NORTHERN STATES POWER COMPANY

MONTICELLO NUCLEAR GENERATING PLANT

DOCKET NO. 50-263 LICENSE NO. DPR-22

ASME CODE SECTION XI

INSERVICE INSPECTION AND TESTING PROGRAM

SECOND TEN YEAR INSPECTION INTERVAL

JUNE 30, 1981 - MAY 30, 1992

MONTICELLO NUCLEAR GENERATING PLANT

ASME CODE SECTION XI

INSERVICE INSPECTION AND TESTING PROGRAM

SECOND TEN YEAR INSPECTION INTERVAL
JUNE 30, 1982 - MAY 30, 1992

Inservice Inspection and Approval

Prepared by: _____ 4-30-90

Reviewed by: _____ 4/30/90
Supt. Matl & Spec Proc — Date

Inservice Testing Review and Approval

Prepared by: _____ 4-27-90

Reviewed by: _____ 4-27-90
Plant Sect XI Coordinator — Date

Approved by: _____ FOR DM YOUNGDAHL 4/30/90
Manager Production Plant Maintenance — Date

Revision 10
4/30/90

RECORD OF REVISIONS

Page No.	Rev. No.	Page No.	Rev. No.
Review & Approval	10	1.1-31	10
a	10	1.1-32	10
b	10	1.1-33	10
c	10	1.1-34	9
i	9	1.1-35	10
ii	9	1.1-36	10
1.1-1	9	1.1-37	10
1.1-2	9	1.1-38	9
1.1-3	9	1.1-39	9
1.1-4	10	1.1-40	10
1.1-5	10	1.1-41	10
1.1-6	9	1.1-42	10
1.1-7	9	1.1-43	10
1.1-8	10	1.1-44	10
1.1-9	9	1.1-45	10
1.1-10	10	1.1-46	10
1.1-11	10	1.1-47	10
1.1-12	10	1.1-48	10
1.1-13	10	1.2-1	9
1.1-14	9	1.2-2	9
1.1-15	9	1.2-3	9
1.1-16	10	1.2-4	9
1.1-17	10	1.2-5	9
1.1-18	10	1.2-6	10
1.1-19	10	1.2-7	10
1.1-20	10	1.2-8	10
1.1-21	10	1.2-9	10
1.1-22	10	1.2-10	9
1.1-23	10	1.2-11	10
1.1-24	10	1.2-12	10
1.1-25	10	1.2-13	9
1.1-26	10	1.2-14	9
1.1-27	9	1.2-15	10
1.1-28	10	1.2-16	10
1.1-29	10	1.2-17	10
1.1-30	10		

RECORD OF REVISIONS

Page No.	Rev. No.	Page No.	Rev. No.
1.2-18	10	1.5-19	9
1.2-19	10	1.5-20	9
1.2-20	10	1.5-21	9
1.2-21	10	1.5-22	9
1.2-22	10	2.1-1	10
1.2-22a	10	2.2-1	9
1.2-23	9	2.2-3	9
1.2-24	9	3.1-1	10
1.3-1	9	3.2-1	10
1.4-1	9	3.2-2	10
1.4-2	9	3.3-1	10
1.4-3	9	3.3-2	10
1.4-4	9	3.3-3	10
1.4-5	9	3.3-4	10
1.4-6	9	3.3-5	10
1.4-7	9	3.4-1	10
1.4-8	9	3.5-1	10
1.4-9	9	3.5-2	10
1.4-10	10	3.5-3	10
1.5-1	9	3.5-4	10
1.5-2	9	3.5-5	10
1.5-3	9	3.5-6	10
1.5-4	9	3.5-7	10
1.5-5	9	3.6-1	10
1.5-6	9	3.6-2	10
1.5-7	9	3.6-3	10
1.5-8	9	3.7-1	10
1.5-9	9	3.7-2	10
1.5-10	9	3.7-3	10
1.5-11	9	3.7-4	10
1.5-12	9	3.7-5	10
1.5-13	9	3.7-6	10
1.5-14	9	3.7-7	10
1.5-15	9		
1.5-16	9		
1.5-17	9		
1.5-18	9		

RECORD OF REVISIONS

Page No.	Rev. No.	Page No.	Rev. No.
3.7-8	10	3.8-4	10
3.7-9	10	3.8-5	10
3.7-10	10	3.8-6	10
3.7-11	10	3.8-7	10
3.7-12	10	3.8-8	10
3.7-13	10	3.8-9	10
3.7-14	10	3.8-10	10
3.7-15	10	3.8-11	10
3.7-16	10	3.8-12	10
3.7-17	10	3.8-13	10
3.7-18	10	3.8-14	10
3.7-19	10	3.8-15	10
3.7-20	10	3.8-16	10
3.7-21	10	3.8-17	10
3.7-22	10	3.8-18	10
3.7-23	10	3.8-19	10
3.7-24	10	3.8-20	10
3.7-25	10	3.8-21	10
3.7-26	10	3.8-22	10
3.7-27	10	3.8-23	10
3.7-28	10	3.8-24	10
3.7-29	10	3.8-25	10
3.7-30	10	3.8-26	10
3.7-31	10	3.8-27	10
3.7-32	10	3.8-28	10
3.7-33	10	3.8-29	10
3.7-34	10	3.8-30	10
3.7-35	10	3.8-31	10
3.7-36	10	3.8-32	10
3.7-37	10	3.8-33	10
3.7-38	10	3.9-1	10
3.7-39	10	3.9-2	10
3.7-40	10	3.10-1	10
3.8-1	10	3.10-2	10
3.8-2	10	3.10-3	10
3.8-3	10		

TABLE OF CONTENTS

TABLE OF CONTENTS

ASME SECTION XI NONDESTRUCTIVE EXAMINATION PROGRAM - CLASS I

PROGRAM PERIOD: 2nd Ten Year Interval
June 30, 1981 through May 30, 1992

ASME SECTION XI: 1977 Edition through and including the Summer 1978 Addenda

Exception: (Note 3) 1974 Edition through and including the Summer 1975 Addenda

NOTES:

1. The following tables identify the specific Class 1 components and their supports to be examined. These tables can be directly correlated with Table IWB-2500-1 of ASME Section XI. The tables show the amount of items required to be examined during inspection period one, two and three and the corresponding percentage that will have been completed by the end of that period.

2. Request for relief from some specific ASME Section XI examination requirements that have been determined to be impractical are included in Section 7 of this report. Specific Request for Relief numbers are referenced in the tables.

3. The 1974 Edition through and including the Summer 1975 Addenda of ASME Section XI was utilized to determine the extent of examination for class 1 pipe welds (Program Table 9.1).

4. LEGEND:
   - VT - Visual Examination
   - S - Surface Examination
   - VOL - Volumetric Examination
   - L - Length

5. INSPECTION PERIODS:
   - ONE - June 30,1981 to September 29, 1985 *
   - TWO - September 30, 1985 to December 30, 1988
   - THREE - December 31, 1988 to May 30, 1992

6. Repairs will be performed in accordance with the applicable requirements of the latest Edition and Addenda of the ASME Code, Section XI.

* Extension of Inspection Period one is the result of the 11-month 1984 Recirculation Piping Replacement outage.

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
	EXAMINATION CATEGORY B-A; PRESSURE RETAINING WELDS IN REACTOR VESSEL								
B1.10	SHELL WELDS								
B1.11	CIRCUMFERENTIAL	Figure 2	L=57'						RELIEF NO. 16
		VCBB-1	HD-SHELL	VOL	1	6'8" 100%	ONE	12	
						6'8" 100%	THREE	23	
		VCBA-2	BELTLINE	-	1	NOT ACCESSIBLE	---	-	
		VCBB-3	COURSE 2-3	-	1	NOT ACCESSIBLE	---	-	
		VCBB-4	COURSE 3-4	VOL	1	4'5" 100%	ONE	8	
						10'8" 100%	TWO	26	
						5'4" 100%	THREE	36	
B1.12	LONGITUDINAL	FIGURE 2	L=11'						RELIEF NO. 16
		VLAA-1	27"BELTLINE	VOL	1	4' 100%	THREE	36	
		VLAA-2	27"BELTLINE	VOL	1	9'(1'4" BELT) 100%	TWO	82	
		VLBA-1	117"BELTLINE	-	1	NOT ACCESSIBLE	-	-	
		VLBA-2	117"BELTLINE	-	1	NOT ACCESSIBLE	-	-	
		VLCB-1	COURSE 3	VOL	1	5'8" 100%	THREE	52	
		VLCB-2	COURSE 3	VOL	1	5'8" 100%	ONE	52	
		VLDB-1	COURSE 4	VOL	1	4' 100%	THREE	36	
		VLDB-2	COURSE 4	VOL	1	4'9" 100%	ONE	43	
B1.20	HEAD WELDS								
B1.21	CIRCUMFERENTIAL	HCCB-2	CLOSURE HD FIGURE 5 L=25'	VOL	1	8.5'MIN 100%	ONE	34	
						8' MIN 100%	TWO	66	
						8.5'MIN 100%	THREE	100	

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
B1.21	(CONTINUED)	HCAB-1	BOT HD	VOL	1	3' 100%	ONE	7	
			FIGURE 5			3' 100%	TWO	14	
			L=44			3' 100%	THREE	20	
B1.22	MERIDONAL	WELD NO'S	FIGURE 5	VOL	16				
		HMCB-1	CLOSURE HD	VOL	1	7 100%	ONE	100	
		HMCB-2	L=7'	VOL	1	7' 100%	ONE	100	
		HMCB-3		VOL	1	7' 100%	THREE	100	
		HMCB-4		VOL	1	7' 100%	THREE	100	
		HMCB-5		VOL	1	7' 100%	TWO	100	
		HMCB-6		VOL	1	7' 100%	TWO	100	
		HMAB-1	BOT HD	VOL	1	2'5" 100%	ONE	100	
		HMAB-2	L=6'2"	VOL	1	2'5" 100%	TWO	100	
		HMAB-3		VOL	1	2'5" 100%	TWO	100	
		HMAB-4		VOL	1	2'5" 100%	THREE	100	
		HMAB-5		VOL	1	2'5" 100%	THREE	100	
		HMAB-6		VOL	1	2'5" 100%	ONE	100	
		HMAB-7		VOL	1	2'5" 100%	ONE	100	
		HMAB-8		VOL	1	2'5" 100%	ONE	100	
		HMAB-9		VOL	1	2' 100%	ONE	100	
		HMAB-10		VOL	1	2' 100%	THREE	100	
B1.30	SHELL-TO-FLANGE WELD	VCBC-5	FIGURE 6	VOL	1	19' MIN 100%	ONE	33	
			L=57'			19' MIN 100%	TWO	67	
						19' MIN 100%	THREE	100	
B1.40	HEAD-TO-FLANGE WELD	HCCC-1	FIGURE 5&6	VOL	1	19' MIN 100%	ONE	33	
			L=57'			19' MIN 100%	TWO	67	
						19' MIN 100%	THREE	100	
B1.50	REPAIR WELDS	NONE	-	-	-	- -	-	-	

MONTICELLO NUCLEAR GENERATING PLANT
TEN YEAR INTERVAL — EXAMINATION SUMMARY

TABLE 2.1
PAGE 1 OF 1

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
	EXAMINATION CATEGORY B-B; PRESSURE RETAINING WELDS IN OTHER THAN REACTOR VESSEL								
B2.10 B2.20	PRESSURIZER VESSEL	N/A	--	--	--		--	--	
B2.30 B2.40	STEAM GENERATORS	N/A	--	--	--		--	--	
B2.50 B2.60	HEAT EXCHANGERS	N/A	--	--	--		--	--	

MONTICELLO NUCLEAR GENERATING PLANT
TEN YEAR INTERVAL — EXAMINATION SUMMARY

TABLE 3.1
PAGE 1 OF 2

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
	EXAMINATION CATEGORY B-D, FULL PENETRATION WELDS IN VESSELS-INSPECTION PROGRAM B								
	REACTOR VESSEL								
B3.90 & B3.100	NOZZLE-TO-VESSEL WELDS & NOZZLE INSIDE RADIUS SECTION	WELD NO'S	FIGURE 4	VOL	29				
	HEAD VENT N7	HVAD-1	ISI-15			1 100%	ONE	33	
	HEAD SPRAY N6A	RHDD-1	ISI-11D			1 100%	TWO	67	
	HEAD SPARE N6B	HSBD-1	ISI-14			1 100%	THREE	100	
	STANDBY LIQUID CONTROL N10	CPAE-1	ISI-17			1 100%	TWO	100	
	MAIN STEAM N3A	MSAD-1	ISI-1			1 100%	ONE	25	
	MAIN STEAM N3B	MSBD-1	ISI-2			1 100%	THREE	75	
	MAIN STEAM N3C	MSCD-1	ISI-3			1 100%	TWO	50	
	MAIN STEAM N3D	MSDD-1	ISI-4			1 100%	THREE	100	
	FEEDWATER N4A	FWAD-1	ISI-5A		*	1 100%	ONE	25	* 2 per refueling outage (NRC letter dated 8-27-81)
	FEEDWATER N4B	FWBD-1	ISI-5A		*	1 100%	TWO	50	
	FEEDWATER N4C	FWCD-I	ISI-5B		*	1 100%	TWO	75	
	FEEDWATER N4D	FWDD-1	ISI-5B		*	1 100%	THREE	100	
	CORE SPRAY N5A	CSAD-1	ISI-6A			1 100%	THREE	100	
	CORE SPRAY N5B	CSBD-1	ISI-6B			1 100%	ONE	50	
	CONTROL ROD DRIVE RETURN N9	CRAD-1	ISI-10			1 100%	ONE	100	

NSP MONTICELLO NUCLEAR GENERATING PLANT
TEN YEAR INTERVAL — EXAMINATION SUMMARY

TABLE 3.1
PAGE 2 OF 2

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
B3.90	(CONTINUED)	WELD NO'S	FIGURE 4	VOL	29				
B3.100									
	RECIRC OULET N1A	RCAD-1	ISI-13A			1 100%	ONE	50	
	RECIRC OULET N1B	RCBD-1	ISI-13B			1 100%	THREE	100	
	RECIRC INLET N2A	RRAD-1	ISI-13D			1 100%	ONE	10	
	RECIRC INLET N2D	RRDD-1	ISI-13D			1 100%	ONE	20	
	RECIRC INLET N2J	RRJD-1	ISI-13C			1 100%	ONE	30	
	RECIRC INLET N2H	RRHD-1	ISI-13C			1 100%	TWO	40	
	RECIRC INLET N2E	RRED-1	ISI-13D			1 100%	TWO	50	
	RECIRC INLET N2G	RRGD-1	ISI-13C			1 100%	TWO	60	
	RECIRC INLET N2B	RRBD-1	ISI-13D			1 100%	THREE	70	
	RECIRC INLET N2F	RRFD-1	ISI-13C			1 100%	THREE	80	
	RECIRC INLET N2C	RRCD-1	ISI-13D			1 100%	THREE	90	
	RECIRC INLET N2K	RRKD-1	ISI-13C			1 100%	THREE	100	
	JET PUMP INSTR N8A	JPAD-1	ISI-16			1 100%	ONE	50	
	N8B	JPBD-1	ISI-16			1 100%	THREE	100	
B3.130 & B3.140	PRESSURIZER VESSEL	N/A	--	--	--	-- --	--	--	
B3.150 & B3.160	STEAM GENERATORS	N/A	--	--	--	-- --	--	--	
B3.170 & B3.180	HEAT EXCHANGERS	N/A	--	--	--	-- --	--	--	

NSP MONTICELLO NUCLEAR GENERATING PLANT
TEN YEAR INTERVAL — EXAMINATION SUMMARY

TABLE 4.1
PAGE 1 OF 1

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT		INSPECTION PERIOD	RUNNING %	REMARKS
	EXAMINATION CATEGORY B-E, PRESSURE RETAINING PARTIAL PENETRATION WELDS IN VESSELS									
B4.10	REACTOR VESSEL									AREAS SUBJECT TO PLANTS OPTION
B4.11	PARTIAL PENET WELDS									*RELIEF NO. 18
B4.12	VESSEL NOZZLES	N15	RPV DRAIN	VT-2	1	1	100%	THREE	100	
		N13	HD SENSOR	VT-2	1	*		THREE	--	
		N14	HD SENSOR	VT-2	1	*		THREE	--	
B4.13	CRD PENETRATIONS	CRD NOZZLES	FIGURE 1	VT-2	121	10	100%	ONE	8	
						10	100%	TWO	17	
						11	100%	THREE	26	
B4.14	INSTR PENETRATIONS	N11A	--	VT-2	1	1	100%	THREE	25	
		N11B	--	VT-2	1	I	--	--	--	
		N12A	--	VT-2	1	1	--	--	--	
		N12B	--	VT-2	1	1	--	--	--	
B4.20	PRESSURIZER	N/A	--	--	--	--	--	--	--	

MONTICELLO NUCLEAR GENERATING PLANT
TEN YEAR INTERVAL — EXAMINATION SUMMARY

TABLE 5.1
PAGE 1 OF 3

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
	EXAMINATION CATEGORY B-F, PRESSURE RETAINING DISSIMILAR METAL WELDS								
	REACTOR VESSEL								
B5.10	NOZZLE-TO-SAFE END WELDS	WELD NO'S	FIGURE 4	S,VOL	25				
	HEAD VENT N7	HVAF-2	ISI-15			1 100%	ONE	33	
	HEAD SPRAY N6A	RHDJ-2	ISI-11D			1 100%	TWO	67	
	HEAD SPARE N6B	HSBF-2	ISI-14			1 100%	THREE	100	
	STANDBY LIQUID CONTROL N10	CPAFR-2	ISI-17			1 100%	TWO	100	
	CRD RETURN N9	CRAFR-2	ISI-10			1 100%	ONE	100	
	RECIRC OUTLET N1A	RCAFR-2	ISI-13A			1 100%	ONE	50	
	RECIRC OUTLET N1B	RCBFR-2	ISI-13B			1 100%	THREE	100	
	RECIRC INLET N2A	RRAFR-2	ISI-13D			1 100%	ONE	10	
	RECIRC INLET N2D	RRDFR-2	ISI-13D			1 100%	ONE	20	
	RECIRC INLET N2J	RRJFR-2	ISI-13C			1 100%	ONE	30	
	RECIRC INLET N2H	RRHFR-2	ISI-13C			1 100%	TWO	40	
	RECIRC INLET N2E	RREFR-2	ISI-13D			1 100%	TWO	50	
	RECIRC INLET N2G	RRGFR-2	ISI-13C			1 100%	TWO	60	
	RECIRC INLET N2B	RRBFR-2	ISI-13D			1 100%	THREE	70	
	RECIRC INLET N2F	RRFFR-2	ISI-13C			1 100%	THREE	80	
	RECIRC INLET N2C	RRCFR-2	ISI-13D			1 100%	THREE	90	
	RECIRC INLET N2K	RRKFR-2	ISI-13C			1 100%	THREE	100	

NSP MONTICELLO NUCLEAR GENERATING PLANT
TEN YEAR INTERVAL — EXAMINATION SUMMARY

TABLE 5.1
PAGE 2 OF 3

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
B5.10	(CONTINUED)	WELD NO'S	FIGURE 4	S,VOL	25				
	JET PUMP INSTR								
	N8A	JPAFR-2	ISI-16			1 100%	ONE	50	
	N8B	JPBFR-2	1SI-16			1 100%	THREE	100	
	INSTRUMENT LINES								
	N11A	VIAF-2	ISI-18			1 100%	ONE	25	
	N11B	VIBF-2	ISI-18A			1 100%	TWO	50	
	N12A	VICF-2	ISI-19			1 100%	THREE	75	
	N12B	VIDF-2	ISI-19			1 100%	THREE	100	
B5.20	PRESSURIZER	N/A	--	--	--	-- --	--	--	
B5.30	STEAM GENERATORS	N/A	--	--	--	-- --	--	--	
B5.40	HEAT EXCHANGERS	N/A	--	--	--	-- --	--	--	
	PIPING								
B5.50	SAFE END WELDS								
	CORE SPRAY A	CSAFR-8	TW7-8"EF	S.VOL	2	1 100%	ONE	50	
		CSAFR-9	1SI-6A			1 100%	THREE	100	
	CORE SPRAY B	CSBFR-8	TW11-8"EF	S,VOL	2	1 100%	ONE	50	
		CSBFR-9	ISI-6B			1 100%	THREE	100	

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
B5.50	(CONTINUED)								
	HPCI-STEAM	PSAFR-2B PSAFR-2C	PS18-8"EF ISI-7	S,VOL	2	2 100%	TWO	100	
	RHR REW10	RHAFR-4	REW10-18"EF ISI-11A	S,VOL	1	1 100%	TWO	100	
	RHR TW20	RHBFR-6 RHBFR-20 RHBFR-24	TW20-16"DC TW20-18"ED ISI-11B	S,VOL	2 1	1 100% 2 100%	TWO THREE	33 100	
	RHR TW30	RHCFR-6 RHCFR-20 RHCFR-23	TW30-16"DC TW30-16"DB ISI-11C	S,VOL	1 2	1 100% 2 100%	TWO THREE	33 100	
	RWCU	CWAFR-3	REW3-4"EF ISI-9	S,VOL	1	1 100%	ONE	100	
	CRD SCRAM HDR A	CDAF-12 CDAF-43 CDAF-27	CRD15A-4"DB CRD14A-6"DB CRD12A-4"DB ISI-24A	S,VOL	1 I 1	1 100% 1 100% 1 100%	ONE TWO THREE	33 66 100	
	CRD SCRAM HDR B	CDBF-8 CDBF-37 CDBF-21	CRD15B-4"DB CRDI3B-4"CCD CRD14B-6"DB ISI-24B	S,VOL	1 I 1	1 100% 1 100% 1 100%	ONE TWO THREE	33 66 100	

MONTICELLO NUCLEAR GENERATING PLANT
TEN YEAR INTERVAL — EXAMINATION SUMMARY

TABLE 6.1
PAGE 1 OF 3

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
	EXAMINATION CATEGORY B-G-1; PRESSURE RETAINING BOLTING, LARGER THAN 2 IN. IN DIAMETER								
	REACTOR VESSEL								
B6.10	CLOSURE HEAD NUTS	PRB 1-64	FIGURE 3	S	64	22 100% 21 100% 21 100%	ONE TWO THREE	34 67 100	
B6.20	CLOSURE STUDS, IN PLACE	PRA 1-64	FIGURE 3	S,VOL	64	22 100% 21 100% 21 100%	ONE TWO THREE	34 67 100	
B6.30	CLOSURE STUDS,WHEN REMOVED	NONE	--	--	--	-- --	--	--	(SEE B6.20) IF REMOVED
B6.40	LIGAMENTS BETWEEN STUD HOLES	PRE 1-64	FIGURE 3	VOL	64	22 100% 21 100% 21 100%	ONE TWO THREE	34 67 100	
B6.50	CLOSURE WASHERS & BUSHINGS								
	WASHERS	PRD 1-64 (PAIRS)	FIGURE 3	VT-1	64	22 PAIRS 100% 21 PAIRS 100% 21 PAIRS 100%	ONE TWO THREE	34 67 100	
	BUSHINGS	PRC 1-64	FIGURE 3	VT-1	64	22 100% 21 100% 21 100%	ONE TWO THREE	34 67 100	

MONTICELLO NUCLEAR GENERATING PLANT
TEN YEAR INTERVAL — EXAMINATION SUMMARY

TABLE 6.1
PAGE 2 OF 3

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
B6.60	PRESSURIZER	N/A	--	--	--	-- --	--	--	
B6.90	STEAM GENERATORS	N/A	--	--	--	-- --	--	--	
B6.120	HEAT EXCHANGERS	N/A	--	--	--	-- --	--	--	
	PIPING	NONE	--	--	--	-- --	--	--	
	PUMPS								
B6.180	BOLTS AND STUDS, IN PLACE								RELIEF NO. 24
	RECIRC PUMP A FLANGE BOLTS	P-200A 1-16	ISI-13A	VOL	16	5 100% 5 100% 6 100%	ONE TWO THREE	31 63 100	
	RECIRC PUMP B FLANGE BOLTS	P-200B 1-16	ISI-13B	VOL	16	5 100% 5 100% 6 100%	ONE TWO THREE	31 63 100	
B6.190	BOLTS AND STUDS, WHEN REMOVED								
	RECIRC PUMP A & B FLANGE BOLTS	P-200A & P-200B	ISI-13A ISI-13B	S,VOL	32	* 100% WHEN REMOVED	*	*	
B6.200	BOLTING								IN CONJUNCTION WITH B6.180 AND B6.190
	RECIRC PUMP A FLANGE BOLTS	P-200A	ISI-13A	VT-1	16	5 100% 5 100% 6 100%	ONE TWO THREE	31 63 100	

MONTICELLO NUCLEAR GENERATING PLANT
TEN YEAR INTERVAL — EXAMINATION SUMMARY

TABLE 6.1
PAGE 3 OF 3

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
B6.200	(CONTINUED)								
	RECIRC PUMP B FLANGE BOLTS	P-200B	ISI-13B	VT-1	16	5 100% 5 100% 6 100%	ONE TWO THREE	31 63 100	
	VALVES	NONE	--	--	--	-- --	--	--	

NSP MONTICELLO NUCLEAR GENERATING PLANT
TEN YEAR INTERVAL — EXAMINATION SUMMARY

TABLE 7.1
PAGE 1 OF 7

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT		INSPECTION PERIOD	RUNNING %	REMARKS
	EXAMINATION CATEGORY B-G-2; PRESSURE RETAINING BOLTING 2 IN. AND SMALLER IN DIAMETER									
	REACTOR VESSEL									
B7.10	BOLTS, STUDS, AND NUTS									
	HEAD VENT N7	1-8	ISI-15	VT-1	8	8	100%	ONE	33	
	HEAD SPRAY N6A	1-8	ISI-11D	VT-1	8	8	100%	TWO	67	
	HEAD SPARE N6B	1-8	ISI-14	VT-1	8	8	100%	THREE	100	
	CONTROL ROD HOUSINGS	FLANGE BOLTS	FIGURE 1	VT-1	121*	41	100%	ONE	34	* 121 FLANGES WITH 8 BOLTS EACH
						40	100%	TWO	67	
						40	100%	THREE	100	
B7.20	PRESSURIZER	N/A	--	--	--	--	--	--	--	
B7.30	STEAM GENERATORS	N/A	--	--	--	--	--	--	--	
B7.40	HEAT EXCHANGERS	N/A	--	--	--	--	--	--	--	

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
	PIPING								
B7.50	BOLTS, STUDS AND NUTS								EXAMINATIONS SCHEDULED/FLANGE
	MAIN STEAM A	4-FLANGES	PS1-18"ED ISI-1	VT-1	4	1 100% 3 100%	ONE THREE	25 100	
	MAIN STEAM B	1-FLANGE	PS2-18"ED ISI-2	VT-1	1	1 100%	TWO	100	
	MAIN STEAM C	1-FLANGE	PS3-18"ED ISI-3	VT-1	1	1 100%	ONE	100	
	MAIN STEAM D	4-FLANGES	PS4-18"ED ISI-4	VT-1	4	1 100% 1 100% 2 100%	ONE TWO THREE	25 50 100	
	RHR TW36	2-FLANGES	TW36-4"ED IS-11D	VT-1	2	2 100%	TWO	100	
	RECIRC A	1-FLANGE	REW26-4" ISI-13B	VT-1	1	1 100%	ONE	100	
	HEAD VENT LINE	1-FLANGE	V15-2"EP	VT-1	1	1 100% 1 100%	ONE TWO	--- 100	

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
	PUMPS								
B7.60	BOLTS, STUDS AND NUTS								
	RECIRC PUMP A	P-200A	ISI-13A	VT-1	10	3 100%	ONE	30	DISASSEMBLY REQ'D
	GLAND BOLTS	1-10				3 100%	TWO	60	
						4 100%	THREE	100	
	RECIRC PUMP B	P-200B	ISI-13B	VT-1	10	3 100%	ONE	30	DISASSEMBLY REQ'D
	GLAND BOLTS	1-10				3 100%	TWO	60	
						4 100%	THREE	100	
	VALVES								
B7.70	BOLTS, STUDS, AND NUTS								EXAMINATIONS SCHEDULED/VALVE
	MAIN STEAM A	A02-80A	PS1-18"ED	VT-1	4	2 100%	ONE	50	
		A02-86A	ISI-1			NONE	TWO	50	
		RV2-71E				2 100%	THREE	100	
		RV2-71A							
	MAIN STEAM B	A02-80B	PS2-18"ED	VT-1	4	NONE	ONE	--	
		A02-86B	ISI-2			2 100%	TWO	50	
		RV2-71B				2 100%	THREE	100	
		RV2-71G							
	MAIN STEAM C	A02-80C	PS3-18"ED	VT-1	4	2 100%	ONE	50	
		A02-86C	ISI-3			NONE	TWO	50	
		RV2-71C				2 100%	THREE	100	
		RV2-71H							

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
B7.70	(CONTINUED)								
	MAIN STEAM D	A02-80D A02-86D RV2-71D RV2-71F	PS4-18"ED ISI-4	VT-1	4	NONE 2 100% 2 100%	ONE TWO THREE	-- 50 100	
	FEEDWATER A	FW-98-2 FW-97-2 FW-94-2	FW2B-14"ED ISI-5A	VT-1	3	1 100% 1 100% 1 100%	ONE TWO THREE	33 67 100	
	FEEDWATER B	FW-98-1 FW-97-1 FW-94-1	FW2A-14"ED ISI-5B	VT-1	3	1 100% 1 100% 1 100%	ONE TWO THREE	33 67 100	
	CORE SPRAY A	MO-1754 A014-13B POS-1758	TW7-8"EF ISI-6A	VT-1	3	2 100% 1 100% NONE	ONE TWO THREE	67 100 100	
	CORE SPRAY B	MO-1753 A014-13A POS-1757	TW11-8"EF ISI-6B	VT-1	3	1 100% NONE 2 100%	ONE TWO THREE	33 33 100	
	HPCI STEAM	MO-2034 MO-2035	PS18-8"ED ISI-7	VT-1	2	1 100% 1 100%	ONE TWO	50 100	
	RWCU	MO-2398 RC-1 MO-2397	REW3-4"EF 1SI-9	VT-1	3	1 100% 1 100% 1 100%	ONE TWO THREE	33 67 100	

