2430(a). The remaining bays exhibited similar or lesser levels of degradation from pitting. Preservice VT-1 examinations were performed on the recoated areas and found to be acceptable These conditions are noted but represent little or no degradation to the base metal and therefore are acceptable.

VT-1 examinations were performed on the accessible interior surface areas, including attachment welds, of the v 1-1 examinations were performed on the accessible interior surface areas, including attachment weids, of the downcomers in the submerged section of the referenced Torus Bay in accordance with ASME Section XI, 1992 Edition, 1992 Addenda. Reference UCC Record number 1-5. These examinations were not scheduled, but were performed to provide information on surface conditions. Some isolated cells with slight metal loss was noted primarily seet the better of the downcomer. Percord the conditions are performed to provide information on surface conditions. near the bottom of the downcomer. Dense tiger striping over the bottom 12" of the downcomer with discoloration and near uniform pitting corrosion. None of the pitting was deep enough to require engineering evaluation or recoating. These conditions are noted but represent little or no degradation to the base metal and therefore are acceptable.

Commerical Service Date: July, 1974 Owner: NPPD P.O. Box 499 Columbus, NE 68602 Owner Certificate of Authorization: N/A Plant: Cooper Nuclear Station P.O. Box 98 Brownville, NE 68321 National Board Number: 20762 Plant Unit: 1 Results / Corrective Measures

Item No. Component ID	Containment Section	Report No. Exam Procedure	Results / Corrective Measures
E4.11 B5-DWN-OD-SS Class: MC System: PC MWR No. 00-2410	Bay 5, Downcomer Submerged Section Exterior Surface Including Attachment Welds	CNS01-005 VT-1 01634-3, Rev 1 Performed By: Underwater Construction Corperation	VT-1 examinations were conducted for Code credit on the exterior surface areas, including attachment welds, of the downcomers in the submerged section of the referenced Torus Bay in accordance to ASME Section XI, 1992 Edition, 1992 Addenda. Reference UCC Record number 1-5. Tiger striping with uniform corrosion concentrated at the waterline and adjacent to bracing was observed. Random pitting, mostly within the tiger stiping was observed. None of the pitting exceeded the threshold for recoating or further engineering evaluation. Some isolated corrosion cells with slight metal loss and discoloration over most of the downcomer was observed. These conditions are noted but represent little or no degradation to the base metal and therefore are acceptable.
E4.11 B5-INT-SS Class: MC System: PC MWR No. 00-2410	Bay 5, Submerged Section Including Attachment Welds	CNS01-005 VT-1 01634-3, Rev 1 Performed By: Underwater Construction Corperation	VT-1 examinations were conducted for Code credit in the submerged section, including attachment welds, of the referenced Torus Bay in accordance to ASME Section XI, 1992 Edition, 1992 Addenda. Reference UCC Records numbered 1-5 and 3-5. Isolated to random areas of pitting corrosion, ranging from pinpoint rusting to uniform corrosion was observed. None of the pits exceeded the examination screening criteria requiring further engineering evaluation. Small areas of mechanical damage, especially near the invert weld seam were observed. Areas of discoloration were observed throughout and near the ring girders. At the waterlines, some tiger striping with pinpoint rusting with uniform corrosion were observed. At the ring girder adjacent to each gusset plate on the web of the girder, isolated areas of uniform rusting with 100% coating loss was discovered. Discoloration, pinpoint rusting and uniform corrosion concentrated at the invert weld seam. Random areas of discoloration and pinpoint rusting, with isolated pitting were found on the balance of the general shell. Near the ring girder regions, tiger striping was more prevalent and advanced, as was the pinpoint and uniform corrosion. These conditions are noted but represent little or no degradation to the base metal and therefore are acceptable.
E4.11 B6-DWN-ID-SS Class: MC System: PC MWR No. 00-2410	Bay 6, Downcomer Submerged Section Interior Surface	CNS01-006 VT-1 01634-3, Rev 1 Performed By: Underwater Construction Corporation	VT-1 examinations were performed on the accessible interior surface aleas, including attention that of downcomers in the submerged section of the referenced Torus Bay in accordance with ASME Section XI, 1992 Edition, 1992 Addenda. Reference UCC Record number 1-6. These examinations were not scheduled, but were performed to provide information on surface conditions. Some isolated corrosion cells with slight metal loss near the bottom of the downcomers were observed. Heavy tiger striping with pinpoint rusting and general corrosion were observed on the bottom 12" of the downcomer were observed with near 100% loss of coating. These conditions are noted but represent little or no degradation to the base metal and therefore are acceptable.
E4.11 B6-DWN-OD-SS Class: MC System: PC MWR No. 00-2410	Bay 6, Downcomer Submerged Section Exterior Surface Including Attachment Welds	CNS01-006 VT-1 01634-3, Rev 1 Performed By: Underwater Construction Corperation	VT-1 examinations were conducted for Code credit on the exterior surface areas, including attachment welds, of the downcomers in the submerged section of the referenced Torus Bay in accordance to ASME Section XI, 1992 Edition, 1992 Addenda. Reference UCC Record number 1-6. Tiger striping with uniform corrosion concentrated a the waterline and adjacent to bracing was observed. Random pitting was observed primarily within the tiger striping. Some isolated corrosion cells with slight metal loss were observed. These conditions are noted but represent little or no degradation to the base metal and therefore are acceptable.
E4.11 B6-INT-SS Class: MC System: PC MWR No. 00-2410	Bay 6, Submerged Section Including Attachment Welds	CNS01-006 VT-1 01634-3, Rev 1 Performed By: Underwater Construction Corporation	Additional VT-1 examinations were conducted in the submerged section, including attachment welds, of the referenced Torus Bay as a result of indications discovered in Bays 1-5. Reference UCC Records numbered 1-6, 2-6, 3-6 and 4-6 (for the new test area). The additional examinations were performed in accordance with 10 CFR 50.55a Codes and Standards, (D) Section 50.55a(b)2(D) as an alternative to IWE-2430(a). Pitting was observed, primarily around the piping penetrations. PIR S/N 4-14626 documented this condition. Pit depths exceeding pre-established examination criteria were evaluated by DED Civil Engineering and were recoated. Based on the Engineering Evaluation and calculation NEDC 92-213, Revision 2, none of the pits exceeded the design code allowable for maximum pit depth. This is documented in NEDC 94-214, Revision 3, which also establishes the revised corrosion rate for the Torus shell. Some tiger striping and discoloration were noted throughout with pinpoint rusting and uniform corrosion near the waterline. No conditions were found which effect the structural integrity of the Torus beyond Code Allowable criteria under postulated accident conditions. Preservice VT-1 examinations were performed on the recoated areas and found to be acceptable.
E4.11 B7-DWN-ID-SS Class: MC System: PC MWR No. 00-2410	Bay 7, Downcomer Submerged Section Interior Surface	CNS01-007 VT-1 01634-3, Rev 1 Performed By: Underwater Construction Corporation	VT-1 examinations were performed on the accessible interior surface areas, including attachment welds, of the downcomers in the submerged section of the referenced Torus Bay in accordance with ASME Section XI, 1992 Edition, 1992 Addenda. Reference UCC Record number 1-7. These examinations were not scheduled, but were performed to provide information on surface conditions. Some isolated corrosion cells with slight metal loss near the bottom of the downcomers were observed. Heavy tiger striping with pinpoint rusting and general corrosion were observed on the bottom 12" of the downcomer. These conditions are noted but represent little or no degradation to the base metal and therefore are acceptable.

Bay 9, Downcomer Submerged

Section Interior Surface

B9-DWN-ID-SS

System: PC

F4.11

Class: MC

MWR No. 00-2410

CNS01-009

Performed By:

VT-1

Underwater Construction Corporation

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

Results / Corrective Measures Exam Procedure Report No. **Containment Section** Item No. Component ID VT-1 examinations were conducted for Code credit on the exterior surface areas, including attachment welds, of the VT-1 01634-3, Rev 1 CNS01-007 B7-DWN-OD-SS Bay 7, Downcomer Submerged downcomers in the submerged section of the referenced Torus Bay in accordance to ASME Section XI, 1992 Edition, 1992 Addenda. Reference UCC Record number 1-7. Tiger striping with uniform corrosion concentrated a the Section Exterior Surface Including Attachment Welds Performed By: waterline and adjacent to bracing was observed. Random pitting was observed primarily within the tiger striping. System: PC Class: MC **Underwater Construction Corperation** Some isolated corrosion cells with slight metal loss were observed. These conditions are noted but represent little or MWR No. 00-2410 no degradation to the base metal and therefore are acceptable. Additional VT-1 examinations were conducted in the submerged section, including attachment welds, of the CNS01-007 VT-1 01634-3, Rev 1 B7-INT-SS Bay 7, Submerged Section E4.11 referenced Torus Bay as a result of indications discovered in Bays 1-5. Reference UCC Records numbered 1-7, 2-7, and 3-7. The additional examinations were performed in accordance with 10 CFR 50.55a Codes and Standards, (D) Section 50.55a(b)2(D) as an alternative to IWE-2430(a). Pitting was observed, primarily around the piping Including Attachment Welds Performed By: System: PC Class: MC **Underwater Construction Corporation** penetrations. PIR S/N 4-14626 documented this condition. Pit depths exceeding pre-established examination criteria MWR No. 00-2410 were evaluated by DED Civil Engineering and were recoated. Based on the Engineering Evaluation and calculation NEDC 92-213, Revision 2, none of the pits exceeded the design code allowable for maximum pit depth. This is documented in NEDC 94-214, Revision 3, which also establishes the revised corrosion rate for the Torus shell. Some tiger striping and discoloration were noted throughout with pinpoint rusting and uniform corrosion near the waterline No conditions were found which effect the structural integrity of the Torus beyond Code Allowable criteria under postulated accident conditions. Preservice VT-1 examinations were performed on the recoated areas and found to be acceptable VT-1 examinations were performed on the accessible interior surface areas, including attachment welds, of the 01634-3, Rev 1 VT-1 Bay 8, Downcomer Submerged CNS01-008 B8-DWN-ID-SS downcomers in the submerged section of the referenced Torus Bay in accordance with ASME Section XI, 1992 E4.11 Section Interior Surface Edition, 1992 Addenda. Reference UCC Record number 1-8. These examinations were not scheduled, but were performed to provide information on surface conditions. Some isolated corrosion cells with slight metal loss near the bottom of the downcomers were observed. Heavy tiger striping with pinpoint rusting and general corrosion were Performed By: Class: MC System: PC Underwater Construction Corporation MWR No. 00-2410 observed on the bottom 12" of the downcomer. These conditions are noted but represent little or no degradation to the base metal and therefore are acceptable. VT-1 examinations were conducted for Code credit on the exterior surface areas, including attachment welds, of the downcomers in the submerged section of the referenced Torus Bay in accordance to ASME Section XI, 1992 Edition, CNS01-008 VT-1 01634-3, Rev 1 B8-DWN-OD-SS Bay 8, Downcomer Submerged E4.11 Section Exterior Surface 1992 Addenda. Reference UCC Record number 1-8. Tiger striping with uniform corrosion concentrated a the Including Attachment Welds Performed By: System: PC waterline and adjacent to bracing was observed. Random pitting was observed primarily within the tiger striping. Class: MC Underwater Construction Corperation Some isolated corrosion cells with slight metal loss were observed. These conditions are noted but represent little or MWR No. 00-2410 no degradation to the base metal and therefore are acceptable. Additional VT-1 examinations were conducted in the submerged section, including attachment welds, of the referenced Torus Bay as a result of indications discovered in Bays 1-5. Reference UCC Records numbered 1-8, 2-8, CNS01-008 VT-1 01634-3, Rev 1 E4.11 B8-INT-SS Bay 8, Submerged Section and 3-8. The additional examinations were performed in accordance with 10 CFR 50.55a Codes and Standards, (D) Section 50.55a(b)2(D) as an alternative to IWE-2430(a). Pitting was observed, primarily around the piping Including Attachment Welds Performed By: System: PC Class: MC Underwater Construction Corporation penetrations. PIR S/N 4-14626 documented this condition. Pit depths exceeding pre-established examination criteria MWR No. 00-2410 were evaluated by DED Civil Engineering and were recoated. Based on the Engineering Evaluation and calculation NEDC 92-213, Revision 2, none of the pits exceeded the design code allowable for maximum pit depth. This is documented in NEDC 94-214, Revision 3, which also establishes the revised corrosion rate for the Torus shell. Some tiger striping and discoloration were noted throughout with pinpoint rusting and uniform corrosion near the waterline. No conditions were found which effect the structural integrity of the Torus beyond Code Allowable criteria under postulated accident conditions. Preservice VT-1 examinations were performed on the recoated areas and found to be acceptable VT-1 examinations were performed on the accessible interior surface areas, including attachment welds, of the

01634-3. Rev 1

Commerical Service Date: July, 1974

the base metal and therefore are acceptable.

National Board Number: 20762

Owner Certificate of Authorization: N/A

downcomers in the submerged section of the referenced Torus Bay in accordance with ASME Section XI, 1992

Edition, 1992 Addenda. Reference UCC Record number 1-9. These examinations were not scheduled, but were

performed to provide information on surface conditions. Some isolated corrosion cells with slight metal loss near the

bottom of the downcomers were observed. Heavy tiger striping with pinpoint rusting and general corrosion were observed on the bottom 12" of the downcomer. These conditions are noted but represent little or no degradation to

Page 9 of 9

NIS-1, Table 1.2, MCO-01-01: IWE Examinations during Mid-Cycle Outage

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

Item No. Component ID E4.11 B9-DWN-OD-SS System: PC Class: MC MWR No. 00-2410 B9-INT-SS E4.11 Class: MC System: PC MWR No. 00-2410

E4.11

Containment Section Bay 9, Downcomer Submerged Section Exterior Surface Including Attachment Welds

Bay 9, Submerged Section Including Attachment Welds

Drywell Shell Flange, Lower

Flange in Cavity

CNS01-009 Performed By: Underwater Construction Corperation

Report No. Exam Procedure VT-1 01634-3, Rev 1

CNS01-009 VT-1 01634-3, Rev 1

Underwater Construction Corporation

VT-1

Commerical Service Date: July, 1974 Owner Certificate of Authorization: N/A National Board Number: 20762

Results / Corrective Measures

VT-1 examinations were conducted for Code credit on the exterior surface areas, including attachment welds, of the downcomers in the submerged section of the referenced Torus Bay in accordance to ASME Section XI, 1992 Edition, 1992 Addenda. Reference UCC Record numbers 1-9 and 5-9 (for the test area). Tiger striping with uniform corrosion concentrated a the waterline and adjacent to bracing was observed. Random pitting was observed primarily within the tiger striping. Some isolated corrosion cells with slight metal loss were observed. These conditions are noted but represent little or no degradation to the base metal and therefore are acceptable.

Additional VT-1 examinations were conducted in the submerged section, including attachment welds, of the referenced Torus Bay as a result of indications discovered in Bays 1-5. Reference UCC Records numbered 1-9, 2-9, and 3-9. The additional examinations were performed in accordance with 10 CFR 50.55a Codes and Standards, (D) Section 50.55a(b)2(D) as an alternative to IWE-2430(a). Pitting was observed, primarily around the piping penetrations. PIR S/N 4-14626 documented this condition. Pits depths exceeding pre-established examination criteria were evaluated by DED Civil Engineering and were recoated. Based on the Engineering Evaluation and calculation NEDC 92-213, Revision 2, none of the pits exceeded the design code allowable for maximum pit depth. This is documented in NEDC 94-214, Revision 3, which also establishes the revised corrosion rate for the Torus shell. Some tiger striping and discoloration were noted throughout with pinpoint rusting and uniform corrosion near the waterline. No conditions were found which effect the structural integrity of the Torus beyond Code Allowable criteria under postulated accident conditions. Preservice VT-1 examinations were performed on the recoated areas and found to be acceptable.

CNS 3.28.1.5 REV 1

Exam SAT.

Performed By:

00-2887

Class: MC System: PC MWR No. 00-2887

DW-SH-FLG-SS

NPPD

Performed By:

Page 1 of 35

NIS-1, Table1.3, RE20: RPV In-Vessel Visual Inspections (IVVI)

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

Item No. System	Exam Location ID	Discription	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
B-N-1 Cat	egory Components Exa	mined Equal: 4							
B13.10 NB AISI: BWRVIP:	SUR-SPECHLD-1@30	Surveillance Specimen Holder Number 1 at 30 degrees Azimu		Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report, Section 3, Tab 8 for inspection results.
B13.10 NB AISI: BWRVIP:	SUR-SPECHLD-2@120	Surveillance Specimen Holder Number 2 at 120 degrees Azimuth	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report, Section 3, Tab 8 for inspection results.
B13.10 NB AISI: BWRVIP:	SUR-SPECHLD-3@300	Surveillance Specimen Holder Number 3 at 300 degrees Azimuth	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report, Section 3, Tab 8 for inspection results.
B13.10 NB AISI: BWRVIP:	VES-INTER@0>180	RPV Interior Surfaces (One Ha RPV Wall Accessible Areas)	lf 4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report, Section 3, Tab 9 for inspection results. Access limited to area abo Shroud flange.

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

Item No. System	Exam Location ID	Discription	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
B-N-2 Ca	tegory Components Exam	ined Equal: 31				***************************************			
B13.30 NB AISI: BWRVIP:	SHRD-SUPLTWLD-H9@0>180	Core Shroud Support Assembley Integral weld to Reactor Vesses H9 Weld fron 0 to 180 degrees azimuth	4160145)	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report, Section 3, Tab 3 under each Jet Pump section for inspection results.
B13.30 NB AISI: _{11.1} 9 BWRVIP:	SHRD-SUPLTWLD-H9@180>360 5	Core Shroud Support Assembley Integral weld to Reactor Vesses H9 Weld fron 180 to 360 degrees azimuth	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report, Section 3, Tab 3 under each Jet Pump section for inspection results.
B13.40 NB AISI: BWRVIP:	CRGT-(06-35)	Control Rod Guide Tube	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report, Section 3, Tab 10 for inspection results.
B13.40 NB AISI: BWRVIP:	CRGT-(10-19)	Control Rod Guide Tube	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report, Section 3, Tab 10 for inspection results.
B13.40 NB AISI: BWRVIP:	CRGT-(10-35)	Control Rod Guide Tube	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report, Section 3, Tab 10 for inspection results.
B13.40 NB AISI: BWRVIP:	CRGT-(14-23)	Control Rod Guide Tube	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report, Section 3, Tab 10 for inspection results.
B13.40 NB AISI: BWRVIP:	CRGT-(14-31)	Control Rod Guide Tube	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report, Section 3, Tab 10 for inspection results.
B13.40 NB AISI: BWRVIP:	CRGT-(18-15)	Control Rod Guide Tube	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report, Section 3, Tab 10 for inspection results. Debris found in bottom of tube and removed prior to reassembly. Notifications 10128156 and 10128282 were written to document the condition. See ESD memo ESD01077 for disposition.
B13.40 NB AISI: BWRVIP:	CRGT-(22-23)	Control Rod Guide Tube	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report, Section 3, Tab 10 for inspection results.
B13.40 NB AISI: BWRVIP:	CRGT-(22-39)	Control Rod Guide Tube	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report, Section 3, Tab 10 for inspection results.
B13.40 NB AISi: BWRVIP:	CRGT-(30-15)	Control Rod Guide Tube	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report, Section 3, Tab 10 for inspection results.