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
B7.70	CONTINUED								
	RHR REW10	POS-2028	REW10-18"ED	VT-1	3	1 100%	ONE	33	
		MO-2030	ISI-11A			2 100%	TWO	100	
		MO-2029				NONE	THREE	100	
	RHR TW20	POS-2019	TW20-16"DB	VT-1	3	1 100%	ONE	33	
		A010-46B	ISI-11B			2 100%	TWO	100	
		MO-2015				NONE	THREE	100	
	RHR TW30	MO-2014	TW30-16"DB	VT-1	3	1 100%	ONE	33	
		POS-2018	ISI-11C			1 100%	TWO	67	
		A010-46A				1 100%	THREE	100	
	RHR TW36	RHR-21	TW36-4"ED	VT-1	3	1 100%	ONE	33	
		MO-2027	ISI-11D	V		2 100%	TWO	100	
		MO-2026				NONE	THREE	100	
	RHR TW40	MO-4085A	TW40-4"DBA	T-1	3	NONE	ONE	--	
		MO-4085B	ISI-11E	V		1 100%	TWO	33	
		MO-4086				2 100%	THREE	100	
	RCIC STEAM	MO-2076	PS17-3"ED	T-1	2	1 100%	TWO	50	
		MO-2075	ISI-12	V		1 100%	THREE	100	
				V					

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
B7.70	(CONTINUED)								
	RECIRC A	MO2-53A	ISI-13A	VOL	24	8 100%	ONE	33	
						8 100%	TWO	67	
						8 100%	THREE	100	
	RECIRC A	MO2-43A	ISI-13A	VOL	24	8 100%	ONE	33	
						8 100%	TWO	67	
						8 100%	THREE	100	
	RECIRC B	MO2-53B	ISI-13B	VOL	24	8 100%	ONE	33	
						8 100%	TWO	67	
						8 100%	THREE	100	
	RECIRC B	MO2-43B	ISI-13B	VOL	24	8 100%	ONE	33	
						8 100%	TWO	67	
						8 100%	THREE	100	
	HEAD VENT LINE	XDV-1 XDV-2 XDV-3	V15-2"ED ISI-15	VT-1	3	1 100% 2 100%	TWO THREE	33 100	
	BOTTOM HEAD DRAIN	XDV-4	REW31-2"ED 1SI-21	VT-1	1	1 100%	THREE	100	
	STANDBY LIQUID CONTROL	XP-7 XP-6	CH2-1"DC ISI-22	VT-1	2	NONE 1 100% 1 100%	ONE TWO THREE	-- 50 100	
	MAIN STEAM DRAIN	MO-2373 MO-2374	PS15-3"ED ISI-23	VT-I	2	1 100% 1 100%	ONE TWO	50 100	

MONTICELLO NUCLEAR GENERATING PLANT
TEN YEAR INTERVAL — EXAMINATION SUMMARY

TABLE 7.1
PAGE 7 OF 7

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
B7.70	(CONTINUED)								
	CRD SCRAM HEADER	CV-3-33A	CRD18-2"ED	VT-1	2	1 100%	ONE	33	
	DRAIN LINE	CV-3-33B	ISI-24C			1 100%	THREE	100	
	RECIRC A DRAIN	XR-6-1 XR-7-1	REW28-2" ISI-26	VT-I	2	2 100%	ONE	100	
	RECIRC B DRAIN	XR-6-2 XR-7-2	REW29-2" ISI-26	VT-I	2	2 100%	TWO	100	

NSP MONTICELLO NUCLEAR GENERATING PLANT
TEN YEAR INTERVAL — EXAMINATION SUMMARY

TABLE 8.1
PAGE 1 OF 1

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT		INSPECTION PERIOD	RUNNING %	REMARKS
	EXAMINATION CATEGORY B-H; VESSEL SUPPORTS									
	REACTOR VESSEL									
B8.10	INTEGRALLY WELDED ATTACHMENTS									
	SUPPORT SKIRT	HCAH-2	FIGURE 5 L=53′	S	1	17′ 18′ 18′	100% 100% 100%	ONE TWO THREE	32 66 100	
	STABILIZER LUGS	LUGS 1-4	FIGURE 6	S	4					RELIEF NO. 51
B8.20	PRESSURIZER	N/A	--	--	--	--	--	--	--	
B8.30	STEAM GENERATORS	N/A	--	--	--	--	--	--	--	
B8.40	HEAT EXCHANGERS	N/A	--	--	--	--	--	--	--	

NSP MONTICELLO NUCLEAR GENERATING PLANT
TEN YEAR INTERVAL — EXAMINATION SUMMARY

TABLE 9.1
PAGE 1 OF 12

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
*	EXAMINATION CATEGORY B-J; PRESSURE RETAINING WELDS IN PIPING								* ASME SECTION XI 1974 EDITION THRU SUMMER 1975 ADDENDA USED FOR DETERMING THE EXTENT OF EXAM-TIONS.
B9.10	NOMINAL PIPE SIZE 4 IN. AND GREATER								
B9.II B9.12	CIRCUMFERENTIAL AND * LONGITUDINAL WELDS								* THE LESSER OF 12 IN. OR 1 PIPE
	MAIN STEAM A	BUTTWELDS	PS1-18"ED ISI-1	S,VOL	20	3 100% NONE 3 100%	ONE TWO THREE	15 15 30	DIAMETER LENGTH FROM SCHEDULED CIRC WELD INTER-SECTION WILL BE EXAMINED.
		BUTTWELDS	PS1-6"ED ISI-1	S,VOL	6	1 100% NONE 1 100%	ONE TWO THREE	17 17 33	RELIEF NO. 67
	MAIN STEAM B	BUTTWELDS	PS2-18"ED ISI-2	S,VOL	24	NONE 4 100% 3 100%	ONE TWO THREE	-- 17 29	RELIEF NO. 67
		BUTTWELDS	PS2-6"ED ISI-2	S,VOL	3	NONE 1 100% NONE	ONE TWO THREE	-- 33 33	
	MAIN STEAM C	BUTTWELDS	PS3-18"ED ISI-3	S,VOL	25	2 100% 2 100% 3 100%	ONE TWO THREE	8 16 29	RELIEF NO. 67

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
B9.11 & B9.12	(CONTINUED)								
	MAIN STEAM C	BUTTWELDS	PS3-6"ED ISI-3	S,VOL	3	1 100% NONE NONE	ONE TWO THREE	33 33 33	
	MAIN STEAM D	BUTTWELDS	PS4-18"ED ISI-4	S,VOL	22	2 100% 1 100% 3 100%	ONE TWO THREE	9 14 27	RELIEF NO. 67
		BUTTWELDS	PS4-6"ED ISI-4	S,VOL	6	1 100% NONE 1 100%	ONE TWO THREE	17 17 33	
	FEEDWATER A	BUTTWELDS	FW2B-10"ED ISI-5A	S,VOL	13	2 100% NONE 1 100%	ONE TWO THREE	15 15 23	
		BUTTWELDS	FW2B-14"ED ISI-5A	S,VOL	11	NONE 2 100% 1 100%	ONE TWO THREE	-- 18 27	RELIEF NO. 67
	FEEDWATER B	BUTTWELDS	FW2B-10"ED ISI-5A	S,VOL	11	NONE 2 100% 1 100%	ONE TWO THREE	-- 18 27	
	FEEDWATER C	BUTTWELDS	FW2A-10"ED ISI-5B	S,VOL	11	1 100% NONE 1 100%	ONE TWO THREE	9 9 18	

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
B9.11 & B9.12	(CONTINUED)								
	FEEDWATER D	BUTTWELDS	FW2A-10"ED	S,VOL	13	2 100%	ONE	15	
			ISI-5B			NONE	TWO	15	
						1 100%	THREE	23	
		BUTTWELDS	FW2A-14"ED	S,VOL	11	2 100%	ONE	18	RELIEF NO. 67
			ISI-5B			1 100%	TWO	18	
						NONE	THREE	27	
	CORE SPRAY A	BUTTWELDS	TW7-8"ED	S,VOL	12	1 100%	ONE	8	RELIEF NO. 67
			ISI-6A			2 100%	TWO	25	
						1 100%	THREE	33	
	CORE SPRAY B	BUTTWELDS	TW11-8"ED	S,VOL	13	2 100%	ONE	15	RELIEF NO. 67
			ISI-6B			NONE	TWO	15	
						2 100%	THREE	31	
	HPCI-STEAM	BUTTWELDS	PS18-8"ED	S,VOL	15	NONE	ONE	--	RELIEF NO. 67
			ISI-7			2 100%	TWO	13	
						2 100%	THREE	27	
	RWCU LINE	BUTTWELDS	REW3-4"EF	S,VOL	22	NONE	ONE	--	RELIEF NO. 67
			REW3-4"ED		1	3 100%	TWO	14	
			ISI-9			3 100%	THREE	27	
	RHR REW10	BUTTWELDS	REW10-18"ED	S,VOL	15	3 100%	ONE	20	RELIEF NO. 67
			REW10-18"EF		3	NONE	TWO	20	
			ISI-11A			2 100%	THREE	33	
		BUTTWELDS	REW10-4"	S,VOL	2	I 100%	THREE	50	

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
B9.11 & B9.12	(CONTINUED)								
	RHR TW20	BUTTWELDS	TW20-16"DB ISI-11B	S,VOL	19	2 100% 2 100% 2 100%	ONE TWO THREE	11 21 32	RELIEF NO. 67
		BUTTWELDS	TW20-18"DC ISI-11B	S,VOL	5	NONE 2 100% 1 100%	ONE TWO THREE	-- 40 60	
		BUTTWELDS	TW20-4"	S,VOL	2	1 100%	THREE	50	
	RHR TW30	BUTTWELDS	TW30-16"DB ISI-11C	S,VOL	19	2 100% 2 100% 1 100%	ONE TWO THREE	11 21 26	RELIEF NO. 67
		BUTTWELDS	TW30-18"DB ISI-11C	S,VOL	4	NONE 1 100% NONE	ONE TWO THREE	-- 25 25	
		BUTTWELDS	TW30-4"	S,VOL	2	1 100%	TWO	50	
	RHR TW36	BUTTWELDS	TW36-4"ED ISI-11D	S,VOL	22	NONE 3 100% 3 100%	ONE TWO THREE	-- 14 27	RELIEF NO. 67
	RHR TW40	BUTTWELDS	TW40-4"DBA ISI-11E	S,VOL	31	NONE 4 100% 4 100%	ONE TWO THREE	-- 13 26	
	RECIRC A	BUTTWELDS	REW13A-28" ISI-13A & 1SI-13C	S,VOL	18 1	1 100% 2 100% 2 100%	ONE TWO THREE	5 16 26	

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT			INSPECTION PERIOD	RUNNING %	REMARKS
B9.11 & B9.12	(CONTINUED)										
	RECIRC B	BUTTWELDS	REW13B-28"	S,VOL	16	2		100%	ONE	12	
			ISI-13B &		1		NONE		TWO	12	
			ISI-13D			2		100%	THREE	24	
	RECIRC MANIFOLD	BUTTWELDS	REW32-22"	S,VOL	18	2		100%	ONE	11	
			ISI-13C &			2		100%	TWO	22	
			ISI-13D			1		100%	THREE	28	
	RISER F	BUTTWELDS	REW14-12"	S,VOL	5		NONE		ONE	--	
			ISI-13C				NONE		TWO	--	
						2		100%	THREE	40	
	RISER G	BUTTWELDS	REW15-12"	S,VOL	3		NONE		ONE	--	
			1SI-13C			1		100%	TWO	33	
							NONE		THREE	33	
	RISER H	BUTTWELDS	REW16-12"	S,VOL	2	1		100%	ONE	25	
			ISI-13C				NONE		TWO	25	
							NONE		THREE	25	
	RISER J	BUTTWELDS	REW17-12"	S,VOL	3		NONE		ONE	--	
			ISI-13C				NONE		TWO	--	
							NONE		THREE	--	
	RISER K	BUTTWELDS	REW18-12"	S,VOL	5		NONE		ONE	--	
			ISI-13C				NONE		TWO	--	
						2		100%	THREE	40	

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
B9.11 & B9.12	(CONTINUED)								
	RISER A	BUTTWELDS	REW23-12" ISI-13D	S,VOL	5	NONE	ONE	--	
						NONE	TWO	--	
						NONE	THREE	--	
	RISER B	BUTTWELDS	REW22-12" ISI-13D	S,VOL	3	NONE	ONE	--	
						NONE	TWO	--	
						2 100%	THREE	67	
	RISER C	BUTTWELDS	REW21-12" ISI-13D	S,VOL	2	NONE	ONE	--	
						NONE	TWO	--	
						NONE	THREE	--	
	RISER D	BUTTWELDS	REW20-12" ISI-13D	S,VOL	3	NONE	ONE	--	
						NONE	TWO	--	
						NONE	THREE	--	
	RISER E	BUTTWELDS	REW19-12" ISI-13D	S,VOL	5	NONE	ONE	--	
						NONE	TWO	--	
						NONE	THREE	--	
	HEAD VENT	BUTTWELD	CLOSURE HD ISI-15	S,VOL	1	1 100%	ONE	100	
	INSTRUMENT LINES FROM N11A&N11B	BUTTWELDS	1½"DC ISI-18&18A	S,VOL	8	1 100%	ONE	13	CONDENSING AND
						NONE	TWO	13	CONSTANT HEAD
						1 100%	THREE	25	CHAMBERS

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
B9.11 & B9.12	(CONTINUED)								
	CRD SCRAM HDR A	BUTTWELDS	CRD13A-4"DB	S,VOL	5	2 100%	ONE	17	
			CRD13A-4"CCD		3	NONE	TWO	17	
			CRD15A-4"DB		4	1 100%	THREE	25	
			ISI-24A						
		BUTTWELDS	CRD14A-6"DB	S,VOL	4	NONE	ONE	--	
			CRD15A-6"DB		1	1 100%	TWO	20	
			ISI-24A			NONE	THREE	--	
		BUTTWELDS	CRD16A-	S,VOL	14	2 100%	ONE	14	
			12"CCD			1 100%	TWO	21	
			ISI-24A			2 100%	THREE	36	
	SCRAM DISCHARGE VOLUME TANK A	BUTTWELDS	CRD16A-	S,VOL	2	NONE	ONE	--	
			24"CCD			NONE	TWO	--	
			ISI-24A			1 100%	THREE	50	
	CRD SCRAM HDR B	BUTTWELDS	CRD13B-4"DB	S,VOL	5	1 100%	ONE	9	
			CRD13B-4"CCD		2	1 100%	TWO	18	
			CRD15B-4"DB		4	1 100%	THREE	27	
			ISI-24B						
		BUTTWELDS	CRD14B-6"DB	S,VOL	4	NONE	ONE	--	
			CRD15B-6"DB		1	NONE	TWO	--	
			ISI-24B			1 100%	THREE	20	

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
B9.11 & B9.12	(CONTINUED)								
	CRD SCRAM HDR B	BUTTWELDS	CRD16B-12"CCD ISI-24B	S,VOL	11	1 100% 2 100% 1 100%	ONE TWO THREE	9 27 36	
	SCRAM DISCHARGE VOLUME TANK B	BUTTWELDS	CRD16B-24"CCD ISI-24B	S,VOL	2	NONE 1 100% NONE	ONE TWO THREE	-- 50 50	
B9.20	NOMINAL PIPE SIZE LESS THAN 4 IN.								
B9.21 & B9.22	CIRCUMFERENTIAL AND * LONGITUDINAL WELDS								* THE LESSER OF 12 IN. OR 1 PIPE DIAMETER LENGTH FROM SCHEDULED CIRC WELD INTERSECTION WILL BE EXAMINED RELIEF NO. 67
	RC1C-STEAM	BUTTWELDS	PS17-3"ED ISI-12	S	14	2 100% NONE 2 100%	ONE TWO THREE	14 14 29	
	STANDBY LIQUID CONTROL	BUTTWELDS	CH2-1½"EF ISI-22	S	3	NONE 1 100% NONE	ONE TWO THREE	-- 33 33	

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
B9.21 & B9.22	(CONTINUED)								
	MAIN STEAM CONDENSATE LEAKOFF	BUTTWELDS	PS15-3"ED ISI-23	S	10	2 100% NONE 1 100%	ONE TWO THREE	20 20 30	
B9.30	BRANCH CONNECTION WELDS								
B9.31	NOMINAL PIPE SIZE GREATER THAN 2 IN.								
	MAIN STEAM A	6" BRANCH WELDS	PS1-18"ED ISI-1	S,VOL	6	1 100% NONE 1 100%	ONE TWO THREE	17 17 33	
	MAIN STEAM B	6" BRANCH WELDS	PS2-18"ED ISI-2	S,VOL	3	NONE 1 100% NONE	ONE TWO THREE	-- 33 33	
	MAIN STEAM B	8" BRANCH WELD	MSBJ-22 ISI-2	S,VOL	1	NONE	--	--	
	MAIN STEAM C	6" BRANCH WELDS	PS3-18"ED ISI-3	S,VOL	3	1 100% NONE NONE	ONE TWO THREE	33 33 33	
		3" BRANCH WELD	MSCJ-22 ISI-3	S,VOL	1	NONE	--	--	

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
B9.31	(CONTINUED)								
	MAIN STEAM D	6" BRANCH WELDS	PS4-18"ED ISI-4	S,VOL	6	1 100% NONE 1 100%	ONE TWO THREE	17 17 33	
	RWCU	4" BRANCH WELD	REW3-4"EF ISI-9	S,VOL	1	1 100%	ONE	100	
	RHR A	4" BRANCH WELDS	REW10-4" ISI-11A	S,VOL	2	NONE 1 100% 1 100%	ONE TWO THREE	-- 50 100	
	RHR B	4" BRANCH WELDS	REW20-4" ISI-11B	S,VOL	2	1 100% NONE 1 100%	ONE TWO THREE	50 50 100	
	RHR C	4" BRANCH WELDS	REW30-4" ISI-11C	S,VOL	2	NONE 1 100% 1 100%	ONE TWO THREE	-- 50 100	
	RHR E	4" BRANCH WELDS	TW40-4"DBA ISI-11E	S,VOL	3	1 100% NONE NONE	ONE TWO THREE	33 -- --	

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
B9.32	NOMINAL PIPE SIZE 2 IN. AND LESS								
	MAIN STEAM B	2" BRANCH WELD	PS2-18"ED ISI-2	S	1	1 100%	THREE	100	
	RWCU	2" BRANCH WELD	REW3-4"ED 1SI-9	S	1	NONE	--	--	
	MAIN STEAM CONDENSATE LEAKOFF	2" BRANCH WELDS	PS15A-2"ED PS15B-2"ED	S	8	1 100%	ONE	13	
			PS15C-2"ED PS15D-2"ED ISI-23			1 100%	THREE	25	
	CRD SCRAM HDR A & B	2" BRANCH WELD	CRD16A-2"CCD	S	2	NONE	ONE	--	
						NONE	TWO	--	
			CRD16B-2"CCD ISI-24C			1 100%	THREE	50	
	RECIRC DRAIN A & B	2" BRANCH WELD	REW28-2" REW29-2" ISI-26	S	2	1 100%	TWO	50	

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT		INSPECTION PERIOD	RUNNING %	REMARKS
B9.40	SOCKET WELDS									
	HEAT VENT	SOCKET WELDS	V15-2"ED ISI-15	S	54	4 5 5	100% 100% 100%	ONE TWO THREE	7 17 26	
	INSTRUMENT LINES	SOCKET WELDS	1½"DC ISI-18,18A ISI-19	S	14	3 1 1	100% 100% 100%	ONE TWO THREE	21 28 36	
	BOTTOM HEAD DRAIN	SOCKET WELDS	REW31-2"ED ISI-21	S	40	3 3 4	100% 100% 100%	ONE TWO THREE	8 15 25	
	STANDBY LIQUID CONTROL	SOCKET WELDS	CH2-1½"ECB ISI-22	S	15	1 1 2	100% 100% 100%	ONE TWO THREE	7 13 27	
		SOCKET WELDS	CH2-1½"DB ISI-22	S	14	4	100%	THREE	28	
	MAIN STEAM CONDENSATE LEAKOFF	SOCKET WELDS	PS15A-2" PS15B-2" PS15C-2" PS15D-2" ISI-23	S	48	3 4 5	100% 100% 100%	ONE TWO THREE	6 15 25	
	CRD SCRAM DISCHARGE TANK A & B	SOCKET WELDS	CRD16A-2"CCD CRD16B-2"CCD ISI-24C	S	12	1 1 1	100% 100% 100%	ONE TWO THREE	8 17 25	
	RECIRC A & B DRAIN	SOCKET WELDS	REW28-2" REW29-2" ISI-26	S	24	2 2 3	100% 100% 100%	ONE TWO THREE	8 17 29	

NSP MONTICELLO NUCLEAR GENERATING PLANT
TEN YEAR INTERVAL — EXAMINATION SUMMARY

TABLE 10.1
PAGE 1 OF 3

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
	EXAMINATION CATEGORY B-K-1; SUPPORT MEMBERS FOR PIPING, PUMPS, AND VALVES								INCLUDES THE CORRESPONDING B11.10 (VT-3 & VT-4) EXAMINATIONS WHERE APPLICABLE.
	PIPING								
B10.10	INTEGRALLY WELDED ATTACHMENTS AND B11.10 COMPONENT SUPPORTS								
	MAIN STEAM A	WELDED SUPPORT	PS1-18"ED ISI-1	S VT-3 VT-4	2	1 100% NONE 1 100%	ONE TWO THREE	50 50 100	
	MAIN STEAM B	WELDED SUPPORT	PS2-18"ED ISI-2	S VT-3 VT-4	2	NONE 2 100% NONE	ONE TWO THREE	-- 100 100	
	MAIN STEAM C	WELDED SUPPORT	PS3-18"ED ISI-3	S VT-3 VT-4	2	NONE 1 100% 1 100%	ONE TWO THREE	-- 50 100	
	MAIN STEAM D	WELDED SUPPORT	PS4-18"ED ISI-4	S VT-3 VT-4	2	NONE 1 100% 1 100%	ONE TWO THREE	-- 50 100	
	FEEDWATER A & B	WELDED SUPPORTS	FW2B-10"ED ISI-5A	S VT-3 VT-4	2	NONE 1 100% 1 100%	ONE TWO THREE	-- 50 100	

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
B10.10	(CONTINUED)								
	FEEDWATER C & D	WELDED SUPPORTS	FW2A-10"ED ISI-5B	S	2	1 100%	ONE	50	
				VT-3		1 100%	TWO	100	
				VT-4		NONE	THREE	100	
	RWCU	WELDED SUPPORT	REW3-4"EF ISI-9	S	1	NONE	ONE	--	
				VT-3		NONE	TWO	--	
				VT-4		1 100%	THREE	100	
	RHR TW36	WELDED SUPPORT	TW36-4"ED ISI-11D	S	1	NONE	ONE	--	
				VT-3		1 100%	TWO	100	
				VT-4		NONE	THREE	100	
	RECIRC A	WELDED SUPPORT	REW13A-28" ISI-13A	S	8	3 100%	ONE	37	
				VT-3		2 100%	TWO	63	
				VT-4		3 100%	THREE	100	
	RECIRC B	WELDED SUPPORT	REW13B-28" ISI-13B	S	8	2 100%	ONE	25	
				VT-3		3 100%	TWO	63	
				VT-4		3 100%	THREE	100	
	RECIRC MANIFOLD	WELDED SUPPORT	REW32-22" ISI-13C&D	S	8	4 100%	ONE	50	
				VT-3		2 100%	TWO	75	
				VT-4		2 100%	THREE	100	
	CRD SCRAM HDR A	WELDED SUPPORT	CRD16A-24"CCD ISI-24A	S	1	1 100%	ONE	100	
				VT-3		NONE	TWO	100	
				VT-4		NONE	THREE	100	
	CRD SCRAM HDR B	WELDED SUPPORT	CRD13B-4"DB ISI-24B	S	1	1 100%	ONE	100	
				VT-3		NONE	TWO	100	
				VT-4		NONE	THREE	100	

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
B10.10	(CONTINUED)								
	CRD SCRAM HDR B	WELDED SUPPORTS	CRD14B-6"DB ISI-24B	S	1	NONE	ONE	--	
				VT-3		NONE	TWO	--	
				VT-4		1 100%	THREE	100	
			CRD15B-4"DB ISI-24B	S	1	1 100%	ONE	100	
				VT-3		NONE	TWO	100	
				VT-4		NONE	THREE	100	
			CRD16B-24"CCD ISI-24B	S	1	NONE	ONE	--	
				VT-3		1 100%	TWO	100	
				VT-4		NONE	THREE	100	
B10.20	PUMPS	NONE	--	--	--	-- --	--	--	INCLUDED UNDER B10.10
B10.30	VALVES	NONE	--	--	--	-- --	--	--	INCLUDED UNDER B10.10

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
	EXAMINATION CATEGORY B-K-2; COMPONENT SUPPORTS FOR PIPING, PUMPS, AND VALVES								RELIEF NO. 23
	PIPING								
B11.10	COMPONENT SUPPORTS								
	MAIN STEAM A	SUPPORTS	PS1-18"ED ISI-1	VT-3 VT-4	5	2 100% NONE 3 100%	ONE TWO THREE	40 40 100	
	MAIN STEAM B	SUPPORTS	PS2-18"ED ISI-2	VT-3 VT-4	3	NONE 2 100% 1 100%	ONE TWO THREE	-- 67 100	
	MAIN STEAM C	SUPPORTS	PS3-18"ED ISI-3	VT-3 VT-4	3	2 100% NONE 1 100%	ONE TWO THREE	67 67 100	
	MAIN STEAM D	SUPPORTS	PS4-18"ED ISI-4	VT-3 VT-4	4	1 100% 2 100% 1 100%	ONE TWO THREE	25 75 100	
	FEEDWATER A	SUPPORTS	FW2B-10"ED ISI-5A	VT-3 VT-4	4	2 100% NONE 2 100%	ONE TWO THREE	50 50 100	
	FEEDWATER A	SUPPORTS	FW2B-14"ED 1SI-5A	VT-3 VT-4	2	1 100% NONE 1 100%	ONE TWO THREE	50 50 100	

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
B11.10	(CONTINUED)								
	FEEDWATER D	SUPPORTS	FW2A-10"ED ISI-5B	VT-3 VT-4	4	1 100% 1 100% 2 100%	ONE TWO THREE	25 50 100	
	FEEDWATER D	SUPPORTS	FW2A-14"ED 1SI-5B	VT-3 VT-4	2	1 100% NONE 1 100%	ONE TWO THREE	33 33 100	
	CORE SPRAY A	SUPPORTS	TW7-8"EF ISI-6A	VT-3 VT-4	2	1 100% 1 100% NONE	ONE TWO THREE	50 100 100	
	CORE SPRAY B	SUPPORTS	TW11-8"EF ISI-6B	VT-3 VT-4	2	1 100% NONE 1 100%	ONE TWO THREE	50 50 100	
	HPCI-STEAM	SUPPORTS	PS18-8"ED	VT-3 VT-4	1	NONE NONE 1 100%	ONE TWO THREE	-- -- 100	
	RWCU	SUPPORTS	REW3-4"EF ISI-9	VT-3 VT-4	1	NONE NONE 1 100%	ONE TWO THREE	-- -- 100	
	RHR REW10	SUPPORTS	REW10-18"ED ISI-11A	VT-3 VT-4	5	NONE 3 100% 2 100%	ONE TWO THREE	-- 60 100	
	RHR TW20	SUPPORTS	TW20-16"DB ISI-11B	VT-3 VT-4	4	NONE 2 100% 2 100%	ONE TWO THREE	-- 50 100	

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
B11.10	(CONTINUED)								
	RHR TW30	SUPPORTS	TW30-16"DB 1SI-11C	VT-3 VT-4	4	1 100% 1 100% 2 100%	ONE TWO THREE	25 50 100	
	RHR TW36	SUPPORTS	TW36-4"ED IS1-11D	VT-3 VT-4	2	NONE 1 100% 1 100%	ONE TWO THREE	-- 50 100	
	RHR TW40	SUPPORTS	TW40-4"DBA ISI-11E	VT-3 VT-4	4	1 100% 1 100% 2 100%	ONE TWO THREE	25 50 100	
	RCIC-STEAM	SUPPORTS	PS17-3"ED ISI-12	VT-3 VT-4	2	1 100% NONE 1 100%	ONE TWO THREE	33 33 100	
	RECIRC A	SUPPORTS	REW13A-28" ISI-13A	VT-3 VT-4	12	4 100% 4 100% 4 100%	ONE TWO THREE	33 67 100	
	RECIRC B	SUPPORTS	REW13B-28" ISI-13B	VT-3 VT-4	13	4 100% 4 100% 5 100%	ONE TWO THREE	31 62 100	
	RECIRC MANIFOLD A & B	SUPPORTS	REW32-22" ISI-13C&D	VT-3 VT-4	8	4 100% 2 100% 2 100%	ONE TWO THREE	50 75 100	

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
B11.10	(CONTINUED)								
	RECIRC RISERS MANIFOLD A & B	SUPPORTS	1SI-13C & ISI-13D	VT-3 VT-4	10	3 100% 3 100% 4 100%	ONE TWO THREE	30 60 100	
	HEAD VENT LINE	SUPPORTS	V15-2"ED ISI-15	VT-3 VT-4	2	1 100% NONE 1 100%	ONE TWO THREE	50 50 100	
	BOTTOM HEAD DRAIN	SUPPORTS	REW31-2" ISI-21	VT-3 VT-4	7	2 100% 2 100% 3 100%	ONE TWO THREE	29 57 100	
	STANDBY LIQUID CONTROL	SUPPORTS	CH2-1½" ISI-22	VT-3 VT-4	4	1 100% 1 100% 2 100%	ONE TWO THREE	25 50 100	
	MAIN STEAM CONDENSATE LEAK OFF	SUPPORTS	PS15-3"EB ISI-23	VT-3 VT-4	1	NONE 1 100% NONE	ONE TWO THREE	-- 100 100	
			PS15A-2"EB PS15D-2"EB ISI-23	VT-3 VT-4	3	1 100% 1 100% 1 100%	ONE TWO THREE	33 67 100	
	CRD SCRAM HEADER A	SUPPORTS	CRD16A-12"DB CRD13A-4"DB CRD14A-6"DB CRD15A-4"DB ISI-24A	VT-3 VT-4	18	6 100% 6 100% 6 100%	ONE TWO THREE	33 67 100	

MONTICELLO NUCLEAR GENERATING PLANT
TEN YEAR INTERVAL — EXAMINATION SUMMARY

TABLE 11.1
PAGE 5 OF 5

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
B11.10	(CONTINUED)								
	CRD SCRAM HEADER B	SUPPORTS	CRD16B-12"DB CRD13B-4"DB CRD14B-6"DB CRD15B-4"DB ISI-24B	VT-3 VT-4	10	3 100% 3 100% 4 100%	ONE TWO THREE	30 60 100	
	SCRAM DISCHARGE VOLUME TANK A & B	SUPPORTS	CRD16A-2"CCD CRD16B-2"CCD ISI-24C	VT-3 VT-4	2	1 100% NONE 1 100%	ONE TWO THREE	50 50 100	
B11.20	PUMPS								
	COMPONENT SUPPORTS	NONE	--	--	--	-- --	--	--	INCLUDED UNDER B11.10
B11.30	VALVES								
	COMPONENT SUPPORTS	NONE	--	--	--	-- --	--	--	INCLUDED UNDER B11.10