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

Item No. System	Exam Location ID	Discription	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
B13.40 NB AISI: BWRVIP:	CRGT-(34-15)	Control Rod Guide Tube	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report, Section 3, Tab 10 for inspection results.
B13.40 NB AISI: BWRVIP:	CRGT-(34-35)	Control Rod Guide Tube	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report, Section 3, Tab 10 for inspection results.
B13.40 NB AISI: BWRVIP:	CRGT-(38-23)	Control Rod Guide Tube	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report, Section 3, Tab 10 for inspection results.
B13.40 NB AISI: BWRVIP:	CRGT-(42-19)	Control Rod Guide Tube	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report, Section 3, Tab 10 for inspection results. Debris found in bottom of tube and removed prior to reassembly. Notifications 10128156 and 10128282 were written to document the condition. See ESD memo ESD01077 for disposition.
B13.40 NB AISI: BWRVIP:	OFSC-(06-35)	Four Lobed Orificed Fuel Support Casting Assembly	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report, Section 3, Tab 6 for inspection results.
B13.40 NB AISI: BWRVIP:	OFSC-(10-19)	Four Lobed Orificed Fuel Support Casting Assembly	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report, Section 3, Tab 6 for inspection results.
B13.40 NB AISI: BWRVIP:	OFSC-(10-35)	Four Lobed Orificed Fuel Support Casting Assembly	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report, Section 3, Tab 6 for inspection results.
B13.40 NB AISI: BWRVIP:	OFSC-(14-23)	Four Lobed Orificed Fuel Support Casting Assembly	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report, Section 3, Tab 6 for inspection results.
B13.40 NB AISI: BWRVIP:	OFSC-(14-31)	Four Lobed Orificed Fuel Support Casting Assembly	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report, Section 3, Tab 6 for inspection results.
B13.40 NB AISI: BWRVIP:	OFSC-(18-15)	Four Lobed Orificed Fuel Support Casting Assembly	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report, Section 3, Tab 6 for inspection results.
B13.40 NB AISI: BWRVIP:	OFSC-(22-23)	Four Lobed Orificed Fuel Support Casting Assembly	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report, Section 3, Tab 6 for inspection results.

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

Item No. System	Exam Location ID	Discription V	ork Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
B13.40 NB AISI: BWRVIP:	OFSC-(22-39)	Four Lobed Orificed Fuel Support Casting Assembly	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report, Section 3, Tab 6 for inspection results.
B13.40 NB AISI: BWRVIP:	OFSC-(30-15)	Four Lobed Orificed Fuel Support Casting Assembly	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report, Section 3, Tab 6 for inspection results.
B13.40 NB AISI: BWRVIP:	OFSC-(34-15)	Four Lobed Orificed Fuel Support Casting Assembly	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report, Section 3, Tab 6 for inspection results.
B13.40 NB AISI: BWRVIP:	OFSC-(34-35)	Four Lobed Orificed Fuel Support Casting Assembly	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report, Section 3, Tab 6 for inspection results.
B13.40 NB AISI: BWRVIP:	OFSC-(38-23)	Four Lobed Orificed Fuel Support Casting Assembly	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report, Section 3, Tab 6 for inspection results.
B13.40 NB AISI: BWRVIP:	OFSC-(42-19)	Four Lobed Orificed Fuel Support Casting Assembly	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report, Section 3, Tab 6 for inspection results.
B13.40 NB AISI: BWRVIP: 25	Core Plate	Core Plate Assembly	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report, Section 3, Tab 10 for inspection results. Examination were performed in area of Fuel Cells removed at locations 22-23, 30-15, 22-39, 34-15, 14-31, 18-15, 38-23, 06-35, 14-23, 10-19, 10-35, 34-15, and 42-19.
B13.40 NB AISI: BWRVIP: 38	SHRD-SUPASEM@0>180	Core Shroud Support Assembley, Lower Cylinder and Support Plate, from the H7 Wel and H8 Weld areas to the H9 Weld area 0 to 180 degress azimuth		Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report, Section 3, Tab 3 under each Jet Pump section for inspection results.
B13.40 NB AISI: BWRVIP: 38	SHRD-SUPASEM@180>360	Core Shroud Support Assembley, Lower Cylinder and Support Plate, from the H7 Wel and H8 Weld areas to the H9 Weld area 180 to 360 degree azimuth		Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report, Section 3, Tab 3 under each Jet Pump section for inspection results.

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

iteiti	No. System	Exam Location ID	Discription \	Work Order	Performed By	кероп но.	Exam	Procedure	Results	Commments/Corrective Measures
XMA	-VIP18 Categ	ory Components Exa	mined Equal: 61							
IVI BV	NBCS AISI: _{11.8} VRVIP: 18	CS-A-TJB@90-(P1)	Core Spray Piping Tee Junction Box at 90 degrees azimuth, Thermal Sleeve to Junction Box Weld (hidden)		Westinghouse	RE20 IVVI	NA	CSP-ISI-100 Rev 5C1 IV-BWR-001 Rev:1	NA	Weld is inaccessible, no examination performe
VI BV	NBCS AISI: 11.2 VRVIP: 18	CS-A1@170-(P8b)	Core Spray Piping Downcomer "C" at 170 degrees azimuth, Collar to Shroud Weld	4160144	Westinghouse	EDS#-1	UT-65S EVT-1	CSP-ISI-100 Rev 5C1 IV-BWR-001 Rev:1	RI RI	Indication documented in notification 10127742 Accepted by Engineering Evaluation per NEDC 98-054. 360 degree coverage on upstream side only due to configuration. Visual exam performed per WO 4160145.
∨I BV	NBCS AISI: _{11.8} VRVIP: 18	CS-A10@90-(P3)	Core Spray Piping Tee Junction Box at 90 degrees azimuth, Horizontal Pipe to Junction Box Weld, from Downcomer "C"		Westinghouse	EDS#-9	UT-65S EVT-1	CSP-ISI-100 Rev 5C1 IV-BWR-001 Rev:1	RI NRI	Spot of lack of fusion at midwall detected by UT. Visual performed per WO 4160145 with approximately 65% coverage.
∨i BV	NBCS AISI: _{11.8} VRVIP: 18	CS-A11@90-(P2)	Core Spray Piping Tee Junction Box at 90 degrees azimuth, Cover Plate to Junction Box Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
∨I BV	NBCS AISI: _{11.8} VRVIP: 18	CS-A12@90-(P3)	Core Spray Piping Tee Junction Box at 90 degrese azimuth, Horizontal Pipe to Junction Box Weld, to Downcomer "A"		Westinghouse	EDS#-10	UT-65S EVT-1	CSP-ISI-100 Rev 5C1 IV-BWR-001 Rev:1	NRI NRI	Performed UT scan from 268 through 0 to 10 degrees and 148 to 250 on the downstream side only due to the configuration. Visual exam performed under WO 4160145 with approximately 65% coverage.
∨I BV	NBCS AISI: _{11.2} VRVIP: 18	CS-A15@10-(P5)	Core Spray Piping, Sliding Sleeve to Upper Downcomer "A at 10 degrees azimuth	4160144	Westinghouse	EDS#-11	UT-65S	CSP-ISI-100 Rev 5C1	NRI	Scanned 360 degrees on both sides. Weld geometry seen.
/I BV	NBCS AISI: 11.2 VRVIP: 18	CS-A16@10-(P6)	Core Spray Piping, Sliding Sleeve Weld to Outer Sleeve, off Downcomer "A" at 10 degrees azimuth	4160144	Westinghouse	EDS#-12	UT-65S EVT-1	CSP-ISI-100 Rev 5C1 IV-BWR-001 Rev:1	NRI NRI	Performed UT scans of 360 degrees on both sides. Corner geometry seen. Visual exam performed per WO 4160145 with approximately 65% coverage.
√I BV	NBCS AISI: _{11.2} VRVIP: 18	CS-A17@10-(P7)	Core Spray Piping, Outer Sleeve to Lower Downcomer "A" at 10 degrees azimuth	e 4160144	Westinghouse	EDS#-13	UT-65S EVT-1	CSP-ISI-100 Rev 5C1 IV-BWR-001 Rev:1	NRI NRI	Scanned 360 degrees on downstream side. Scanned 60 to 330 degrees on the upstream side due to configuration. Weld geometry seer Visual exam performed per WO 4160145 with approximately 65% coverage.
VI BV	NBCS AISI: _{11.2} VRVIP: 18	CS-A2@170-(P8a)	Core Spray Piping Downcomer "C" at 170 degrees azimuth, Collar to Shroud Pipe Weld	4160144	Westinghouse	EDS#-2	UT-65S	CSP-ISI-100 Rev 5C1	NRI	Scanned 360 degrees on downstream side only due to configuration.
VI B V	NBCS AISI: _{11.2} VRVIP: 18	CS-A20@10-(P8a)	Core Spray Piping Downcomer "A" at 10 degrees azimuth, Collar to Shroud Pipe Weld	4160144	Westinghouse	EDS#-14	UT-65S	CSP-ISI-100 Rev 5C1	NRI	Scanned 360 degrees on downstream side only due to configuration. OD geometry seen.

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itom N	o. System	Exam Location ID	Discription V	Vork Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
IVI	NBCS AISI: 11.2 RVIP: 18	CS-A21@10-(P8b)	Core Spray Piping Downcomer "A" at 10 degrees azimuth, Collar to Shroud Weld	4160144	Westinghouse	EDS#-15	UT-65S	CSP-ISI-100 Rev 5C1		360 degree coverage on upstream side only due to configuration. This is a re-examination from the last several outages. Change in length is insignificant and within the accuracy of the equipment. Indication has been previously evaluated and accepted per Engineering evaluation documented in NEDC98-054. Weld geometry also observed.
BW	NBCS AISI: _{11.2} PRVIP: 18	CS-A22@10-(P9)	Core Spray Shroud Pipe to Sparger Tee Box (hidden weld) Upper Sparger Downcomer "A" at 10 degrees azimuth	4160144	Westinghouse	EDS#-28	UT-45S	CSP-ISI-100 Rev 5C1	RI	Scanned 360 degrees on upstream side only due to configuration limitations. No recordable weld crown and associated geometry of weld seen intermittently. Recordabel indications which are similar to the flaws seen in the EPRI P9 sample blocks, but due to the complexity of this examination technique, flaw characterization is not feasible. Notification 10128653 was written to document indication. Per NEDC 98-054, Revision 4 this weld is not credited for structural integrity.
IVI B V	NBCS AISI: 11.2	CS-A23@170-(P9)	Core Spray Shroud Pipe to Sparger Tee Box (hidden weld) Upper Sparger Downcomer "C" at 170 degrees azimuth	4160144	Westinghouse	EDS#-29	UT-45S	CSP-ISI-100 Rev 5C1	NRI	Scanned 360 degrees on upstream side only due to configuration limitations. No recordable weld crown and associated geometry of weld seen intermittently.
IVI	NBCS AISI: 11.2	CS-A3@170-(P4d)	Core Spray Piping, Elbow to Shroud Pipe, off Downcomer "C at 170 degrees azimuth	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	Limited to approximately 95% coverage.
IVI	NBCS AISI: 11.2	CS-A4@170-(P4c)	Core Spray Piping, Lower Downcomer "C" to Elbow at 170 degrees azimuth	4160144	Westinghouse	EDS#-3	UT-65S	CSP-ISI-100 Rev 5C1	i NRI	Scanned 360 degrees on upstream side only due to configuration.
IVI	NBCS AISI: 11.2 VRVIP: 18	CS-A5@170-(P7)	Core Spray Piping, Outer Sleev to Lower Downcomer "C" at 17 degrees azimuth	re 4160144 0	Westinghouse	EDS#-4	UT-65S EVT-1	CSP-ISI-100 Rev 5C IV-BWR-001 Rev:1	1 NRI NRI	Scanned 360 degrees on both sides. Visual exam performed per WO 4160145. Visual exam limited to approximately 65% coverage.
ı∨ı	NBCS AISI: 11.2 VRVIP: 18	CS-A6@170-(P6)	Core Spray Piping, Sliding Sleeve Weld to Outer Sleeve, off Downcomer "C" at 170 degrees azimuth	4160144	Westinghouse	EDS#-5	UT-65S	CSP-ISI-100 Rev 5C	1 NRI	Scanned 360 degrees on both sides.
IVI BV	NBCS AISI: _{11.2} VRVIP: 18	CS-A7@170-(P5)	Core Spray Piping, Sliding Sleeve to Upper Downcomer "o at 170 degrees azimuth	4160144 C"	Westinghouse	EDS#-6	UT-65S	CSP-ISI-100 Rev 5C	1 NRI	Scanned 360 degrees on both sides. Weld geometry seen.

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ltem	No. System	Exam Location ID	Discription	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
IVI	NBCS AISI: 11.2 WRVIP: 18	CS-A8@170-(P4b)	Core Spray Piping, Elbow to Pipe Downcomer "C" at 170 degrees azimuth	4160144	Westinghouse	EDS#-7	UT-65S EVT-1	CSP-ISI-100 Rev 5C1 IV-BWR-001 Rev:1	NRI RI	Performed a UT scan from 322 through 0 to 74 degrees and 142 to 254 on the downstream side only due to the configuration. Visual exam performed per WO 4160145 with coverage limited to 70%. Surface indication noted by visual exam however could not be substantiated by UT so exam considered SAT.
IVI B\	NBCS AISI: 11.2 WRVIP: 18	CS-A9@170-(P4a)	Core Spray Piping, Horizontal Pipe to Elbow, off Downcomer "C" at 170 degrees azimuth	4160144	Westinghouse	EDS#-8	UT-65S	CSP-ISI-100 Rev 5C1	NRI	Scanned from 345 through 0 to 224 degrees on the upstream side only due to the configuration.
l∨l B !	NBCS AISI: 11.8 WRVIP: 18	CS-B-TJB@270-(P1)	Core Spray Piping Tee Junction Box at 270 degrees azimuth, Thermal Sleeve to Junction Box Weld (hidden)		Westinghouse	RE20 IVVI	NA	IV-BWR-001 Rev:1	NA	Weld inaccessible for examination.
l∧l	NBCS AISI: 11.2 WRVIP: 18	CS-B1@350-(P8b)	Core Spray Piping Downcomer "B" at 350 degrees azimuth, Collar to Shroud Weld	4160144	Westinghouse	EDS#-16	UT-65S	CSP-ISI-100 Rev 5C1	NRI	Scanned 360 degrees on the upstream side due to configuration limitations. Weld geometry seen.
IVI B'	NBCS AISI: 11.8 WRVIP: 18	CS-B10@270-(P3)	Core Spray Piping Tee Junction Box at 270 degrees azimuth, Horizontal Pipe to Junction Box Weld, from Downcomer "B"		Westinghouse	EDS#-21	UT-65S EVT-1	CSP-ISI-100 Rev 5C1 IV-BWR-001 Rev:1	NRI NRI	Performed a UT scan from 350 to 94 degrees and 110 to 214 on the downstream side only due to the configuration. Visual exam performed per WO 4160145 with approximately 55% coverage.
IVI B	NBCS AISI: 11.8 WRVIP: 18	CS-B11@270-(P2)	Core Spray Piping Tee Junctio Box at 270 degrees azimuth, Cover Plate to Junction Box Weld	1 4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
IVI B	NBCS AISI: 11.8 WRVIP: 18	CS-B12@270-(P3)	Core Spray Piping Tee Junctio Box at 270 degrees azimuth, Horizontal Pipe to Junction Box Weld, to Downcomer "D"		Westinghouse	EDS#-22	UT-65S EVT-1	CSP-ISI-100 Rev 5C1 IV-BWR-001 Rev:1	NRI NRI	Performed a UT scan from 264 through 0 to 10 degrees and 144 to 250 on the downstream side due to configuration limitations. Visual exam performed per WO 4160145 with approximately 55% coverage.
IVI B	NBCS AISI: _{11.2} WRVIP: 18	CS-B15@190-(P5)	Core Spray Piping, Sliding Sleeve to Upper Downcomer " at 190 degrees azimuth	4160144 D"	Westinghouse	EDS#-23	UT-65S	CSP-ISI-100 Rev 5C1	NRI	Scanned 360 degrees on both sides. Weld geometry seen.
ı∨ı B	NBCS AISI: 11.2 WRVIP: 18	CS-B16@190-(P6)	Core Spray Piping, Sliding Sleeve Weld to Outer Sleeve, off Downcomer "D" at 190 degrees azimuth	4160144	Westinghouse	EDS#-24	UT-65S	CSP-ISI-100 Rev 5C1	i NRI	Scanned 360 degrees on upstream side. Scanned 10 to 323 degrees on the downstream side due to configuration limitations. Corner geometry seen.
IVI B	NBCS AISI: 11.2 WRVIP: 18	CS-B17@190-(P7)	Core Spray Piping, Outer Slee to Lower Downcomer "D" at 19 degrees azimuth		Westinghouse	EDS#-25	UT-65S EVT-1	CSP-ISI-100 Rev 5C1 IV-BWR-001 Rev:1	NRI NRI	Performed a UT scan of 360 degrees on downstream side. Scanned 10 to 323 degrees on the upstream side due to configuration limitations. Weld geometry seen. Visual exam performed per WO 4160145 with approximately 65% coverage.

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16	la Sustam	Exam Location ID	Discription	Nork Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
IVI	NBCS AISI: 11.2	CS-B2@350-(P8a)	Core Spray Piping Downcomer "B" at 350 degrees azimuth, Collar to Shroud Pipe Weld	4160144	Westinghouse	EDS#-17	UT-65S	CSP-ISI-100 Rev 5C1	NRI	Scanned 360 degrees on downstream side due to configuration limitations. OD corner geometry seen.
IVI	NBCS AISI: _{11.2} /RVIP: 18	CS-B20@190-(P8a)	Core Spray Piping Downcomer "D" at 190 degrees azimuth, Collar to Shroud Weld	4160144	Westinghouse	EDS#-26	UT-65S EVT-1	CSP-ISI-100 Rev 5C1 IV-BWR-001 Rev:1	RI NRI	Indication documented in notification 10131163. Accepted by Engineering Evaluation per NEDC 98-054. 360 degree coverage on downstream side due to configuration. Visual exam performed per WO 4160145.
IVI BV	NBCS AISI: 11.2 VRVIP: 18	CS-B21@190-(P8b)	Core Spray Piping Downcomer "D" at 190 degrees azimuth, Collar to Shroud Pipe Weld	4160144	Westinghouse	EDS#-27	UT-65S	CSP-ISI-100 Rev 5C1	NRI	360 degree coverage on upstream side only due to configuration limitations. Weld geometry seen.
IVI	NBCS AISI: _{11.2} VRVIP: 18	CS-B22@190-(P9)	Core Spray Shroud Pipe to Sparger Tee Box (hidden weld) Lower Sparger Downcomer "D' at 190 degrees azimuth		Westinghouse	EDS#-30	UT-45S	CSP-ISI-100 Rev 5C1	RI	Scanned 360 degrees on upstream side only due to configuration limitations. No recordable weld crown and associated geometry of weld seen intermittently. Recordabel indications which are similar to the flaws seen in the EPRI P9 sample blocks, but due to the complexity of this examination technique, flaw characterization is not feasible. Notification 10128653 was written to document indication. Per NEDC 98-054, Revision 4 this weld is not credited for structural integrity.
iVi B\	NBCS AISI: 11.2 VRVIP: 18	CS-B23@350-(P9)	Core Spray Shroud Pipe to Sparger Tee Box (hidden weld Lower Sparger Downcomer "B' at 350 degrees azimuth	4160144	Westinghouse	EDS#-31	UT-45\$	CSP-ISI-100 Rev 5C	i Ri	Scanned 360 degrees on upstream side only due to configuration limitations. No recordable weld crown and associated geometry of weld seen intermittently. Recordabel indications which are similar to the flaws seen in the EPRI P9 sample blocks, but due to the complexity of this examination technique, flaw characterization is not feasible. Notification 10128653 was written to document indication. Per NEDC 98-054, Revision 4 this weld is not credited for structural integrity.
l∨l	NBCS AISI: 11.2 WRVIP: 18	CS-B5@350-(P7)	Core Spray Piping, Outer Slee to Lower Downcomer "B" at 35 degrees azimuth	ve 4160144 0	Westinghouse	EDS#-18	UT-65S EVT-1	CSP-ISI-100 Rev 5C IV-BWR-001 Rev:1	1 NRI NRI	Scanned from 20 to 315 degrees on the upstream side due to configuration limitations. Scanned 360 degrees on the downstream side. Weld geometry seen. Visual exam performed per WO 4160145 with approximately 65% coverage.
i∨i B	NBCS AISI: 11.2 WRVIP: 18	CS-B6@350-(P6)	Core Spray Piping, Sliding Sleeve Weld to Outer Sleeve, off Downcomer "B" at 350 degrees azimuth	4160144	Westinghouse	EDS#-19	UT-65S	CSP-ISI-100 Rev 5C	1 NRI	Scanned from 20 to 315 degrees on the downstream side due to configuration limitations. Scanned 360 degrees on the upstream side. Weld geometry seen.
IVI	NBCS AISI: 11.2 WRVIP: 18	CS-B7@350-(P5)	Core Spray Piping, Sliding Sleeve to Upper Downcomer ' at 350 degrees azimuth	4160144 B"	Westinghouse	EDS#-20	UT-65S	CSP-ISI-100 Rev 5C	1 NRI	Scanned 360 degrees on both sides. Weld geometry seen.

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VI	NBCS AISI: 11.2 VRVIP: 18	S-BL-XTRW@346	Core Spray Sparger "B" Lower, Sparger Pipe to Sparger Pipe, Extra Weld at 346 degrees azimuth	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report Section 3 Tab 2
∨I B V	NBCS AISI: 11.2 VRVIP: 18	S-BL-XTRW@354	Core Spray Sparger "B" Lower, Sparger Pipe to Sparger Pipe, Extra Weld at 354 degrees azimuth	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report Section 3 Tab 2
∨I BV	NBCS AISI: 11.2 VRVIP: 18	S1-AU-TB@10	Core Spray Sparger "A" Upper Tee Box at 10 degrees azimuth Cover Plate to Sparger Tee Box Weld		Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
∨I B V	NBCS AISI: 11.2 VRVIP: 18	S1-BL-TB@350	Core Spray Sparger "B" Lower Tee Box at 350 degrees azimuth, Cover Plate to Sparge Tee Box Weld		Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
IVI BV	NBCS AISI: 11.2 VRVIP: 18	S1-CU-TB@170	Core Spray Sparger "C" Upper Tee Box at 170 degrees azimuth, Cover Plate to Sparge Tee Box Weld		Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
ı∨ı BV	NBCS AISI: 11.2 VRVIP: 18	S1-DL-TB@190	Core Spray Sparger "D" Lower Tee Box at 190 degrees azimuth, Cover Plate to Sparge Tee Box Weld		Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
i∨i B v	NBCS AISI: 11.2 WRVIP: 18	S2@12-AU-TB@10	Core Spray Sparger "A" Upper Tee Box at 10 degrees azimuth Sparger Pipe to Tee Box Weld at 12 degrees azimuth	١,	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
ı∨i B\	NBCS AISI: 11.2 WRVIP: 18	S2@168-CU-TB@170	Core Spray Sparger "C" Upper Tee Box at 170 degrees azimuth, Sparger Pipe to Tee Box Weld at 168 degrees azimuth	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
IVI B\	NBCS AISI: 11.2 WRVIP: 18	S2@172-CU-TB@170	Core Spray Sparger "C" Upper Tee Box at 170 degrees azimuth, Sparger Pipe to Tee Box Weld at 172 degrees azimuth	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
B/	NBCS AISI: 11.2 WRVIP: 18	S2@188-DL-TB@190	Core Spray Sparger "D" Lower Tee Box at 190 degrees azimuth, Sparger Pipe to Tee Box Weld at 188 degrees azimuth	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1		
i∨i B'	NBCS AISI: _{11.2} WRVIP: 18	S2@192-DL-TB@190	Core Spray Sparger "D" Lower Tee Box at 190 degrees azimuth, Sparger Pipe to Tee Box Weld at 192 degrees azimuth	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:	i NRI	

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lter	n No. System	Exam Location ID	Discription	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
IVI I	NBCS AISI: 11.2 BWRVIP: 18	S2@348-BL-TB@350	Core Spray Sparger "B" Lower Tee Box at 350 degrees azimuth, Sparger Pipe to Tee Box Weld at 348 degrees azimuth	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
iVI I	NBCS AISI: 11.2 BWRVIP: 18	S2@352-BL-TB@350	Core Spray Sparger "B" Lower Tee Box at 350 degrees azimuth, Sparger Pipe to Tee Box Weld at 352 degrees azimuth	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
IVI I	NBCS AISI: 11.2 BWRVIP: 18	S2@8-AU-TB@10	Core Spray Sparger "A" Upper Tee Box at 10 degrees azimuth Sparger Pipe to Tee Box Weld at 8 degrees azimuth	4160145 ,	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
IVI	NBCS AISI: 11.2 BWRVIP: 18	S3a-CU-NSPW@92>269	Core Spray Sparger "C" Upper, Nozzle to Sparger Pipe Welds, all spray nozzles from 92 to 269 degrees azimuth		Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	RI	
IVI	NBCS AISI: 11.2 BWRVIP: 18	S3b-CU-NOW@92>269	Core Spray Sparger "C" Upper, Nozzle to Orifice Welds, all spray nozzles from 92 to 269 degrees azimuth	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
IVI	NBCS AISI: 11.2 BWRVIP: 18	S3c-DL-DRSPW@261	Core Spray Sparger "D" Lower, Drain to Sparger PipeWeld at 8 degrees azimuth, Includes Tac Weld on Drain Plug	31	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
iVI	NBCS AISI: _{11.2} BWRVIP: 18	S4-AU-ECSPW@271	Core Spray Sparger "A" Upper End Cap to Sparger Pipe Weld at 271 degrees azimuth Assumed to be creviced internally	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
IVI	NBCS AISI: _{11.2} BWRVIP: 18	S4-AU-ECSPW@89	Core Spray Sparger "A" Upper End Cap to Sparger Pipe Weld at 89 degrees azimuth Assume to be creviced internally	İ	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
iVi	NBCS AISI: _{11.2} BWRVIP: 18	S4-BL-ECSPW@271	Core Spray Sparger "B" Lower End Cap to Sparger Pipe Weld at 271 degrees azimuth Assumed to be creviced internally		Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
ĮVI	NBCS AISI: 11.2 BWRVIP: 18	S4-BL-ECSPW@89	Core Spray Sparger "B" Lower End Cap to Sparger Pipe Weld at 89 degrees azimuth Assume to be creviced internally	i	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	

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NIS-1, Table1.3, RE20: RPV In-Vessel Visual Inspections (IVVI)

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IVI	NBCS AISI: 11.2 VRVIP: 18	S4-CU-ECSPW@269	Core Spray Sparger "C" Upper, End Cap to Sparger Pipe Weld at 269 degrees azimuth Assumed to be creviced internally		Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
ı∨ı B V	NBCS AISI: _{11.2} VRVIP: 18	S4-CU-ECSPW@91	Core Spray Sparger "C" Upper, End Cap to Sparger Pipe Weld at 93 degrees azimuth Assume to be creviced internally		Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI BV	NBCS AISI: 11.2 VRVIP: 18	S4-DL-ECSPW@269	Core Spray Sparger "D" Lower, End Cap to Sparger Pipe Weld at 269 degrees azimuth Assumed to be creviced internally		Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI B V	NBCS AISI: 11.2 VRVIP: 18	S4-DL-ECSPW@91	Core Spray Sparger "D" Lower, End Cap to Sparger Pipe Weld at 91 degrees azimuth Assume to be creviced internally	l	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI

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tem No. S	ystem	Exam Location ID	Discription	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
XMA-VIP2	26 Cate	gory Components Exan	nined Equal: 1	6					·	
VI N AISI BWRVIF	l:	TG-HLDWN-ASEM@0		4160145	Westinghouse	RE20 IVVI	VT-1	IV-BWR-001 Rev:1	NRI	
VI N AISI BWRVIF	IB I:	TG-HLDWN-ASEM@180		4160145	Westinghouse	RE20 IVVI	VT-1	IV-BWR-001 Rev:1	NRI	
VI N AIS	IB I :	TG-HLDWN-ASEM@270		4160145	Westinghouse	RE20 IVVI	VT-1	IV-BWR-001 Rev:1	NRI	
	IВ 1:	TG-HLDWN-ASEM@90		4160145	Westinghouse	RE20 IVVI	VT-1	IV-BWR-001 Rev:1	NRI	
	1B :	TG-HOZALNPIN-ASEM@0		4160145	Westinghouse	RE20 IVVI	VT-1	IV-BWR-001 Rev:1	NRI	
	\B :	TG-HOZALNPIN-ASEM@180		4160145	Westinghouse	RE20 IVVI	VT-1	IV-BWR-001 Rev:1	NRI	
	NB I:	TG-HOZALNPIN-ASEM@270		4160145	Westinghouse	RE20 IVVI	VT-1	IV-BWR-001 Rev:1	NRI	
	NB il:	TG-HOZALNPIN-ASEM@90		4160145	Westinghouse	RE20 IVVI	VT-1	IV-BWR-001 Rev:1	NRI	
	NB SI:	TG-RIMWLD>290>300		4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:	i nri	
	NB SI:	TG-RIMWLD@110>120		4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:	i NRI	
	NB S1:	TG-RIMWLD@140>150		4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:	1 NRI	

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IVI N		TG-RIMWLD@20>30		4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
BWRVIP	? : 26								
IVI N AISI BWRVIP	l:	TG-RIMWLD@200>210		4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
ivi N AISI BWRVIP	l:	TG-RIMWLD@230>240		4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI N AISI BWRVIP	i:	TG-RIMWLD@320>330		4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI N AISI BWRVIP	l:	TG-RIMWLD@50-60		4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI

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ltem N	o. System	Exam Location ID	Discription	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
XMA-	VIP38 Categ	ory Components Exa	mined Equal: 8							
	NB AISI: _{11.26} RVIP: 38	GW@135	Shroud Support Plate Gusset Weld at 135 Degree Azimuth	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report Section 3, Tab 7 for inspection results.
	NB AISI: 11.26 RVIP: 38	GW@15	Shroud Support Plate Gusset Weld at 15 Degree Azimuth	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report Section 3, Tab 7 for inspection results.
	NB AISI: _{11.26} RVIP: 38	GW@165	Shroud Support Plate Gusset Weld at 165 Degree Azimuth	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report Section 3, Tab 7 for inspection results.
	NB AISI: _{11.26} RVIP: 38	GW@195	Shroud Support Plate Gusset Weld at 195 Degree Azimuth	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report Section 3, Tab 7 for inspection results.
/I BW	NB AISI: 11.26 RVIP: 38	GW@315	Shroud Support Plate Gusset Weld at 315 Degree Azimuth	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report Section 3, Tab 7 for inspection results.
vi BW	NB AISI: _{11.26} RVIP: 38	GW@45	Shroud Support Plate Gusset Weld at 45 Degree Azimuth	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report Section 3, Tab 7 for inspection results.
vi B W	NB AISI: _{11.15} RVIP: 38	SHRD-SUPLTWLD-H8	Core Shroud Horizontal Circumferential Weld including intersections of vertical seam welds	4160145 g	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report Section 3, Tab 7 for inspection results.
ı∨ı B W	NB AISI: _{11.15} (RVIP: 38	SHRD-SUPLTWLD-H9	Core Shroud Horizontal Circumferential Weld including intersections of vertical seam welds	4160145 g	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report Section 3, Tab 7 for inspection results.

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tem N	lo. System	Exam Location ID	Discription	Work Order	Performed By	Report No.	Exam	Procedure	Results Commments/Corrective Measures
(MA-	VIP41 Categ	ory Components Exa	mined Equal: 157						
∕I BW	NB AISI: _{11.3} 'RVIP: 41	AD-1-JP1	Jet Pump Adapter Top to Adapter Bottom Weld (Bi- metallic weld)	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
√I BW	NB AISI: _{11.3} /RVIP: 41	AD-1-JP10	Jet Pump Adapter Top to Adapter Bottom Weld (Bi- metallic weld)	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
VI В W	NB AISI: _{11.3} /RVIP: 41	AD-1~JP2	Jet Pump Adapter Top to Adapter Bottom Weld (Bi- metallic weld)	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
∨I B W	NB AISI: _{11.3} /RVIP: 41	AD-1-JP3	Jet Pump Adapter Top to Adapter Bottom Weld (Bi- metallic weld)	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
∨I B W	NB AISI: _{11.3} /RVIP: 41	AD-1-JP4	Jet Pump Adapter Top to Adapter Bottom Weld (Bi- metallic weld)	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
VI B W	NB AISI: _{11.3} /RVIP: 41	AD-1-JP5	Jet Pump Adapter Top to Adapter Bottom Weld (Bi- metallic weld)	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
Vi B W	NB AISI: _{11.3} /RVIP: 41	AD-1-JP6	Jet Pump Adapter Top to Adapter Bottom Weld (Bi- metallic weld)	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
Vi B W	NB AISI: 11.3 /RVIP: 41	AD-1-JP7	Jet Pump Adapter Top to Adapter Bottom Weld (Bi- metallic weld)	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
VI BW	NB AISI: _{11.3} /RVIP: 41	AD-1-JP8	Jet Pump Adapter Top to Adapter Bottom Weld (Bi- metallic weld)	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
ı∨ı BW	NB AISI: _{11.3} /RVIP: 41	AD-1-JP9	Jet Pump Adapter Top to Adapter Bottom Weld (Bi- metallic weld)	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
∨ı BW	NB AISI: _{11.3} /RVIP: 41	AD-2-JP1	Jet Pump Adapter Bottom to Core Shroud Support Plate	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI

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Item No. System	Exam Location ID	Discription	Work Order	Performed By	Report No.	Exam	Procedure	Results Commments/Corrective Measures
IVI NB AISI: 11.3 BWRVIP: 41	AD-2-JP10	Jet Pump Adapter Bottom to Core Shroud Support Plate	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI NB AISI: 11.3 BWRVIP: 41	AD-2-JP2	Jet Pump Adapter Bottom to Core Shroud Support Plate	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI NB AISI: _{11.3} BWRVIP: 41	AD-2-JP3	Jet Pump Adapter Bottom to Core Shroud Support Plate	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI NB AISI: _{11.3} BWRVIP: 41	AD-2-JP4	Jet Pump Adapter Bottom to Core Shroud Support Plate	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI NB AISI: _{11.3} BWRVIP: 41	AD-2-JP5	Jet Pump Adapter Bottom to Core Shroud Support Plate	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI NB AISI: _{11.3} BWRVIP: 41	AD-2-JP6	Jet Pump Adapter Bottom to Core Shroud Support Plate	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI NB AISI: _{11.3} BWRVIP: 41	AD-2-JP7	Jet Pump Adapter Bottom to Core Shroud Support Plate	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI NB AISI: _{11.3} BWRVIP: 41	AD-2-JP8	Jet Pump Adapter Bottom to Core Shroud Support Plate	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI Exam Limited to 40% Due to Configuration
IVI NB AISI: _{11.3} BWRVIP: 41	AD-2-JP9	Jet Pump Adapter Bottom to Core Shroud Support Plate	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI Exam Limited to 40% Due to Configuration
IVI NB AISI: 11.3 BWRVIP: 41	AD-3a-JP1	Jet Pump Adapter Backing Rir Fillet Welds at the Diffuser Tailpipe-to-Adapter Interface	ng 4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI Exam Limited to 40% Due to Configuration
IVI NB AISI: 11.3 BWRVIP: 41	AD-3a-JP10	Jet Pump Adapter Backing Rir Fillet Welds at the Diffuser Tailpipe-to-Adapter Interface	ng 4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI Exam Limited to 40% Due to Configuration

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Item	No. System	Exam Location ID	Discription	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
IVI BV	NB AISI: 11.3 VRVIP: 41	AD-3a-JP2	Jet Pump Adapter Backing Ring Fillet Welds at the Diffuser Tailpipe-to-Adapter Interface	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	Exam Limited to 40% Due to Configuration
IVI B V	NB AISI: _{11.3} VRVIP: 41	AD-3a-JP3	Jet Pump Adapter Backing Ring Fillet Welds at the Diffuser Tailpipe-to-Adapter Interface	g 4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	Exam Limited to 40% Due to Configuration
ı∨ı BV	NB AISI: _{11.3} VRVIP: 41	AD-3a-JP4	Jet Pump Adapter Backing Rin Fillet Welds at the Diffuser Tailpipe-to-Adapter Interface	g 4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	Exam Limited to 40% Dur to Configuration
IVI B V	NB AISI : _{11.3} VRVIP: 41	AD-3a-JP5	Jet Pump Adapter Backing Rin Fillet Welds at the Diffuser Tailpipe-to-Adapter Interface	g 4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	Exam Limited to 40% Dur to Configuration
ı∨ı B\	NB AISI: 11.3 VRVIP: 41	AD-3a-JP6	Jet Pump Adapter Backing Rin Fillet Welds at the Diffuser Tailpipe-to-Adapter Interface	g 4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	Exam Limited to 40% Dur to Configuration
ı∨ı B\	NB AISI: 11.3 VRVIP: 41	AD-3a-JP7	Jet Pump Adapter Backing Rin Fillet Welds at the Diffuser Tailpipe-to-Adapter Interface	g 4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	Exam Limited to 40% Due to Configuration
IVI B\	NB AISI: _{11.3} WRVIP: 41	AD-3a-JP8	Jet Pump Adapter Backing Rin Fillet Welds at the Diffuser Tailpipe-to-Adapter Interface	g 4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	Exam Limited to 40% Due to Configuration
IVI B\	NB AISI: _{11.3} WRVIP: 41	AD-3a-JP9	Jet Pump Adapter Backing Rin Fillet Welds at the Diffuser Tailpipe-to-Adapter Interface	g 4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	Exam Limited to 40% Due to Configuration
B i	NB AISI: 11.3 WRVIP: 41	AD-3b-JP1	Jet Pump Adapter Backing Rir Fillet Welds at the Diffuser Tailpipe-to-Adapter Interface	g 4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	N/A	Not Accessible
IVI	NB AISI: _{11.3} WRVIP: 41	AD-3b-JP10	Jet Pump Adapter Backing Rir Fillet Welds at the Diffuser Tailpipe-to-Adapter Interface	g 4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	N/A	Not Accessible
IVI B'	NB AISI: _{11.3} WRVIP: 41	AD-3b-JP2	Jet Pump Adapter Backing Rir Fillet Welds at the Diffuser Tailpipe-to-Adapter Interface	ng 4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	N/A	Not Accessible