MONTICELLO NUCLEAR GENERATING PLANT
TEN YEAR INTERVAL — EXAMINATION SUMMARY

TABLE 12.1
PAGE 1 OF 3

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
	EXAMINATION CATEGORY B-L-1, B-M-1; PRESSURE RETAINING WELDS IN PUMP CASING AND VALVE BODIES B-L-2, B-M-2; PUMP CASINGS AND VALVE BODIES								
	PUMPS								
B12.10	PUMP CASING WELDS	NONE	--	--	--	-- --	--	--	
B12.20	PUMP CASING								
	RECIRC PUMPS A AND B	P-200A/ P-200B	REW13A-28" REW13B-28" ISI-13A&B	VT-1	2	* --	*	--	* RELIEF NO. 41
	VALVES								
B12.30	VALVE BODY WELDS	NONE	--	--	--	-- --	--	--	
B12.40	VALVE BODY, EXCEEDING 4 IN. NOMINAL PIPE SIZE								
	ATWOOD MORRILL GLOBE VALVES	A02-80A A02-86A A02-80B A02-86B A02-80C A02-86C A02-80D A02-86D	PS1-18"ED PS2-18"ED PS3-18"ED PS4-18"ED	VT-1	8	EXAMINE THE INTERNALS OF ONE VALVE	THREE	100	

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
B12.40	(CONTINUED)								
	TARGET ROCK RELIEF VALVES	RV2-71A RV2-71E RV2-71B RV2-71G RV2-71C RV2-71H RV2-71D RV2-71F	PS1-18"ED PS2-18"ED PS3-18"ED PS4-18"ED	VT-I	8	EXAMINE THE INTERNALS OF ONE VALVE	THREE	100	
	ANCHOR CHECK VALVES	FW-97-2 FW-94-2 FW-97-1 FW-94-1	FW2B-14"ED FW2A-14"ED	VT-1	4	EXAMINE THE INTERNALS OF ONE VALVE	THREE	100	
	ATWOOD MORRILL CHECK VALVE	A010-46B A010-46A A014-13B A014-13A	FW2A-I4"ED FW2B-14"ED TW7-8"EF TW11-8"EF	VT-1	4	EXAMINE THE INTERNALS OF ONE VALVE	THREE	100	
	ANCHOR	POS-1758 MO-1754 POS-1757 MO-1753 MO-2034 MO-2035 MO-2029 MO-2030 POS-2028	TW7-8"EF TW11-8"EF PS18-8"ED REW10-18"ED	VT-1	15	EXAMINE THE INTERNALS OF ONE VALVE	THREE	100	

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
B12.40	(CONTINUED)								
	ANCHOR	FW-98-2 FW-98-I POS-2019 MO-2015 POS-2018 MO-2014	FW2B-I4"ED FW2A-I4"ED TW20-16"DB TW30-16"DB	VT-1					
	CRANE CHAPMAN GATE VALVE	MO2-53A MO2-43A MO2-53B MO2-43B	REWI3A-28" REWI3B-28"	VT-1	4	* --	*	--	* RELIEF NO. 42

NSP MONTICELLO NUCLEAR GENERATING PLANT
TEN YEAR INTERVAL — EXAMINATION SUMMARY

TABLE 13.1
PAGE 1 OF 2

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
	EXAMINATION CATEGORY B-N-I, INTERIOR OF REACTOR VESSEL; B-N-2, INTEGRALLY WELDED CORE SUPPORT STRUCTURES AND INTERIOR ATTACHMENTS TO REACTOR VESSELS; B-N-3, REMOVABLE CORE SUPPORT STRUCTURES REACTOR VESSEL								
B13.10	VESSEL INTERIOR	SPACE ABOVE AND BELOW THE REACTOR CORE THAT IS MADE ACCESSIBLE FOR EXAMINATION BY THE REMOVAL OF COMPONENTS DURING NORMAL REFUELING OUTAGES.		VT-3	--	VISUALLY ACCESSIBLE AREAS	ONE TWO THREE	100 100 100	
		FEEDWATER SPARGERS		VT-3	--	100% OF THE ACCESSIBLE FEEDWATER SPARGER SYSTEM AND NOZZLE INNER RADIUS AREA	*	100	* 100% ACCESSIBLE OF ALL 4 NOZZLES AT INTERVALS NOT TO EXCEED EVERY OTHER REFUELING OUTAGE (NRC LETTER TO MR. MAYER, DATED 8-27-81)

NSP MONTICELLO NUCLEAR GENERATING PLANT
TEN YEAR INTERVAL — EXAMINATION SUMMARY

TABLE 13.1
PAGE 2 OF 2

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
B13.10	(CONTINUED)								
		CORE SPRAY	SPARGERS	VT-3	--	100% OF THE ACCESSIBLE CORE SPRAY SPARGER SYSTEM	*	100	* 100% ACCESSIBLE OF ALL CORE SPRAY SPARGER AND PIPING AT EACH REFUELING OUTAGE (IE BULLETIN 80-13)
B13.20	INTERIOR ATTACHMENTS	ALL ATTACHMENTS AND		VT-1	--	VISUALLY ACCESSIBLE WELDS AND SURFACES	ONE TWO THREE	100 100 100	
B13.30	CORE SUPPORT STRUCTURES	CORE SUPPORT	STRUCTURES						
	REACTOR VESSEL (PWR)								
B13.30	CORE SUPPORT STRUCTURE	N/A		--	--	-- --	--	--	

NSP MONTICELLO NUCLEAR GENERATING PLANT
TEN YEAR INTERVAL — EXAMINATION SUMMARY

TABLE 14.1
PAGE 1 OF 1

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
	EXAMINATION CATEGORY B-O, PRESSURE RETAINING WELDS IN CONTROL ROD HOUSINGS REACTOR VESSEL								
B14.10	WELDS IN CRD HOUSING	HOUSING WELDS	FIGURE 1	S,VOL	*121	1 100% 1 100% 1 100%	ONE TWO THREE	4 8 13	* 24 PERIPHERAL HOUSINGS INCLUDES UPPER AND LOWER WELDS

NSP MONTICELLO NUCLEAR GENERATING PLANT
TEN YEAR INTERVAL — EXAMINATION SUMMARY

TABLE I5.I
PAGE 1 OF 1

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
	EXAMINATION CATEGORY B-P; ALL PRESSURE RETAINING COMPONENTS								
B15.10	REACTOR VESSEL	PRESSURE RETAINING BOUNDARY	--	VT-2	--	PRESSURE RETAINING BOUNDARY	*	100	* SYSTEM LEAKAGE TEST PERFORMED BY PLANT EACH REFUELING OUTAGE
B15.50	PIPING								
B15.60	PUMPS BOUNDARY								
B15.70	VALVES								
B15.11	REACTOR VESSEL	PRESSURE RETAINING BOUNDARY	--	VT-2	--	PRESSURE RETAINING BOUNDARY	*	100	* SYSTEM HYDROSTATIC TEST PERFORMED BY PLANT EACH INTERVAL
B15.51	PIPING								
B15.61	PUMPS								
B15.71	VALVES								
B15.20	PRESSURIZER	N/A	--	--	--	--	--	--	
B15.30	STEAM GENERATORS	N/A	--	--	--	--	--	--	
B15.40	HEAT EXCHANGERS	N/A	--	--	--	--	--	--	

Form 17-0480

ASME SECTION XI NONDESTRUCTIVE EXAMINATION PROGRAM - CLASS II

PROGRAM PERIOD: 2nd Ten Year Interval
June 30, 1981 through May 30, 1992

ASME SECTION XI: 1977 Edition through and including the Summer 1978 Addenda

Exception: (Note 3) 1974 Edition through and including the Summer 1975 Addenda

NOTES:

1. The following tables identify the specific Class 2 components and their supports to be examined. These tables can be directly correlated with Table IWC-2500-1 of ASME Section XI. The tables show the amount of items required to be examined during inspection period one, two and three and the corresponding percentage that will have been completed by the end of that period.

2. Request for relief from some specific ASME Section XI examination requirements that have been determined to be impractical are included in Section 7 of this report. Specific Request for Relief numbers are referenced in the tables.

3. The 1974 Edition through and including the Summer 1975 Addenda of ASME Section XI was utilized to determine the extent of examination for class 2 pipe welds (Program Table 5.10).

4. LEGEND:
   - VT - Visual Examination
   - S - Surface Examination
   - VOL - Volumetric Examination
   - L - Length

5. INSPECTION PERIODS:
   - ONE - June 30,1981 to September 29, 1985
   - TWO - September 30, 1985 to December 30, 1988
   - THREE - December 31, 1988 to May 30, 1992

6. Repairs will be performed in accordance with the applicable requirements of the latest Edition and Addenda of the ASME Code, Section XI.

PPM-0055, Rev. 0 (9/86)

NSP MONTICELLO NUCLEAR GENERATING PLANT
TEN YEAR INTERVAL — EXAMINATION SUMMARY

TABLE 1.10
PAGE 1 OF 1

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT		INSPECTION PERIOD	RUNNING %	REMARKS
	EXAMINATION CATEGORY C-A, PRESSURE RETAINING WELDS IN PRESSURE VESSELS									
C1.10	SHELL CIRCUMFERENTIAL WELDS									
	RIIR HEAT EXCHANGERS				(6)	(3)	(100%)		(100)	MULTIPLE VESSELS
	E-200A	SHELL TO FLANGE WELDS ISI-50	WELD 1	VOL	3	1	100%	ONE	33	
			WELD 3			1	100%	TWO	67	
	E-200B		WELD 2	VOL	3	1	100%	THREE	100	
C1.20	HEAD CIRCUMFERENTIAL WELDS									
	RIIR HEAT EXCHANGERS				(2)	(1)	(100%)		(100)	
	E-200A	HEAD TO SHELL WELD	WELD 4	VOL	1	--	--	--	--	
	E-200B				1	1	100%	TWO	100	
C1.30	TUBE SHEET TO SHELL WELDS	NONE	--	--	--	--	--	--	--	

MONTICELLO NUCLEAR GENERATING PLANT
TEN YEAR INTERVAL — EXAMINATION SUMMARY

TABLE 2.10
PAGE 1 OF 1

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT		INSPECTION PERIOD	RUNNING %	REMARKS
	EXAMINATION CATEGORY C-B, PRESSURE RETAINING NOZZLE WELDS IN VESSELS									
C2.10	NOZZLES IN VESSELS 1/2" OR LESS IN NOMINAL THICKNESS	NONE	--	--	--	--	--	--	--	
C2.20	NOZZLES IN VESSELS OVER 1/2 IN. IN NOMINAL THICKNESS									
	RHR HEAT EXCHANGERS									
	E-200A	N3 & N4	WELDS 7&8	*S,	2	1	100%	ONE	25	*SUPPLEMENTED BY
			ISI-50	VOL		1	100%	TWO	50	SURFACE EXAMINA-
	E-200B	N3 & N4	WELDS 7&8	*S,	2	1	100%	TWO	75	TIONS
				VOL		1	100%	THREE	100	

NSP MONTICELLO NUCLEAR GENERATING PLANT
TEN YEAR INTERVAL — EXAMINATION SUMMARY

TABLE 3.10
PAGE 1 OF 10

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT		INSPECTION PERIOD	RUNNING %	REMARKS
	EXAMINATION CATEGORY C-C AND C-E, SUPPORT MEMBERS									
C3.10	INTEGRALLY WELDED SUPPORT ATTACHMENTS									
	RHR HEAT EXCHANGERS				(6)	(3)	(100%)		(100)	MULTIPLE VESSELS
	E-200A	WELDED	E-200A	S	3	1	100%	ONE	33	
		SUPPORTS	ISI-50			1	100%	TWO	67	
	E-200B		E-200B	S	3	1	100%	THREE	100	
C3.20	COMPONENT SUPPORTS									
	RHR HEAT EXCHANGERS									
	E-200A	SUPPORTS	E-200A	VT-3	3	2	100%	ONE	33	
			ISI-50			1	100%	TWO	50	
	E-200B	SUPPORTS	E-200B	VT-3	3	1	100%	TWO	67	
						2	100%	THREE	100	
C3.30	SUPPORTS-MECHANICAL AND HYDRAULIC	NONE	--	--	--	--	--	--	--	

NSP MONTICELLO NUCLEAR GENERATING PLANT
TEN YEAR INTERVAL — EXAMINATION SUMMARY

TABLE 3.10
PAGE 2 OF 10

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
	PIPING								*INCLUDES THE CORRESPONDING C3.50(VT-3) & C3.60(VT-4) EXAMINATIONS WHERE APPLICABLE
C3.40	*INTEGRALLY WELDED SUPPORT ATTACHMENTS								
	MAIN STEAM A	WELDED SUPPORT	PS1-18"ED ISI-26	S VT-3 VT-4	1	1 100% NONE NONE	ONE TWO THREE	100 100 100	
	MAIN STEAM B	WELDED SUPPORT	PS2-18"ED ISI-27	S VT-3 VT-4	1	NONE 1 100% NONE	ONE TWO THREE	-- 100 100	
	MAIN STEAM C	WELDED SUPPORT	PS3-18"ED ISI-28	S VT-3 VT-4	1	NONE 1 100% NONE	ONE TWO THREE	-- 100 100	
	MAIN STEAM D	WELDED SUPPORT	PS4-18"ED ISI-29	S VT-3 VT-4	1	NONE NONE 1 100%	ONE TWO THREE	-- -- 100	
	SUPPLY TO STEAM SEAL SYSTEM	WELDED SUPPORT	PS14-6"ED ISI-30	S VT-3 VT-4	1	NONE NONE 1 100%	ONE TWO THREE	-- -- 100	
	HPCI WATER DISCHARGE	WELDED SUPPORTS	TW3-12"ED ISI-31	S VT-3 VT-4	2	1 100% 1 100% NONE	ONE TWO THREE	50 100 100	
	HPCI STEAM	WELDED SUPPORTS	PS18-8"ED ISI-32	S VT-3 VT-4	1	NONE NONE 1 100%	ONE TWO THREE	-- -- 100	

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
C3.40	(CONTINUED)								
	HPCI STEAM DISCHARGE	WELDED SUPPORTS	RS2-16"HE ISI-33	S	1	NONE	ONE	--	
				VT-3		1 100%	TWO	100	
				VT-4		NONE	THREE	100	
	CORE SPRAY A DISCHARGE	WELDED SUPPORTS	TW7-10"GE TW7-8"GE ISI-34A	S	2	1 100%	ONE	50	
				VT-3		1 100%	TWO	100	
				VT-4		NONE	THREE	100	
	CORE SPRAY B DISCHARGE	WELDED SUPPORTS	TW11-10"GE ISI-35 & ISI-35A	S	2	NONE	ONE	--	
				VT-3		NONE	TWO	--	
				VT-4		2 100%	THREE	100	
	REACTOR WATER FROM SKIMMER SYSTEM	WELDED SUPPORTS	REW11-8"HE ISI-36	S	3	1 100%	ONE	33	
				VT-3		1 100%	TWO	67	
				VT-4		1 100%	THREE	100	
	RHR SERVICE WATER	WELDED SUPPORT	SW9-8"GE ISI-39	S	1	1 100%	ONE	100	
				VT-3		NONE	TWO	100	
				VT-4		NONE	THREE	100	
	RHR SUCTION A	WELDED SUPPORTS	TW16-14"HE TW18-14"HE ISI-40	S	2	NONE	ONE	--	
				VT-3		2 100%	TWO	100	
				VT-4		NONE	THREE	100	
	RHR DISCHARGE A	WELDED SUPPORTS	TW30-16"GE ISI-41	S	1	NONE	ONE	--	
				VT-3		1 100%	TWO	100	
				VT-4		NONE	THREE	100	
	RHR SUCTION B	WELDED SUPPORTS	TW15-14"HE TW17-14"HE ISI-42	S	2	NONE	ONE	--	
				VT-3		NONE	TWO	--	
				VT-4		2 100%	THREE	100	

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
C3.40	(CONTINUED)								
	RHR SUCTION B	WELDED SUPPORTS	TW14A-20"HE ISI-42	S VT-3 VT-4	1	NONE 1 100% NONE	ONE TWO THREE	-- 100 --	
	RHR DISCHARGE B	WELDED SUPPORTS	TW20-16"GE ISI-43	S VT-3 VT-4	1	NONE NONE 1 100%	ONE TWO THREE	-- -- 100	
	CONTAINMENT SPRAY A & B	WELDED SUPPORTS	TW32-12"GE TW23-10"GE TW33-12"GE ISI-44	S VT-3 VT-4	4	1 100% 1 100% 2 100%	ONE TWO THREE	25 50 100	
C3.50	* COMPONENT SUPPORTS				*				* INCLUDES THE CORRESPONDING C3.60 (VT-4) EXAMINATIONS, WHERE APPLICABLE
	MAIN STEAM A	SUPPORTS	PS1-18"ED ISI-26	VT-3 VT-4	6	2 100% 2 100% 2 100%	ONE TWO THREE	33 67 100	
	MAIN STEAM B	SUPPORTS	PS2-18"ED ISI-27	VT-3 VT-4	6	2 100% 2 100% 2 100%	ONE TWO THREE	33 67 100	RELIEF NO. 23
	MAIN STEAM C	SUPPORTS	PS3-18"ED ISI-28	VT-3 VT-4	6	2 100% 2 100% 2 100%	ONE TWO THREE	33 67 100	
	MAIN STEAM D	SUPPORTS	PS4-18"ED ISI-29	VT-3 VT-4	6	2 100% 2 100% 2 100%	ONE TWO THREE	33 67 100	

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
C3.50	(CONTINUED)								
					(6)				
	SUPPLY TO STEAM SEAL SYSTEM	SUPPORTS	PS11-6"ED	VT-3	2	2 100%	ONE	33	
			PS12-6"ED	VT-4	1	2 100%	TWO	67	
			PS13-6"ED		2	3 100%	THREE	100	
			PS14-6"ED		1				
			ISI-30						
					(11)				
		SUPPORTS	PS7-10"ED	VT-3	9	3 100%	ONE	27	
			PS7-8"ED	VT-4	2	3 100%	TWO	55	
			ISI-30			5 100%	THREE	100	
	MAIN STEAM EQUALIZER HDR	SUPPORTS	PS30-18"EDB	VT-3	3	NONE	ONE	--	
			ISI-30A	VT-4		2 100%	TWO	67	
						1 100%	THREE	100	
	HPCI WATER DISCHARGE	SUPPORTS	TW3-12"ED	VT-3	24	6 100%	ONE	25	
			ISI-31	VT-4		8 100%	TWO	58	
						10 100%	THREE	100	
	HPCI WATER SUCTION	SUPPORTS	TW1-14"HE	VT-3	4	NONE	ONE	--	
			ISI-31A	VT-4		2 100%	TWO	50	
						2 100%	THREE	100	
	HPCI STEAM	SUPPORTS	PS18-8"ED	VT-3	12	3 100%	ONE	25	
			ISI-32	VT-4		4 100%	TWO	58	
						5 100%	THREE	100	
	HPCI STEAM DISCHARGE	SUPPORTS	RS2-16"HE	VT-3	8	2 100%	ONE	25	
			ISI-33	VT-4		4 100%	TWO	75	
						2 100%	THREE	100	

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
C3.50	(CONTINUED)								
	CORE SPRAY A SUCTION	SUPPORTS	TW6-12"HE IS1-34	VT-3 VT-4	5	2 100% 2 100% 1 100%	ONE TWO THREE	40 80 100	
	CORE SPRAY A DISCHARGE	SUPPORTS	TW7-10"GE TW7-8"GE ISI-34 & ISI-34A	VT-3 VT-4	18	5 100% 5 100% 8 100%	ONE TWO THREE	28 56 100	
	CORE SPRAY B SUCTION	SUPPORTS	TW10-12"HE ISI-35	VT-3 VT-4	5	1 100% 2 100% 2 100%	ONE TWO THREE	20 60 100	
	CORE SPRAY B DISCHARGE	SUPPORTS	TW11-10"GE TW11-8"ED ISI-35 & ISI-35A	VT-3 VT-4	13	3 100% 5 100% 5 100%	ONE TWO THREE	23 62 100	
	REACTOR WATER FROM SKIMMER SYSTEM	SUPPORTS	REW11-8"HE ISI-36	VT-3 VT-4	7	2 100% 1 100% 4 100%	ONE TWO THREE	29 43 100	
	RCIC WATER SUCTION	SUPPORTS	TW5-6"HE ISI-38	VT-3 VT-4	2	1 100% 1 100% NONE	ONE TWO THREE	50 100 100	
	RCIC STEAM DISCHARGE	SUPPORTS	RS3-8"HE ISI-38	VT-3 VT-4	6	2 100% 2 100% 2 100%	ONE TWO THREE	33 67 100	

MONTICELLO NUCLEAR GENERATING PLANT
TEN YEAR INTERVAL — EXAMINATION SUMMARY

TABLE 3.10
PAGE 7 OF 10

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
C3.50	(CONTINUED)								
	RHR SERVICE WATER	SUPPORTS	SW9-8"GE	VT-3	14	5 100%	ONE	36	
			ISI-39	VT-4		5 100%	TWO	71	
						4 100%	THREE	100	
	RHR SUCTION A	SUPPORTS	REW10-18"HE	VT-3	6	2 100%	ONE	33	
			ISI-40	VT-4		2 100%	TWO	67	
						2 100%	THREE	100	
		SUPPORTS	TW14B-20"HE	VT-3	3	2 100%	ONE	67	
			ISI-40	VT-4		1 100%	TWO	100	
						NONE	THREE	100	
		SUPPORTS	TW28-20"HE	VT-3	3	NONE	ONE	--	
			ISI-40	VT-4		NONE	TWO	--	
						3 100%	THREE	100	
	RHR DISCHARGE A	SUPPORTS	TW29-10"GE	VT-3	7	2 100%	ONE	17	
			ISI-41	VT-4		3 100%	TWO	71	
						2 100%	THREE	100	
		SUPPORTS	TW30-14"GE	VT-3	11	3 100%	ONE	27	
			ISI-41	VT-4		4 100%	TWO	64	
						4 100%	THREE	100	
		SUPPORTS	TW30-16"GE	VT-3	1	NONE	ONE	--	
			ISI-41	VT-4		1 100%	TWO	100	
						NONE	THREE	100	
		SUPPORTS	TW30-16"DB	VT-3	1	NONE	ONE	100	
				VT-4		1 100%	TWO	100	
						NONE	THREE	100	

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
C3.50	(CONTINUED)								
	RHR SUCTION B	SUPPORTS	REW10-18"HE	VT-3	6	2 100%	ONE	33	
			ISI-42	VT-4		2 100%	TWO	67	
						2 100%	THREE	100	
		SUPPORTS	TW14A-20"HE	VT-3	4	2 100%	ONE	50	
			ISI-42	VT-4		1 100%	TWO	75	
						1 100%	THREE	100	
		SUPPORTS	TW27-20"HE	VT-3	3	NONE	ONE	--	
			ISI-42	VT-4		2 100%	TWO	67	
						1 100%	THREE	100	
	RHR DISCHARGE B	SUPPORTS	TW19-10"GE	VT-3	5	1 100%	ONE	20	
			ISI-43	VT-4		2 100%	TWO	60	
						2 100%	THREE	100	
		SUPPORTS	TW19-14"GE	VT-3	2	NONE	ONE	--	
			ISI-43	VT-4		1 100%	TWO	50	
						1 100%	THREE	100	
		SUPPORTS	TW20-14"GE	VT-3	10	4 100%	ONE	40	
			ISI-43	VT-4		3 100%	TWO	70	
						3 100%	THREE	100	
		SUPPORT	TW20-16"DB	VT-3	1	NONE	ONE		
			ISI-43	VT-4		NONE	TWO		
						1 100%	THREE	100	
		SUPPORTS	TW22-14"GE	VT-3	1	NONE	ONE	--	
			ISI-43	VT-4		NONE	TWO	--	
						1 100%	THREE	100	

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT		INSPECTION PERIOD	RUNNING %	REMARKS
C3.50	(CONTINUED)									
	CONTAINMENT SPRAY A & B	SUPPORTS	TW23-12"GE TW23-10"GE ISI-44	VT-3 VT-4	10	3 4 3	100% 100% 100%	ONE TWO THREE	30 70 100	
		SUPPORTS	TW33-12"GE TW33-10"GE ISI-44	VT-3 VT-4	14	3 4 7	100% 100% 100%	ONE TWO THREE	21 50 100	
C3.60	* SUPPORTS - MECHANICAL AND HYDRAULIC	*	--	--	--	--	--	--	--	* INCLUDED UNDER C3.40 & C3.50
	PUMPS									
C3.70	* INTEGRALLY WELDED SUPPORT ATTACHMENTS									* INCLUDES THE CORRESPONDING C3.80 (VT-3) EXAMINATIONS
	RHR PUMPS	WELDED SUPPORTS	P202A P202B P202C P202D ISI-48	S VT-3	4	1 1 1 1	100% 100% 100% 100%	TWO THREE TWO ONE	50 100 75 25	
	CORE SPRAY PUMPS	WELDED SUPPORTS	14-1A 14-1B ISI-49	S VT-3	2	1 1	100% 100%	THREE ONE	100 50	

NSP MONTICELLO NUCLEAR GENERATING PLANT
TEN YEAR INTERVAL — EXAMINATION SUMMARY

TABLE 3.10
PAGE 10 OF 10

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT		INSPECTION PERIOD	RUNNING %	REMARKS
C3.80	COMPONENT SUPPORTS									
	HPCI TURBINE & PUMPS	SUPPORTS	TURBINE DVS PUMP DVMX PUMP ISI-45 & ISI-46	VT-3	11	3 3 5	100% 100% 100%	ONE TWO THREE	27 55 100	
	RCIC TURBINE & PUMP	SUPPORTS	TURBINE PUMP ISI-47	VT-3	4	1 1 2	100% 100% 100%	ONE TWO THREE	25 50 100	
C3.90	SUPPORTS - MECHANICAL AND HYDRAULIC	NONE	--	--	--	--	--	--	--	
	VALVES									
C3.100	INTEGRALLY WELDED SUPPORT ATTACHMENTS	*	--	--	--	--	--	--	--	*INCLUDED UNDER C3.40, C3.50, & C3.60
C3.110	COMPONENT SUPPORTS	*	--	--	--	--	--	--	--	
C3.120	SUPPORTS - MECHANICAL AND HYDRAULIC	*	--	--	--	--	--	--	--	

MONTICELLO NUCLEAR GENERATING PLANT
TEN YEAR INTERVAL — EXAMINATION SUMMARY

TABLE 4.10
PAGE 1 OF 1

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT		INSPECTION PERIOD	RUNNING %	REMARKS
	EXAMINATION CATEGORY C-D, PRESSURE RETAINING BOLTING ESCEEDING 2 IN. IN DIAMETER									
	PRESSURE VESSELS									
C4.10	BOLTS AND STUDS	NONE	--	--	--	--	--	--	--	
	PIPING									
C4.20	BOLTS AND STUDS	NONE	--	--	--	--	--	--	--	
	PUMPS									
C4.30	BOLTS AND STUDS	NONE	--	--	--	--	--	--	--	
	VALVES									
C4.40	BOLTS AND STUDS	NONE	--	--	--	--	--	--	--	

NSP MONTICELLO NUCLEAR GENERATING PLANT
TEN YEAR INTERVAL — EXAMINATION SUMMARY

TABLE 5.10
PAGE 1 OF 9

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT		INSPECTION PERIOD	RUNNING %	REMARKS
						40 YR	10 YR			
	EXAMINATION CATEGORY C-F PRESSURE RETAINING WELDS IN PIPING								(40YR) REQUIRED % 10YR RUNNING %	* EXTENT OF EXAMS ARE DETERMINED USING 1974 EDITION THROUGH SUMMER 1975 ADDENDA OF ASME SECTION XI
C5.10	PIPING WELDS 1/2 IN. OR LESS NOMINAL WALL THICKNESS									RELIEF NO. I5
C5.11 & C5.12	CIRCUMFERENTIAL AND * LONGITUDINAL WELDS									* 2.5T MIN FROM EACH SCHEDULED CIRC WELD INTERSECTION WILL BE EXAMINED
	('75 CATEGORY C-F)									
	SUPPLY TO STEAM SEAL SYSTEM					(19)	(5)		(100)	SINGLE STREAM
	PS10-5"	CIRC WELDS 5" X .375"	ISI-30	S	19	19	3	ONE	16	
							2	THREE	26	
					(22)	(6)	(2)		(100)	MULTIPLE STREAMS
	PS11-6"ED	CIRC WELDS 6" X .432"	ISI-30	S	7	2	1	ONE	17	
	PS12-6"ED			S	5	1	-	--	--	
	PS13-6"ED			S	5	1	-	--	--	
	PS14-6"ED			S	5	2	1	THREE	33	

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT 40 YR	10 YR	INSPECTION PERIOD	RUNNING %	REMARKS
C5.11 & C5.12	(CONTINUED)								(40YR) 10YR	REQUIRED % RUNNING %
	RHR SUCTION A&B					(24)	(6)		(100)	SINGLE STREAM
	REW10-18"HE	CIRC WELDS	ISI-40	S	24	24	2	ONE	8	
		18" X .375"	ISI-42				2	TWO	17	
							2	THREE	25	
					(10)	(5)	(1)		(100)	MULTIPLE STREAMS
	TW14B-20"HE	CIRC WELDS	ISI-40	S	5	3	1	ONE	20	
	TW14A-20"HE	20" X .375"	ISI-42	S	5	2	-	--	--	
					(28)	(7)	(2)		(100)	MULTIPLE STREAMS
	TW16-14"HE	CIRC WELDS	ISI-40	S	7	2	1	TWO	14	
	TW18-14"HE	14" X .375"		S	7	1	-	--	--	
	TW15-14"HE		ISI-42	S	7	2	-	--	--	
	TW17-14"HE			S	7	2	1	THREE	29	
	RHR DISCHARGE A&B				(37)	(19)	(5)		(100)	MULTIPLE STREAMS
	TW29-10"GE	CIRC WELDS	ISI-41	S	18	9	2	TWO	11	
	TW19-10"GE	10" X .365"	ISI-43	S	19	10	1	TWO	16	
							2	THREE	26	
					(19)	(10)	(3)		(100)	MULTIPLE STREAMS
	TW29-14"GE	CIRC WELDS	ISI-41	S	7	4	1	ONE	10	
	TW19-14"GE	14" X .375"	ISI-43	S	12	6	2	TWO	30	
					(67)	(34)	(9)		(100)	MULTIPLE STREAMS
	TW30-14"GE	CIRC WELDS	ISI-41	S	38	19	2	ONE	6	
		14" X .375"					3	TWO	15	
	TW20-14"GE	ISI-43		S	29	15	2	TWO	24	
							2	THREE	26	