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Item N	lo. System	Exam Location ID	Discription V	Vork Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
IVI	NB AISI: _{11.3} RVIP: 41	AD-3b-JP3	Jet Pump Adapter Backing Ring Fillet Welds at the Diffuser Tailpipe-to-Adapter Interface	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	N/A	Not Accessible
ı∨ı B W	NB AISI: _{11.3} RVIP: 41	AD-3b-JP4	Jet Pump Adapter Backing Ring Fillet Welds at the Diffuser Tailpipe-to-Adapter Interface	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	N/A	Not Accessible
IVI B W	NB AISI: _{11.3} RVIP: 41	AD-3b-JP5	Jet Pump Adapter Backing Ring Fillet Welds at the Diffuser Tailpipe-to-Adapter Interface	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	N/A	Not Accessible
ı∨ı B W	NB AISI: 11.3 RVIP: 41	AD-3b-JP6	Jet Pump Adapter Backing Ring Fillet Welds at the Diffuser Tailpipe-to-Adapter Interface	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	N/A	Not Accessible
ı∨ı B W	NB AISI: _{11.3} 'RVIP: 41	AD-3b-JP7	Jet Pump Adapter Backing Ring Fillet Welds at the Diffuser Tailpipe-to-Adapter Interface	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	N/A	Not Accessible
IVI B W	NB AISI: _{11.3} (RVIP: 41	AD-3b-JP8	Jet Pump Adapter Backing Ring Fillet Welds at the Diffuser Tailpipe-to-Adapter Interface	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	N/A	Not Accessible
IVI BW	NB AISI: _{11.3} /RVIP: 41	AD-3b-JP9	Jet Pump Adapter Backing Ring Fillet Welds at the Diffuser Tailpipe-to-Adapter Interface	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	N/A	Not Accessible
i∨i BW	NB AISI: 11.3 /RVIP: 41	BB-1-JP1&JP2	Jet Pump Beam Bolt Hole Region	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
ı∨ı B W	NB AISI: 11.3 /RVIP: 41	BB-1-JP3&JP4	Jet Pump Beam Bolt Hole Region	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
ı∨ı BW	NB AISI: _{11.3} /RVIP: 41	BB-1-JP5&JP6	Jet Pump Beam Bolt Hole Region	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
IVI B W	NB AISI: _{11.3} /RVIP: 41	BB-1-JP7&JP8	Jet Pump Beam Bolt Hole Region	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	

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IVI	No. System NB AISI: 11.3	Exam Location ID BB-1-JP9&JP10	Discription BWRVIP Location BB-1 Jet Pump Beam Bolt Hole Region	Work Order 4160145	Performed By Westinghouse	Report No. RE20 IVVI	Exam EVT-1	Procedure IV-BWR-001 Rev:1	Results Commments/Corrective Measures NRI
IVI E	NB AISI: _{11.3} BWRVIP: 41	BB-2-JP1&JP2	Jet Pump Beam Transition Arm Region	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI E	NB AISI : _{11.3} BWRVIP: 41	BB-2-JP3&JP4	et Pump Beam Transition Arm Region	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI E	NB AISI: 11.3 BWRVIP: 41	BB-2-JP5&JP6	Jet Pump Beam Transition Arm Region	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI E	NB AISI : _{11.3} BWRVIP: 41	BB-2-JP7&JP8	Jet Pump Beam Transition Arm Region	1 4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
i∨i E	NB AISI: _{11.3} BWRVIP: 41	BB-2-JP9&JP10	BWRVIP Location BB-2 Jet Pump Beam Transition Arm Region	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI	NB AISI: _{11.3} BWRVIP: 41	DF-1-JP1	Diffuser Collar to Diffuser Shell Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI I	NB AISI: _{11.3} BWRVIP: 41	DF-1-JP10	Diffuser Collar to Diffuser Shell Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI I	NB AISI: _{11.3} BWRVIP: 41	DF-1-JP2	Diffuser Collar to Diffuser Shell Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI I	NB AISI: _{11.3} BWRVIP: 41	DF-1-JP3	Diffuser Collar to Diffuser Shel Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	I NRI
IVI	NB AISI: _{11.3} BWRVIP: 41	DF-1-JP4	Diffuser Collar to Diffuser Shel Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	I NRI

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Item N	lo. System	Exam Location ID	Discription	Work Order	Performed By	Report No.	Exam	Procedure		Commments/Corrective Measures
IVI B W	NB AISI: _{11.3} 'RVIP: 41	DF-1-JP5	Diffuser Collar to Diffuser Shell Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
IVI BW	NB AISI: _{11.3} /RVIP: 41	DF-1-JP6	Diffuser Collar to Diffuser Shel Weld	l 4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
ı∨ı B W	NB AISI: _{11.3} /RVIP: 41	DF-1-JP7	Diffuser Collar to Diffuser Shel Weld	1 4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
ı∨ı BW	NB AISI: _{11.3} /RVIP: 41	DF-1-JP8	BWRVIP Location Jet Pump Diffuser Collar to Diffuser Shel Weld	4160145 I	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
ı∨ı BV	NB AISI: _{11.3} /RVIP: 41	DF-1-JP9	BWRVIP Location DF-1 Jet Pump Diffuser Collar to Diffuse Shell Weld	4160145 er	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
IVI B V	NB AISI: 11.3 VRVIP: 41	DF-2-JP1	Diffuser Shell to Tailpipe Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
ı∨ı BV	NB AISI: _{11.3} VRVIP: 41	DF-2-JP10	Diffuser Shell to Tailpipe Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
IVI B V	NB AISI: _{11.3} VRVIP: 41	DF-2-JP2	Diffuser Shell to Tailpipe Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
IVI BV	NB AISI: 11.3 VRVIP: 41	DF-2-JP3	Diffuser Shell to Tailpipe Weld	d 4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
IVI BV	NB AISI: _{11.3} VRVIP: 41	DF-2-JP4	Diffuser Shell to Tailpipe Wel	d 4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1		
IVI B\	NB AISI : 11.3 VRVIP : 41	DF-2-JP5	Diffuser Shell to Tailpipe Wel	d 4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	

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Item No. System IVI NB AISI: 11.3	Exam Location ID DF-2-JP6	Discription Diffuser Shell to Tailpipe Weld	Work Order 4160145	Performed By Westinghouse	Report No.	Exam EVT-1	Procedure IV-BWR-001 Rev:1	Results Commments/Corrective Measures NRI
BWRVIP: 41 IVI NB AISI: 11.3	DF-2-JP7	Diffuser Shell to Tailpipe Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
BWRVIP: 41 IVI NB AISI: 11.3	DF-2-JP8	BWRVIP Location Jet Pump Diffuser Shell to Tailpipe Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
BWRVIP: 41 IVI NB AISI: 11.3	DF-2-JP9	BWRVIP Location DF-2 Jet Pump Diffuser Shell to Tailpipe Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
BWRVIP: 41 IVI NB AISI: 11.6	IN-4-JP1	Jet Pump Inlet Single Hole Nozzle Casting to Mixer Barrel	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
BWRVIP: 41 IVI NB AISI: 11.6	IN-4-JP2	Jet Pump Inlet Single Hole Nozzle Casting to Mixer Barrel	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
BWRVIP: 41 IVI NB AISI: 11.6 BWRVIP: 41	IN-4-JP3	Jet Pump Inlet Single Hole Nozzle Casting to Mixer Barrel	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI NB AISI: 11.6 BWRVIP: 41	IN-4-JP4	Jet Pump Inlet Single Hole Nozzle Casting to Mixer Barrel	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI NB AISI: 11.6 BWRVIP: 41	IN-4-JP5	Jet Pump Inlet Single Hole Nozzle Casting to Mixer Barrel	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI NB AISI : _{11.6} BWRVIP : 41	IN-4-JP6	Jet Pump Inlet Single Hole Nozzle Casting to Mixer Barrel	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI NB AISI: 11.6 BWRVIP: 41	MX-2-JP1	BWRVIP Location MX-2 Jet Pump Barrel to Adapter Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI

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Item	No. System	Exam Location ID	Discription	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
ı∨ı BV	NB AISI: _{11.6} VRVIP: 41	MX-2-JP10	BWRVIP Location MX-2 Jet Pump Barrel to Adapter Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
IVI BV	NB AISI: _{11.6} VRVIP: 41	MX-2-JP2	Barrel to Adapter Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
ı∨ı B \	NB AISI: _{11.6} VRVIP: 41	MX-2-JP3	Barrel to Adapter Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
IVI B V	NB AISI: _{11.6} VRVIP: 41	MX-2-JP4	Barrel to Adapter Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
IVI B\	NB AISI: _{11.6} VRVIP: 41	MX-2-JP5	Barrel to Adapter Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
IVI B\	NB AISI : _{11.6} VRVIP: 41	MX-2-JP6	Barrel to Adapter Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
IVI B\	NB AISI: _{11.6} WRVIP: 41	MX-2-JP7	Barrel to Adapter Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
i∨i B\	NB AISI: _{11.6} WRVIP: 41	MX-2-JP8	BWRVIP Location MX-2 Jet Pump Barrel to Adapter Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
l∨l B\	NB AISI: 11.6 WRVIP: 41	MX-2-JP9	BWRVIP Location MX-2 Jet Pump Barrel to Adapter Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
l∧i	NB AISI : _{11.19} WRVIP : 41	RB-1a-JP1&JP2	Jet Pump Primary Riser Brace Leaf to Vessel Pad Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
B	NB AISI: _{11.19} WRVIP: 41	RB-1a-JP3&JP4	Jet Pump Primary Riser Brace Leaf to Vessel Pad Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	

Owner: NPPD P.O. Box 499 Columbus, NE 68602 Plant: Cooper Nuclear Station P.O. Box 98, Brownville, NE 68321 Plant Unit: 1

Item No. System	Exam Location ID	Discription	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
IVI NB AISI: _{11.19} BWRVIP: 41	RB-1a-JP5&JP6	Jet Pump Primary Riser Brace Leaf to Vessel Pad Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
IVI NB AISI: 11.19 BWRVIP: 41	RB-1b-JP1&JP2	Jet Pump Primary Riser Brace Leaf to Vessel Pad Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
IVI NB AISI: 11.19 BWRVIP: 41	RB-1b-JP3&JP4	Jet Pump Primary Riser Brace Leaf to Vessel Pad Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
IVI NB AISI: 11.19 BWRVIP: 41	RB-1b-JP5&JP6	Jet Pump Primary Riser Brace Leaf to Vessel Pad Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
IVI NB AISI: _{11,19} BWRVIP: 41	RB-1c-JP1&JP2	Jet Pump Primary Riser Brace Leaf to Vessel Pad Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
IVI NB AISI: _{11.19} BWRVIP: 41	RB-1c-JP3&JP4	Jet Pump Primary Riser Brace Leaf to Vessel Pad Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
IVI NB AISI: 11.19 BWRVIP: 41	RB-1c-JP5&JP6	Jet Pump Primary Riser Brace Leaf to Vessel Pad Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
IVI NB AISI: 11.19 BWRVIP: 41	RB-1d-JP1&JP2	Jet Pump Primary Riser Brace Leaf to Vessel Pad Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
IVI NB AISI: 11.19 BWRVIP: 41	RB-1d-JP3&JP4	Jet Pump Primary Riser Brace Leaf to Vessel Pad Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
IVI NB AISI: 11.19 BWRVIP: 41	RB-1d-JP5&JP6	Jet Pump Primary Riser Brace Leaf to Vessel Pad Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
IVI NB AISI: 11.19 BWRVIP: 41	RB-2a-JP1&JP2	Jet Pump Primary Riser Brace Leaf to Yoke Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

Item No. System	Exam Location ID	Discription	Work Order	Performed By	Report No.	Exam	Procedure	Results Commments/Corrective Measures
IVI NB AISI: _{11.19} BWRVIP: 41	RB-2a-JP3&JP4	Jet Pump Primary Riser Brace Leaf to Yoke Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI NB AISI: 11.19 BWRVIP: 41	RB-2a-JP5&JP6	Jet Pump Primary Riser Brace Leaf to Yoke Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI NB AISI: 11.19 BWRVIP: 41	RB-2b-JP1&JP2	Jet Pump Primary Riser Brace Leaf to Yoke Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI NB AISI: _{11.19} BWRVIP: 41	RB-2b-JP3&JP4	Jet Pump Primary Riser Brace Leaf to Yoke Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI NB AISI: _{11.19} BWRVIP: 41	RB-2b-JP5&JP6	Jet Pump Primary Riser Brace Leaf to Yoke Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI NB AISI: _{11.19} BWRVIP: 41	RB-2c-JP1&JP2	Jet Pump Primary Riser Brace Leaf to Yoke Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI NB AISI: _{11.19} BWRVIP: 41	RB-2c-JP3&JP4	Jet Pump Primary Riser Brace Leaf to Yoke Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI NB AISI: 11.19 BWRVIP: 41	RB-2c-JP5&JP6	Jet Pump Primary Riser Brace Leaf to Yoke Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI NB AISI: _{11.19} BWRVIP: 41	RB-2d-JP1&JP2	Jet Pump Primary Riser Brace Leaf to Yoke Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	ı NRI
IVI NB AISI: _{11.19} BWRVIP: 41	RB-2d-JP3&JP4	Jet Pump Primary Riser Brace Leaf to Yoke Weld	e 4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	i NRI
IVI NB AISI: 11.19 BWRVIP: 41	RB-2d-JP5&JP6	Jet Pump Primary Riser Brac Leaf to Yoke Weld	e 4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	r NRI

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

Item No. System	Exam Location ID	Discription	Work Order	Performed By	Report No.	Exam	Procedure	Results Commments/Corrective Measures
IVI NB AISI: _{11.22} BWRVIP: 41	RS-1-JP1&JP2	Recirc Thermal Sleeve to Jet Pump Riser Elbow Weld BWRVIP-41 Location RS-1	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI NB AISI: 11.22 BWRVIP: 41	RS-1-JP3&JP4	Recirc Thermal Sleeve to Jet Pump Riser Elbow Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI NB AISI: _{11.22} BWRVIP: 41	RS-1-JP5&JP6	Recirc Thermal Sleeve to Jet Pump Riser Elbow Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI NB AISI: _{11.22} BWRVIP: 41	RS-1-JP7&JP8	Recirc Thermal Sleeve to Jet Pump Riser Elbow Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI NB AISI: 11.22 BWRVIP: 41	RS-1-JP9&JP10	Recirc Thermal Sleeve to Jet Pump Riser Elbow Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI NB AISI: _{11.22} BWRVIP: 41	RS-2-JP1&JP2	Jet Pump Riser Elbow to Riser Pipe Weld BWRVIP-41 Locatio RS-2		Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI NB AISI: _{11.22} BWRVIP: 41	RS-2-JP3&JP4	Jet Pump Riser Elbow to Riser Pipe Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI NB AISI: _{11.22} BWRVIP: 41	RS-2-JP5&JP6	Jet Pump Riser Elbow to Riser Pipe Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI NB AISI: 11.22 BWRVIP: 41	RS-2-JP7&JP8	Jet Pump Riser Elbow to Riser Pipe Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI NB AISI: _{11.22} BWRVIP: 41	RS-2-JP9&JP10	Jet Pump Riser Elbow to Riser Pipe Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI
IVI NB AISI: 11.22 BWRVIP: 41	RS-3-JP1&JP2	Jet Pump Riser Pipe to Transition Piece Weld BWRVII 41 Location RS-3	4160145 >-	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

Item No. System	Exam Location ID	Discription	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
IVI NB AISI: _{11.22} BWRVIP: 41	RS-3-JP3&JP4	Jet Pump Riser Pipe to Transition Piece Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
IVI NB AISI: 11.22 BWRVIP: 41	RS-3-JP5&JP6	Jet Pump Riser Pipe to Transition Piece Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
IVI NB AISI: 11.22 BWRVIP: 41	RS-3-JP7&JP8	Jet Pump Riser Pipe to Transition Piece Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
IVI NB AISI: _{11.22} BWRVIP: 41	RS-3-JP9&JP10	Jet Pump Riser Pipe to Transition Piece Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
IVI NB AISI: _{11.22} BWRVIP: 41	RS-6-JP1&JP2	BWRVIP Location RS-6 Jet Pump Riser Pipe to Restrainer Bracket Circ. Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
IVI NB AISI: _{11.22} BWRVIP: 41	RS-6-JP3&JP4	Jet Pump Riser Pipe to Restrainer Bracket Circ. Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
IVI NB AISI: _{11.22} BWRVIP: 41	RS-6-JP5&JP6	Jet Pump Riser Pipe to Restrainer Bracket Circ. Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
IVI NB AISI: _{11.22} BWRVIP: 41	RS-7-JP1&JP2	BWRVIP Locarion RS-7 Jet Pump Riser Pipe to Restraine Bracket Circ. Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
IVI NB AISI: _{11.22} BWRVIP: 41	RS-7-JP3&JP4	Jet Pump Riser Pipe to Restrainer Bracket Circ. Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
IVI NB AISI: _{11.22} BWRVIP: 41	RS-7-JP5&JP6	Jet Pump Riser Pipe to Restrainer Bracket Circ. Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
IVI NB AISI: 11.22 BWRVIP: 41	RS-8-JP1&JP2	Jet Pump Riser Pipe to Prima Riser Brace Circ. Weld	ry 4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

Item N	No. System	Exam Location ID			Performed By		Exam	Procedure		Commments/Corrective Measures
ı∨ı BW	NB AISI: _{11.22} /RVIP: 41	RS-8-JP3&JP4	Jet Pump Riser Pipe to Primary Riser Brace Circ. Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
i∨i B W	NB AISI: _{11.22} VRVIP: 41	RS-8-JP5&JP6	Jet Pump Riser Pipe to Primary Riser Brace Circ. Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
ı∨ı B V	NB AISI: _{11.22} VRVIP: 41	RS-9-JP1&JP2	Jet Pump Riser Pipe to Primary Riser Brace Circ. Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
ı∨i B v	NB AISI: 11.22 VRVIP: 41	RS-9-JP3&JP4	Jet Pump Riser Pipe to Primary Riser Brace Circ. Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	
IVI	NB AISI: _{11.22} VRVIP: 41	RS-9-JP5&JP6	Jet Pump Riser Pipe to Priman Riser Brace Circ. Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1		
IVI B V	NB AISI: _{11.21} VRVIP: 41	WD-1-JP1	Jet Pump Wedge Bearing Surface Area	4160145	Westinghouse	RE20 IVVI	VT-1	IV-BWR-001 Rev:1		
IVI BV	NB AISI: _{11.21} WRVIP: 41	WD-1-JP10	Jet Pump Wedge Bearing Surface Area	4160145	Westinghouse	RE20 IVVI	VT-1	IV-BWR-001 Rev:1		
IVI BV	NB AISI: _{11.21} WRVIP: 41	WD-1-JP11	Jet Pump Wedge Bearing Surface Area	4160145	Westinghouse	RE20 IVVI	VT-1	IV-BWR-001 Rev:1		
IVI BV	NB AISI: 11.21 WRVIP: 41	WD-1-JP12	Jet Pump Wedge Bearing Surface Area	4160145	Westinghouse	RE20 IVVI	VT-1	IV-BWR-001 Rev:1		
!VI B\	NB AISI: _{11.21} WRVIP: 41	WD-1-JP13	Jet Pump Wedge Bearing Surface Area	4160145	Westinghouse	RE20 IVVI	VT-1	IV-BWR-001 Rev:1		
ı∨ı B\	NB AISI : _{11.21} WRVIP : 41	WD-1-JP14	Jet Pump Wedge Bearing Surface Area	4160145	Westinghouse	RE20 IVVI	VT-1	IV-BWR-001 Rev:	i NRI	

NIS-1, Table1.3, RE20: RPV In-Vessel Visual Inspections (IVVI)

Owner: NPPD P.O. Box 499 Columbus, NE 68602 Plant: Cooper Nuclear Station P.O. Box 98, Brownville, NE 68321 Plant Unit: 1

Item No. System	Exam Location ID	Discription	Work Order	Performed By	Report No.	Exam	Procedure	Results Commments/Corrective Measures
IVI NB AISI: 11.21 BWRVIP: 41	WD-1-JP15	Jet Pump Wedge Bearing Surface Area	4160145	Westinghouse	RE20 IVVI	VT-1	IV-BWR-001 Rev:1	NRI
IVI NB AISI: 11.21 BWRVIP: 41	WD-1-JP16	Jet Pump Wedge Bearing Surface Area	4160145	Westinghouse	RE20 IVVI	VT-1	IV-BWR-001 Rev:1	NRI
IVI NB AISI: _{11.21} BWRVIP: 41	WD-1-JP17	Jet Pump Wedge Bearing Surface Area	4160145	Westinghouse	RE20 IVVI	VT-1	IV-BWR-001 Rev:1	NRI
IVI NB AISI: 11.21 BWRVIP: 41	WD-1-JP18	Jet Pump Wedge Bearing Surface Area	4160145	Westinghouse	RE20 IVVI	VT-1	IV-BWR-001 Rev:1	NRI
IVI NB AISI: 11.21 BWRVIP: 41	WD-1-JP19	Jet Pump Wedge Bearing Surface Area	4160145	Westinghouse	RE20 IVVI	VT-1	IV-BWR-001 Rev:1	NRI
IVI NB AISI: _{11.21} BWRVIP: 41	WD-1-JP2	Jet Pump Wedge Bearing Surface Area	4160145	Westinghouse	RE20 IVVI	VT-1	IV-BWR-001 Rev:1	NRI
IVI NB AISI: _{11.21} BWRVIP: 41	WD-1-JP20	Jet Pump Wedge Bearing Surface Area	4160145	Westinghouse	RE20 IVVI	VT-1	IV-BWR-001 Rev:1	NRI
IVI NB AISI: _{11.21} BWRVIP: 41	WD-1-JP3	Jet Pump Wedge Bearing Surface Area	4160145	Westinghouse	RE20 IVVI	VT-1	IV-BWR-001 Rev:1	NRI
IVI NB AISI: _{11.21} BWRVIP: 41	WD-1-JP4	Jet Pump Wedge Bearing Surface Area	4160145	Westinghouse	RE20 IVVI	VT-1	IV-BWR-001 Rev:1	NRI
IVI NB AISI: _{11.21} BWRVIP: 41	WD-1-JP5	Jet Pump Wedge Bearing Surface Area	4160145	Westinghouse	RE20 IVVI	VT-1	IV-BWR-001 Rev:1	NRI
IVI NB AISI: 11.21 BWRVIP: 41	WD-1-JP6	Jet Pump Wedge Bearing Surface Area	4160145	Westinghouse	RE20 IVVI	VT-1	IV-BWR-001 Rev:1	NRI

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NIS-1, Table1.3, RE20: RPV In-Vessel Visual Inspections (IVVI)

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

Item	No. System	Exam Location ID	Discription	Work Order	Performed By	Report No.	Exam	Procedure	Results Commments/Corrective Measures
iVI B'	NB AISI: 11.21 WRVIP: 41	WD-1-JP7	Jet Pump Wedge Bearing Surface Area	4160145	Westinghouse	RE20 IVVI	VT-1	IV-BWR-001 Rev:1	NRI
IVI B	NB AISI: _{11.21} WRVIP: 41	WD-1-JP8	Jet Pump Wedge Bearing Surface Area	4160145	Westinghouse	RE20 IVVI	VT-1	IV-BWR-001 Rev:1	NRI
IVI B	NB AISI: _{11.21} WRVIP: 41	WD-1-JP9	BWRVIP Location WD-1 Jet Pump Wedge Bearing Surface Area	4160145	Westinghouse	RE20 IVVI	VT-1	IV-BWR-001 Rev:1	NRI

NIS-1, Table1.3, RE20: RPV In-Vessel Visual Inspections (IVVI)

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

ltem I	No. System	Exam Location ID	Discription	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
XMA	-VIP47 Categ	jory Components Exa	mined Equal: 36							
IVI BV	NB AISI: VRVIP: 47	CRGT-1-(06-35)	Control Rod Drive Guide Tube to Aligment Lug Weld	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	Did not remove at this time. Examined from interior of Guide Tube in the weld area in conjunction with ASME Section XI examination
IVI BV	NB AISI: VRVIP: 47	CRGT-1-(10-19)	Control Rod Drive Guide Tube to Aligment Lug Weld	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	Did not remove at this time. Examined from interior of Guide Tube in the weld area in conjunction with ASME Section XI examination
IVI B V	NB AISI: VRVIP: 47	CRGT-1-(10-35)	Control Rod Drive Guide Tube to Aligment Lug Weld	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	Did not remove at this time. Examined from interior of Guide Tube in the weld area in conjunction with ASME Section XI examination
ivi BV	NB AISI: VRVIP: 47	CRGT-1-(14-23)	Control Rod Drive Guide Tube to Aligment Lug Weld	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	Did not remove at this time. Examined from interior of Guide Tube in the weld area in conjunction with ASME Section XI examination
ı∨ı BV	NB AISI: WRVIP: 47	CRGT-1-(14-31)	Control Rod Drive Guide Tube to Aligment Lug Weld	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	Did not remove at this time. Examined from interior of Guide Tube in the weld area in conjunction with ASME Section XI examination
IVI BV	NB AISI: VRVIP: 47	CRGT-1-(18-15)	Control Rod Drive Guide Tube to Aligment Lug Weld	e 4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	Did not remove at this time. Examined from interior of Guide Tube in the weld area in conjunction with ASME Section XI examination
ı∨ı B v	NB AISI: WRVIP: 47	CRGT-1-(22-23)	Control Rod Drive Guide Tube to Aligment Lug Weld	e 4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	Did not remove at this time. Examined from interior of Guide Tube in the weld area in conjunction with ASME Section XI examination
ı∨ı BV	NB AISI: WRVIP: 47	CRGT-1-(22-39)	Control Rod Drive Guide Tube to Aligment Lug Weld	e 4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	Did not remove at this time. Examined from interior of Guide Tube in the weld area in conjunction with ASME Section XI examination
ı∨ı BV	NB AISI: WRVIP: 47	CRGT-1-(30-15)	Control Rod Drive Guide Tube to Aligment Lug Weld	e 4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	Did not remove at this time. Examined from interior of Guide Tube in the weld area in conjunction with ASME Section XI examination
IVI B\	NB AISI: WRVIP: 47	CRGT-1-(34-15)	Control Rod Drive Guide Tube to Aligment Lug Weld	e 4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	Did not remove at this time. Examined from interior of Guide Tube in the weld area in conjunction with ASME Section XI examination
ı∨ı B\	NB AISI: WRVIP: 47	CRGT-1-(34-35)	Control Rod Drive Guide Tube to Aligment Lug Weld	e 4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	Did not remove at this time. Examined from interior of Guide Tube in the weld area in conjunction with ASME Section XI examination

NIS-1, Table1.3, RE20: RPV In-Vessel Visual Inspections (IVVI)

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

Item No	o. System	Exam Location ID	Discription	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
iVI	NB AISI: RVIP: 47	CRGT-1-(38-23)	Control Rod Drive Guide Tube to Aligment Lug Weld	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	Did not remove at this time. Examined from interior of Guide Tube in the weld area in conjunction with ASME Section XI examination.
	NB AISI: RVIP: 47	CRGT-1-(42-19)	Control Rod Drive Guide Tube to Aligment Lug Weld	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	Did not remove at this time. Examined from interior of Guide Tube in the weld area in conjunction with ASME Section XI examination.
IVI	NB AISI: RVIP: 47	CRGT-2-(10-19)	Control Rod Drive Gudie Tube Assembly Upper Circ Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	Did not remove at this time. Examined from interior of Guide Tube in the weld area in conjunction with ASME Section XI examination.
IVI	NB AISI: RVIP: 47	CRGT-2-(10-35)	Control Rod Drive Gudie Tube Assembly Upper Circ Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	Did not remove at this time. Examined from interior of Guide Tube in the weld area in conjunction with ASME Section XI examination.
IVI	NB AISI: RVIP: 47	CRGT-2-(22-39)	Control Rod Drive Gudie Tube Assembly Upper Circ Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	Did not remove at this time. Examined from interior of Guide Tube in the weld area in conjunction with ASME Section XI examination.
IVI	NB AISI: RVIP: 47	CRGT-2-(34-15)	Control Rod Drive Gudie Tube Assembly Upper Circ Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	Did not remove at this time. Examined from interior of Guide Tube in the weld area in conjunction with ASME Section XI examination.
IVI	NB AISI: RVIP: 47	CRGT-2-(38-23)	Control Rod Drive Gudie Tube Assembly Upper Circ Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	Did not remove at this time. Examined from interior of Guide Tube in the weld area in conjunction with ASME Section XI examination.
IVI B W	NB AISI: RVIP: 47	CRGT-3-(10-19)	Control Rod Drive Gudie Tube Assembly Lower Circ Weld	e 4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	Did not remove at this time. Examined from interior of Guide Tube in the weld area in conjunction with ASME Section XI examination.
IVI B W	NB AISI: RVIP: 47	CRGT-3-(10-35)	Control Rod Drive Gudie Tube Assembly Lower Circ Weld	e 4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	Did not remove at this time. Examined from interior of Guide Tube in the weld area in conjunction with ASME Section XI examination
iVI	NB AISI: 'RVIP: 47	CRGT-3-(22-39)	Control Rod Drive Gudie Tub Assembly Lower Circ Weld	e 4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	Did not remove at this time. Examined from interior of Guide Tube in the weld area in conjunction with ASME Section XI examination
IVI	NB AISI: /RVIP: 47	CRGT-3-(34-15)	Control Rod Drive Gudie Tub Assembly Lower Circ Weld	e 4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	Did not remove at this time. Examined from interior of Guide Tube in the weld area in conjunction with ASME Section XI examination

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

•	m Exam Location ID	Discription \	Nork Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
IVI NB AISI: BWRVIP: 47	CRGT-3-(38-23)	Control Rod Drive Gudie Tube Assembly Lower Circ Weld	4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	Did not remove at this time. Examined from interior of Guide Tube in the weld area in conjunction with ASME Section XI examination.
IVI NB AISI: 11 BWRVIP: 47	FS/GT-APRIN-1-(10-35)	Anti-Rotational Pin and Pin to Core Plate Weld for Control Rod Drive Guide Tube Alignment Lug and Fuel Support Casting	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	
IVI NB AISI: 11 BWRVIP: 47	FS/GT-APRIN-1-(22-23)	Anti-Rotational Pin and Pin to Core Plate Weld for Control Rod Drive Guide Tube Alignment Lug and Fuel Support Casting	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	Did not remove Orificed Fuel Support Casting or Guide Tube at this time. Examined in conjunction with ASME Section XI examination.
IVI NB AISI: ₁₁ BWRVIP: 47	FS/GT-APRIN-1-(22-39)	Anti-Rotational Pin and Pin to Core Plate Weld for Control Rod Drive Guide Tube Alignment Lug and Fuel Support Casting	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	Did not remove Orificed Fuel Support Casting or Guide Tube at this time. Examined in conjunction with ASME Section XI examination.
IVI NB AISI: 11 BWRVIP: 47	FS/GT-ARPIN-1-(06-35) 24	Anti-Rotational Pin and Pin to Core Plate Weld for Control Rod Drive Guide Tube Alignment Lug and Fuel Support Casting	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	Did not remove Orificed Fuel Support Casting or Guide Tube at this time. Examined in conjunction with ASME Section XI examination.
IVI NB AISI: 11 BWRVIP: 47	FS/GT-ARPIN-1-(10-19)	Anti-Rotational Pin and Pin to Core Plate Weld for Control Rod Drive Guide Tube Alignment Lug and Fuel Support Casting	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	Did not remove Orificed Fuel Support Casting or Guide Tube at this time. Examined in conjunction with ASME Section XI examination.
IVI NB AISI: 11 BWRVIP: 47	FS/GT-ARPIN-1-(14-23) 24	Anti-Rotational Pin and Pin to Core Plate Weld for Control Roo Drive Guide Tube Alignment Lug and Fuel Support Casting	4160145 I	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	Did not remove Orificed Fuel Support Casting or Guide Tube at this time. Examined in conjunction with ASME Section XI examination.
IVI NB AISI: 11 BWRVIP: 47	FS/GT-ARPIN-1-(14-31) 24	Anti-Rotational Pin and Pin to Core Plate Weld for Control Roo Drive Guide Tube Alignment Lug and Fuel Support Casting	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	Did not remove Orificed Fuel Support Casting or Guide Tube at this time. Examined in conjunction with ASME Section XI examination.
IVI NB AISI: ₁₁ BWRVIP: 47	FS/GT-ARPIN-1-(18-15)	Anti-Rotational Pin and Pin to Core Plate Weld for Control Roo Drive Guide Tube Alignment Lug and Fuel Support Casting	4160145 I	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	
IVI NB AISI: 11 BWRVIP: 47	FS/GT-ARPIN-1-(30-15)	Anti-Rotational Pin and Pin to Core Plate Weld for Control Rod Drive Guide Tube Alignment Lug and Fuel Support Casting	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	
IVI NB AISI: ₁₁ BWRVIP: 47	FS/GT-ARPIN-1-(34-15) 24	Anti-Rotational Pin and Pin to Core Plate Weld for Control Rod Drive Guide Tube Alignment Lug and Fuel Support Casting	4160145 I	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	Did not remove Orificed Fuel Support Casting or Guide Tube at this time. Examined in conjunction with ASME Section XI examination.

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NIS-1, Table1.3, RE20: RPV In-Vessel Visual Inspections (IVVI)

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

	E Location ID	Discription	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
Item No. System IVI NB AISI: 11.24 BWRVIP: 47	Exam Location ID FS/GT-ARPIN-1-(34-35)	Anti-Rotational Pin and Pin to Core Plate Weld for Control Ro Drive Guide Tube Alignment Lug and Fuel Support Casting	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1		Did not remove Orificed Fuel Support Casting or Guide Tube at this time. Examined in conjunction with ASME Section XI examination.
IVI NB AISI: 11.24 BWRVIP: 47	FS/GT-ARPIN-1-(38-23)	Anti-Rotational Pin and Pin to Core Plate Weld for Control Ro Drive Guide Tube Alignment Lug and Fuel Support Casting		Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1		Did not remove Orificed Fuel Support Casting or Guide Tube at this time. Examined in conjunction with ASME Section XI examination.
IVI NB AISI: 11.24 BWRVIP: 47	FS/GT-ARPIN-1-(42-19)	Anti-Rotational Pin and Pin to Core Plate Weld for Control Ro Drive Guide Tube Alignment Lug and Fuel Support Casting		Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1		Did not remove Orificed Fuel Support Casting or Guide Tube at this time. Examined in conjunction with ASME Section XI examination.

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

Item No. System	Exam Location ID	Discription	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
XMAUG Cate	egory Components Exam	ined Equal: 13			***************************************				
RICSIL NB AISI: 11.21 BWRVIP:	JP1>JP10-ADJSCR-GAPS	Jet Pump Adjusting Screw Ga	os 4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report, Section 3, Tab 3 under each Jet Pump section for inspection results.
RICSIL NB AISI: 11.21 BWRVIP:	JP11>JP20-ADJSCR-GAPS	Jet Pump Adjusting Screw Ga	os 4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	See RE20 IVVI Report, Section 3, Tab 3 under each Jet Pump section for inspection results.
SIL 420 NB AISI: 11.13 BWRVIP:	JP1>JP20-SENSLINE	Jet Pump Sensing Lines	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	
SIL 420 NB JI AISI: _{11.13} BWRVIP:	P1>JP20-SENSLINE-BKTWLDS	Jet Pump Sensing Line Bracke Wleds	t 4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	
SIL 462 NB AISI: 11.7 BWRVIP:	SSAHC-0-UT	Core Shroud Access Hole Cov to Core Shroud Support Plate	er 4160142	Westinghouse	AHCEDS#-1	UT	CPRI-ISI-350 Rev 0C	1 NRI	UT examinations performed utilizing 45S and phased array 0 to 80L search units. Examinations were not performed at 305 to 20 and 120 to 190 degrees due to configuration limitations. Visual exam per WO 4160145 (ref. RE20 IVVI report).
SIL 462 NB AISI: 11.7 BWRVIP:	SSAHC-180-UT	Core Shroud Access Hole Cov to Core Shroud Support Plate	er 4160142	Westinghouse	AHCEDS#-2	UT	CPRI-ISI-350 Rev 0C	1 RI	UT examinations performed using the 45S and phased array 0 to 80 L search units. Indication identified at 222 to 239 degrees using phased array search unit. Indication appeared to be weld "suck up" or undercut and is not indicative of IGSCC therefore SAT.
SIL 462 NB AISI: 11.7 BWRVIP:	SSAHC-180-VT	Core Shroud Access Hole Cov to Core Shroud Support Plate	er 4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	Examined areas that were inaccessable by UT.
SIL 462 NB AISI: 11.7 BWRVIP:	SSAHCH-0-VT	Core Shroud Access Hole Cov to Core Shroud Support Plate	er 4160145	Westinghouse	RE20 IVVI	EVT-1	IV-BWR-001 Rev:1	NRI	Examined areas that were inaccessable by UT.
SIL 465 NB AISI: 11.6 BWRVIP:	JP1>JP10-NOZMIX-INLET	Jet Pump Inlet Nozzle and Mix Region (Welds and Crud Buildup)	er 4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	
SIL 465 NB AISI: 11.6 BWRVIP:	JP11>JP-20-NOZMIX-INLET	Jet Pump Inlet Nozzle and Mix Region (Welds and Crud Buildup)	er 4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1	NRI	

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NIS-1, Table1.3, RE20: RPV In-Vessel Visual Inspections (IVVI)

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

Item No. System	Exam Location ID	Discription	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
SIL 474 NB AISI: 11.5 BWRVIP:	Steam Dryer-Drain Channels	Steam Dryer Channnel Welds	4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1		RI's documented in Notification 10125591 and dispositioned as SAT for at least one more cycle of operation.
	JP1>JP10-ADJSCR-TACWLDS	Jet Pump Adjusting Screw Tac Welds	k 4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1		See RE20 IVVI Report, Section 3, Tab 3 under each Jet Pump section for inspection results.
SIL 574 NB J AISI: 11.21 BWRVIP:	P11>JP20-ADJSCR-TACWLDS	Jet Pump Adjusting Screw Tac Welds	k 4160145	Westinghouse	RE20 IVVI	VT-3	IV-BWR-001 Rev:1		See RE20 IVVI Report, Section 3, Tab 3 under each Jet Pump section for inspection results.