MONTICELLO NUCLEAR GENERATING PLANT
TEN YEAR INTERVAL — EXAMINATION SUMMARY

TABLE 5.10
PAGE 3 OF 9

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT 40 YR	10 YR	INSPECTION PERIOD	RUNNING %	REMARKS
C5.11 & C5.12	(CONTINUED)								40YR) REQUIRED % 10YR RUNNING %	
	TW30-16"GE	CIRC WELDS	ISI-41	S	(8) 4	(4) 2	(1) 1	TWO	(100 50	MULTIPLE STREAMS
	TW20-16"GE	16" X .375"	ISI-43	S	4	2	1	ONE	25	
	TW22-14"GE	CIRC WELDS 14" X .375"	ISI-43	S	5	(5) 5	(1) 1	ONE	(100 20	SINGLE STREAM
	'75 CATEGORY C-G)									
	HPCI WATER SUCTION				(26)	(13)	(3)		(50)	SINGLE STREAM
	TW1-14"HE	CIRC WELDS	ISI-31A	S	24	12	2	TWO	15	
	C16-14"HE	14" X .375"	ISI-31A	S	2	1	1	THREE	23	
	HPCI STEAM					(15)	(4)		(52)	SINGLE STREAM
	PS18-8"ED	CIRC WELDS 8" X .500"	ISI-32	S	30	15	2 2	TWO THREE	13 27	
	HPCI STEAM DISCH	CIRC WELDS			(27)	(14)	(4)		(52)	SINGLE STREAM
	RS2-16"HE	16" X .375"	ISI-33	S	19	10	2 1	TWO THREE	14 21	
	RS2-18"HE	18" X .375"		S	4	2	1	THREE	29	
	RS2-20"HE	20" X .375"		S	4	2	-	--	--	
	CORE SPRAY A&B SUCTION				(52)	(13)	(4)		(50)	MULTIPLE STREAMS
	TW6-12"HE	CIRC WELDS	ISI-34	S	27	7	2	ONE	15	
	TW10-12"HE	12" X .375"	ISI-35	S	25	6	2	THREE	31	

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT 40 YR	10 YR	INSPECTION PERIOD	RUNNING %	REMARKS
									(40YR)	REQUIRED %
C5.11 & C5.12	(CONTINUED)								10YR	RUNNING %
	CORE SPRAY A&B DISCHARGE	CIRC WELDS			(76)	(19)	(5)		(50)	MULTIPLE STREAMS
	TW7-10"GE	10" X .365"	ISI-34	S	21	5	2	ONE	11	
			ISI-34A	S	16	5	I	TWO	16	
	TW11-10"GE		ISI-35	S	28	6	2	THREE	26	
			ISI-35A	S	11	3	-	--	--	
					(12)	(3)	(1)		(50)	MULTIPLE STREAMS
	TW7-8"ED	CIRC WELDS	ISI-34A	S	6	2	1	ONE	33	
	TW11-8"ED	8" X .500"	ISI-35A	S	6	1	-	--	--	
					(4)	(2)	(1)		(50)	MULTIPLE STREAMS
	TW8-8"GE	CIRC WELDS	ISI-34A	S	2	-	-	--	--	
	TW12-8"GE	8" X .322"	ISI-35A	S	2	1	1	THREE	50	
	REACTOR WATER FROM SKIMMER SYSTEM					(14)	(4)		(50)	SINGLE STREAM
	REW11-8"HE	CIRC WELDS	ISI-36	S	28	14	1	ONE	7	
		8" X .322"					2	TWO	21	
							1	THREE	29	
	RCIC WATER SUCTION				(23)	(12)	(3)		(52)	SINGLE STREAM
	TW5-6"HE	CIRC WELDS	ISI-38	S	21	11	1	ONE	8	
		6" X .280"					1	TWO	17	
	C17-6"HE			S	2	1	1	THREE	25	

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT 40 YR	10 YR	INSPECTION PERIOD	RUNNING %	REMARKS
									(40YR)	REQUIRED %
C5.11 & C5.12	(CONTINUED)								10YR	RUNNING %
	RCIC STEAM DISCHARGE					(14)	(4)		(52)	SINGLE STREAM
	RS3-8"HE	CIRC WELDS	ISI-38	S	27	14	1	ONE	7	
		8" X .322"					2	TWO	21	
							1	THREE	29	
	RHR SERVICE WATER					(24)	(6)		(51)	SINGLE STREAM
	SW9-8"GE	CIRC WELDS	ISI-39	S	47	24	2	ONE	8	
		8" X .322"					2	TWO	17	
							2	THREE	25	
	RHR SUCTION A & B				(18)	(9)	(2)		(50)	MULTIPLE STREAMS
	TW28-20"HE	CIRC WELDS	ISI-40	S	9	5	1	ONE	11	
	TW27-20"HE	20" X .375"	ISI-42	S	9	4	1	TWO	22	
	CONTAINMENT SPRAY A & B				(33)	(9)	(3)		(55)	MULTIPLE STREAMS
	TW23-12"GE	CIRC WELDS	ISI-44	S	15	4	1	ONE	11	
	TW33-12"GE	12" X .375"		S	18	5	1	TWO	22	
							1	THREE	33	
					(31)	(7)	(2)		(52)	MULTIPLE STREAMS
	TW23-10"GE	CIRC WELDS	ISI-44	S	19	4	1	ONE	14	
	TW33-10"GE	10" X .365"		S	12	3	I	THREE	29	

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT		INSPECTION PERIOD	RUNNING %	REMARKS
						40 YR	10 YR			
C5.20	PIPING WELDS OVER 1/2 IN. NOMINAL WALL THICKNESS									
C5.21 & C5.22	CIRCUMFERENTIAL AND * LONGITUDINAL WELDS									* 2.5T MIN FROM EACH SCHEDULED CIRC WELD INTERSECTION WILL BE EXAMINED
	('75 CATEGORY C-F)									
	MAIN STEAM A,B,C & D				(63)	(16)	(4)		(100)	MULTIPLE STREAMS
	PS1-18"ED	CIRC WELDS	ISI-26	S,VOL	16	4	1	ONE	6	
	PS2-18"ED	18" X .937"	ISI-27	S,VOL	15	4	1	TWO	12	
	PS3-18"ED		ISI-28	S,VOL	16	4	1	TWO	19	
	PS4-18"ED		ISI-29	S,VOL	16	4	1	THREE	25	
	MAIN STEAM A,B,C,D				(8)	(2)	(1)		(100)	MULTIPLE STREAMS
	PS1-10"ED	CIRC WELDS	ISI-26	S,VOL	2	-	-	ONE	--	
	PS2-10"ED	10" X .593"	ISI-27	S,VOL	2	1	1	THREE	50	
	PS3-10"ED		ISI-28	S,VOL	2	-	-	THREE	50	
	PS4-10"ED		ISI-29	S,VOL	2	-	-	THREE	50	
	SUPPLY TO STEAM SEAL SYSTEM					(7)	(2)		(100)	SINGLE STREAM
	PS7-8"ED	CIRC WELDS 8" X .593"	ISI-30	S,VOL	7	7	2	ONE	29	
						(18)	(5)		(100)	SINGLE STREAM
	PS7-10"ED	CIRC WELDS 10" X .593"	ISI-30	S,VOL	18	18	3	TWO	17	
							2	THREE	28	

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT 40 YR	10 YR	INSPECTION PERIOD	RUNNING %	REMARKS
									(40YR)	REQUIRED %
C5.21 & C5.22	(CONTINUED)								10YR	RUNNING %
	MAIN STEAM EQUALIZER HDR					(21)	(5)		(100)	SINGLE STREAM
	PS30-18"EDB	CIRC WELDS 18" X .937"	ISI-30A	S,VOL	21	21	2	ONE	10	
							1	TWO	14	
							2	THREE	24	
	10" DRIPLEG	CIRC WELDS 10" X .594"	ISI-30A	S,VOL	2	2	-	--	--	SINGLE STREAM
	FEEDWATER A & B				(8)	(4)	(1)		(100)	MULTIPLE STREAMS
	FW2A-14"ED	CIRC WELDS 14" X .937"	ISI-37	S,VOL	4	2	1	ONE	25	
	FW2B-14"ED				4	2	-	--	--	
	RHR DISCHARGE A & B				(6)	(3)	(1)		(100)	MULTIPLE STREAMS
	TW30-16"DB	CIRC WELDS	ISI-41	S,VOL	3	1	-	--	--	
	TW20-16"DB	16" X .843"	ISI-43	S,VOL	3	2	1	TWO	33	
	('75 CATEGORY C-G)									
	HPCI WATER DISCHARGE	CIRC WELDS			(47)	(24)	(6)		(51)	SINGLE STREAM
	TW3-12"ED	12" X .687"	ISI-31	S,VOL	7	3	1	ONE	4	
		12" X .843"		S,VOL	37	20	2	ONE	12	
							3	TWO	25	
		8" X .594"		S,VOL	3	1	1	THREE	29	

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT		INSPECTION PERIOD	RUNNING %	REMARKS
						40 YR	10 YR			
C5.30	PIPE BRANCH CONNECTIONS								(40YR) 10YR	REQUIRED % RUNNING %
C5.31 & C5.32	CIRCUMFERENTIAL AND * LONGITUDINAL WELDS									* 2.5T MIN FROM EACH SCHEDULED CIRC WELD INTERSECTION WILL BE EXAMINED
	('75 CATEGORY C-F)									
	MAIN STEAM A,B,C,D				(4)	(1)	(I)		(100)	MULTIPLE STREAMS
	PS1-10"ED	WELDOLETS	ISI-26	S	1	-	-	--	--	
	PS2-10"ED	18" X 10"	ISI-27	S	1	-	-	--	--	
	PS3-10"ED		ISI-28	S	1	-	-	--	--	
	PS4-10"ED		ISI-29	S	1	1	1	THREE	100	
	SUPPLY TO STEAM SEAL SYSTEM				(4)	(1)	(1)		(100)	MULTIPLE STREAMS
	PS11-6"ED	WELDOLETS	ISI-30	S	1	-	-	--	--	
	PS12-6"ED	18" X 6"		S	1	-	-	--	--	
	PS13-6"ED			S	1	1	1	THREE	100	
	PS14-6"ED			S	1	-	-	--	--	
	RHR SUCTION A & B				(4)	(2)	(1)		(100)	MULTIPLE STREAMS
	TW16-14"HE	WELDOLETS	ISI-40	S	2	1	1	TWO	50	
	TW18-14"HE	20" x 14"								
	TW15-14"HE		ISI-42	S	2	1	--	--	--	
	TW17-14"HE									
	RHR DISCHARGE B					(1)	--		(100)	MULTIPLE STREAMS
	TW22-14"GE	WELDOLET 14" X 8"	ISI-43	S	1	1	--	--	--	

NSP MONTICELLO NUCLEAR GENERATING PLANT
TEN YEAR INTERVAL — EXAMINATION SUMMARY

TABLE 5.10
PAGE 9 OF 9

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT		INSPECTION PERIOD	RUNNING %	REMARKS
						40 YR	10 YR			
C5.32	(CONTINUED)									
	(CATEGORY C-G)									
	REACTOR WATER FROM SKIMMER SYSTEM					(1)	(1)		(100)	SINGLE STREAM
	REW11-8"HE	WELDOLET 18" X 10"	ISI-36	S	1	1	1	TWO	100	
	RHR SUCTION A & B				(2)	(1)	(1)		(100)	MULTIPLE STREAMS
	TW28-20"HE	WELDOLETS	ISI-40	S	1	1	1	ONE	100	
	TW27-20"HE	20" X 20"	ISI-42	S	1	-	-	--	--	

NSP MONTICELLO NUCLEAR GENERATING PLANT
TEN YEAR INTERVAL — EXAMINATION SUMMARY

TABLE 6.10
PAGE 1 OF 1

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
	EXAMINATION CATEGORY C-G, PRESSURE RETAINING WELDS IN PUMPS AND VALVES								
	PUMPS								
C6.10	PUMP CASING WELDS	NONE	--	--	--	-- --	--	--	
	VALVES								
C6.20	VALVE BODY WELDS	NONE	--	--	--	-- --	--	--	

NSP MONTICELLO NUCLEAR GENERATING PLANT
TEN YEAR INTERVAL — EXAMINATION SUMMARY

TABLE 7.10
PAGE 1 OF 1

ITEM NO.	COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT & EXTENT	INSPECTION PERIOD	RUNNING %	REMARKS
	EXAMINATION CATEGORY C-H, ES U E RETAINING COMPONENTS								
C7.10 C7.20 C7.30 C7.40	PRESSURE VESSELS PIPING PUMPS VALVES	PRESSURE RETAINING BOUNDARY	IWC-5221	VT-2	--	PRESSURE RETAINING BOUNDARY	*	100%	*SYSTEM PRESSURE TEST PERFORMED BY PLANT EACH INSPECTION PERIOD
C7.11 C7.21 C7.31 C7.41	PRESSURE VESSELS PIPING PUMPS VALVES	PRESSURE RETAINING BOUNDARY	IWC-5222	VT-2	--	PRESSURE RETAINING BOUNDRAY	*	100%	*SYSTEM HYDRO-STATIC TEST PERFORMED BY PLANT EACH INSPECTION INTERVAL

ASME SECTION XI NONDESTRUCTIVE EXAMINATION PROGRAM - CLASS 3

PROGRAM PERIOD: 2nd Ten Year Interval
June 30, 1981 through May 30, 1992

ASME SECTION XI: 1977 Edition through and including the Summer 1978 Addenda

NOTES:

1. The classification diagram in Section 6 of this report identify the systems that are required to be examined in accordance with IWD-2000 (Quality Group C).

2. The scope of the inspection program for Class 3 components is based on the classification of the plant's inspection boundaries and exemptions as allowed for in IWD-2600 and IWD-5200. The inspection program will conform to IWD-2400.

3. Visual examination will be conducted for evidence of component leakage, structural distress, or corrosion when the system is undergoing either a system inservice test, component functional test, or a system pressure test.

4. Supports and hangers for components will be visually examined to detect any loss of support capability or evidence of inadequate restraint.

5. Repairs will be performed in accordance with the applicable requirements of the latest Edition and Addenda of the ASME Code, Section XI.

6. INSPECTION PERIODS:

   ONE - June 30, 1981 to September 29, 1985

   TWO - September 30, 1985 to December 30, 1988

   THREE - December 31, 1988 to May 30, 1992

15. REQUEST FOR RELIEF

COMPONENT OR ITEM	CODE CLASS	PROGRAM TABLE	CODE ITEM	EXAM CATEGORY
PIPING WELDS	2	5.10	C5.11	C-F
	2	5.10	C5.12	C-F
	2	5.10	C5.21	C-F
	2	5.10	C5.22	C-F
	2	5.10	C5.31	C-F
	2	5.10	C5.32	C-F

CODE REQUIREMENT

By reference in 10CFR50.55a (b)(2)(IV), paragraph IWC-1220 of the 1974 Edition through and including the Summer 1975 Addenda shall be used for the exemption criteria for determining the extent of examination for piping welds.

BASIS

This exemption criteria will not be used to develop the ISI program. NSP does not technically concur with the basis for many of the exemptions and especially the control of system chemistry. This type of control eliminates one mode of possible failure, but it does not totally eliminate the need for examinations.

ALTERNATE EXAMINATION

The Class 2 NDE exemption criteria established in paragraph IWC-1220 of the 1977 Edition through and including the Summer 1978 Addenda of ASME Section XI will be utilized to develop the Monticello ISI program. This exemption criteria is considered more conservative and the use of these exemptions is consistant with recent revisions to 10CFR50.55a which references the Summer 1978 Addenda.

SCHEDULE FOR IMPLEMENTATION

June 30, 1981

16. REQUEST FOR RELIEF

COMPONENT or ITEM	CODE CLASS	PROGRAM TABLE	CODE ITEM	EXAM CATEGORY
REACTOR VESSEL				
Circumferential Welds VCBA-2, VCBB-3	I	1.1	B1.11	B - A
Longitudinal Welds VLBA-1, VLBA-2	I	1.1	B1.12	B - A

CODE REQUIREMENT

Perform a volumetric examination of one circumferential and one longitudinal beltline region weld.

BASIS

The examination of the circumferential and longitudinal weld will not be performed. The Monticello RPV was constructed with a 2' - 3 ½" thick biological shield wall surrounding it, with the exception of the top (8) eight feet. Between this wall and the reactor vessel shell is a space of approximately 1 foot that houses the thermal insulation, mirror insulation. The only access areas to the reactor vessel are:

1. at the top (8) eight feet above the biological shield wall;
2. through opening in the wall at each nozzle location and two inspection ports below the skirt weld, and;
3. from the vessel inside diameter.

The area above the biological shield wall and at the nozzle openings is further obstructed by non-removable insulation. A good portion of the vessel insulation was not designed to be removed and therefore it was installed prior to the installation of the piping, electrical conduits, duct work, etc.

A very thorough review was performed, using drawings, sketches, previous examination reports, to try and locate weld areas that possibly could be inspected. It was concluded that some of the welds are close enough to nozzle openings for performing the examinations. Each of the welds that were examined were sketched to show the examination amount, extent and location.

16. REQUEST FOR RELIEF (continued)

The examination areas and amounts shown in Table 1.1 were scheduled from the drawings, sketches and examination report reviews. As additional areas of welds, other than beltline region, are examined the specific amount and extent given in Table 1.1 will be changed to reflect the actual measurements.

ALTERNATIVE

Due to the inaccessibility of the circumferential and longitudinal beltline region welds (VCBA-2, VCBB-3, VLBA-I and VLBA-2), all of the accessible areas on the remaining circumferential and longitudinal welds will be examined.

SCHEDULED FOR IMPLEMENTATION

June 30, 1981

18. REQUEST FOR RELIEF

COMPONENT OR ITEM	CODE CLASS	PROGRAM TABLE	CODE ITEM	EXAM CATEGORY
REACTOR VESSEL FLANGE LEAKAGE SENSORS (NOZZLES N-13 AND N-14)	1	4.1	B4.12	B-E

CODE REQUIREMENT

Perform a visual (VT-2) examination of the external surfaces of the flange leakage sensor nozzles.

BASIS

The area surrounding these two penetrations will not be visually examined for evidence of leakage during the vessel pressure test as required by Exam Category B-E.

These penetrations never see pressure during either operation or vessel pressure test, unless the vessel flange o-rings leak. Inspection during pressure testing therefore serves no purpose. In addition, the nozzle area is not accessible without damaging insulation. A local hydro would damage the vessel seals due to pressurization of the inner seal in the wrong direction.

ALTERNATE

The areas surrounding these two penetrations will be visually examined if insulation is removed for maintenance or other inspection activities.

SCHEDULE FOR IMPLEMENTATION

None.

23. REQUEST FOR RELIEF

COMPONENT OR ITEM	CODE CLASS	PROGRAM TABLE	CODE ITEM	EXAM CATEGORY
COMPONENT SUPPORTS FOR PIPING, PUMPS, AND VALVES	1	11.1	B11.10	B-K-2
SUPPORT MEMBERS				
PIPING COMPONENT SUPPORTS	2	3.10	C3.50	C-E
COMPONENT SUPPORTS AND RESTRAINTS	3	-	D1.2	D-A
			D2.2	D-B
			D3.2	D-C

CODE REQUIREMENT

Examination Category B-K-2 and C-E of ASME Section XI requires all areas of the support component from the piping, valve, and pump attachment to and including the attachment to the supporting structure be examined.

BASIS

Insulation will not be removed for the visual examination provided that all mechanical connections and welds can be examined. It has been our experience that any loss of support capability or inadequate restraint can usually be detected through the inspection of the uninsulated portion of the support and the surrounding insulation. The governing Codes and Regulations used in the design and construction of those systems that are now classified as Class 2 and 3 did not require provisions for inspection access for these systems. Thus, it would be an undue burden without compensating increase in safety to require insulation removal for support inspection.

ALTERNATIVE

The insulation will be removed from a supported component for further inspections whenever the connections and welds can not be examined or an abnormality is detected that may have been a result of a loss of support capability or inadequate restraint.

SCHEDULE FOR IMPLEMENTATION

June 30, 1981

24. REQUEST FOR RELIEF

COMPONENT OR ITEM	CODE CLASS	PROGRAM TABLE	CODE ITEM	EXAM CATEGORY
BOLTS AND STUDS RECIRCULATION PUMP FLANGE BOLTS P-200A & P-200B	1	6.1	B6.180 & B6.190	B-G-1
RECIRCULATION VALVE BONNET BOLTING MO2-53A, MO2-43A, MO2-53B, & MO2-43B	1	6.1	B6.210 & B6.220	B-G-1

CODE REQUIREMENTS

Ultrasonic examinations shall be performed in accordance with Article 5 of Section V when the provisions of Article 4 of Section V or Appendix III of Section XI do not apply. Section V requires that calibration be established on a test bar that has certain physical and chemical parameters.

BASIS

The Section V technique utilizing the calibration test bar was not used for the baseline examinations and it is not as sensitive to detect discontinuties as the presently applied back reflection method. In addition, when using the back reflection method, the poorer the end reflecting surfaces (painted, corroded, etc.) the more conservative the examinations are.

ALTERNATE

The items will be examined using the back reflection method correlated with an as built sketch of the particular bolt or stud being examined. ASME Section XI will be used for evaluation criteria.

SCHEDULE FOR IMPLEMENTATION

June 30, 1981

41. REQUEST FOR RELIEF

COMPONENT OR ITEM	CODE CLASS	PROGRAM TABLE	CODE ITEM	EXAM CATEGORY
PUMP CASINGS REGIRCULATION PUMPS P-200A & P-200B	1	12.1	B12.20	B-L-2

CODE REQUIREMENT

Perform a visual examination (VT-1) of all internal surfaces in at least one pump.

BASIS

Disassembly of the recirculation pumps for the sole purpose of visual examination of the casing internal pressure surfaces requires many manhours from skilled maintenance personnel. Increased radiation exposures result from this activity. The probability of pump failure is increased by unnecessarily disassembling the units. Deferring the examination has no affect on integrity of the pumps.

ALTERNATE

Recirculation Pump internal pressure surfaces will be visually examined when the pumps are disassembled for maintenance.

SCHEDULE FOR IMPLEMENTATION

June 30, 1981

42. REQUEST FOR RELIEF

COMPONENT	CODE CLASS	PROGRAM TABLE	CODE ITEM	EXAM CATEGORY
VALVE BODIES CRANE CHAPMAN GATE VALVES RECIRCULATION VALVES MO 2-53A, MO 2-53B MO 2-43A, MO 2-43B	1	12.1	B.12.20	B-M-2

CODE REQUIREMENT

Perform a visual examination (VT-1) of all internal surfaces in at least one valve in this group.

BASIS

Disassembly of the recirculation valves for the sole purpose of visual examination of the internal pressure surfaces requires many manhours from skilled maintenance personnel. Increased radiation exposures result from this activity. The probability of valve failure is increased by unnecessarily disassembling the units. Deferring the examination has on the integrity of the valves.

ALTERNATE

Recirculation Valve internal pressure surface will be visually examined when the pumps are disassembled for maintenance.

SCHEDULE FOR IMPLEMENTATION

June 30, 1981

Note: Two of the six valves the commission approved the request for relief on April 10, 1981 were removed in the 1984 recirculation piping replacement and refueling outage.

51. REQUEST FOR RELIEF

COMPONENT or ITEM	CODE CLASS	PROGRAM TABLE	CODE ITEM	EXAM CATEGORY
REACTOR VESSEL Stabilizer Brackets	I	8.1	B8.10	B - H

CODE REQUIREMENT

Perform a volumetric or surface examination of 100% of the length of weld.

BASIS

The examination of the stabilizer brackets will not be performed. The area around the stabilizer brackets is obstructed by non-removable insulation, ventilation and electrical duct work between the dry well wall and reactor vessel.

These brackets are actually not part of the vessel supporting system, but are designed to stabilize the reactor vessel against jet force loading (LOCA's) and/or seismic loads. The stabilizer brackets are designed to allow thermal movement without restraint, and therefore there are no loadings at the vessel as the result of operations.

ALTERNATIVE

Due to the inaccessibility and design criteria of the stabilizer brackets, inspection of these brackets will be conducted if the brackets experience design loads.

SCHEDULED FOR IMPLEMENTATION

June 30, 1981

67. REQEST FOR RELIEF

COMPONENT OR ITEM			CODE CLASS	PROGRAM TABLE	CODE ITEM	EXAM CATEGORY
SYSTEM PIPING WELDS (ENCAPSULATED AT PENETRATIONS)						
LINE NO.	ITEM	ITEM ID				
PS1-18"ED	WELD	MSAJ-38	1	9.1	B9.11	B-J
PS2-18'ED	WELD	MSBJ-35	1	9.1	B9.11	B-J
PS3-18"ED	WELD	MSCJ-35	1	9.1	B9.11	B-J
PS4-18"ED	WELD	MSDJ-40	1	9.1	B9.11	B-J
FW2B-14"ED	WELD	FWAJ-33	1	9.1	B9.11	B-J
FW2A-14"ED	WELD	FWDJ-33	1	9.1	B9.11	B-J
TW7-8"ED	WELD	CSAJ-22	1	9.1	B9.11	B-J
TW11-8"ED	WELD	CSBJ-20	1	9.1	B9.11	B-J
PS18-8"ED	WELD	PSAJ-15	1	9.1	B9.11	B-J
REW3-4"ED	WELD	CWAJ-20	1	9.1	B9.11	B-J
REW10-18"ED	WELD	RHAJ-28	1	9.1	B9.11	B-J
TW20-16"DB	WELD	RHBJ-30	1	9.1	B9.11	B-J
TW30-16"DB	WELD	RHCJ-31	1	9.1	B9.11	B-J
TW36-4"ED	WELD	RHDJ-25	1	9.1	B9.11	B-J
PS17-3"ED	WELD	RSAJ-16	1	9.1	B9.11	B-J
PS15-3"EB	WELD	CLAJ-7	1	9.1	B9.11	B-J

CODE REQUIREMENTS

Item listed in IWB-2500 that are encapsulated by guard or shield piping or are embedded in concrete will be exempted from inspection.

BASIS

Items are not accessible for examination.

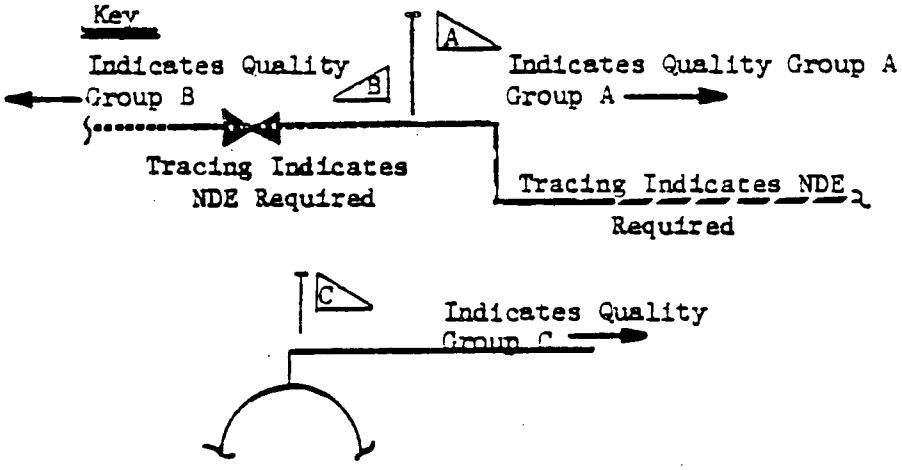
ALTERNATE

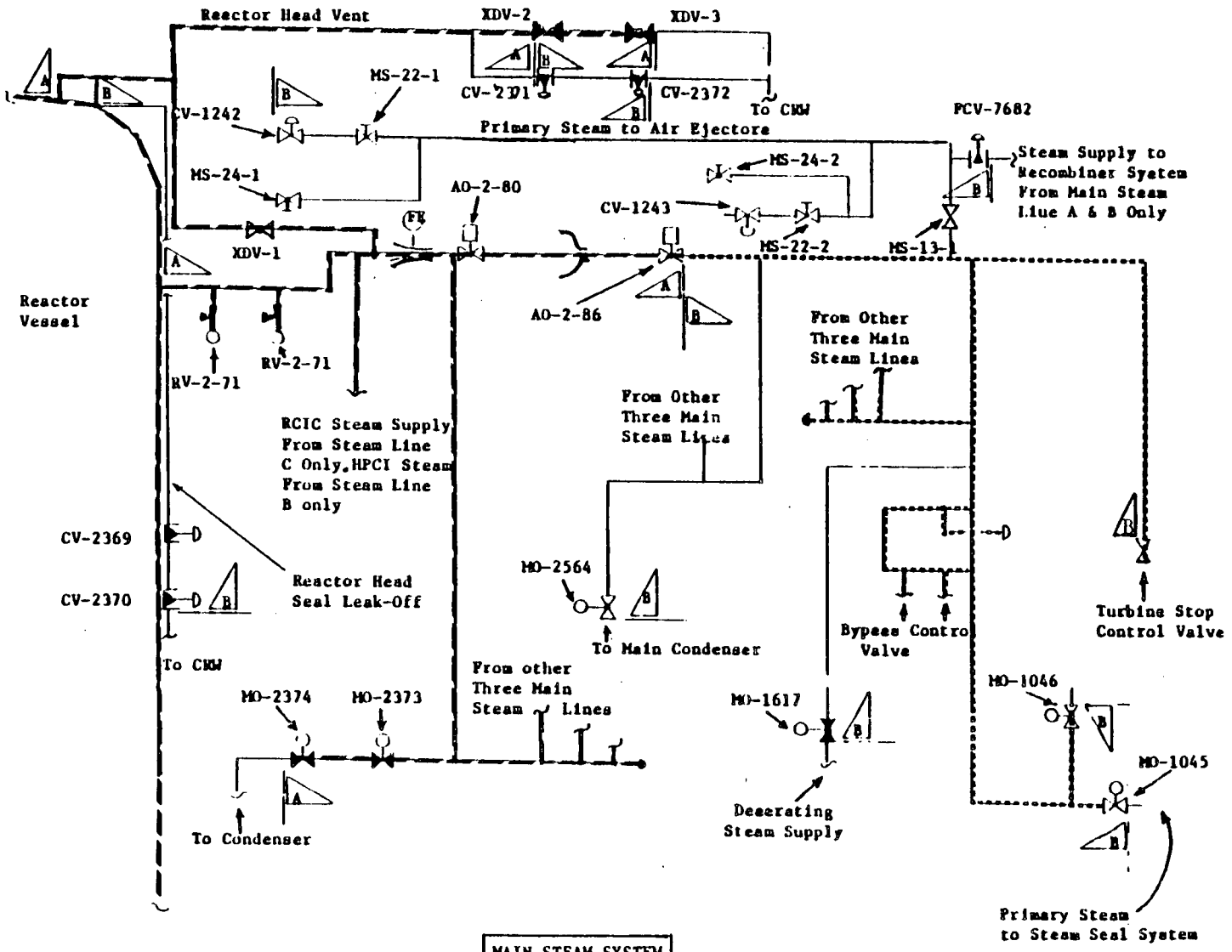
These exempted components will be included in determining the total number of items.