Owner: NPPD P.O. Box 499, Columbus, NE 68302 Plant: Cooper Nuclear Station, P.O. Box 98, Brownville, NE 68321 Plant Unit: No. 1

System	Configuration	Code Cat	Code Item	Exam	Procedure	Rev	Completion Date	Comments
CS-A	ASME Class 2 Core spray System, Loop A	С-Н	C7.30, C7.50, C7.70	VT-2 40 month	6.1CS.501	5	06/2001	Pressure testing performed in accordance to ASME Section XI, 1989 Edition and all applicable procedure sections.
CS-B	ASME Class 2 Core spray System, Loop B	C-H	C7.30, C7.50, C7.70	VT-2 40 month	6.2CS.501	4	06/2001	Pressure testing performed in accordance to ASME Section XI, 1989 Edition and all applicable procedure sections.
HPCI	ASME Class 2 HPCI System	C-H	C7.30, C7.70	VT-2 40 month	6.HPCI.502	0	01/2002	Pressure testing performed in accordance to ASME Section XI, 1989 Edition and all applicable procedure sections.
NBI	ASME Class 1 Vessel Flange Leak Detection Line	BP	B15.50	VT-2 Each refuel outage	7.0.8.1	12	12/2001	Pressure testing performed in accordance to ASME Section XI, 1989 Edition. Reference PM 10606 and WO 4184927 for completion of work.
NBI	ASME Class 3 Nuclear Boiler Instrumentation System	D-A & D-B	D1.10 D2.10	VT-2 40 month	6.NBI.501	6	10/2001	Pressure testing performed in accordance to ASME Section XI, 1989 Edition and all applicable procedure sections.
RCIC	ASME Class 2 Reactor Core Isolation Cooling System	С-Н	C7.30, C7.50, C7.70	VT-2 40 month	6.RCIC.501	5	10/2001	Pressure testing performed in accordance to ASME Section XI, 1989 Edition and all applicable procedure sections.
RCIC	ASME Class 2 Reactor Core Isolation Cooling System	С-Н	C7.30, C7.70	VT-2 40 month	6.RCIC.502	0	01/2002	Pressure testing performed in accordance to ASME Section XI, 1989 Edition and all applicable procedure sections.
REC	ASME Class 3 Reactor Equipment Cooling	C-H & D-B	C7.10, C7.30, C7.50, C7.70, D2.10	VT-2 40 month	6.REC.501	6	09/2001	Pressure testing performed in accordance to ASME Section XI, 1989 Edition and all applicable procedure sections.

Owner: NPPD P.O. Box 499, Columbus, NE 68302 Plant: Cooper Nuclear Station, P.O. Box 98, Brownville, NE 68321 Plant Unit: No. 1

System	Configuration	Code Cat	Code Item	Exam	Procedure	Rev	Completion Date	Comments	
RHR	ASME Class 2 Residual Heat Removal System	С-Н	C7.10, C7.30, C7.50, C7.70	VT-2 40 month	6.1RHR.501	6	12/2001 01/2002	Pressure testing performed in accordance to ASME Section XI, 1989 Edition and all applicable procedure sections. Shut down cooling piping performed during outage, balance performed post outage.	
SW-A	ASME Class 2 Service Water System	DB	D2.10	VT-2 40 Month	6.1SW.501	8	01/2001	Pressure testing performed in accordance to ASME Section XI, 1989 Edition and all applicable procedure sections	
SW-B	ASME Class 2 Service Water System	DB	D2.10	VT-2 40 month	6.2SW.501	7	01/2001	Pressure testing performed in accordance to ASME Section XI, 1989 Edition and all applicable procedure sections	
NB & CRD	ASME Class 1 System Leakage Test. Includes Class 2 portions of CRD	B-P C-H	B15.10 B15.50 B15.60 B15.70 C7.10 C7.30	VT-2 Each refuel outage	6.MISC.502	10C1	12/2001	Pressure testing performed in accordance to ASME Section XI, 1989 Edition and all applicable procedure sections. Miscellaneous non-code leaks identifed and corrected.	
	System		C7.70						

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

tem No.	System	Component ID	Snubber Type	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
2 1/2 2	x 5 Type S	nubbers Examined	l and or Tested Equ	ual: 52			and a second superior of the second superior second second superior second sec		destrucción de constructo de la Formación de l	
10	MS	MS-S16B	2 1/2 x 5	4164747	CNS	4164710	VT-3 VT-3 FUNCTEST	7.2.34.1 7.2.34.2 7.2.34.7	SAT, OP SAT, OP SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13. Work Order 4164710 removed snubber S/N 10046 as part of 10% Test Sample, performed as found and as left VT-3, performed Functional Test, and replacement with with identical snubber S/N 8101.
11	MS	MS-S19	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
12	MS	MS-S2	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
13	MS	MS-S23	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
14	MS	MS-S25	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
15	MS	MS-S3	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
16	MS	MS-S4	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, Reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
17	MS	MS-S7A	2 1/2 x 5	4164747	CNS	4164743	VT-3 VT-3 FUNCTEST	7.2.34.1 7.2.34.2 7.2.34.7	SAT, OP SAT, OP SAT, OP	reference Suveillance Procedure 6.SNUB.601 and
18	MS	MS-S7B	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Relief Suveillance Procedure 6.SNUB.601 and Request RI-13.
19	REC	RCC-S20	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

Item No.	System	Component ID	Snubber Type	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
2	CS	CS-S11	2 1/2 × 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
20	REC	RCC-S21	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
21	REC	RCC-S22	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
22	RHR	RH-S20	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
23	RHR	RH-S22	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
24	RHR	RH-S24	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
25	RHR	RH-\$25	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
26	RHR	RH-S25A	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
27	RHR	RH-\$26	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
28	RHR	RH-S27A	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
29	RHR	RH-S30A	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

Item No.	Svstem	Component ID	Snubber Type	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
3	CS	CS-S2	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
30	RHR	RH-S30B	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
31	RHR	RH-S34	2 1/2 x 5	4164747	CNS	4164716	VT-3 VT-3 FUNCTEST	7.2.34.1 7.2.34.2 7.2.34.7	SAT, OP SAT, OP SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13. Work Order 4164716 removed snubber S/N 10050 as part of 10% Test Sample, performed as found and as left VT-3, performed Functional Test, and replacement with with identical snubber S/N 7730.
32	RHR	RH-S37	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
33	RHR	RH-S40	2 1/2 × 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
34	RHR	RH-S41	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
35	RHR	RH-S42	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
36	RHR	RH-S43	2 1/2 × 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
37	RHR	RH-S44A	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
38	RHR	RH-S44B	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
39	RHR	RH-S48A	2 1/2 × 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

Item No.	System	Component ID	Snubber Type	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
4	CS	CS-S3	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
40	RHR	RH-S48B	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
41	RHR	RH-S52	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examination only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
42	RHR	RH-S54	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
43	RHR	RH-S55	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
44	RHR	RH-S57	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
45	RHR	RH-S59	2 1/2 x 5	4164747	CNS	4164718	VT-3 VT-3 FUNCTEST	7.2.34.1 7.2.34.2 7.2.34.7	SAT, OP SAT, OP SAT, OP	
46	RHR	RH-S76A	2 1/2 × 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
47	RHR	RH-S76B	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
48	RHR	RH-S77	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
49	RHR	RH-S78A	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

Itam Na	System	Component ID	Snubber Type	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
5	CS	CS-S6	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
50	RHR	RH-S78B	2 1/2 x 5	4164747	CNS	4164740	VT-3 VT-3 FUNCTEST	7.2.34.1 7.2.34.2 7.2.34.7	SAT, OP SAT, OP SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13. Work Order 4164740 removed snubber S/N 8165 as part of 10% Test Sample, performed as found and as left VT-3, performed Functional Test, and replacement with with identical snubber S/N 8079.
51	RHR	RH-S80	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
52	RHR	RH-S96A	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
53	RHR	RH-S98	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
6	cs	CS-S7	2 1/2 x 5	4164747	CNS	4164717	VT-3 VT-3 FUNCTEST	7.2.34.1 7.2.34.2 7.2.34.7	SAT, OP SAT, OP SAT, OP	Reference Suveillance Procedure 6.SNUB.601 and
7	нрсі	HP-S15	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
8	MS	BS-S116A	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
9	MS	BS-S116B	2 1/2 x 5	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

em No.	System	Component ID	Snubber Type	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
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1	CS	CS-S1	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
100	MS	VR-H64D	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
101	MS	VR-S1	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
102	MS	VR-S10	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
103	MS	VR-S11	PSA-10	4164747	CNS	4202891	VT-3 VT-3 FUNCTEST	7.2.34.1 7.2.34.2 7.2.34.8	SAT, OP SAT, OP SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13. Work Order 4205891 removed snubber S/N 477 due to Service Life Monitoring, performed as found and as left VT-3, performed Functional Test, and replaced with with identical snubber S/N 487.
104	MS	VR-S14	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
105	MS	VR-S2	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
106	MS	VR-S23A	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 an Relief Request RI-13.
107	MS	VR-S23B	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 an Relief Request RI-13.
108	MS	VR-S24A	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 an Relief Request RI-13.

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

Item No.	System	Component ID	Snubber Type	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
109	MS	VR-S24B	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
110	MS	VR-S26	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
111	MS	VR-S3	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examination only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
112	MS	VR-\$30	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
113	MS	VR-S32	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
114	MS	VR-S4	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only. reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
115	MS	VR-S42A	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
116	MS	VR-S42B	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
117	MS	VR-S51	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
118	MS	VR-S6	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
119	MS	VR-S62A	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

Item No.	System	Component ID	Snubber Type	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
120	MS	VR-S62B	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
121	MS	VR-S71A	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
122	MS	VR-S71B	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
123	MS	VR-S74	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
124	MS	VR-S8	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
125	MS	VR-S81	PSA-10	4164747	CNS	4164390	VT-3 VT-3 FUNCTEST	7.2.34.1 7.2.34.2 7.2.34.8	SAT, OP SAT, OP SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13. Work Order 4164390 removed snubber S/N 449 as part of 10% Test Sample, performed as found and as left VT-3, and replacement with with identical snubber S/N 7019.
126	MS	VR-S83A	PSA-10	4164747	CNS	4164395	VT-3 VT-3 FUNCTEST	7.2.34.1 7.2.34.2 7.2.34.8	SAT, OP SAT, OP SAT, OP	reference Suveillance Procedure 6.SNUB.601 and
127	MS	VR-S83B	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
128	MS	VR-S84	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
129	MS	VR-S85	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

Item No.	System	Component ID	Snubber Type	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
130	MS	VR-S86A	PSA-10	4164747	CNS	4205892	VT-3 VT-3 FUNCTEST	7.2.34.1 7.2.38.2 7.2.34.8	SAT, OP SAT, OP SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13. Work Order 4205892 removed snubber S/N 479 due to Service Life Monitoring, performed as found and as left VT-3, performed Functional Test, and replaced with with identical snubber S/N 5217.
131	MS	VR-S86B	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
132	MS	VR-S87A	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
133	MS	VR-S87B	PSA-10	4164747	CNS	4164386	VT-3 VT-3 FUNCTEST	7.2.34.1 7.2.34.2 7.2.34.8	SAT, OP SAT, OP SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13. Work Order 4164386 removed snubber S/N 473 as part of 10% Test Sample, performed as found and as left VT-3, performed functional test, and replaceed with with identical snubber S/N 401.
134	MS	VR-S88	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
135	RF	RF-S10	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
136	RF	RF-S11	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
137	RF	RF-S12	PSA-10	4164747	CNS	4164613	VT-3 VT-3 FUNCTEST	7.2.34.1 7.2.34.2 7.2.34.8	SAT, OP SAT, OP SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13. Work Order 4164613 removed snubber S/N 472 as part of 10% Test Sample, perfomed as found and as left VT-3, and replacement with with identical snubber S/N 17205.
138	RF	RF-S14	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

Item No.	System	Component ID	Snubber Type	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
139	RF	RF-S15	PSA-10	4164747	CNS	4164701	VT-3 VT-3 FUNCTEST	7.2.34.1 7.2.34.2 7.2.34.8	SAT, OP SAT, OP SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13. Work Order 4164701 removed snubber S/N 5281 as part of 10% Test Sample, performed as found and as left VT-3, and replacement with with identical snubber S/N 470.
140	RF	RF-S16	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
141	RF	RF-S17	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
142	RF	RF-S18	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
143	RF	RF-S19	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
144	RF	RF-S8	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
145	RHR	RH-S11	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
146	RHR	RH-S14	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
147	RHR	RH-S14A	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
148	RHR	RH-S5	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
149	RHR	RH-S6	PSA-10	4164747	CNS	4164617	VT-3 VT-3 FUNCTEST	7.2.34.1 7.2.34.2 7.2.34.8	SAT, OP SAT, OP SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13. Work Order 4164617 removed snubber S/N 481 as part of 10% Test Sample, performed as found and as left VT-3, and replacement with with identical snubber S/N 17204.

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

Item No.	System	Component ID	Snubber Type	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
150	RHR	RH-S67	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
151	RHR	RH-S68	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
152	RHR	RH-S69A	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
153	RHR	RH-S69B	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
154	RHR	RH-S70	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
155	RHR	RH-S71	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
156	RHR	RH-S73	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
157	RHR	RH-S8A	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
158	RHR	RH-S8B	PSA-10	4164747	CNS	4205995	VT-3 VT-3 FUNCTEST	7.2.34.1 7.2.34.2 7.2.34.8	SAT, OP SAT, OP SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13. Work Order 4205995 removed snubber S/N 8145M due to Service Life Monitoring, performed as found and as left VT-3, performed Functional Test, and replaced with with identical snubber S/N 7003.
159	RHR	RH-S8C	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
60	PC	PV-S1AA	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.

Owner: NPPD P.O. Box 499 Columbus, NE 68602 Plant: Cooper Nuclear Station P.O. Box 98, Brownville, NE 68321 Plant Unit: 1

Item No.	System	Component ID	Snubber Type	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
61	PC	PV-S1AB	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
62	RHR	RH-S21	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
63	RHR	RH-S29	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examination only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
64	RHR	RH-S3A	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
65	RHR	RH-S45	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
66	RHR	RH-S49	PSA-10	4164747	CNS	4202850	VT-3 VT-3 FUNCTEST	7.2.34.1 7.2.34.2 7.2.34.8	SAT, OP SAT, OP SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13. Work Order 4202850 removed snubber S/N 476 due to Service Life Monitoring, performed as found and as left VT-3, performed Functional Test, and replaced with with identical snubber S/N 394.
67	RHR	RH-S58	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
79	MS	MS-S22	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
80	MS	SS-B2	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
81	MS	SS-B3	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

Item No.	Svstem	Component ID	Snubber Type	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
82	MS	SS-C2	PSA-10	4164747	CNS	4164392	VT-3 VT-3 FUNCTEST	7.2.34.1 7.2.34.2 7.2.34.8	SAT, OP SAT, OP SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13. Work Order 4164392 removed snubber S/N 448 as part of 10% Test Sample, performed as found and as left VT-3, and replacement with with identical snubber S/N 447.
84	MS	VR-55-9-Y	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
85	MS	VR-55-9-Z	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
86	MS	VR-56-12-Y	PSA-10	4164747	CNS		VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
87	MS	VR-58-12-Y	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
88	MS	VR-59-7-X	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
89	MS	VR-59-7-Z	PSA-10	4164747	CNS	4164391	VT-3 VT-3 FUNCTEST	7.2.34.1 7.2.34.2 7.2.34.8	SAT, OP SAT, OP SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13. Work Order 4164391 removed snubber S/N 465M as part of 10% Test Sample, performed as found and as left VT-3, and replacement with with identical snubber S/N 478.
90	MS	VR-60-7-X	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
91	MS	VR-60-7-Z	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
92	MS	VR-61-8-X	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
93	MS	VR-62-17-X	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, Reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.

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NIS-1, Table 1.5, RE20: Snubber Visual Examinations and Test Results

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

Item No.	System	Component ID	Snubber Type	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
94	MS	VR-62-8-X	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
95	MS	VR-H61D	PSA-10	4164747	CNS	4164393	VT-3 VT-3 FUNCTEST	7.2.34.1 7.2.34.2 7.2.34.8	SAT, OP SAT, OP SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13. Work Order 4164393 removed snubber S/N 457M as part of 10% Test Sample, performed as found and as left VT-3, and replacement with with identical snubber S/N 402.
96	MS	VR-H62B	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
97	MS	VR-H62C	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
98	MS	VR-H63B	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
99	MS	VR-H63C	PSA-10	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

tem No.	System	Component ID	Snubber Type	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
PSA	\-3 Type S	nubbers Examined	d and or Tested Equ	al: 15						
54	CS	CS-VE7	PSA-3	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
55	MS	MS-S149B	PSA-3	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
56	MS	MS-S16	PSA-3	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
57	RHR	RH-S65A	PSA-3	4164747	CNS	4164382	VT-3 VT-3 FUNCTEST	7.2.34.1 7.2.34.2 7.2.34.8	SAT, OP SAT, OP SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13. Work Order 4164382 removed snubber S/N 843 as part of the 10% Tes Sample, performed as found and as left VT-3, performed Functional Test, and replaced with with identical snubber S/N 8378.
58	RHR	RH-S65B	PSA-3	4164747	CNS	4164385	VT-3 VT-3 FUNCTEST	7.2.34.1 7.2.34.2 7.2.34.8	SAT, OP SAT, OP SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13. Work Order 4164385 removed snubber S/N 8374 as part of 10% Test Sample, performed as found and as left VT-3, performed Functional Test, and replacement with with identical snubber S/N 458.
69	MS	MS-S21	PSA-3	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
70	MS	MS-S63	PSA-3	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
71	MS	VR-S31	PSA-3	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 an Relief Request RI-13.
72	MS	VR-S43	PSA-3	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 an Relief Request RI-13.
73	MS	VR-S50A	PSA-3	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 an Relief Request RI-13.