SCHEDULE FOR IMPLEMENTATION

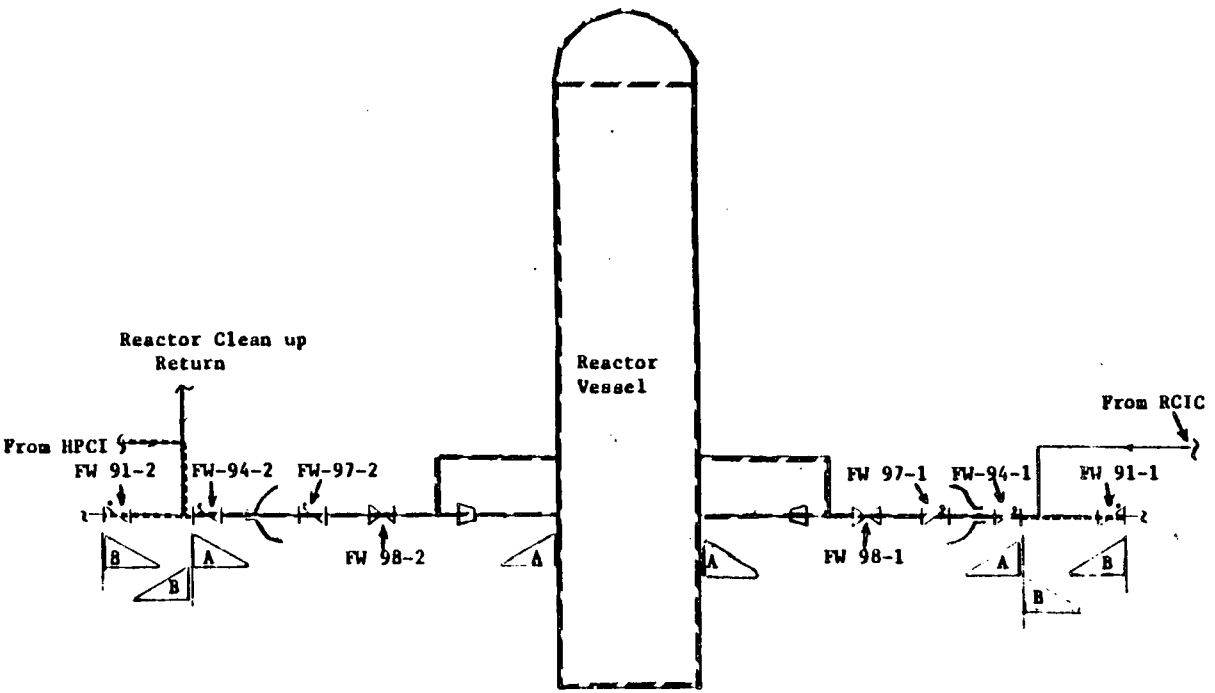
December 31, 1990

SECTION 4 QUALITY GROUP CLASSIFICATION DRAWINGS

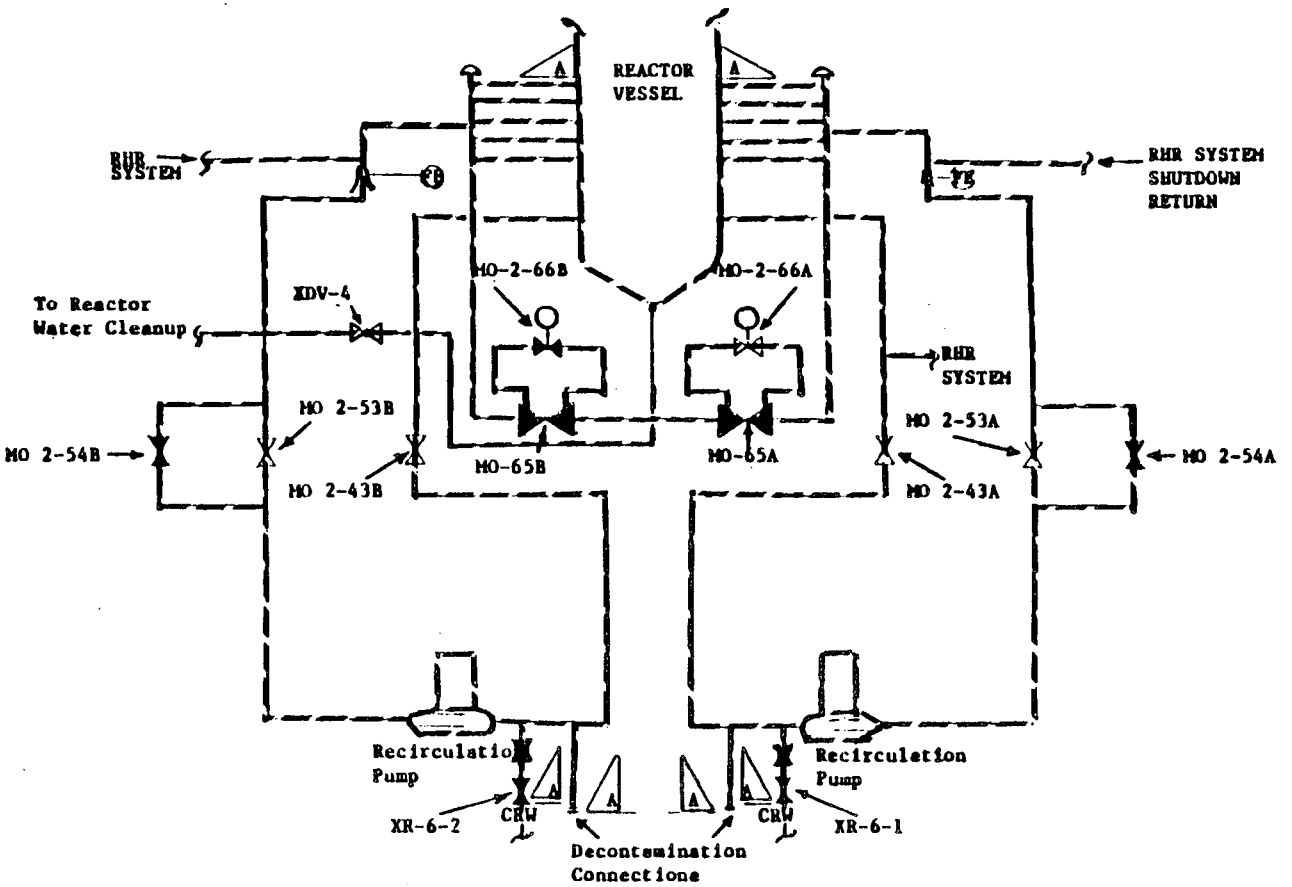




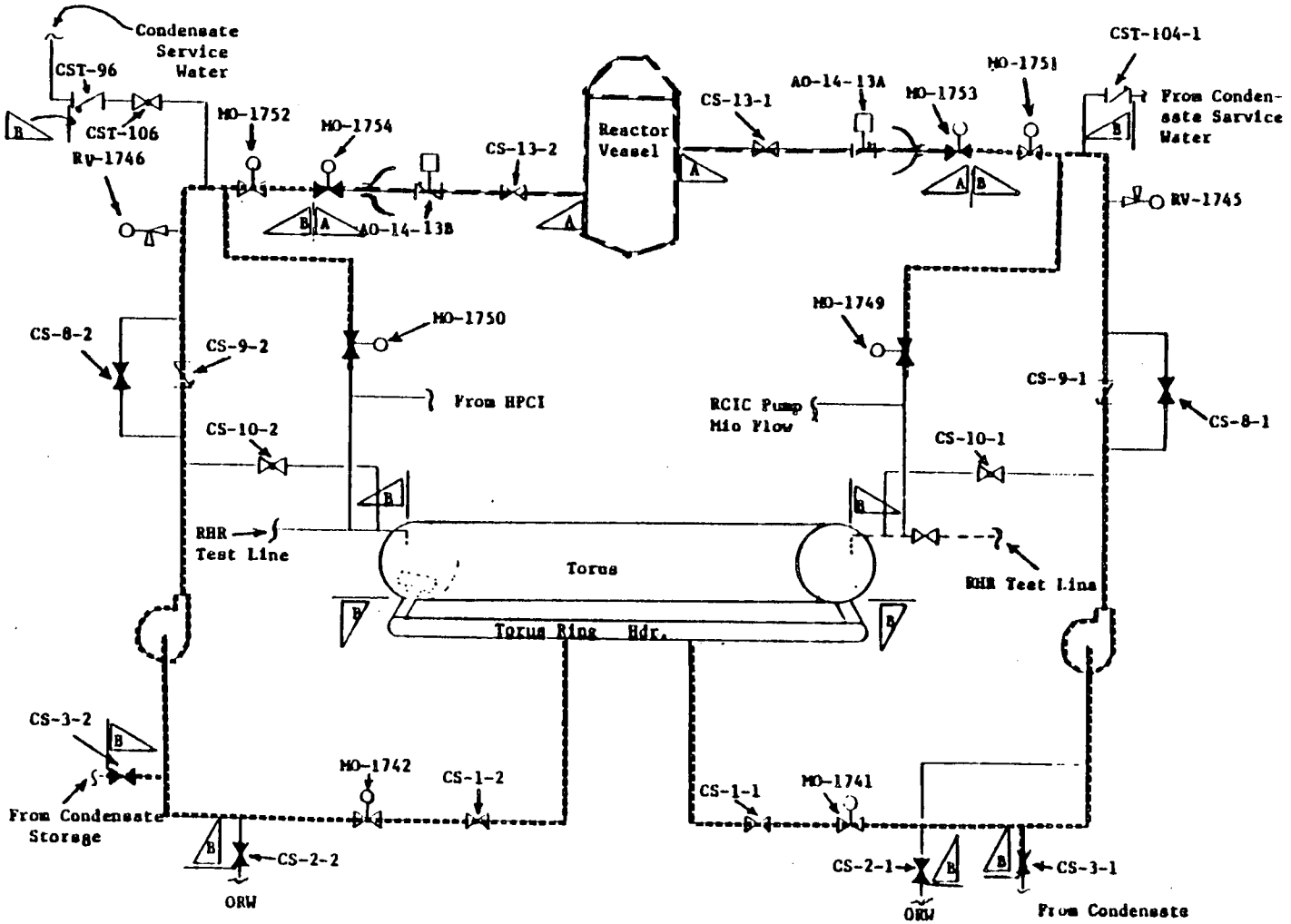
MAIN STEAM SYSTEM



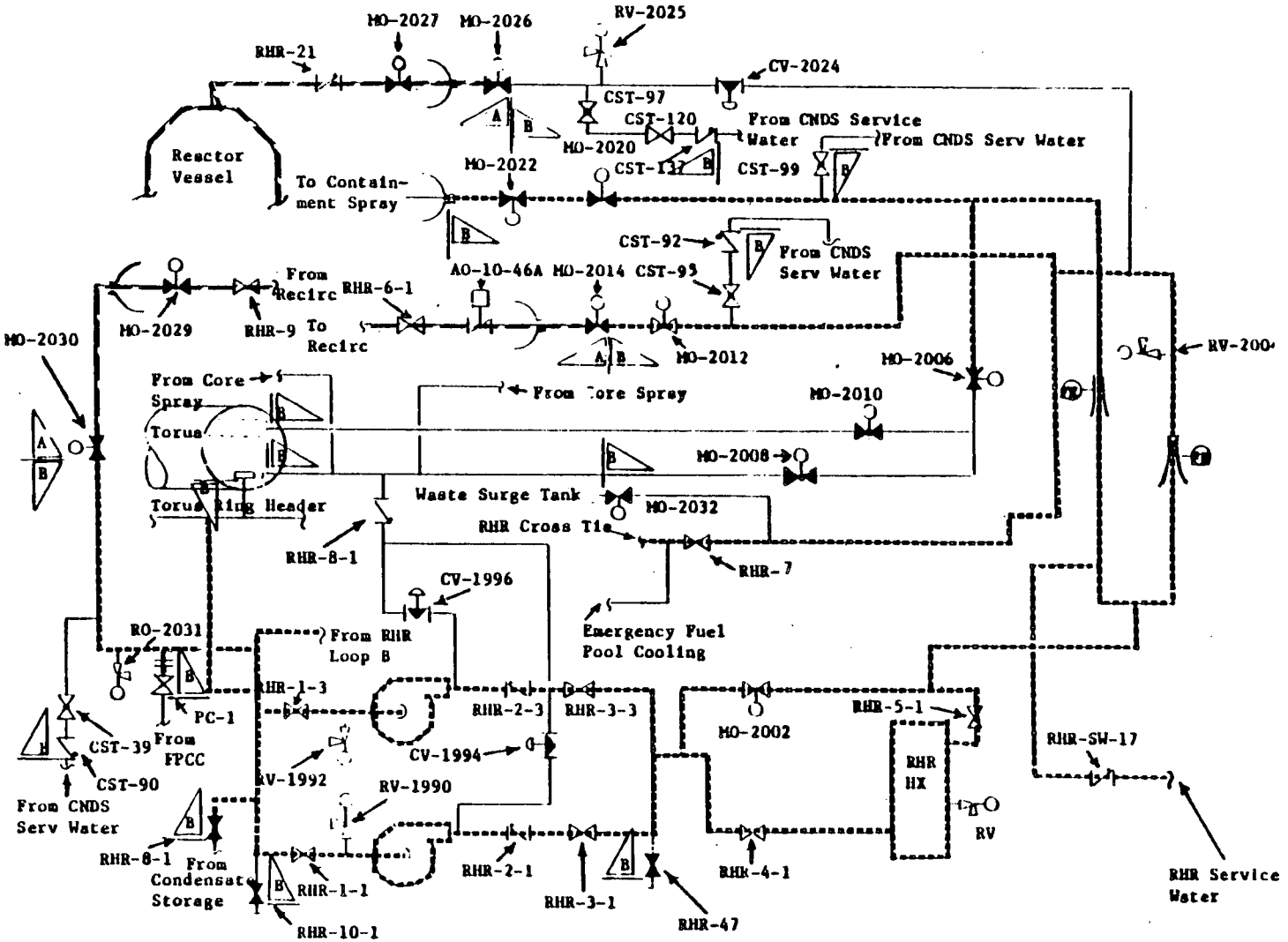
FEED WATER SYSTEM



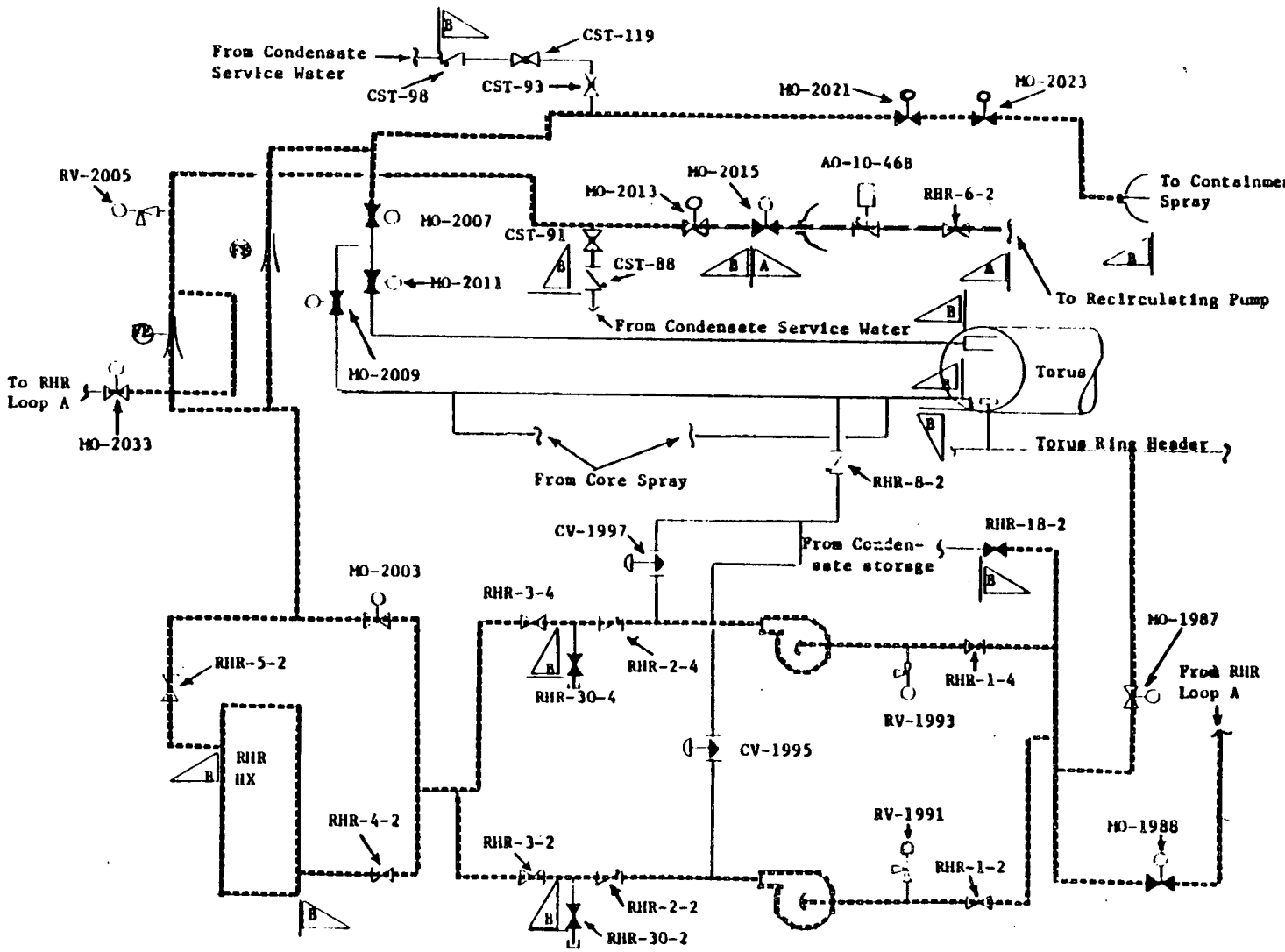
REACTOR RECIRCULATION SYSTEM



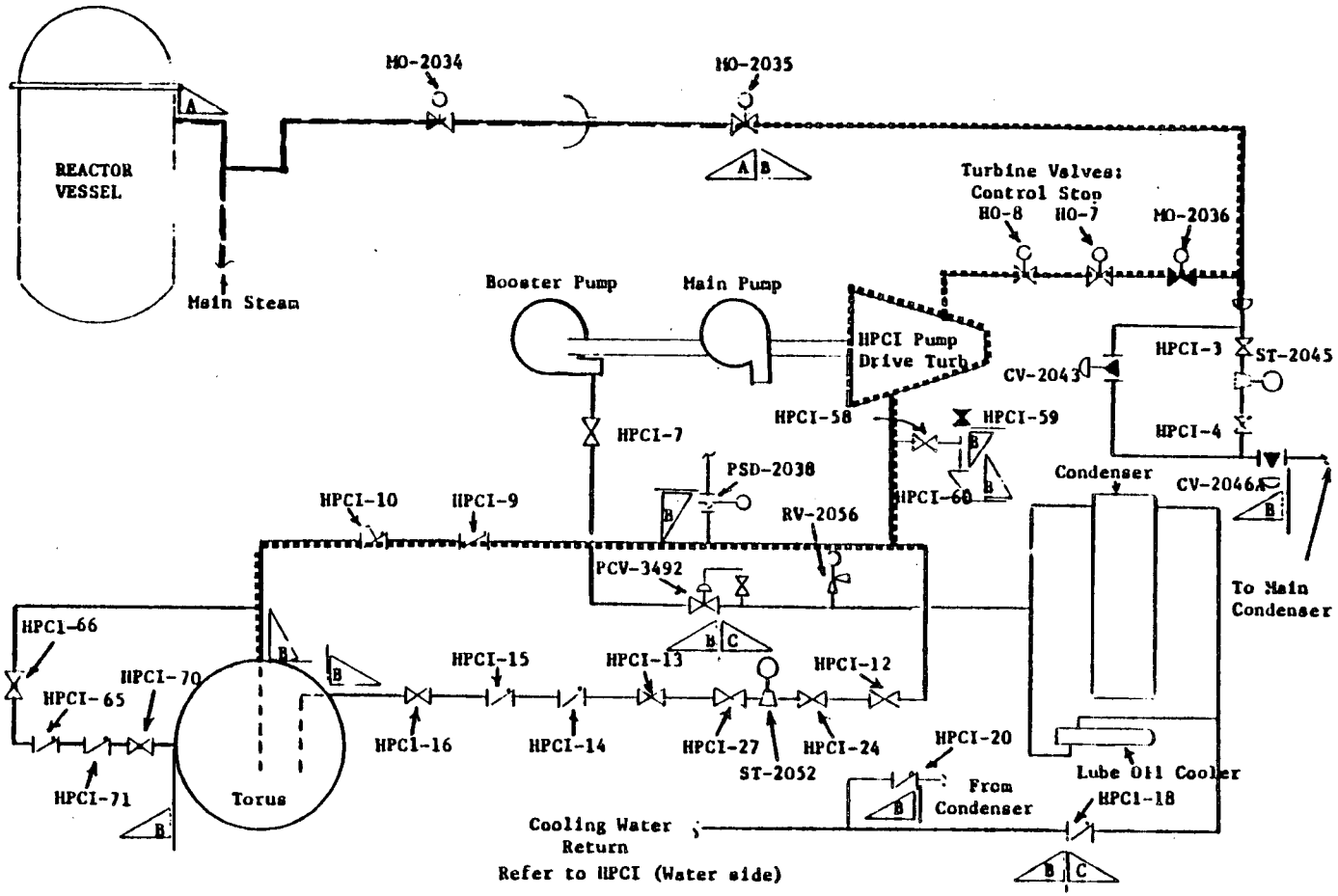
CORE SPRAY SYSTEM



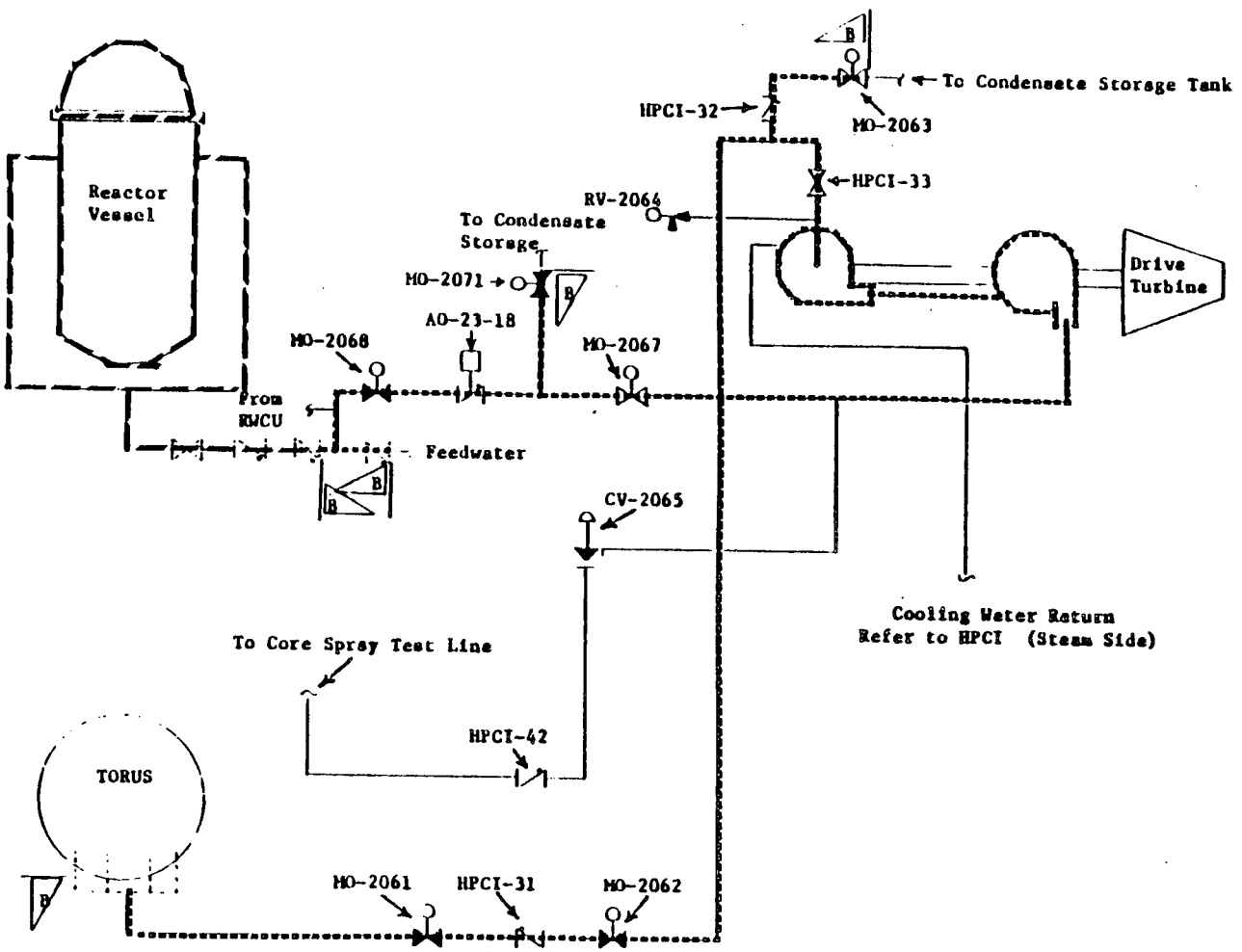
RESIDUAL HEAT REMOVAL SYSTEM LOOP A



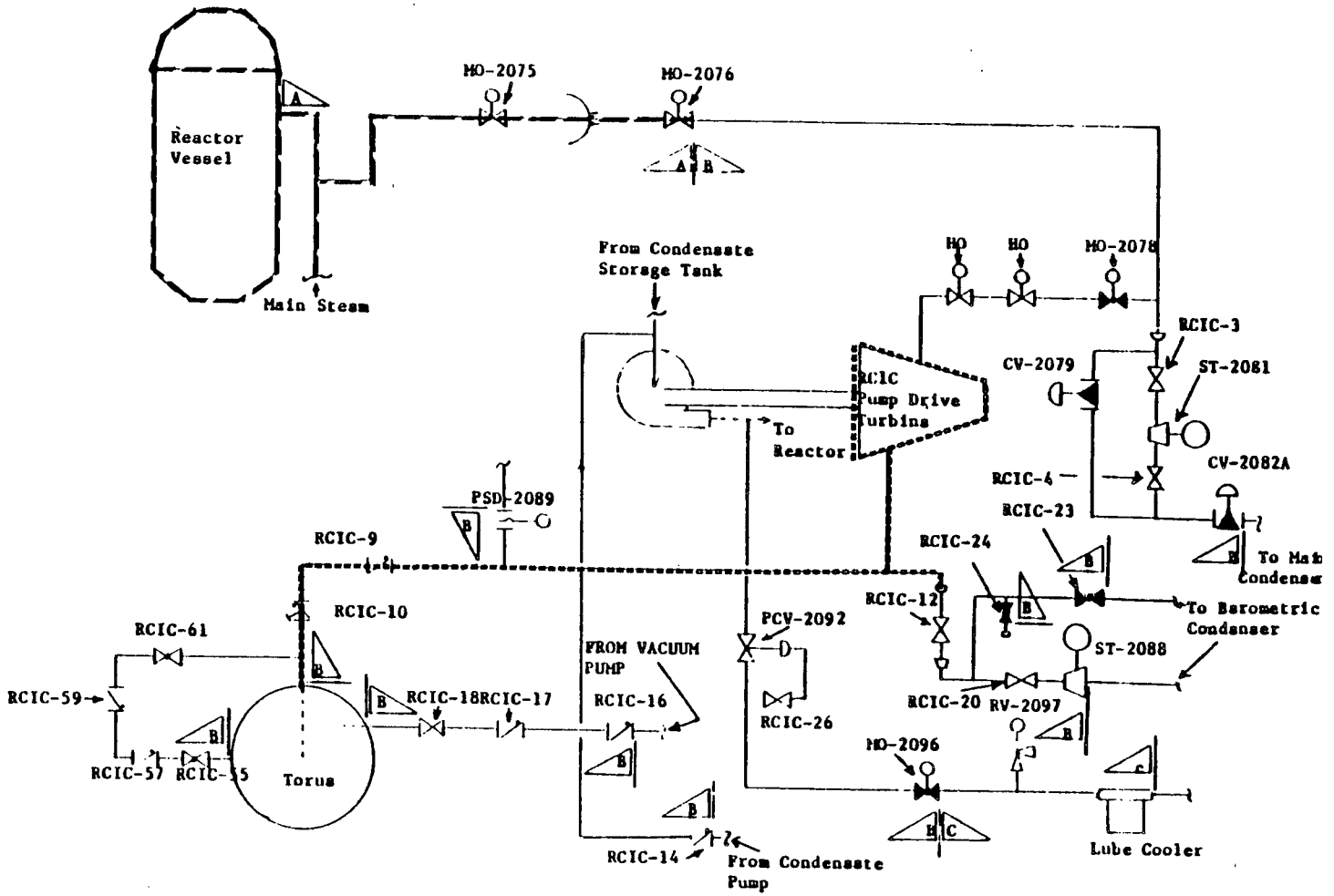
RESIDUAL HEAT REMOVAL SYSTEM LOOP B



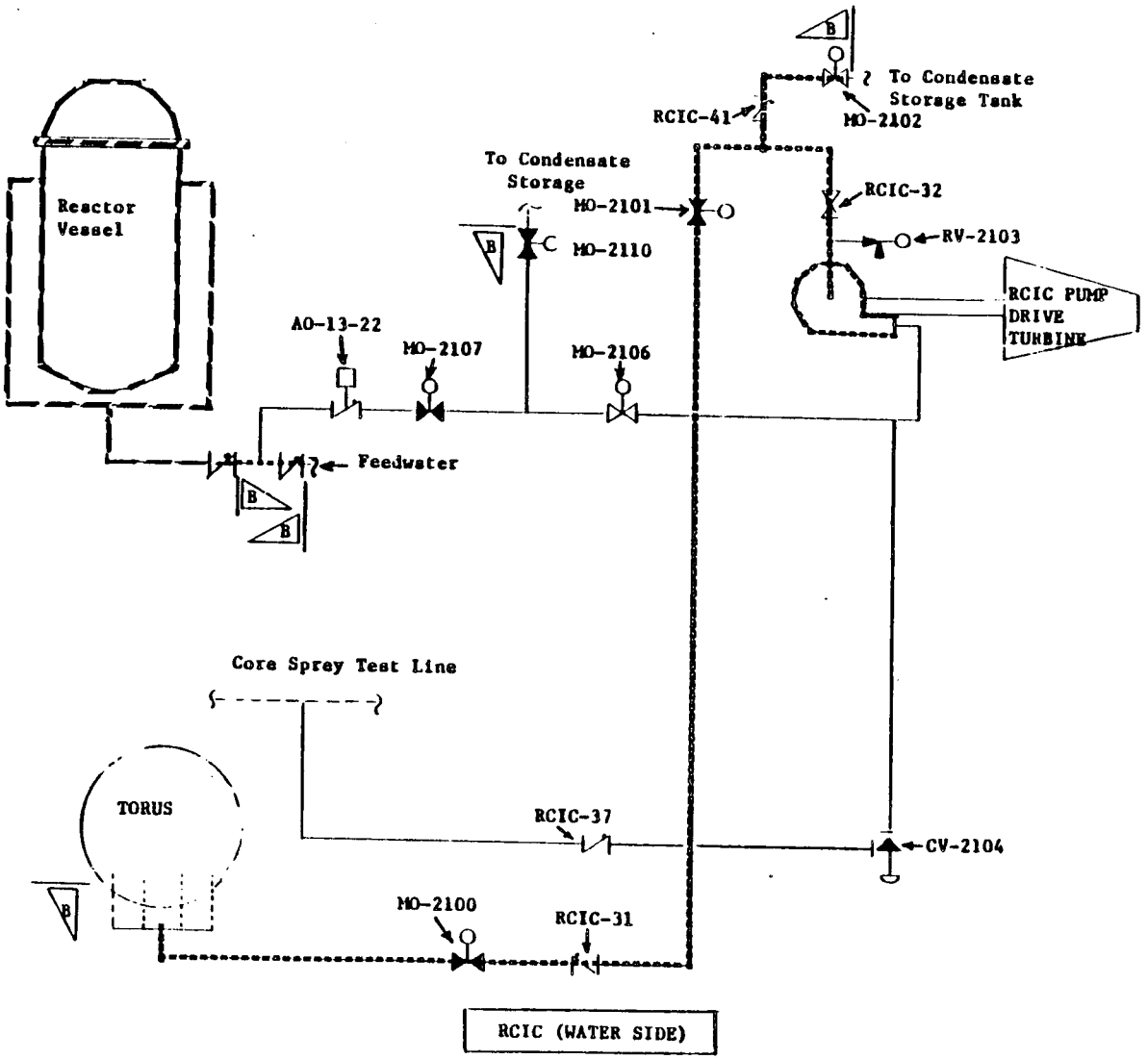
HIGH PRESSURE COOLANT INJECTION SYSTEM (STEAM SIDE)



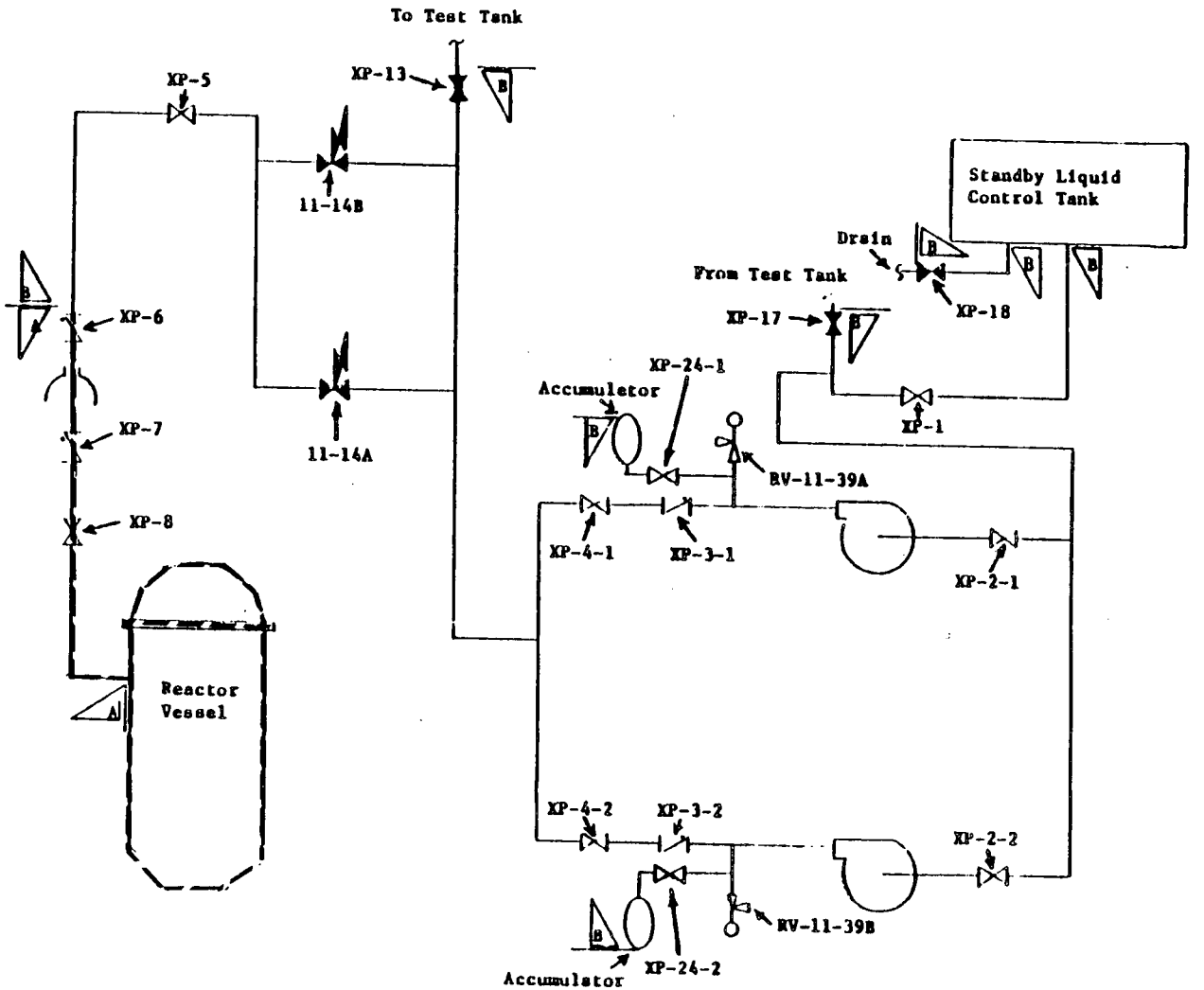
HIGH PRESSURE COOLANT INJECTION SYSTEM (WATER SIDE)



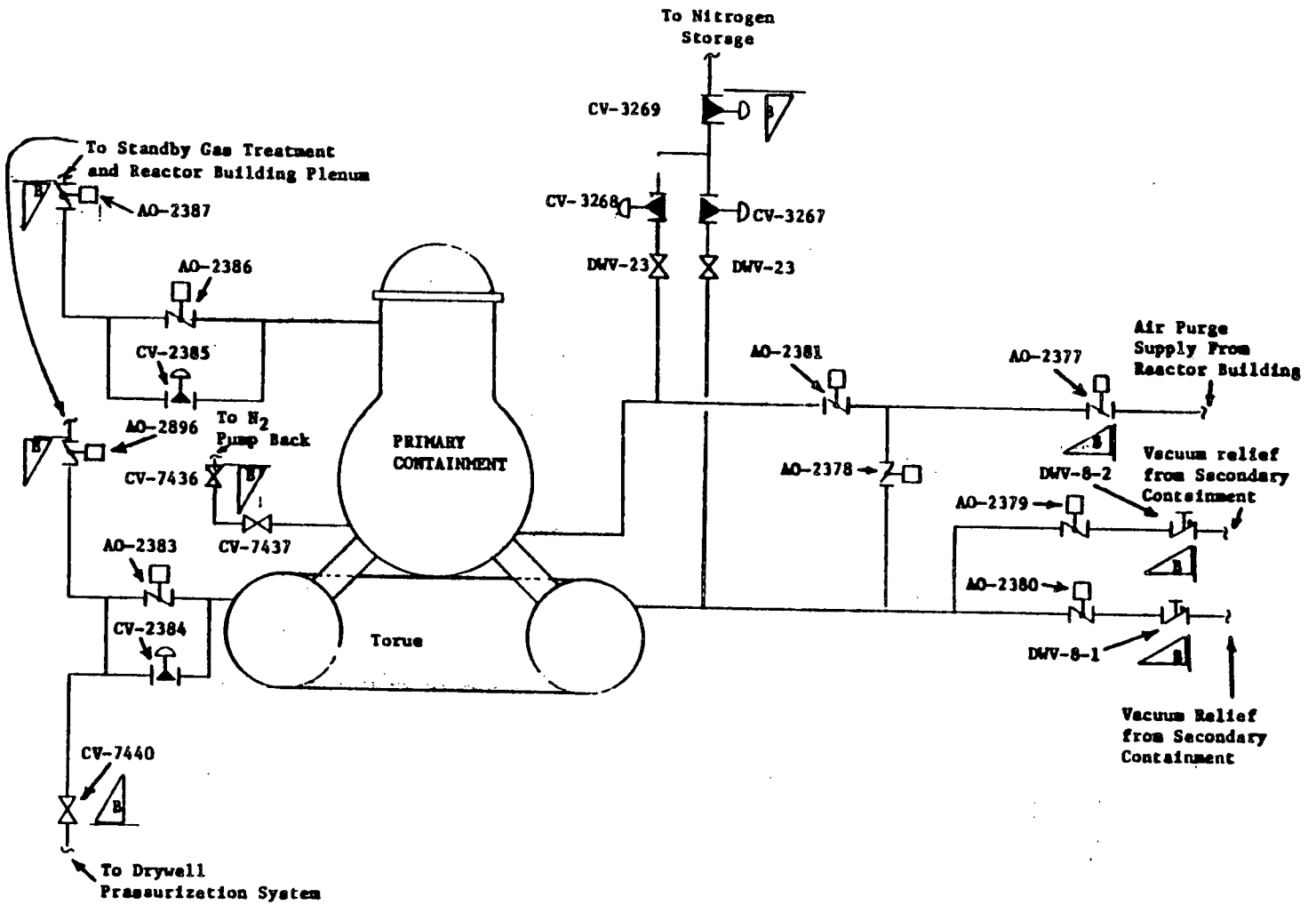
RCIC (Steam Side)



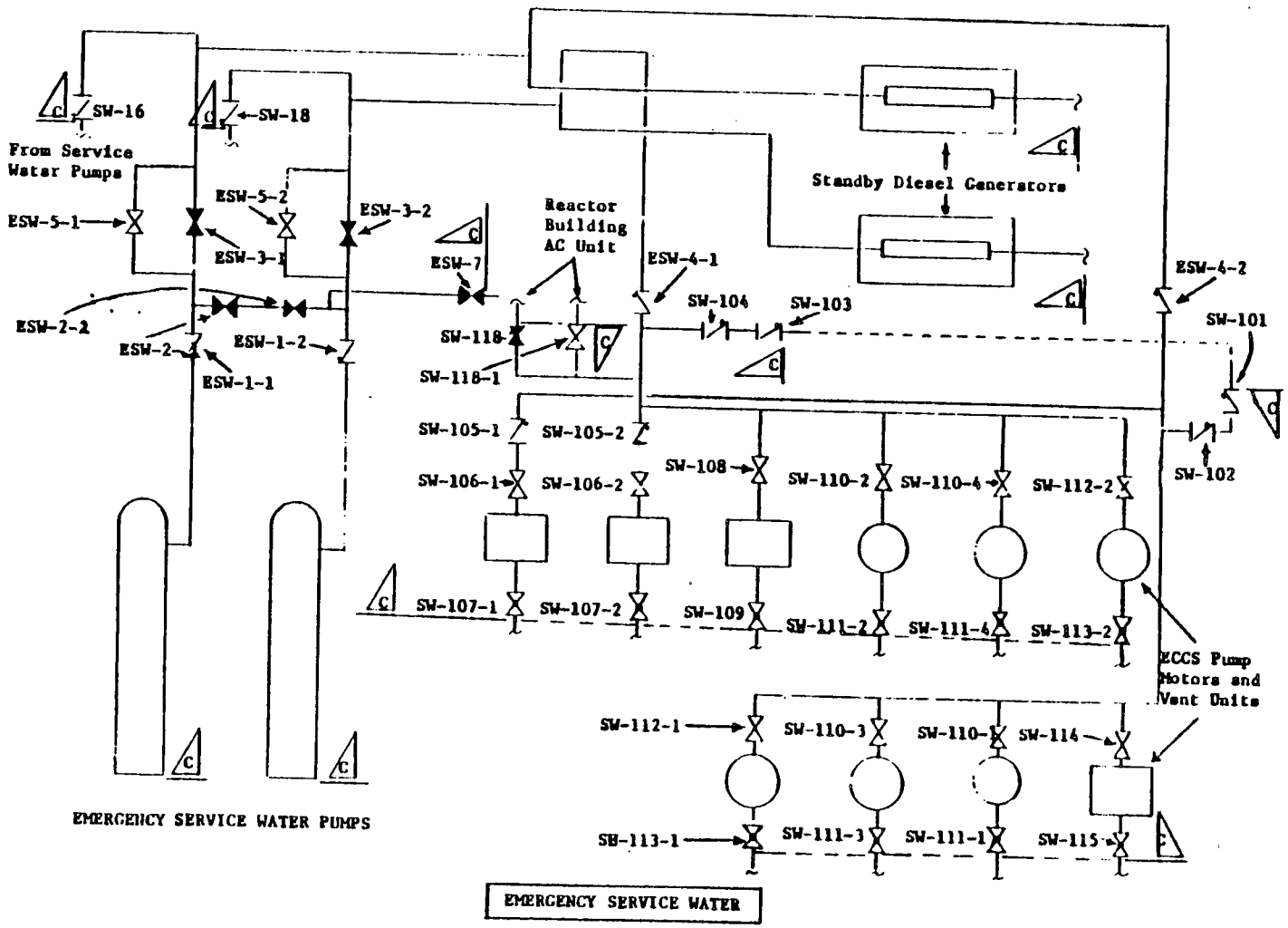
RCIC (WATER SIDE)

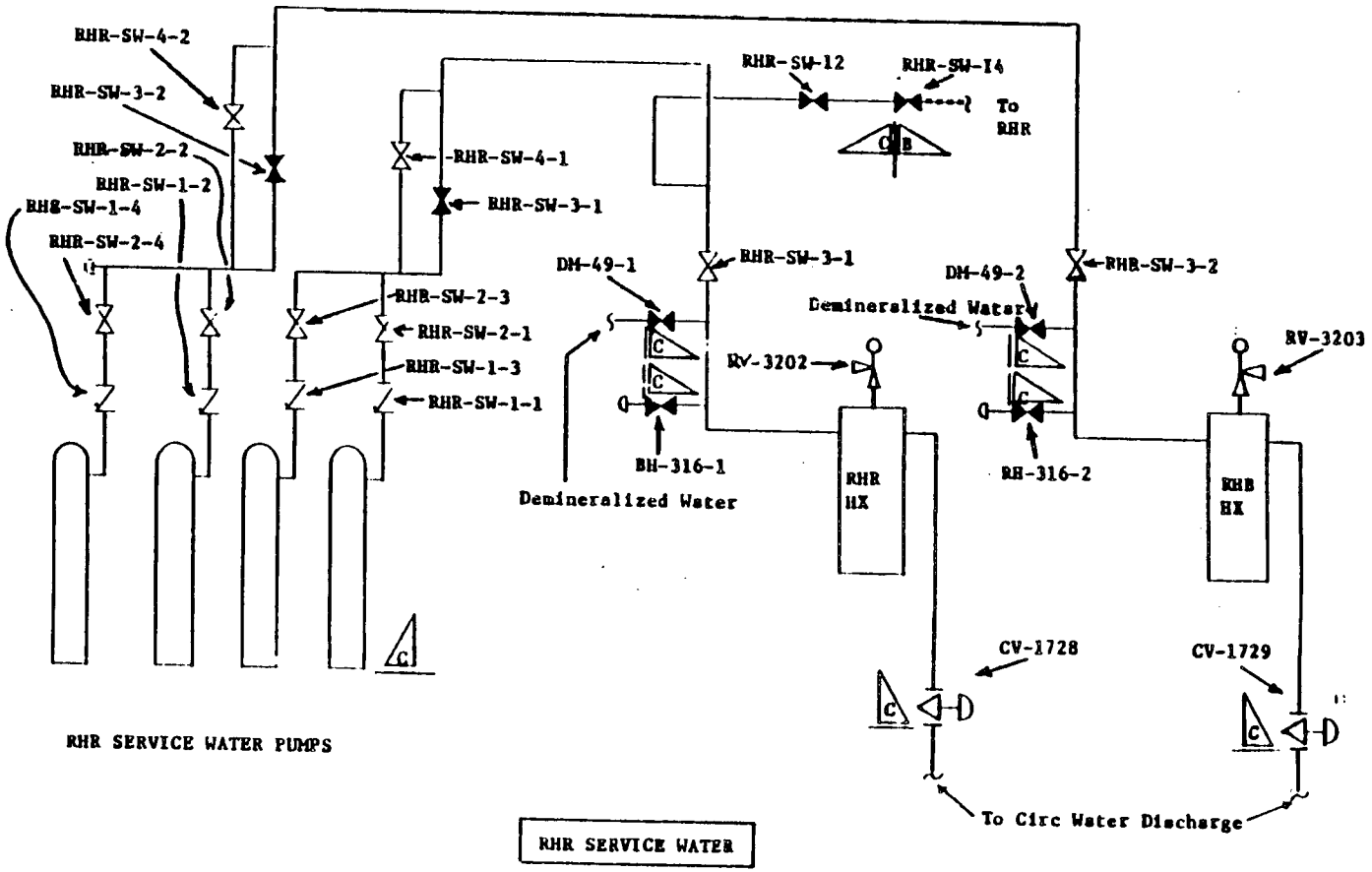


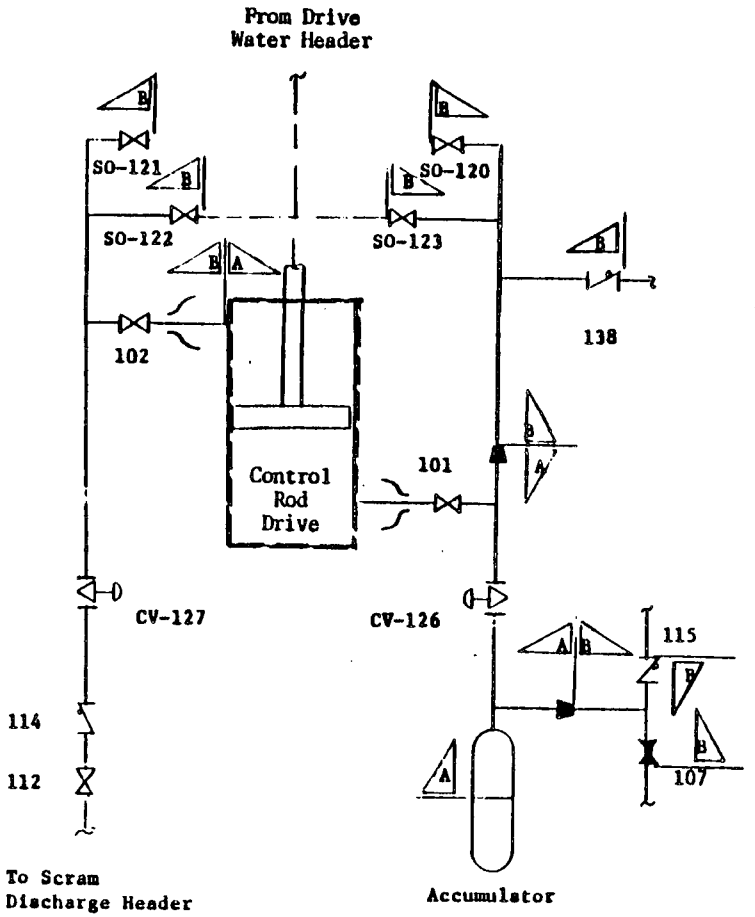
STANDBY LIQUID CONTROL SYSTEM



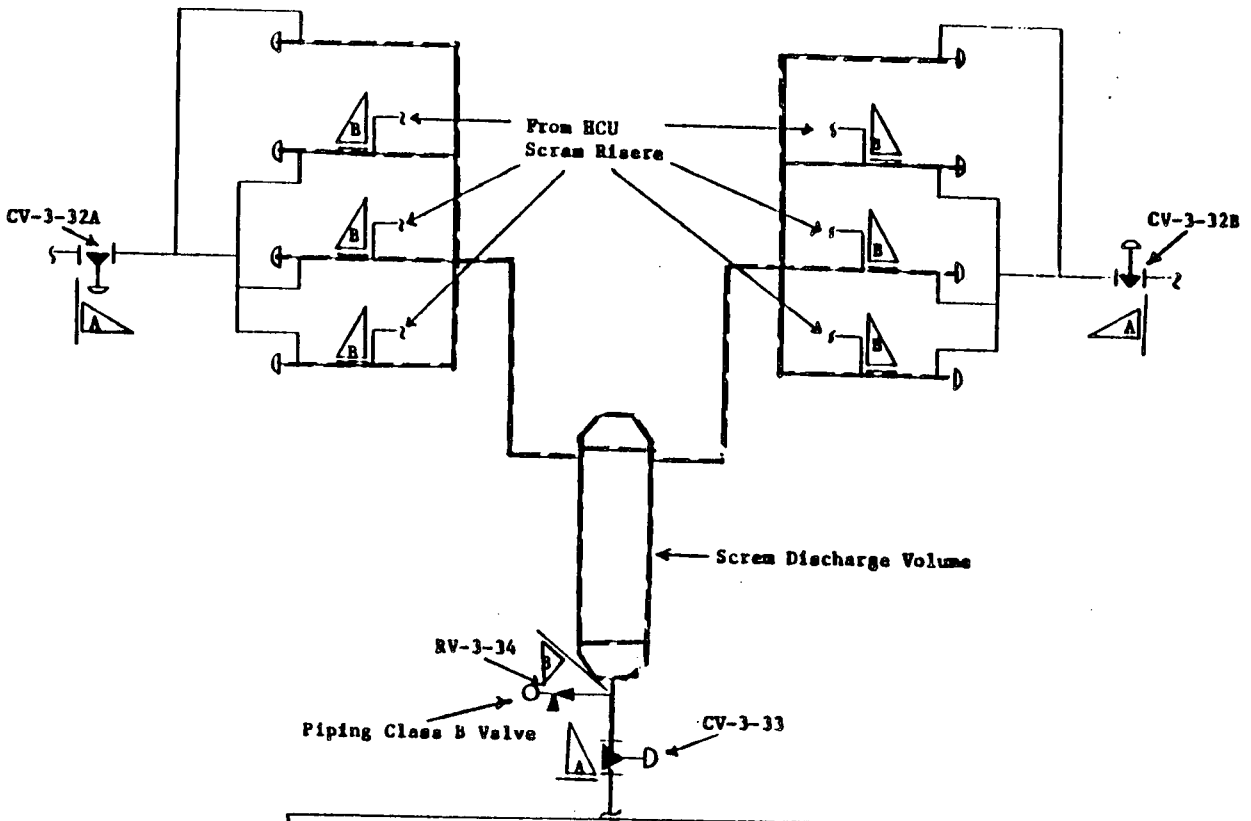
PRIMARY CONTAINMENT SYSTEM


SW-16
SW-18
From Service Water Pumps
ESW-5-1
ESW-5-2
ESW-3-2
ESW-3-1
ESW-2-2
ESW-2
ESW-1-2
ESW-1-1
ESW-7
Reactor Building AC Unit
ESW-4-1
SW-104
SW-103
SW-118-2
SW-118-1
Standby Diesel Generators
ESW-4-2
SW-101
SW-102
SW-105-1
SW-105-2
SW-106-1
SW-106-2
SW-108
SW-110-2
SW-110-4
SW-112-2
SW-107-1
SW-107-2
SW-109
SW-111-2
SW-111-4
SW-113-2
ECCS Pump Motors and Vent Units
SW-112-1
SW-110-3
SW-110-1
SW-114
SW-113-1
SW-111-3
SW-111-1
SW-115
EMERGENCY SERVICE WATER PUMPS
EMERGENCY SERVICE WATER

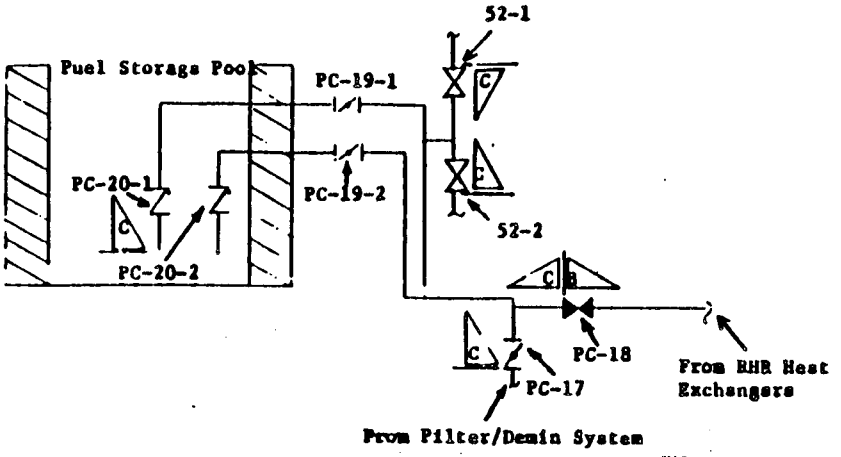

RHR-SW-4-2
RHR-SW-3-2
RHR-SW-2-2
RHR-SW-1-2
RHR-SW-1-4
RHR-SW-2-4
RHR-SW-4-1
RHR-SW-3-1
RHR-SW-2-3
RHR-SW-2-1
RHR-SW-1-3
RHR-SW-1-1
RHR-SW-12
RHR-SW-14
To RHR
DM-49-1
DM-49-2
Demineralized Water
RV-3202
RV-3203
BH-316-1
RH-316-2
Demineralized Water
RHR HX
RHR HX
CV-1728
CV-1729
To Circ Water Discharge
RHR SERVICE WATER PUMPS
RHR SERVICE WATER



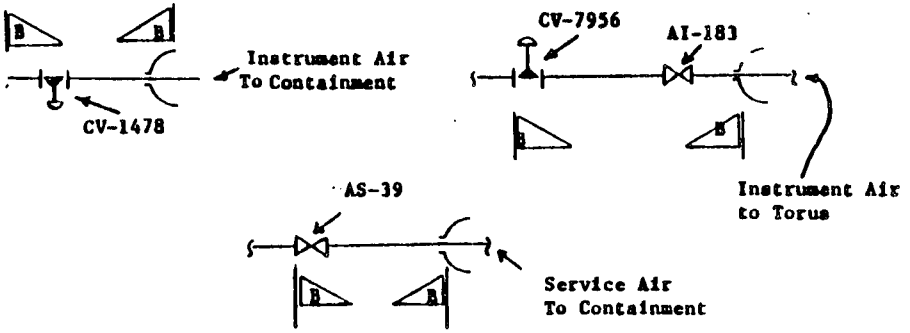
HYDRAULIC CONTROL UNIT (typical of 121)



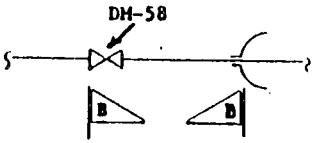
CONTROL ROD DRIVE SYSTEM (SCRAM DISCHARGE PIPING)