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NIS-1, Table 1.5, RE20: Snubber Visual Examinations and Test Results

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

Item No	. System	Component ID	Snubber Type	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
74	MS	VR-S50B	PSA-3	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
75	RF	RF-S9	PSA-3	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
76	RHR	RH-S15	PSA-3	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
77	RWCU	CU-S3A	PSA-3	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
78	RWCU	CU-S3B	PSA-3	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

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em No.	System	Component ID	Snubber Type	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
PSA-	35 Type S	nubbers Examined	d and or Tested Equ	ıal: 49						
160	MS	SS-A2	PSA-35	4164747	CNS	4164709	VT-3 VT-3 FUNCTEST	7.2.34.1 7.2.34.2 7.2.34.8	SAT, OP SAT, OP SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13. Work Order 4164709 removed snubber S/N 6437 as part of 10% Test Sample, performed as found and as left VT-3, performed Functional Test, and replacement with with identical snubber S/N 12983.
161	MS	SS-D2	PSA-35	4164747	CNS	4164703	VT-3 VT-3 FUNCTEST	7.2.34.1 7.2.34.2 7.2.34.8	SAT, OP SAT, OP SAT, OP	Work Order 4164747 Visual Examiantion only. reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13. Work Order 4164703 removed snubber S/N 5315 as part of 10% Test Sample, performed as found and as left VT-3, performed Functional Test, and replacement with with identical snubber S/N 5299.
162	MS	SS-A3	PSA-35	4164747	CNS	4205999	VT-3 VT-3 FUNCTEST	7.2.34.1 7.2.34.2 7.2.34.8	SAT, OP SAT, OP SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13. Work Order 4205999 removed snubber S/N 9907 due to Service Life Monitoring, performed as found and as left VT-3, performed Functional Test, and replaced with with identical snubber S/N 5319.
163	MS	SS-D3	PSA-35	4164747	CNS	4164706	VT-3 VT-3 FUNCTEST	7.2.34.1 7.2.34.2 7.2.34.8	SAT, OP SAT, OP SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 Relief Request RI-13. Work Order 4164706 removed snubber S/N 5327 as part of 10% Test Sample, performed as found and as left VT-3, performed Functional Test, and replacement with with identical snubber S/N 12979.
164	MS	VR-55-23-X	PSA-35	4164747	CNS	4164704	VT-3 VT-3 FUNCTEST	7.2.34.1 7.2.34.2 7.2.34.8	SAT, OP SAT, OP SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13. Work Order 4164704 removed snrubber S/N 5316 as part of 10% Test Sample, performed as found and as left VT-3, performed Functional Test, and replacement with with identical snubber S/N 5320.
165	MS	VR-55-26-Z	PSA-35	4164747	CNS	4205998	VT-3 VT-3 FUNCTEST	7.2.34.1 7.2.34.2 7.2.34.8	SAT, OP SAT, OP SAT, OP	reference Suveillance Procedure 6.SNUB.601 an
166	MS	VR-56-24-X	PSA-35	4164747	CNS	4205997	VT-3 VT-3 FUNCTEST	7.2.34.1 7.2.34.2 7.2.34.8	SAT, OP SAT, OP SAT, OP	reference Suveillance Procedure 6.SNUB.601 an

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

Item No.	System	Component ID	Snubber Type	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
167	MS	VR-61-17-X	PSA-35	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
168	MS	VR-61-8-Z	PSA-35	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
169	MS	VR-62-8-Z	PSA-35	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
170	MS	VR-S12	PSA-35	4164747	CNS	4205992	VT-3 VT-3 FUNCTEST	7.2.34.1 7.2.34.2 7.2.34.8	SAT, OP SAT, OP SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13. Work Order 4205992 removed snubber S/N 6866 due to Service Life Monitoring, performed as found and as left VT-3, performed Functional Test, and replaced with with identical snubber S/N 5323.
171	MS	VR-\$20	PSA-35	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
172	MS	VR-S21	PSA-35	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
173	MS	VR-S22	PSA-35	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
174	MS	VR-S25	PSA-35	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
175	MS	VR-S27	PSA-35	4164747	CNS	4205990	VT-3 VT-3 FUNCTEST	7.2.34.1 7.2.34.2 7.2.34.8	SAT, OP SAT, OP SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13. Work Order 4105990 removed snubber S/N 5321 due to Service Life Monitoring, performed as found and as left VT-3, performed Functional Test, and replaced with with identical snubber S/N 345.
176	MS	VR-S40	PSA-35	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

Item No.	System	Component ID	Snubber Type	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
177	MS	VR-S41	PSA-35	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
178	MS	VR-S60	PSA-35	4164747	CNS	4205988	VT-3 VT-3 FUNCTEST	7.2.34.1 7.2.34.2 7.2.34.8	SAT, OP SAT, OP SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13. Work Order 4205988 removed snubber S/N 5318 due to Service Life Monitoring, performed as found and as left VT-3, performed Functional Test, and replaced with with identical snubber S/N 5301.
179	MS	VR-S61	PSA-35	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examination only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
180	MS	VR-S63	PSA-35	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examination only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
181	MS	VR-S72	PSA-35	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
182	MS	VR-S73	PSA-35	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
183	MS	VR-S7A	PSA-35	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
184	MS	VR-S7B	PSA-35	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
185	MS	VR-S82	PSA-35	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
186	RF	RF-S13	PSA-35	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
187	RHR	RH-S9	PSA-35	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.

Owner: NPPD P.O. Box 499 Columbus, NE 68602 Plant: Cooper Nuclear Station P.O. Box 98, Brownville, NE 68321

Plant Unit: 1

Item No.	System	Component ID	Snubber Type	Work Order	Performed By	Report No.	. Exam	Procedure	Results	Commments/Corrective Measures
188	RHR	RH-S10	PSA-35	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
189	RHR	RH-S16	PSA-35	4164747	CNS	4205982	VT-3 VT-3 FUNCTEST	7.2.34.1 7.2.34.2 7.2.34.8	SAT, OP SAT, OP SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13. Work Order 4205982 removed snubber S/N 5304 due to Service Life Monitoring, performed as found and as left VT-3, performed Functional Test, and replaced with with identical snubber S/N 339.
190	RHR	RH-S17	PSA-35	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
191	RHR	RH-S18	PSA-35	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
192	RHR	RH-S19	PSA-35	4164747	CNS	4205986	VT-3 VT-3 FUNCTEST	7.2.34.1 7.2.34.2 7.2.34.8	SAT, OP SAT, OP SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13. Work Order 4205986 removed snubber S/N 5307 due to Service Life Monitoring, performed as found and as left VT-3, performed Functional Test, and replaced with with identical snubber S/N 5302.
193	RHR	RH-S72A	PSA-35	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
194	RR	SS-1A	PSA-35	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
195	RR	SS-1B	PSA-35	4164747	CNS	4164702	VT-3 VT-3 FUNCTEST	7.2.34.1 7.2.34.2 7.2.34.8	SAT, OP SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13. Work Order 4164702 removed snubber S/N 5303 as part of 10% Test Sample, performed as found and as left VT-3, performed Functional Test, and replacement with with identical snubber S/N 6878.
196	RR	SS-2A	PSA-35	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
197	RR	SS-2B	PSA-35	4164747	CNS	4164747	VT-3	7.2.34.1		Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.

Owner: NPPD P.O. Box 499 Columbus, NE 68602

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

Plant Unit: 1

Commerical Service Date: July, 1974
Owner Certificate of Authorization: N/A
National Board Number for Unit: 20762

Item No.	System	Component ID	Snubber Type	Work Order	Performed By	Report No.	Exam	Procedure	Results	Commments/Corrective Measures
198	RR	SS-3A1	PSA-35	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
199	RR	SS-3A2	PSA-35	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
200	RR	SS-3B1	PSA-35	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
201	RR	SS-3B2	PSA-35	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
202	RR	SS-4A	PSA-35	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
203	RR	SS-4B	PSA-35	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
204	RR	SS-5A	PSA-35	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
205	RR	SS-5B	PSA-35	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
59	MS	BS-S2A	PSA-35	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
68	MS	BS-S1B&R	PSA-35	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.
83	MS	SS-C3	PSA-35	4164747	CNS	4164747	VT-3	7.2.34.1	SAT, OP	Work Order 4164747 Visual Examiantion only, reference Suveillance Procedure 6.SNUB.601 and Relief Request RI-13.

Total Snubbers Equal: 205

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

1.		April 2, 2002
	P.O. Box 98 Brownville, Nebraska 68321 Sheet	<u>1</u> of <u>8</u>
2.	Plant: Cooper Nuclear Station Unit P.O. Box 98	One
	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 Attac	ched Table
5.	(a) Applicable Construction Code As shown in the Attac	ched Table
	(b) Applicable Edition of Section XI Utilized for Repairs or Replacen 1989 Edition including 1989 Addenda & 1992 E	
6.	Identification of Components Repaired or Replaced and Replacement	Components: As shown in the Attached Table
7.	Description of Work: As shown in the Atta	ached Table
8.	Tests Conducted: As shown in the Atta	ached Table
9.	Remarks: The following Code Cases listed in the Third Ten-Year Inte	erval Program were used for Repairs and Replacements:
	N-416-1	
	CERTIFICATE OF COMPL	JANCE
	We certify that the statements made in this report are correct and the ASME Code, Section XI.	
	Type Code Symbol Stamp N/A	
	Certificate of Authorization NoN/A	Expiration Date N/A
	Signed January a Canalli	Date3/27/2002
of Ne inspe best	CERTIFICATE OF INSERVICE Is the undersigned, holding a valid commission issued by the National Board Nebraska and Employed by Hartford Steam Boiler Inspection and Insurance pected the components described in this Owner's Report during the period of my knowledge and belief, the Owner has performed examinations as port in accordance with the requirements of the ASME Code, Section XI.	of Boiler and Pressure Vessel Inspectors and the State Company of Connecticut of Hartford, Connecticut have May 30, 2000 to January 2, 2002, and state that to the nd taken corrective measures described in this Owner's

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

MWR	System	Name of Component	Mfgr. Serial No	Cl	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
99-3174(2)	sw	SW-P-A	N/A	3	Byron Jackson Div/Borg-Warner	N/A	Replaced both lower columns and bowl assembly	B31.1-1967	1969	Replaced	N/A	99-402
99-3303	sw	SW-P (Part 19127)	N/A	3	Byron Jackson Div/Borg-Warner	N/A	Weld repair flange mating surface.	B31.1-1967	1969	Repaired	N/A	N/A
99-3535	sw	SW-AOV-850AV	N/A	3	Hills-McCanna	N/A	Replaced valve.	B31.1-1967	1969	Replaced	N/A	00-051
00-0003	sw	SW-P (Part 10484 & 10487)	N/A	3	Byron Jackson Div/Borg-Warner	N/A	Weld repair eroded areas 0f the columns and flanges.	B31.1-1967	1969	Repaired	N/A	N/A
00-0460	sw	SW-P-BPA	N/A	3	Byron Jackson Div/Borg-Warner	N/A	Replace Pump, Remove and reinstall pump support	B31.1-1967	1969	Replaced	N/A	00-216
00-0469(2)	sw	SW-P-BPC	N/A	3	Byron Jackson Div/Borg-Warner	N/A	Replace Pump, Remove and reinstall pump support, Grind pump pedestal	B31.1-1967	1969	Replaced	N/A	00-249
00-2466	sw	SW-CV-13CV	N/A	3	Atwood & Morrill	N/A	Replace Valve	B31.1-1967	1969	Replaced	N/A	00-270
00-2466	sw	SW-EXPJ-SWPD	N/A	3	Garlock	N/A	Replace expansion joint	B31.1-1967	1969	Replaced	N/A	00-270
00-2466(2)	sw	SW-P-D	N/A	3	Byron Jackson Div/Borg Warner	N/A	Replace Pump Complete and the 32 studs in intermediate column	B31.1-1967	1969	Replaced	N/A	00-270
00-3104	sw	SW-P-BPB	N/A	3	Byron Jackson Div/ Borg-Warner	N/A	Replace Pump & Remove and repalce pump support	B31.1-1967	1969	Replaced	N/A	01-029
00-3682	sw	SW-P (Part 01466)	N/A	3	Byron Jackson Div/ Borg-Warner	N/A	Replace top case and drill new holes for new wear ring	B31.1-1967	1969	Repaired	N/A	N/A
4158132	REC	REC-Hx-A	27030	3	Southwestern Engineering Co.	N/A	Repair Eroded Areas by Welding	ASME VIII 1968 Edition	1969	Repaired	YES	01-041, N-416-1
4158133	REC	REC-Hx-B	27031	3	Southwestern Engineering Co.	N/A	Repair Eroded Areas by Welding	ASME VIII 1968 Edition	1969	Repaired	YES	01-042
4159595	REC	FC-R-1J	N/A	3	American Air Filter	N/A	Replace Fan Coil and add nipples to inlet/outlet	B31.1-1967	1969	Replaced	N/A	00-238, 00-239
4159596	REC	FC-R-1E	N/A	3	American Air Filter	N/A	Replace Fan Coil	B31.1-1967	1969	Replaced	N/A	01-196, 01-525
4159603	RCC	RCC pipe weld W51	N/A	3	NPPD	N/A	Repair cracked weld	B31.1-1967	1969	Repaired	N/A	01-169, N-416-1
4159614	sw	SW - Pipe	N/A	3	NPPD	N/A	Replace pipe	B31.1-1967	1969	Replaced	N/A	01-052, N-416-1

MWR	System	Name of Component	Mfgr. Serial No	CI	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
4159615	sw	SW - Pipe Cap	N/A	3	NPPD	N/A	Replace Pipe Cap	B31.1-1967	1969	Replaced	N/A	01-053, N-416-1
4159623	PC	Vent Ring Header	C-4448	2	Chicago Bridge & Iron	N/A	Repair weld burn through	ASME III, 1965 Edition, w/ W. 67' Add.	1969	Repaired	YES	6.PC.503
4159624	PC	Torus Support	C-4448	2	Chicago Bridge & Iron	N/A	Repair indication in weld	ASME III, 1965 Edition, w/ W. 67' Add.	1969	Repaired	YES	N/A
4159629	PC	Vent Ring Header	C-4448	2	Chicago Bridge & Iron	N/A	Repair weld burn through	ASME III, 1965 Edition, w/ W. 67' Add.	1969	Repaired	YES	6.PC.503
4159767	HPCI	HPCI-CV-10CV	N/A	2	Anchor Darling	N/A	Replaced tack weld on disc nut	B31.1-1967	1969	Replaced	N/A	01-004
4159884	CRD	CRD-02-27	N/A	1	General Electric	N/A	Replaced CRD flange & bolts	ASME III 1965 Edition, w/Jan. 1966 Add.	1969	Replaced	N/A	6.MISC.502
4159899	sw	SW-Piping	N/A	3	Power Cutting Inc.	N/A	Fab Replacement spools	B31.1-1967	1969	Replaced	N/A	01-266, N-416-1
4159899	sw	SW-Piping	N/A	3	Power Cutting Inc.	N/A	Install Replacement spools	B31.1-1967	1969	Replaced	N/A	01-266, N-416-1
4159899	sw	SW-Piping Supports	N/A	3	Power Cutting Inc.	N/A	Replace Piping supports	B31.1-1967	1969	Replacement	N/A	N/A
4159899	sw	SW-Piping	N/A	3	Power Cutting Inc.	N/A	Repair piping local thin areas	B31.1-1967	1969	Repaired	N/A	01-266, N-416-1
4159899	sw	SW-H164	N/A	3	Power Cutting Inc.	N/A	Replace pipe support	B31.1-1967	1969	Replaced	N/A	N/A
4159899	sw	SW-H163	N/A	3	Power Cutting Inc.	N/A	Replacejam nut on pipe support	B31.1-1967	1969	Replaced	N/A	N/A
4159899	sw	SW-S98	N/A	3	Power Cutting Inc.	N/A	Replace nut, bolt & spacer	B31.1-1967	1969	Replaced	N/A	N/A
4159946	RHR	RHR-MOV-MO39B	N/A	2	Anchor Darling	N/A	Drill hole in valve disc, plug, drill new hole through disc	B31.1-1967	1969	Repaired	N/A	01-273, 6.PC.501
4159947	HPCI	HPCI-MOV-MO58	N/A	2	Anchor Darling	N/A	Drill hole in valve disc	B31.1-1967	1969	Repaired	N/A	01-274, 6.PC.501
4159954	MS	MS-MO-MO77	N/A	3	Anchor Valve Co.	N/A	Replace valve by welding	B31.1-1967	1969	Replaced	N/A	01-689, N-416-1
4159962	RCIC	RCIC-CV-20CV	N/A	2	Crane-Aloyco	N/A	Replace disc stud locking nut	B31.1-1967	1969	Replaced	N/A	N/A
4159978	RHR	RHR-MOV-MO39A	N/A	2	Anchor Darling	N/A	Drill hole in valve disc	B31.1-1967	1969	Repaired	N/A	01-272, 6.PC.501,
4159978	RHR	RHR-MOV-MO39A	N/A	2	NOVA Mach. Prd.	N/A	Replace bonnet studs	B31.1-1967	1969	Replacement	N/A	01-272