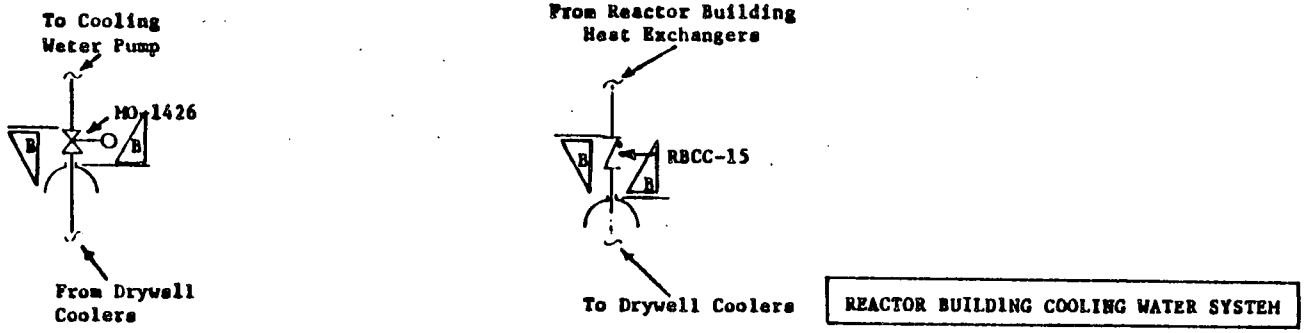
FUELPOOL COOLING & CLEAN-UP SYSTEM



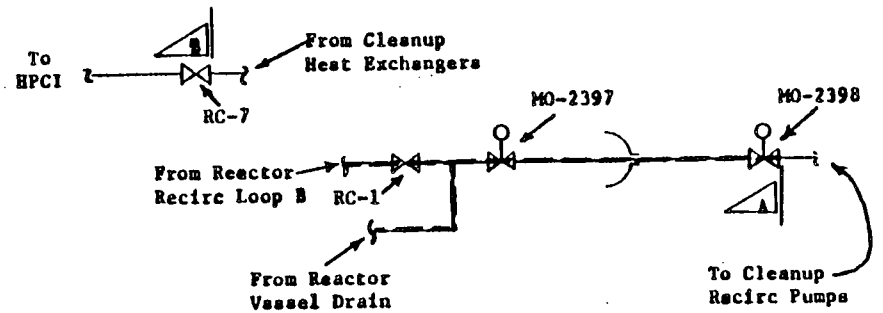
COMPRESSED AIR SYSTEM



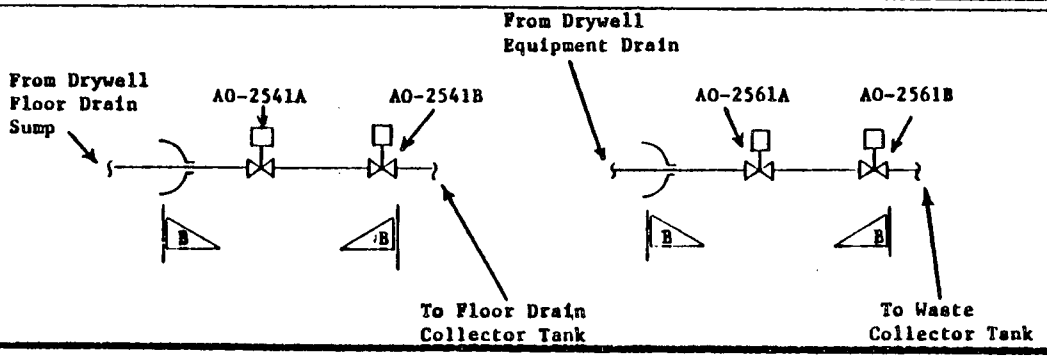
CONDENSATE SERVICE SYSTEM



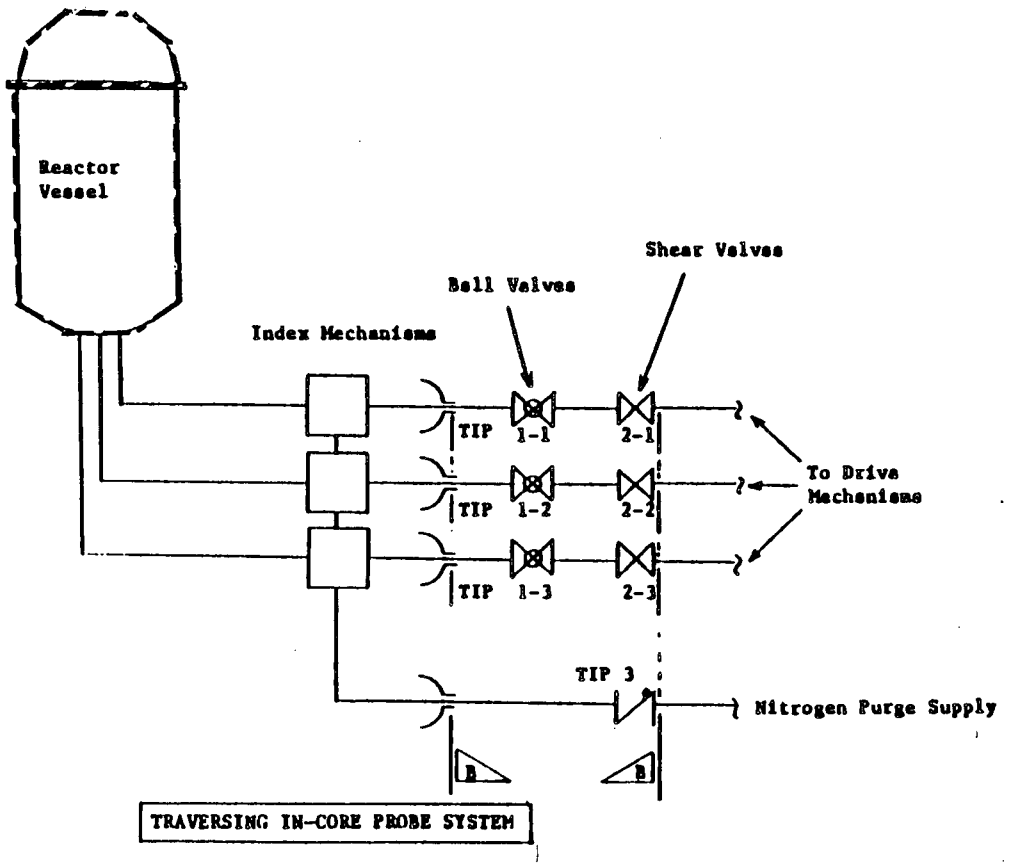
REACTOR BUILDING COOLING WATER SYSTEM



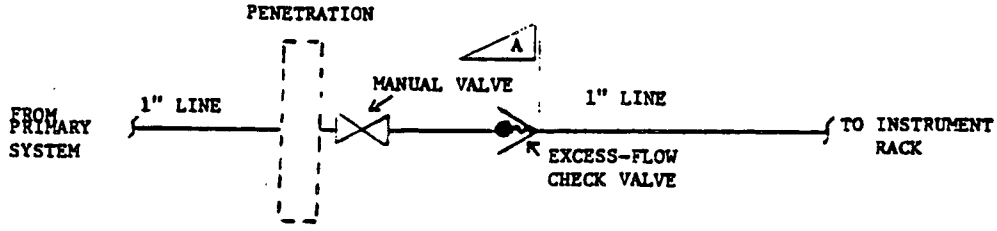
REACTOR WATER CLEAN-UP SYSTEM



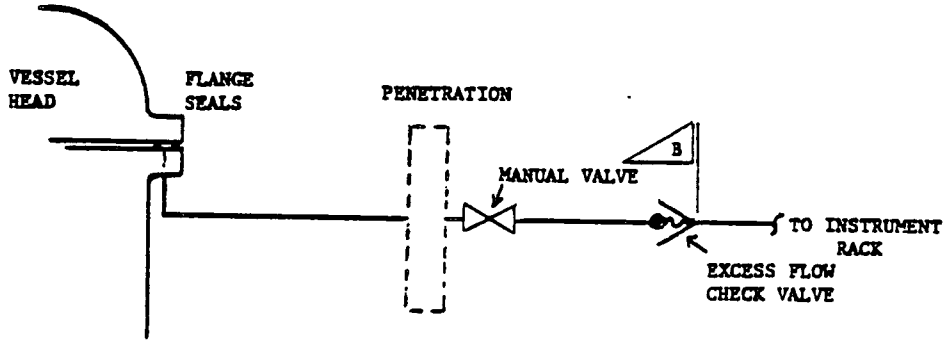
LIQUID RADWASTE



TRAVERSING IN-CORE PROBE SYSTEM

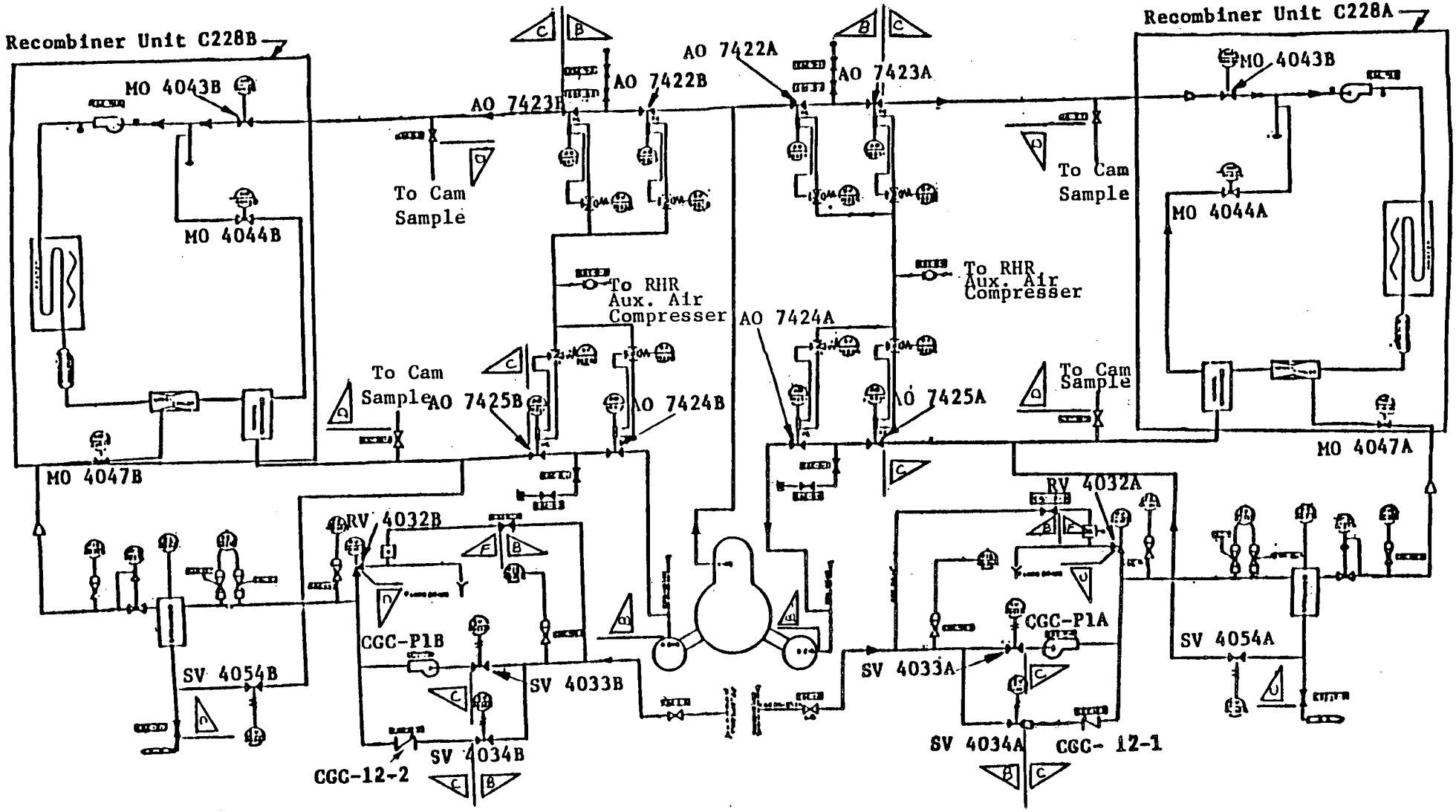


TYPICAL OF X-27A THROUGH X-52F EXCEPT X-28F



X-28F ONLY

EXCESS-FLOW CHECK VALVES


Recombiner Unit C228B
MO 4043B
MO 4044B
MO 4047B
AO 7423B
AO 7422B
To Cam Sample
To RHR Aux. Air Compresser
AO 7425B
AO 7424B
RV 4032B
CGC-P1B
SV 4054B
SV 4033B
SV 4034B
CGC-12-2
AO 7422A
AO 7423A
AO 7424A
AO 7425A
Recombiner Unit C228A
MO 4043B
MO 4044A
MO 4047A
RV 4032A
CGC-P1A
SV 4033A
SV 4054A
SV 4034A
CGC- 12-1

SECTION 2 INSERVICE TESTING PROGRAM

ASME Section XI Pressure Testing Program

ASME Code Edition and Addenda: 1977 edition through and including Summer 1978 Addenda

Program Period: June 30, 1981 through May 30, 1992

APPLICABLE ASME CODE CLASS	TEST TYPE	TEST FREQUENCY	REQUEST FOR RELIEF
1 (Quality Group A)	Leakage	Refueling	30
	Hydrostatic	10 years	30
2 (Quality Group B)	Functional	3 1/3 years	30
	Hydrostatic	10 years	30
3 (Quality Group C)	Inservice	3 1/3 years	30
	Functional	3 1/3 years	30
	Hydrostatic	10 years	30, 49

Except as noted in the Requests for Relief, pressure test will conform to IWA-5000, IWB-5000, IWC-5000, IWD-5000.

ASME Code Class boundaries are shown on the figures in Insevice Inspection Program section 1.5. These figures do not include small instrument, leak, vent, and drain lines.

30. REQUEST FOR RELIEF

COMPONENT	FUNCTION	APPLICABLE ASME CODE CLASS
All Class 1, 2 and 3 Components	Pressure Retaining	1, 2, 3

Code Requirements

The test pressure requirements of IWA-5000, IWB-5000, IWC-5000 and IWD-5000 will not be met on certain components.

Basis

The code does not recognize that non-isolable junctions of components with different design pressures or different ASME Classes exist (i.e., pump suction and discharge lines, piping upstream and downstream of restricting orifices, etc.). Pressurizing components to the requirements of the code may result in overpressurizing the non-isolable components.

Alternate Testing

Where these junctions exist, test pressure will be based on the component with the lowest test pressure requirement.

Schedule for Implementation

February 28, 1978

49. REQUEST FOR RELIEF

COMPONENT	FUNCTION	APPLICABLE ASME CODE CLASS
Emergency Service Water Piping	Pressure Retaining	3

Code Requirement

Buried portions of piping will not be examined as required by IWA-5244(b)

Basis

There is no instrumentation installed to measure the change in flow between the ends of the buried piping.

Alternate Testing

A leakage test that determines the feed rate of water required to maintain the test pressure will be performed.

Section 3.1 INTRODUCTION

Under the provisions of 10CFR50.55a, inservice testing of safety-related pumps and valves will be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code to the extent practical. As specified in 10CFR50.55a(b), the effective edition of Section XI with regard to this program is the 1983 Edition through the Summer 1983 Addenda. This program identifies the pump and valve inservice testing that will be performed at the Monticello Nuclear Plant to comply with the requirements of 10CFR50.55a. This program applies to the Second Ten Year Inservice Inspection Interval beginning June 30, 1981, and ending May 30, 1992.

3.1.1 Relationship with Technical Specifications

Based on Technical Specification requirements, in the event of any conflicts between ASME Section XI requirements and the requirements of Technical Specifications, the plant Technical Specifications shall govern. Monticello Nuclear Plant will meet all requirements of both ASME Section XI and plant Technical Specifications unless there is a specific conflict between the two. Requirements of ASME Section XI that cannot be met due to Technical Specification guidance will be identified in appropriate Relief Requests or appropriate Technical Specification changes will be prepared.

3.1.2 Qualification of Test Personnel

Personnel performing pump and valve testing per ASME Section XI Subsections IWP and IWV will be qualified in accordance with the Monticello Nuclear Plant Quality Assurance Program. This is in keeping with the requirements of ASME Section XI, as clarified by ASME Code Interpretation XI-1-82-06R.

Section 3.2 PUMP INSERVICE TESTING PROGRAM

The pump test program shall be conducted in accordance with Subsection IWP of Section XI of the 1983 Edition of the ASME Boiler and Pressure Vessel Code through Summer 1983 Addenda, except for relief requested under the provisions of 10CFR50.55a(g) (5) (iii). Section 3.5 details the inservice testing program for all safety related pumps at Monticello Nuclear Plant. This table lists each pump required to be tested in accordance with IWP-1100 of Section XI of the Code. Each parameter to be measured, as well as specific relief requests concerning non-conformance, are also listed. Safety related pumps not required to be tested in accordance with IWP-1100 may also be listed. Testing of these pumps will be performed in accordance with Section XI of the Code to the extent practical. Relief requests will not be submitted for these pumps if code requirements can not be met.

3.2.1 Pump Bearing Temperature/Vibration Measurement

Subsection IWP-3300 requires pump bearing temperatures be measured at least once each year. Industry experience demonstrates that bearing temperatures typically rise only minutes prior to failure. Any bearing failure predicted by a yearly recording of bearing temperature would be a random event and thus, yearly measurement of bearing temperatures does not increase the level of confidence in component reliability. The expense of adding the additional testing both in component degradation and man-hours expended is, therefore, not justified.

Further, IWP-3500(b) specifies that pumps be run until bearing temperatures stabilize as determined by three measurements at 10 minute intervals. Clearly the pump would have to be run in excess of one-half hour to obtain these readings. The pump degradation caused by this requirement does not justify the very limited assurance it might provide. In addition, the recently ASME-approved OM-6 standard on pump inservice testing does not require bearing temperatures to be taken.

Quarterly vibration measurements will provide meaningful indication of bearing reliability. Vibration data taken on at least a quarterly basis will be utilized to define pump mechanical condition. In addition, a frequency spectrum analyzer will be used when appropriate to more fully define bearing condition. This request for relief should apply for all bearings presently required to be temperature tested.

Due to improvements in vibration measurement and analysis since Section XI was developed, Monticello has utilized measurement of vibration velocity to more fully define bearing mechanical condition. In keeping with the interim approval gained in the previous revision to the test program, as well as the recently approved OM-6 inservice testing standard for pumps, Monticello will utilize measurement of vibration velocity for all bearings presently requiring vibration measurement per

Section XI. The acceptance criteria for this parameter will be in accordance with guidance provided in OM-6.

3.2.2 Pump Testing Ranges

Monticello Nuclear Plant will revise the upper boundary for Alert and Action ranges of differential pressure or flow for selected pumps. This position reflects other plant's NRC guidance and meets with ASME Code Requirements per IWP-3210. Pump performance will be adequately evaluated using upper differential pressure or flow range limits of 1.05 and 1.07 (times reference value) for the Alert and Action ranges respectively. Normal operation of the pumps in these ranges will still meet their required safety function. As identified in a sample NRC safety evaluation report, "Small positive increases in observed delta P are most likely not significant with regard to centrifugal pumps. Moreover, such factors as instrument uncertainty, water density, and instrument error might lead to spurious actuation of alert and action ranges." Based on the above, these revised range limits are felt to meet the intent and requirements of ASME Section XI.

3.2.3 Multiple Reference Values

Based on plant operating conditions and pump testing hydraulic circuit, Monticello Nuclear Plant may choose to generate multiple sets of reference values (per IWP-3112) in order to more fully describe pump hydraulic condition. Each set of pump reference values will meet all appropriate requirements of IWP-3000.

3.2.4 Pump Test Instrumentation Ranges

Monticello Nuclear Plant was designed and constructed to design code rules which have since been revised. The First Ten-Year ASME Section XI Test Program utilized the 1974 Edition through Summer 1975 Addenda of ASME Section XI. Therefore, the instrumentation full-scale ranges, in general, are four times the pump reference value, or less. Current code rules would require instrumentation changeout, which would require review under backfit rules. See also Relief Request PR-3.

Section 3.3 VALVE INSERVICE TESTING PROGRAM

The valve test program for Monticello Nuclear Plant shall be conducted in accordance with Subsection IWV of Section XI of the 1983 Edition of the ASME Boiler and Pressure Vessel Code through the Summer 1983 Addenda, except for relief requested under the provisions of 10CFR50.55a(g) (5)(iii) and guidance provided in Generic Letter 89-04. The valve test program is included as Section 3.7. The codes and symbols used to abbreviate the tables in Section 3.7 are explained in Section 3.6. Safety related valves not required to be tested in accordance with IWV-1100 may be also listed. Testing of these valves will be performed in accordance with Section XI of the Code to the extent practical. Relief requests will not be submitted for these valves if Code requirements can not be met.

3.3.1 Category A Valves

Valves for which seat leakage is important may generally be classified as pressure isolation valves (PIV), containment isolation valves (CIV), or both pressure and containment isolation valves. Containment isolation valves falling within the scope of ASME Section XI are tested in accordance with the Section XI requirements of IWV-3400, Category A, with the exception of the seat leakage tests (IWV-3420). The seat leakage testing performed on these valves meets the intent of Section XI, but the actual test procedures shall be conducted in accordance with the 10CFR50, Appendix J, Type C, CIV test program. For valves performing a containment isolation function, individual valve leak rates are not in themselves significant. The only pertinent leak rate criteria for CIV's is that the total leak rate for all penetrations and valves be less than 0.60 La. The Monticello Nuclear Plant was designed to perform the Appendix J, Type C tests, not the individual Category A leak test (i.e., some penetration test connections test more than one valve at a time). Accordingly, all CIV seat leak testing shall be performed in accordance with the requirements of 10CFR50, Appendix J, Type C, in lieu of the Category A requirements of Section XI. The requirements of Section XI IWV-3426 and IWV-3427(a) will be maintained for all CIVs. See Generic Relief Request GR-2 and GR-3 in Section 3.8.

All CIVs have been categorized as A-Active or A-Passive, and will, as a minimum, be leak tested per 10CFR50 Appendix J. Passive valves will in general have no other testing performed.

3.3.2 Pressure Isolation Valve

The purpose of the plant Pressure Isolation Valves (PIV's) is to reduce the possibility of an inter-system LOCA which would occur by pressurizing low pressure systems to pressures exceeding their design limits. Such valves will be fully tested per IWV-3420, with the exception of relief requested under GR-2 (see Section 3.8).

3.3.3 Thermal Relief Valves

Many safety related systems, particularly those with heat exchangers, have been provided with small relief valves. These relief valves are thermal relief valves (TRV) of small capacity intended to relieve pressure due to thermal expansion of fluid in a "bottled-up" condition, which is considered a self-limiting transient. Experience has shown that failure of these valves will not result in failure of a system to fulfill its safety related function. Thus, thermal relief valves are not considered to perform a function important to safety and such valves have been included in the program on a case-by-case basis.

3.3.4 Cold Shutdown Testing

Where the test frequency in Sections 3.6 and 3.7 is specified as "Cold Shutdown" the following definition for cold shutdown testing applies:

> For unplanned or forced outages, testing will commence not later than 48 hours after Cold Shutdown is achieved. Completion of all valve testing is not a prerequisite to subsequent startup. Any testing not completed at one Cold Shutdown will be performed during subsequent Cold Shutdowns (excluding refuelings) to meet as close as practical the specified Section XI testing frequency. For planned outages, including refueling, where all required testing can be completed, exception to the above start time may be taken. However, during these planned outages all testing must be completed consistent with Section XI requirements prior to startup. In the event Cold Shutdown does not require specific de-inerting of containment, those valves requiring containment access for Cold Shutdown testing will be deferred until the next Cold Shutdown that provides containment access.

Section 3.9 specifically identifies those valves tested during Cold Shutdowns, with operational justifications for each. Valves tested on a Cold Shutdown frequency may be tested during startup, outage recovery, etc.

3.3.5 Part-stroke Testing

The goal of the Monticello Nuclear Plant Inservice Test Program is to perform full-stroke tests of all appropriate valves in order to assess the operational readiness of the valves via evaluation of valve degradation. With the exception of those valves for which specific relief has been requested, all valves will be full stroke tested whenever possible.

Part-stroke testing of power-operated valves is often not possible, due to valve logic circuitry which only allows full-open or full-closed valve movement. Moreover, the intent of Section XI is to assess valve operability through inservice testing; while a part-stroke exercise does

provide some measure of confidence in valve operability, it does not provide assurance of valve safety-related function. In addition, a part-stroke of a power-operated valve has the possibility, through human or mechanical error, to cause adverse plant consequences (isolation of cooling water, plant transients, etc.) via an inadvertent full-stroke. Based on the above, Monticello Nuclear Plant will full-stroke test power-operated valves in accordance with the Valve Test Program (with associated relief requests as appropriate). Specific part-stroking of power-operated valves to meet Section XI will not be performed. However, some valves used in specific plant evolutions may undergo part-stroking to meet Manufacturers recommendations or specific maintenance requirements. An example of valves in this category would be the Main Steam Isolation Valves which are designed to be part-stroked monthly to meet Technical Specifications. The cold shutdown justifications provided in Section 3.9 also include a basis for not part-stroking specific valves.

Check valves whose safety function is to open will be full-stroked when possible. Since disk position is not always observable, the NRC staff has stated that "verification of the plant's safety analysis flow rate through the check valve would be an adequate demonstration of full-stroke requirement. Any flow rate less than design will be considered part-stroke exercising." Based on this position, check valves within the scope of this test program will be at least part-stroke exercised whenever any flow is passed through the valve. Check valves are considered to be full-stroke tested on at least the Code-required frequency, unless identified by Relief Request. Check valves for which a full-stroke exercise can not be confirmed, therefore, will be identified by an appropriate relief request.

3.3.6 Fail-Safe Actuators

No special tests will be performed for the valves with fail-safe actuators where normal cycling of the valve by the control switch removes the actuator power source. For these valves the fail-safe function is tested by normal valve exercise testing. All other fail-safe valves will be tested in accordance with IWV-3415.

3.3.7 Valve Position Indication Verification

Verification of valve position indicator accuracy will be performed in accordance with Section XI IWV-3300 with the exception of those valves for which specific relief has been requested.

3.3.8 Passive Valves

These valves, which have no Section XI operability testing requirements, are valves in safety-related system which are not required to change position in order to accomplish their required safety-function. Monticello Nuclear Plant has categorized as

B-Passive all non-containment isolation valves which are required by procedure to be maintained in their safety-related position. Any valves which are administratively locked-open or locked-closed in their safety-related position are also considered Category B-Passive. Due to the lack of testing requirements, these valves have been excluded from Section 3.7.

3.3.9 Stroke Times

The valve stroke times identified in Section 3.7 are nominal values only and may change due to modification, maintenance, etc. over plant lifetime. Monticello Nuclear Plant will change these stroke times as necessary, incorporating the requirements of ASME Section XI, without further notification.

Valves with extremely short stroke times (less than 2 seconds) have stroke times of such short duration that comparison of measurements with previous data for specified percentage increases is not indicative of degrading valve performance. With measurement of stroke times to the nearest second per IWV-3413(b), a very small increase in stroke time will result in an extremely large percentage change. Verification that valves meet a specified maximum stroke time of short duration provides adequate assurance of operability.

Therefore, Monticello Nuclear Plant will assign a maximum limiting value of full stroke time of 2 seconds for most of those valves with nominal stroke times less than 2 seconds, as noted in the "Stroke Time" column of Section 3.7. The trending requirements of IWV-3417(a) will not apply. This is an accepted position of Generic Letter 89-04.

Monticello also feels that comparison of valve stroke times to the previous test results, without any evaluation of overall change in stroke time from initial test data, is not the optimum method of gauging valve performance. Therefore, Monticello requests relief from comparing the current valve stroke time with previous stroke time data per IWV-3417 and will, as an alternative, evaluate current valve stroke time data with a reference valve stroke time taken when the valve is known to be in good condition. This philosophy is in keeping with both pump testing under ASME Section XI and the current methods identified in the recently ASME-approved OM-10 on valve inservice testing.

3.3.10 Relief Valve Testing

Monticello Nuclear Plant will perform all Relief Valve Testing using approved procedures under the requirements of the Technical Specification Surveillance Testing Program to meet the requirements of Section 4.09 of ANSI/ASME 25.3-1976. This level of administrative control, including the requirements for Quality Assurance/Control per 10CFR50 Appendix B, ensures the overall test quality is maintained. Therefore, Monticello Nuclear Plant feels that the intent of PTC-25.3

for relief valve testing regarding test personnel qualifications and test group makeup are met. In addition, the test personnel are trained and qualified in accordance with Monticello Nuclear Plant Administrative Requirements for Surveillance Test Personnel. Therefore, the requirement of PTC-25.3 to have the test witnessed by a degreed engineer is not necessary. However, all test results of relief valve testing are reviewed by appropriate qualified personnel prior to test acceptance.

Monticello also considers the preservice requirement to set-point test relief valves per ASME Section XI to be met by the valve manufacturer's test report supplied with each valve during plant preoperative testing. In addition, valves that are replaced with valves from warehoused equipment will be considered as certified for use. No increase in sample size will be made based on valves replaced in groups, i.e., all Main Steam safety/relief valves may be changed out each refueling outage with refurbished, certified set-point valves from stores. Since the removed valves will be refurbished prior to certification set-point testing, no increase in testing sample size due to valve failure is possible or necessary.

3.3.11 Excess Flow Check Valves

Excess flow check valves are installed on instrument lines penetrating containment. As such, the lines are sized and/or orificed such that off-site doses will be substantially below 10CFR100 limits in the event of a rupture. Therefore, individual leak rate testing of these valves is not required for conformance with 10CFR50, Appendix J requirements. Functional testing of valves to verify closure can be accomplished by the process of venting the instrument side of the valve while the process side is under pressure. Such testing is required by Technical Specification 4.7.D.1.h at least once per operating cycle. Testing on a more frequent basis is not feasible for several reasons. Instruments serviced by these valves frequently have interlock or actuation functions that would be interfered with should testing be performed during plant operation. Also, process liquid will be contaminated to some degree, requiring special measures to collect flow from the vented instrument side. A listing of excess flow check valves can be found in Section 3.10.

3.3.12 Feedwater Check Valves

The main feedwater check valves (FW-94-1, FW-94-2, FW-97-1, and FW-97-2) will be full-flow tested via successful operation during full-power operation. No specific testing or documentation will be maintained on these valves to verify the open position. Closure testing will occur during refueling outages via Local Leak Rate Testing per appropriate relief request.

Section 3.4 REFERENCES

- 10CFR50.55a(g); Inservice Inspection
- 1983 Edition with Addenda through Summer 1983 ASME Boiler and Pressure Vessel Code - Section XI: Rules for Inservice Inspection of Nuclear Power Plant Components
- Monticello Nuclear Plant; Piping and Instrument Diagrams
- Monticello Nuclear Plant; Technical Specifications
- Regulatory Guide 1.26
- ANSI/ASME OM Standards
  - OM-1 Relief Valve Inservice Testing
  - OM-6 Pump Inservice Testing
  - OM-10 Valve Inservice Testing
- Monticello Updated Safety Analysis Report
  - Section 5, Containment Isolation
  - Section 6, Plant Engineered Safeguards
  - Section 14, Plant Safety Analysis
- Northern States Power Letter Dated August 12, 1982 from D.M. Musolf to Director NRR; Subject: Supplemental Information Concerning Inservice Testing Program
- Northern States Power and NRC correspondence on Event V valves

Section 3.5

PUMP TEST PROGRAM

AND

PUMP RELIEF REQUESTS

ASME SECTION XI PUMP TEST REQUIREMENTS

Pump Drawing No.	Pump Number	Pump Name	ASME Class	Speed[1]	Delta Press.	Inlet Press.	Parameter to be Measured			Bearing[2] Temp.	Relief Req. No.	Remarks
							Vibration[3]	Flow	Lubricant Level/Press			
M-120	P-202B	RHR	2	N/A	X	PR-1	X	X	PR-4	N/A		
M-120	P-202D	RHR	2	N/A	X	PR-1	X	X	PR-4	N/A		
M-121	P-202A	RHR	2	N/A	X	PR-1	X	X	PR-4	N/A		
M-121	P-202C	RHR	2	N/A	X	PR-1	X	X	PR-4	N/A		
M-122	P-208A	Core Spray	2	N/A	X	PR-1	X	X	PR-4	N/A		
M-122	P-208B	Core Spray	2	N/A	X	PR-1	X	X	PR-4	N/A		
M-124	P-209	HPCI	2	X	X	PR-1	X	X	PR-4	N/A	PR-2	
M-126	P-207	RCIC	2	X	X	PR-1	X	X	PR-4	N/A	PR-2	
M-127	P-203A	SLC	2	N/A	X	PR-1	X	Note 4	PR-4	N/A		
M-127	P-203B	SLC	2	N/A	X	PR-1	X	Note 4	PR-4	N/A		
M-133	P-11	DOTP	NONE	N/A	X	N/A	X	Note 5	N/A	N/A		
M-811	P-109A	RHRSW	3	N/A	X	PR-1	X	X	PR-4	N/A		
M-811	P-109B	RHRSW	3	N/A	X	PR-1	X	X	PR-4	N/A		
M-811	P-109C	RHRSW	3	N/A	X	PR-1	X	X	PR-4	N/A		
M-811	P-109D	RHRSW	3	N/A	X	PR-1	X	X	PR-4	N/A		
M-811	P-111A	ESW	3	N/A	X	PR-1	X	X	PR-4	N/A		
M-811	P-111B	ESW	3	N/A	X	PR-1	X	X	PR-4	N/A		
M-811	P-111C	ESW	3	N/A	X	PR-1	X	X	PR-4	N/A		
M-811	P-111D	ESW	3	N/A	X	PR-1	X	X	PR-4	N/A		
NH-94896	CGCP-1A	CGC	3	N/A	X	PR-1	X	X	PR-4	N/A		
NH-94897	CGCP-1B	CGC	3	N/A	X	PR-1	X	X	PR-4	N/A		

Note 1: Synchronous or induction wound motors do not require a speed check per IWP-4400.