MWR	System	Name of Component	Mfgr. Serial No	Ci	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
4159995	sw	RHR-HX-B	27052	3	Southwestern Engineering Co.	N/A	Repair divider plate edge and closure head groove	ASME VIII 1968 Edition	1969	Repaired	YES	01-459, N-416-1
4159996	sw	RHR-HX-A	27051	3	Southwestern Engineering Co.	N/A	Repair divider plate edge and closure head groove	ASME VIII 1968 Edition	1969	Repaired	YES	01-460
4160040	HPCI	HPCI-CV-15CV	N/A	2	Anchor Darling	N/A	Replace valve and add new piping	B31.1-1967	1969	Replaced	N/A	01-487, N-416-1, 6.PC.501
4160113	sw	SW-Pipe	N/A	3	NPPD	N/A	Replace Piping	B31.1-1967	1969	Replaced	N/A	01-309, 01-315, 01-217
4160127	sw	SW-CV-19CV-SPARE	N/A	3	NPPD	N/A	Repair by adding lugs	B31.1-1967	1969	Repaired	N/A	N/A
4160286	sw	SW-Pipe	N/A	3	NPPD	N/A	Repair Tee, Replace pipe flange, reducer, and pipe	B31.1-1967	1969	Repaired, Replaced	N/A	01-111, N-416-1
4160511	RHR	RHR-MOV-MO38A	N/A	2	Anchor Darling	N/A	Repair by removing tack weld	B31.1-1967	1969	Repaired	N/A	01-281
4160517	sw	SW-V-145	N/A	3	POSI-SEAI INTL.	N/A	Replace Valve	B31.1-1967	1969	Replaced	N/A	01-158
4160573	REC	REC-MOV-713MV	N/A	3	Henry Pratt Co.	N/A	Replaced valve with a new valve	B31.1-1967	1969	Replaced	N/A	99-257
4160574	REC	REC-MOV-712MV	N/A	3	Henry Pratt Co.	N/A	Replaced valve with a new valve	B31.1-1967	1969	Replaced	N/A	99-256
4160595	REC	REC-V-181	N/A	3	Edward - Vogt	N/A	Replace Valve and fittings	B31.1-1967	1969	Replaced	N/A	00-276
4160626	REC	REC-V-18	N/A	3	Henry Pratt	N/A	Replaced valve	B31.1-1967	1969	Replaced	N/A	99-253
4160627	REC	REC-V-19	N/A	3	Henry Pratt	N/A	Replaced valve	B31.1-1967	1969	Replaced	N/A	99-252
4160631	REC	REC-V-20	N/A	3	NOVA Machine	N/A	Replaced flange to body bolting	B31.1-1967	1969	Replaced	N/A	99-254
4160631	REC	REC-V-20	N/A	3	Henry Pratt	N/A	Replaced valve	B31.1-1967	1969	Replaced	N/A	99-254
4160632	REC	REC-V-21	N/A	3	Henry Pratt	N/A	Replaced valve	B31.1-1967	1969	Replaced	N/A	99-255
4163338	SW	SW-P (Part 19127)	N/A	3	Byron Jackson Div/ Borg Warner	N/A	Repair eroded areas by welding	B31.1-1967	1969	Repaired	N/A	N/A
4163338	sw	SW-P (Part 10486)	N/A	3	Byron Jackson Div/Borg-Warner	N/A	Weld repair eroded areas and machine fits to original dimens.	B31.1-1967	1969	Repaired	N/A	N/A
4163338	sw	SW-P (Part 10485)	N/A	3	Byron Jackson Div/Borg-Warner	N/A	Weld repair eroded areas and machine fits to original dimens.	B31.1-1967	1969	Repaired	N/A	N/A
4163338	sw	SW-P (Part 10484)	N/A	3	Byron Jackson Div/Borg-Warner	N/A	Weld repair eroded areas and machine fits to original dimens.	B31.1-1967	1969	Repaired	N/A	N/A

MWR	System	Name of Component	Mfgr. Serial No	Cl	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
4163338	sw	SW-P (Part 10483)	N/A	3	Byron Jackson Div/Borg-Warner	N/A	Weld repair eroded areas and machine fits to original dimens.	B31.1-1967	1969	Repaired	N/A	N/A
4163678 (2)	RHR	RHR-RV-17RV	N/A	2	Consolidated	N/A	Replaced valve & piping	B31.1-1967	1969	Replaced	N/A	00-123
4163949 (2)	sw	SW-MOV-651MV	N/A	3	Henry Pratt Co.	N/A	Replace the valve & valve disk	B31.1-1967	1969	Replaced	N/A	00-248
4164382	RHR	RH-S65A	8378	2	Pacific Scientific	N/A	Replaced snubber	B31.1-1967	1969	Replaced	N/A	N/A
4164385	RHR	RH-S65B	458	2	Pacific Scientific	N/A	Replaced Snubber	B31.1-1967	1969	Replaced	N/A	N/A
4164386	MS	VR-S87B	401	1	Pacific Scientific	N/A	Replaced Snubber	B31.1-1967	1969	Replaced	N/A	N/A
4164390	MS	VR-S81	7019	3	Pacific Scientific	N/A	Replaced Snubber	B31.1-1967	1969	Replaced	N/A	N/A
4164391	MS	VR-59-7-Z	478	3	Pacific Scientific	N/A	Replaced Snubber	B31.1-1967	1969	Replaced	N/A	N/A
4164392	MS	SS-C2	447	1	Pacific Scientific	N/A	Replaced Snubber	B31.1-1967	1969	Replaced	N/A	N/A
4164393	MS	VR-H61D	402	3	Pacific Scientific	N/A	Replaced Snubber	B31.1-1967	1969	Replaced	N/A	N/A
4164395	MS	VR-S83A	15147	3	Pacific Scientific	N/A	Replaced Snubber	B31.1-1967	1969	Replaced	N/A	N/A
4164613	RF	RF-S12	17205	3	Pacific Scientific	N/A	Replaced Snubber	B31.1-1967	1969	Replaced	N/A	N/A
4164617	RHR	RH-S6	17204	1	Pacific Scientific	N/A	Replaced Snubber	B31.1-1967	1969	Replaced	N/A	N/A
4164701	RF	RF-S15	470	1	Pacific Scientific	N/A	Replaced Snubber	B31.1-1967	1969	Replaced	N/A	N/A
4164702	RR	SS-1B	6878	1	Pacific Scientific	N/A	Replaced Snubber	B31.1-1967	1969	Replaced	N/A	N/A
4164703	MS	SS-D2	5299	1	Pacific Scientific	N/A	Replaced Snubber	B31.1-1967	1969	Replaced	N/A	N/A
4164704	MS	VR-55-23-Z	5320	3	Pacific Scientific	N/A	Replaced Snubber	B31.1-1967	1969	Replaced	N/A	N/A
4164706	MS	SS-D3	12979	1	Pacific Scientific	N/A	Replaced Snubber	B31.1-1967	1969	Replaced	N/A	N/A
4164709	MS	SS-A2	12983	1	Pacific Scientific	N/A	Replaced Snubber	B31.1-1967	1969	Replaced	N/A	N/A
4164710	MS	MS-S16B	8101	2	Grinnell	N/A	Replaced Snubber	B31.1-1967	1969	Replaced	N/A	N/A
4164716	RHR	RH-S34	7730	2	Grinnell	N/A	Replaced Snubber	B31.1-1967	1969	Replaced	N/A	N/A
4164717	cs	CS-S7	10051	2	Grinnell	N/A	Replaced Snubber	B31.1-1967	1969	Replaced	N/A	N/A
4164718	RHR	RH-S59	8132	2	Grinnell	N/A	Replaced Snubber	B31.1-1967	1969	Replaced	N/A	N/A

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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

MWR	System	Name of Component	Mfgr. Serial No	CI	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
4164738	МС	PENT-X1B	C4448	MC	CB&I	N/A	Replaced swing bolt & nut	ASME III, 1965 Edition w/ W. 67' Add.	1969	Replaced	YES	6.PC.501
4164740	RHR	RH-S78B	8079	2	Grinnell	N/A	Replaced Snubber	B31.1-1967	1969	Replaced	N/A	N/A
4164743	MS	MS-S7A	7744	2	Grinnell	N/A	Replaced Snubber	B31.1-1967	1969	Replaced	N/A	N/A
4180095	RHR	RHR-MOV-MO16B	N/A	2	Anchor Darling	N/A	Replaced B/B studs/nuts	B31.1-1967	1969	Replaced	N/A	01-219
4181190	sw	SW-PIPING	N/A	3	Power Cutting Inc.	N/A	Fab Replacement spools	B31.1-1967	1969	Replaced	N/A	01-267, N-416-1
4181190	sw	SW-Piping	N/A	3	Power Cutting Inc.	N/A	Replaced SW Piping	B31.1-1967	1969	Replaced	N/A	01-267, N-416-1
4181190	sw	SW-Piping Supports	N/A	3	Power Cutting Inc.	N/A	Remove/Replace pipe supps.	B31.1-1967	1969	Replaced	N/A	N/A
4183975	RF	RF-CV-16CV	N/A	1	Anchor Darling	N/A	Replace hinge cover studs	B31.1-1967	1969	Replaced	N/A	01-605, 6.PC.501
4184038	RCIC	RCIC-RD-S240	N/A	2	Black Sivalls & Bryson	N/A	Replaced rupture disc	B31.1-1967	1969	Replaced	N/A	01-387
4184060	HPCI	HPCI-RD-S241	N/A	2	Black Sivalls & Bryson	N/A	Replaced rupture disc	B31.1-1967	1969	Replaced	N/A	01-388
4184060	HPCI	HPCI-RD-S241	N/A	2	NOVA Machine	N/A	Replaced studs	B31.1-1967	1969	Replaced	N/A	01-388
4187057 (2)	MS	MS-RV-71ARV	376, 376	1	Target Rock	N/A	Replaced valve body & pilot, & hex nuts with splined nuts	B31.1-1967	1969	Replaced	N/A	6.MISC.502
4189197	CRD	CRD-06-23	N/A	1	General Electric	N/A	Replaced CRD flange & bolts	ASME III 1965 Edition, w/Jan. 66' Add.	1969	Replaced	N/A	6.MISC.502
4189302	CRD	CRD-26-27	N/A	1	General Electric	N/A	Replaced CRD flange & bolts	ASME III 1965 Edition, w/Jan. 66' Add.	1969	Replaced	N/A	6.MISC.502
4189306	CRD	CRD-14-47	N/A	1	General Electric	N/A	Replaced CRD flange & bolts	ASME III 1965 Edition, w/Jan. 66' Add.	1969	Replaced	N/A	6.MISC.502
4189309	CRD	CRD-18-31	N/A	1	General Electric	N/A	Replaced CRD flange & bolts	ASME III 1965 Edition, w/Jan. 66' Add.	1969	Replaced	N/A	6.MISC.502
4189312	CRD	CRD-22-03	N/A	1	General Electric	N/A	Replaced CRD flange & bolts	ASME III 1965 Edition, w/Jan. 66' Add.	1969	Replaced	N/A	6.MISC.502

MWR	System	Name of Component	Mfgr. Serial No	Cl	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
4189317	CRD	CRD-26-07	N/A	1	General Electric	N/A	Replaced CRD flange & bolts	ASME III 1965 Edition, w/Jan. 66' Add.	1969	Replaced	N/A	6.MISC.502
4189342	CRD	CRD-26-51	N/A	1	General Electric	N/A	Replaced CRD flange & bolts	ASME III 1965 Edition, w/Jan 66' Add.	1969	Replaced	N/A	6.MISC.502
4189345	CRD	CRD-30-39	N/A	1	General Electric	N/A	Replaced CRD flange & bolts	ASME III 1965 Edition, w/Jan 66' Add.	1969	Replaced	N/A	6.MISC.502
4189347	CRD	CRD-34-51	N/A	1	General Electric	N/A	Replaced CRD flange & bolts	ASME III 1965 Edition, w/Jan. 66' Add.	1969	Replaced	N/A	6.MISC.502
4189349	CRD	CRD-38-19	N/A	1	General Electric	N/A	Replaced CRD flange & bolts	ASME III 1965 Edition, w/Jan. 66' Add.	1969	Replaced	N/A	6.MISC.502
4189356	CRD	CRD-50-23	N/A	1	General Electric	N/A	Replaced CRD flange & bolts	ASME III 1965 Edition, w/Jan. 66' Add.	1969	Replaced	N/A	6.MISC.502
4190074	MS	MS-RV-71BRV	380, 382	1	Target Rock	N/A	Replaced valve body & pilot	B31.1-1967	1969	Replaced	N/A	6.MISC.502
4190074	MS	MS-RV-71BRV	380	1	Target Rock Corp.	N/A	Replace hex nut with splined nut	B31.1-1967	1969	Replaced	N/A	6.MISC.502
4190074	MS	MS-RV-71BRV	380	1	Target Rock Corp.	N/A	Machined inlet flange surfaces	B31.1-1967	1969	Repaired	N/A	6.MISC.502
4190075	MS	MS-RV-71DRV	378	1	Target Rock	N/A	Replaced Pilot Assy.	B31.1-1967	1969	Replaced	N/A	6.MISC.502
4190076	MS	MS-RV-71FRV	380	1	Target Rock	N/A	Replaced Pilot Assy.	B31.1-1967	1969	Replaced	N/A	6.MISC.502
4190077	MS	MS-RV-71CRV	386	1	Target Rock	N/A	Replaced Pilot Assy.	B31.1-1967	1969	Replaced	N/A	6.MISC.502
4190078	MS	MS-RV-71-ERV	383	1	Target Rock	N/A	Replaced Pilot Assy.	B31.1-1967	1969	Replaced	N/A	6.MISC.502
4190079 (2)	MS	MS-RV-71HRV	377, 377	1	Target Rock	N/A	Replaced valve body & pilot, &hex nuts with splined nuts	B31.1-1967	1969	Replaced	N/A	6.MISC.502
4190100	MS	MS-RV-71GRV	384	1	Target Rock	N/A	Replaced Pilot Assy.	B31.1-1967	1969	Replaced	N/A	6.MISC.502
4195751 (2)	sw	SW-P- (Part 01466)	N/A	3	Byron Jackson	N/A	Replaced top case & drilled holes for wear rings & nuts	B31.1-1967	1969	Replaced	N/A	N/A
4200011	sw	SW-P-BPD	N/A	3	Вутоп Jackson	N/A	Replaced pump, removed and replaced pedestal weld	B31.1-1967	1969	Replaced	N/A	01-466

MWR	System	Name of Component	Mfgr. Serial No	Cl	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
4200711	sw	SW-MOV-MO89A	N/A	3	Control Components, Inc.	N/A	Replaced plug	B31.1-1967	1969	Replaced	N/A	01-541
4200712	sw	SW-MOV-MO89B	N/A	3	Control Components, Inc.	N/A	Replaced Plug	B31.1-1967	1969	Replaced	N/A	01-543
4200917	RCIC	RCIC-V-42	N/A	2	Velan, Anderson- Greenwood	N/A	Replaced valve and added new valve	B31.1-1967	1969	Replaced	N/A	01-529, 6.PC.519
4201301	sw	SW-Piping	N/A	3	NPPD	N/A	Replaced elbow	B31.1-1967	1969	Replaced	N/A	01-517
4202840	sw	SW-CV-10CV	N/A	3	Atwood & Morrill	N/A	Replaced Valve	B31.1-1967	1969	Replaced	N/A	01-511
4202850	RHR	RH-S49	394	3	Pacific Scientific	N/A	Replaced snubber	B31.1-1967	1969	Replaced	N/A	N/A
4203836	REC	REC-weld 2848-2-W36	N/A	3	NPPD	N/A	Repaired crack by welding	B31.1-1967	1969	Repaired	N/A	01-546, N-416-1
4205325	sw	SW-Piping	N/A	3	NPPD	N/A	Replaced pipe	B31.1-1967	1969	Replaced	N/A	01-547, N-416-1
4205891	MS	VR-S11	487	3	Pacific Scientific	N/A	Replaced snubber	B31.1-1967	1969	Replaced	N/A	N/A
4205892	MS	VR-S86A	5217	3	Pacific Scientific	N/A	Replaced snubber	B31.1-1967	1969	Replaced	N/A	N/A
4205982	RHR	RH-S16	339	1	Pacific Scientific	N/A	Replaced snubber	B31.1-1967	1969	Replaced	N/A	N/A
4205986	RHR	RH-S19	5302	1	Pacific Scientific	N/A	Replaced snubber	B31.1-1967	1969	Replaced	N/A	N/A
4205988	MS	VR-S60	5301	3	Pacific Scientific	N/A	Replaced snubber	B31.1-1967	1969	Replaced	N/A	N/A
4205990	MS	VR-S27	345	3	Pacific Scientific	N/A	Replaced snubber	B31.1-1967	1969	Replaced	N/A	N/A
4205992	MS	VR-S12	5323	3	Pacific Scientific	N/A	Replaced snubber	B31.1-1967	1969	Replaced	N/A	N/A
4205995	RHR	RH-S8B	7003	1	Pacific Scientific	N/A	Replaced snubber	B31.1-1967	1969	Replaced	N/A	N/A
4205997	MS	VR-56-24-X	10797	3	Pacific Scientific	N/A	Replaced snubber	B31.1-1967	1969	Replaced	N/A	N/A
4205998	MS	VR-55-26-Z	5310	3	Pacific Scientific	N/A	Replaced snubber	B31.1-1967	1969	Replaced	N/A	N/A
4205999	MS	SS-A3	5319	1	Pacific Scientific	N/A	Replaced snubber	B31.1-1967	1969	Replaced	N/A	N/A
4207739	sw	DG-1 Intercooler		3	Thermal Eng.	N/A	Replaced intercooler head	B31.1-1967	1969	Replaced	N/A	01-588
4208434	sw	SW-H138	N/A	3	NPPD	N/A	Replaced pipe support	B31.1-1967	1969	Replaced	N/A	N/A
4208664	sw	SW-Piping	N/A	3	NPPD	N/A	Replaced Piping by welding	B31.1-1967	1969	Replaced	N/A	01-266
4208741	sw	SW-S97	N/A	3	Grinnell	N/A	Replaced end paddle on strut	B31.1-1967	1969	Replaced	N/A	N/A

MWR	System	Name of Component	Mfgr. Serial No	CI	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
4208973	sw	RHR-HX-A	27051	3	Southwestern Engineering Co.	N/A	Installed tube plugs	ASME VIII 1968 Edition	1969	Replaced	YES	N/A
4209379	sw	SW-H196	N/A	3	Power Cutting Inc.	N/A	Repair broken welds	B31.1-1967	1969	Repaired	N/A	N/A
4210927	sw	SW-MOV-651MV	N/A	3	Atwood & Morrill	N/A	Replaced Valve	B31.1-1967	1969	Replaced	N/A	01-637
4211015	HPCI	HPCI-MOV-15MO	N/A	1	Anchor Darling	N/A	Repaired valve body by grinding	B31.1-1967	1969	Repaired	N/A	6.MISC.502
4211450	sw	DG-2 Lft Bnk. Intercooler	N/A	3	Perfex	N/A	Replaced left bank intercooler	B31.1-1967	1969	Replaced	N/A	01-645
4211549	sw	DGLO-HX-LO2	N/A	3	American Std.	N/A	Install tube plugs	ASME VIII 1968 Edition	1969	Replaced	YES	N/A
4211551	sw	DGJW-HX-JW2	N/A	3	American Std.	N/A	Install tube plugs	ASME VIII 1968 Edition	1969	Replaced	YES	N/A
4216375 (2)	sw	SW-P-D	N/A	3	Byron Jackson	N/A	Replaced Pump bowl Assy. and bolting at column(s)	B31.1-1967	1969	Replaced	N/A	N/A
PO4500020 233	RF	RF-CV-Discs	N/A	1	Floserve	N/A	Repaired new discs by adding hardfacing	B31.1 - 1967	1969	Replaced	N/A	N/A
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