Note 2: See discussion Section 2.1 regarding Bearing Temperature Measurement.

Note 3: See discussion Section 2.1 regarding Vibration Measurement.

Note 4: Flow is calculated as test tank level change over time.

Note 5: Adequate flow is demonstrated quarterly by maintaining levels in Diesel Generator Day Tanks and flow is calculated during refueling outages when Diesel Generator Day Tank levels can be lowered.

RELIEF REQUEST NUMBER PR-1

System: 1) Emergency Service Water and RHR Service Water; 2) Standby Liquid Control; and 3) all remaining pumps

P&ID: Various

Pumps: 1) P-111A/B/C/D and P-109A/B/C/D; 2) P-203A/B; and 3) all remaining pumps

Class: 3

Function: The Emergency Service Water Pumps and RHR Service Water Pumps provide the cooling water to support the safety-related shutdown systems; SLC provides emergency shutdown margin; all other pumps provide specific safety functions.

Impractical Test Requirement: Measure, record, and compare inlet (suction) pressure (Pi) before pump start and during operation per IWP-3100.

Basis for Relief:

1) An Inlet (suction) pressure gauge is not provided for these pumps. The pumps have an inlet pressure dependent upon Mississippi River water level. Calculation of this static head between River level and pump inlet shall adequately provide the necessary inlet pressure. Mississippi River water level will not change significantly during test duration.

2) The standby liquid control pumps are required to supply the necessary flow rate at a given system pressure. The inlet pressure is equivalent to the static head provided by the test tank. Test tank level is established within the inservice test procedures. Also, the measurement of inlet pressure on a positive displacement pump is not significant test parameter. The system resistance is varied to establish the discharge pressure as the reference value. Flow rate is measured, observed and monitored to verify pump operability and degradation.

3) In keeping with industry practice, per the recently approved OM-6 standard on inservice testing of pumps, Monticello will not measure inlet pressure to be evaluated as a sign of pump degradation. Inlet pressure will be measured where appropriate for calculation of pump total developed head, but no specific pump operability criteria will identify suction pressure, except as necessary for pump minimum required suction pressure for design.

RELIEF REQUEST NUMBER PR-1 (Cont'd.)

Alternative Testing: Good engineering and operating practice will provide assurance of adequate suction pressure in each pump. Measurements will be made as appropriate for each pump, i.e. river water level, suction tank level, etc., for calculation of pump differential pressure for all centrifugal pumps. Positive displacement pumps will only utilize discharge pressure as a criteria due to the lack of variation in differential pressure as a function of pump operability. Flow and discharge pressure will serve to identify degradation in positive displacement pumps.

Approval: Relief Request approved by virtue of being outside the scope of the positions in Generic Letter 89-04 and submitted before April 3, 1989.

RELIEF REQUEST NUMBER PR-2

System: Reactor Core Isolation Cooling (RCIC)/High Pressure Coolant Injection (HPCI)

P&ID: M-126/124

Pumps: P-207/209

Class: 2

Function: The RCIC and HPCI Pumps ensure sufficient reactor water inventory during a vessel isolation condition and prevent reactor fuel overheating.

Impractical Test Requirement: IWP-3400; Test Frequency - Test pumps at least every three months, quarterly.

Basis for Relief: The RCIC and HPCI Systems are required to be operable during power operation, startup and hot shutdown with reactor steam dome pressure greater than 150 psig. The pumps shall be tested after reactor steam has been supplied to the turbine at 150 psig.

Alternative Testing: Test pump quarterly except during plant cold shutdown/refueling. Pump will be tested within 1 week of plant return to normal operation, when a steam pressure of 150 psig is available from the reactor to the turbines, in accordance with plant Technical Specifications.

Approval: Relief Request approved by virtue of being outside the scope of the positions in Generic Letter 89-04 and submitted before April 3, 1989.

RELIEF REQUEST NUMBER PR-3

System: As Applicable

P&ID: As Applicable

Pumps: All pumps in program

Class: 2 or 3, as appropriate

Function: As Applicable

Impractical Test Requirement: Full-scale range of each instrument shall be three times the reference value or less per IWP-4111.

Basis for Relief: Some of the instruments presently installed have a range greater than three times the reference value. All the instrumentation presently installed have a full-scale range four times the reference value or less, which reflected the requirement of IWP-4111 of the 1974 Edition of the ASME Code, Section XI, through and including the Summer 1975 Addenda (which was the approved Code Edition and Addenda used for the First Ten Year Program). Replacement of instrumentation is not practical to meet later Code requirements, due to backfit rules.

Alternative Testing: None.

Approval: Relief Request approved by virtue of being outside the scope of the positions in Generic Letter 89-04 and submitted before April 3, 1989.

RELIEF REQUEST NUMBER PR-4

System: As Applicable

P&ID: As Applicable

Pumps: All non-water lubricated pumps

Class: 2 or 3, as appropriate

Function: As Applicable

Impractical Test Requirement: Observe lubricant level or pressure per IWP-3100.

Basis for Relief: Observation of lubricant level or pressure does not provide a measurement of pump degradation; rather the verification of proper lubricant level or pressure is a purely operational concern supported by good engineering judgment. In addition, the recently-approved OM-6 standard on pump inservice testing does not require observation of pump lubricant level or pressure to define pump condition.

Alternative Testing: Follow the guidance of OM-6, which does not require observation of lubricant level or pressure.

Approval: Relief Request approved by virtue of being outside the scope of the positions in Generic Letter 89-04 and submitted before April 3, 1989.

Section 3.6

EXPLANATION OF CODES AND SYMBOLS USED IN THE MONTICELLO NUCLEAR PLANT VALVE INSERVICE TESTING PROGRAM

SYMBOLS USED TO DESIGNATE VALVE TYPE

Symbol	Meaning
C	Check Valve
BF	Butterfly Valve
G	Gate Valve
GL	Globe Valve
RV	Pressure Relief Valve
RD	Rupture Disk
A	Angle Valve
PL	Plug Valve
SC	Stop Check
XP	Explosive Shear Valve
DI	Diaphragm
AR	Air Relief
BA	Ball Valve

SYMBOLS USED TO DESIGNATE VALVE ACTUATOR TYPE

Symbol	Meaning
M	Motor
A	Air
S	Solenoid
H	Hand (manual)
SA	Self Actuating

SYMBOLS USED TO DESIGNATE VALVE POSITION

Symbols	Meaning
O	Open
C	Closed

NOTE: Monticello Nuclear Plant may revise, without notice, the identified positions listed in "Normai Position" and "Safety Position" based on changes in vaives function/system configuration.

SYMBOLS USED TO DESIGNATE TESTING REQUIREMENT

Symbol	Meaning.
FE	Full stroke Test (with stroke time measurement as appropriate) per IWV-3400, on a quarterly frequency; or full stroke test of check valves per IWV-3520.
FC	Stroke Test per IWV-3400/3520, on a Cold Shutdown frequency (with stroke time measurement, as appropriate), supported by Justification (See Section 3.9)
FR	Stroke Test per IWV-3400, on a Refueling frequency (with stroke time measure -ment, as appropriate), supported by Relief Request
FS	Fail Safe Test (see Section 3.6) per IWV-3415
PI	Position Indicator Test (see Section 3.7) per IWV-3300
LJ	Leak Test per 10CFR50, App. J.
LK	Leak Test per IWV-3420
SP	Set Point Test per IWV-3510
EX	Explosive Valve Test per IWV-3610
RD	Rupture Disk Test per IWV-3620
RR	See Relief Request for testing details

SYMBOLS USED TO DESIGNATE SECTION XI VALVE CATEGORY

Symbol	Meaning
A	Valves with specified maximum leakage rate. (pressure isolation valves (PIVs) and containment isolation valves (CIVs)).
B	Valves with no specific maximum leakage rate.
C	Self-actuating (check, relief valves)
D	Actuated by energy source capable of only one operation (rupture disks, explosive valves).

SYMBOLS USED TO DESIGNATE ACTIVE AND PASSIVE VALVES

Symbols	Meaning
1	Active - valves which are required to change position to accomplish a specific function.
2	Passive - valves which are not required to change position to accomplish a specific function.

Section 3.7

MONTICELLO NUCLEAR PLANT

VALVE INSERVICE TEST PROGRAM

ASME SECTION XI VALVE TEST REQUIREMENTS												
SYSTEM:	Steam Jet Air Ejectors										P&ID NO.:	M104-2
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Vlv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
AO-1825A	None	B-3	B-1	6	BF	A		0	C	FE, PI		FC, PI
AO-1825B	None	B-3	B-1	6	BF	A		0	C	FE, PI		FC, PI

ASME SECTION XI VALVE TEST REQUIREMENTS												
SYSTEM:	Condensate & Demineralized Water Storage System										P&ID NO.:	M108
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Vlv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
DM 151	2	E-1	A-2	1	G	H	N/A	C	C	LJ		LJ
DM 152	2	E-1	A-2	1	G	H	N/A	C	C	LJ		LJ

ASME SECTION XI VALVE TEST REQUIREMENTS												
SYSTEM:	Reactor Building Cooling Water System										P&ID NO.:	M111
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Vlv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
MO-1426	2	E-4	A-1	8	G	M	33.0	0	C	FE, LJ,PI		FC, LJ,PI
MO-4229	2	E-4	A-1	8	G	M	25.0	0	C	FE,LJ,PI		FC,LJ,PI
MO-4230	2	E-3	A-1	8	G	M	20.0	0	C	FE,LJ,PI		FC,LJ,PI
RBCC-15	2	E-3	A,C-1	8	C	SA	N/A	0	C	FE,LJ	RBCW-1	LJ

ASME SECTION XI VALVE TEST REQUIREMENTS												
SYSTEM:	RHR Service Water										P&ID NO.:	M-112
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Vlv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
CV-1728	3	A-5	B-1	12	GL	A	30.0	C	O	FE,FS,PI		FC,FS,PI
CV-1729	3	A-4	B-1	12	GL	A	30.0	C	O	FE,FS,PI		FC,FS,PI
RV-3202	3	C-5	C-1	2.5	RV	SA	N/A	C	O	SP		SP
RV-3203	3	C-4	C-1	2.5	RV	SA	N/A	C	O	SP		SP

ASME SECTION XI VALVE TEST REQUIREMENTS												
SYSTEM:	Emergency Service Water Systems										P&ID NO.:	M-112
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Vlv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
ESW-4-1	3	E-1	C-1	3	C	SA	N/A	C	O	FE		FE
ESW-4-2	3	E-3	C-1	3	C	SA	N/A	C	O	FE		FE
SW-101	3	E-1	C-1	3	C	SA	N/A	O	C	FE	ESW-1	RR,FC
SW-102	3	E-1	C-1	3	C	SA	N/A	O	C	FE	ESW-1	RR,FC
SW-103	3	E-3	C-1	3	C	SA	N/A	O	C	FE	ESW-1	RR,FC
SW-104	3	E-3	C-1	3	C	SA	N/A	O	C	FE	ESW-1	RR,FC

ASME SECTION XI VALVE TEST REQUIREMENTS												
SYSTEM:	Service Condensate System										P&ID NO.:	M-114-1
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Vlv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
CST-88	2	B-5	C-1	2	C	SA	N/A	O	C	FE	SC-1	RR
CST-90	2	B-5	C-1	2	C	SA	N/A	O	C	FE	SC-1	RR
CST-92	2	B-5	C-1	2	C	SA	N/A	O	C	FE	SC-1	RR
CST-94	2	B-5	C-1	2	C	SA	N/A	O	C	FE	SC-1	RR
CST-96	2	B-6	C-1	2	C	SA	N/A	O	C	FE	SC-1	RR
CST-98	2	B-6	C-1	2	C	SA	N/A	O	C	FE	SC-1	RR
CST-189	2	B-6	C-1	1	C	SA	N/A	O	C	FE	SC-1	RR

ASME SECTION XI VALVE TEST REQUIREMENTS												
SYSTEM:	Nuclear Boiler System Steam Supply (Feedwater)										P&ID NO.:	M-115
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Vlv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
FW-91-1	2	A-3	C-1	14	C	SA	N/A	O	C	FE	FW-1	FR
FW-91-2	2	A-5	C-1	14	C	SA	N/A	O	C	FE	FW-1	FR
FW-94-1	1	A-3	A,C-1	14	C	SA	N/A	O	O/C	FE,LJ	FW-2	FE OPEN,LJ
FW-94-2	1	A-4	A,C-1	14	C	SA	N/A	O	O/C	FE,LJ	FW-2	FE OPEN,LJ
FW-97-1	1	A-3	A,C-1	14	C	SA	N/A	O	O/C	FE,LJ	FW-2	FE OPEN,LJ
FW-97-2	1	A-4	A,C-1	14	C	SA	N/A	O	O/C	FE,LJ	FW-2	FE OPEN,LJ

ASME SECTION XI VALVE TEST REQUIREMENTS												
SYSTEM:	Nuclear Boiler System Steam Supply										P&ID NO.:	M-115
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Vlv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
AO-2-80A	1	C-5	A-1	18	GL	A	3-5	O	C	FE,LJ,PI,FS		FE,LJ,PI,FS
AO-2-80B	1	E-5	A-1	18	GL	A	3-5	O	C	FE,LJ,PI,FS		FE,LJ,PI,FS
AO-2-80C	1	E-2	A-1	18	GL	A	3-5	O	C	FE,LJ,PI,FS		FE,LJ,PI,FS
AO-2-80D	1	C-2	A-1	18	GL	A	3-5	O	C	FE,LJ,PI,FS		FE,LJ,PI,FS
AO-2-86A	1	C-5	A-1	18	GL	A	3-5	O	C	FE,LJ,PI,FS		FE,LJ,PI,FS
AO-2-86B	1	E-5	A-1	18	GL	A	3-5	O	C	FE,LJ,PI,FS		FE,LJ,PI,FS
AO-2-86C	1	E-2	A-1	18	GL	A	3-5	O	C	FE,LJ,PI,FS		FE,LJ,PI,FS
AO-2-86D	1	C-2	A-1	18	GL	A	3-5	O	C	FE,LJ,PI,FS		FE,LJ,PI,FS
MO-2373	1	B-5	A-1	3	G	H	18	C	C	FE,LJ,PI		FE,LJ,PI
MO-2374	1	B-6	A-1	3	G	H	18	C	C	FE,LJ,PI		FE,LJ,PI
RV-2-71A	1	B-4	B,C-1	6	RV	SA/A	<2	C	O	SP,FE	NB-1	SP,FR
RV-2-71B	1	D-4	B,C-1	6	RV	SA/A	<2	C	O	SP,FE	NB-1	SP,FR
RV-2-71C	1	D-3	B,C-1	6	RV	SA/A	<2	C	O	SP,FE	NB-1	SP,FR
RV-2-71D	1	B-3	B,C-1	6	RV	SA/A	<2	C	O	SP,FE	NB-1	SP,FR
RV-2-71E	1	B-4	B,C-1	6	RV	SA/A	<2	C	O	SP,FE	NB-1	SP,FR
RV-2-71F	1	B-3	B,C-1	6	RV	SA/A	<2	C	O	SP,FE	NB-1	SP,FR
RV-2-71G	1	D-4	B,C-1	6	RV	SA/A	<2	C	O	SP,FE	NB-1	SP,FR
RV-2-71H	1	D-3	B,C-1	6	RV	SA/A	<2	C	O	SP,FE	NB-1	SP,FR

ASME SECTION XI VALVE TEST REQUIREMENTS												
SYSTEM:	Reactor Pressure Relief P&ID Drawing										P&ID NO.:	M-115-1
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Vlv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
RV-3242A	None	A-5	C-1	8	RV	SA	N/A	C	O	SP		SP
RV-3243A	None	C-6	C-1	8	RV	SA	N/A	C	O	SP		SP
RV-3244A	None	C-4	C-1	8	RV	SA	N/A	C	O	SP		SP
RV-3245A	None	A-4	C-1	8	RV	SA	N/A	C	O	SP		SP
RV-7440A	None	A-6	C-1	8	RV	SA	N/A	C	O	SP		SP
RV-7441A	None	A-4	C-1	8	RV	SA	N/A	C	O	SP		SP
RV-7467A	None	C-5	C-1	8	RV	SA	N/A	C	O	SP		SP
RV-7468A	None	C-4	C-1	8	RV	SA	N/A	C	O	SP		SP

ASME SECTION XI VALVE TEST REQUIREMENTS												
SYSTEM:	Recirc Loops Nuclear Boiler System										P&ID NO.:	M-117-1
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Vlv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
CV-2790	2	D-5	A-1	0.75	GL	A	3.0	O	C	FE,LJ,PI		FE,LJ,PI
CV-2791	2	D-6	A-1	0.75	GL	A	3.0	O	C	FE,LJ,PI		FE,LJ,PI
MO-2-53A	1	B-2	B-1	28	G	M	25.0	O	C	FE,PI		FC,PI
MO-2-53B	1	B-6	B-1	28	G	M	25.0	O	C	FE,PI		FC,PI

ASME SECTION XI VALVE TEST REQUIREMENTS												
SYSTEM:	Recirc Loops Pumps and Motors Nuclear Boiler System										P&ID NO.:	M-117-2
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Viv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
XR-27-1	2	D-3	A,C-1	1	C	SA	N/A	O	C	FE,LJ	REC-1	LJ
XR-27-2	2	D-5	A,C-1	1	C	SA	N/A	O	C	FE,LJ	REC-1	LJ

ASME SECTION XI VALVE TEST REQUIREMENTS												
SYSTEM:	Control Rod Hydraulic System (Recirc)										P&ID NO.:	M-118
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Vlv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
XR-25-1	2	A-4	A,C-1	1	C	SA	N/A	O	C	RE,LJ	REC-1	LJ
XR-25-2	2	A-4	A,C-1	1	C	SA	N/A	O	C	RE,LJ	REC-1	LJ

ASME SECTION XI VALVE TEST REQUIREMENTS												
SYSTEM:	Control Rod Hydraulic System										P&ID NO.:	M-119
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Vlv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
CRD-114*	2	B-6	C-1	0.75	C	SA	N/A	O/C	O	FE	CRD-1	RR
CRD-115*	2	B-4	C-1	0.50	C	SA	N/A	O/C	C	FE	CRD-2	RR
CRD-138*	2	E-4	C-1	0.50	C	SA	N/A	O/C	C	FE	CRD-3	RR
CV-126*	2	C-5	B-1	1	GL	A	N/A	C	O	FE	CRD-1	RR
CV-127*	2	C-6	B-1	0.75	GL	A	N/A	C	O	FE	CRD-1	RR
CV-3-32A	1	E-3	B-1	1	GL	A	30.0	O	C	FE,PI		FE,PI
CV-3-32B	1	E-1	B-1	1	GL	A	30.0	O	C	FE,PI		FE,PI
CV-3-32C	1	E-4	B-1	1	GL	A	30.0	O	C	FE,PI		FE,PI
CV-3-32D	1	E-1	B-1	1	GL	A	30.0	O	C	FE,PI		FE,PI
CV-3-33A	1	D-3	B-1	2	GL	A	30.0	O	C	FE,PI		FE,PI
CV-3-33B	1	D-2	B-1	2	GL	A	30.0	O	C	FE,PI		FE,PI
CV-3-33C	1	D-3	B-1	2	GL	A	30.0	O	C	FE,PI		FE,PI
CV-3-33D	1	D-2	B-1	2	GL	A	30.0	O	C	FE,PI		FE,PI

* Typical of 121 control rod drive units

ASME SECTION XI VALVE TEST REQUIREMENTS												
SYSTEM:	Residual Heat Removal System										P&ID NO.:	M-120
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Vlv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
AO-10-46B	1	D-2	A,C-1	16	C	SA	N/A	C	O/C	FE,PI,LK		FC,PI,LK
CV-1995	2	B-4	B-1	2	GL	A	<2	C	O/C	FE,PI		FE,PI
CV-1997	2	C-4	B-1	2	GL	A	<2	C	O/C	FE,PI		FE,PI
MO-1987	2	C-3	B-1	20	G	M	100.0	O	O	FE,PI		FC,PI
MO-1989	2	A-2	B-1	18	G	M	71.0	C	C	FE,PI		FC,PI
MO-2003	2	C-5	B-1	14	GL	M	23.0	O	O/C	FE,PI		FE,PI
MO-2007	2	D-6	B-1	12	G	M	42.0	C	O/C	FE,PI		FE,PI
MO-2009	2	D-6	B-1	10	GL	M	29.0	C	O/C	FE,PI		FE,PI
MO-2011	2	D-5	A-1	4	GL	M	9.0	C	O/C	FE,LJ,PI		FE,LJ,PI
MO-2013	2	D-3	A-1	16	GL	M	41.0	O	O/C	FE,LJ,PI		FE,LJ,PI
MO-2015	1	D-3	A-1	16	G	M	62.0	C	O/C	FE,LJ,PI,LK		FE,LJ,PI,LK
MO-2021	2	E-3	A-1	10	G	M	23.0	C	O/C	FE,LJ,PI		FE,LJ,PI
MO-2023	2	E-2	A-1	10	G	M	19.0	C	O/C	FE,LJ,PI		FE,LJ,PI
MO-4085B	1	D-1	B-1	4	G	M	20.0	C	O/C	FE,PI		FE,PI
RHR-2-2	2	A-5	C-1	10	C	SA	N/A	C	O/C	FE		FE
RHR-2-4	2	B-5	C-1	10	C	SA	N/A	C	O/C	FE		FE
RHR-8-2	2	C-3	C-1	3	C	SA	N/A	C	O	FE	RHR-1	RR
RV-4282	2	B-6	C-1	2.50	RV	SA	N/A	C	O	SP		SP
AI-243-2	None	A-5	A,C-1	3/4	C	SA	N/A	O	C	FE,LK		LK
AI-244-2	None	A-5	A,C-1	3/4	C	SA	N/A	O	C	FE,LK		LK
AI-610-2	None	B-4	A,C-1	3/4	C	SA	N/A	O	C	FE,LK		LK
AI-610-4	None	C-4	A,C-1	3/4	C	SA	N/A	O	C	FE,LK		LK

ASME SECTION XI VALVE TEST REQUIREMENTS												
SYSTEM:	Residual Heat Removal System										P&ID NO.:	M-121
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Vlv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
AO-10-46A	1	D-5	A,C-1	16	C	SA	N/A	C	O/C	FE,PI,LK		FC,PI,LK
CV-1994	2	B-4	B-1	2	GL	A	<2	C	O/C	FE,PI		FE,PI
CV-1996	2	C-5	B-1	2	GL	A	<2	C	O/C	FE,PI		FE,PI
MO-1986	2	B-6	B-1	20	G	M	100.0	O	O	FE,PI		FC,PI
MO-1988	2	B-6	B-1	18	G	M	61.0	C	C	FE,PI		FC,PI
MO-2002	2	B-3	B-1	14	GL	M	23.0	O	O/C	FE,PI		FE,PI
MO-2006	2	D-3	B-1	12	G	M	45.0	C	O/C	FE,PI		FE,PI
MO-2008	2	C-3	B-1	10	GL	M	31.0	C	O/C	FE,PI		FE,PI
MO-2010	2	C-3	A-1	4	GL	M	8.0	C	O/C	FE,LJ,PI		FE,LJ,PI
MO-2012	2	D-5	A-1	16	GL	M	36.0	O	O/C	FE,LJ,PI		FE,LJ,PI
MO-2014	1	D-5	A-1	16	G	M	62.0	C	O/C	FE,LJ,PI,LK		FE,LJ,PI,LK
MO-2020	2	E-5	A-1	10	G	M	23.0	C	O/C	FE,LJ,PI		FE,LJ,PI
MO-2022	2	E-5	A-1	10	G	M	23.0	C	O/C	FE,LJ,PI		FE,LJ,PI
MO-2026	1	E-6	A-1	4	G	M	12.0	C	C	FE,LJ,PI,LK		FE,LJ,PI,LK
MO-2027	1	E-6	A-1	4	G	M	11.0	C	C	FE,LJ,PI,LK		FC,LJ,PI,LK
MO-2029	1	D-6	A-1	18	G	M	25.0	C	C	FE,LJ,PI,LK		FC,LJ,PI,LK
MO-2030	1	C-6	A-1	18	G	M	20.0	C	C	FE,LJ,PI,LK		FC,LJ,PI,LK
MO-2032	2	C-4	B-1	4	G	M	18.0	C	C	FE,PI		FE,PI
MO-2047	None	C-4	B-1	4	G	M	20.0	O	C	FE,PI		FE,PI
MO-4085A	1	C-6	B-1	4	G	M	21.0	C	O/C	FE,PI		FE,PI
RHR-2-1	2	A-4	C-1	10	C	SA	N/A	C	O/C	FE		FE
RHR-2-3	2	B-4	C-1	10	C	SA	N/A	C	O/C	FE		FE
RHR-8-1	2	C-5	C-1	3	C	SA	N/A	C	O	FE	RHR-1	RR

ASME SECTION XI VALVE TEST REQUIREMENTS												
SYSTEM:	Residual Heat Removal System Sheet 2										P&ID NO.:	M-121
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Vlv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
RV-2031	2	B-6	C-1	1	RV	SA	N/A	C	O	SP		SP
RV-4281	2	B-2	C-1	2.50	RV	SA	N/A	C	O	SP		SP
AI-243-1	None	A-3	A,C-1	.75	C	SA	N/A	O	C	FE,LK		LK
AI-244-1	None	A-3	A,C-1	.75	C	SA	N/A	O	C	FE,LK		LK
AI-610-1	None	A-4	A,C-1	.75	C	SA	N/A	O	C	FE,LK		LK
AI-610-3	None	C-6	A,C-1	.75	C	SA	N/A	O	C	FE,LK		LK
RHRSW-17	2	C-2	C-1	8	C	SA	N/A	C	O	FE	RHRSW-1	RR

ASME SECTION XI VALVE TEST REQUIREMENTS												
SYSTEM:	Core Spray System										P&ID NO.:	M-122
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Vlv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
AO-14-13A	1	E-3	A,C-1	8	C	SA	N/A	C	O	FE,PI,LK		FC,PI,LK
AO-14-13B	1	E-4	A,C-1	8	C	SA	N/A	C	O	FE,PI,LK		FC,PI,LK
CS-9-1	2	C-2	C-1	10	C	SA	N/A	C	O	FE		FE
CS-9-2	2	C-5	C-1	10	C	SA	N/A	C	O	FE		FE
CST-103-1	None	E-2	C-1	2	C	SA	N/A	O	C	FE	CS-1	RR
CST-104-1	2	E-2	C-1	2	C	SA	N/A	O	C	FE	CS-1	RR
MO-1741	2	A-3	B-1	12	G	M	50.0	O	O	FE,PI		FE,PI
MO-1742	2	A-4	B-1	12	G	M	50.0	O	O	FE,PI		FE,PI
MO-1749	2	D-2	B-1	6	GL	M	17.0	C	C	FE,PI		FE,PI
MO-1750	2	D-5	B-1	6	GL	M	16.0	C	C	FE,PI		FE,PI
MO-1751	2	E-3	A-1	8	G	M	8.0	O	O/C	FE,LJ,PI		FE,LJ,PI
MO-1752	2	E-5	A-1	8	G	M	8.0	O	O/C	FE,LJ,PI		FE,LJ,PI
MO-1753	1	E-3	A-1	8	G	M	8.0	C	O/C	FE,LJ,PI		FE,LJ,PI,LK
MO-1754	1	E-5	A-1	8	G	M	8.0	C	O/C	FE,LJ,PI		FE,LJ,PI,LK
RV-1745	2	E-2	C-1	2	RV	SA	N/A	C	O	SP		SP
RV-1746	2	E-6	C-1	2	RV	SA	N/A	C	O	SP		SP

ASME SECTION XI VALVE TEST REQUIREMENTS												
SYSTEM:	High Pressure Coolant Injection System (Steam Side)										P&ID NO.:	M-123
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Vlv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
CV-2046A	2	C-1	B-1	1	GL	A	<2	O	C	FE,PI		FE,PI
CV-2394A	None	A-3	B-1	1	GL	A	<2	O/C	C	FE,PI		FE,PI
HPCI-9	2	C-5	A,C-1	16	C	SA	N/A	C	O/C	FE,LJ	HPCI-1	FE (OPEN),LJ
HPCI-10	2	C-5	C-1	16	C	SA	N/A	C	O	FE		FE
HPCI-14	2	B-4	C-1	2	C	SA	N/A	C	C	FE	HPCI-2	FR
HPCI-15	2	B-5	C-1	2	C	SA	N/A	C	C	FE	HPCI-2	FR
HPCI-18	2	A-2	C-1	2	C	SA	N/A	C	O	FE		FE
HPCI-20	2	A-3	C-1	2	C	SA	N/A	C	O	FE		FE
HPCI-60	2	C-4	C-1	1	C	SA	N/A	C	C	FE		FE
HPCI-65	2	B-6	C-1	2	C	SA	N/A	C	C	FE	HPCI-3	FR
HPCI-71	2	B-6	C-1	2	C	SA	N/A	C	C	FE	HPCI-3	FR
MO-2034	1	D-5	A-1	8	G	M	40.0	O	O/C	FE,LJ,PI		FE,LJ,PI
MO-2035	1	D-4	A-1	8	G	M	40.0	O	O/C	FE,LJ,PI		FE,LJ,PI
MO-2036	2	D-2	B-1	8	G	M	17.0	C	O	FE,PI		FE,PI
PSD-2038	2	C-5	D-1	16	RD	SA	N/A	C	O	N/A		N/A
RV-2056	3	B-3	C-1	1.50	RV	SA	N/A	C	O	SP		SP

ASME SECTION XI VALVE TEST REQUIREMENTS												
SYSTEM:	High Pressure Coolant Injection System (Water Side)										P&ID NO.:	M-124
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Vlv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
AO-23-18	2	B-5	C-1	12	C	SA	N/A	C	O	FE,PI		FC,PI
CV-2065	2	B-4	B-1	2	GL	A	2.0	C	O/C	FE,PI		FE,PI
HPCI-31	2	A-4	C-1	14	C	SA	N/A	C	O	FE	HPCI-4	RR
HPCI-32	2	E-4	C-1	14	C	SA	N/A	C	O	FE		FE
HPCI-42	2	A-4	C-1	4	C	SA	N/A	C	O	FE	HPCI-5	RR
MO-2061	2	A-5	B-1	14	G	M	40.0	C	O/C	FE,PI		FE,PI
MO-2062	2	A-4	B-1	14	G	M	38.0	C	O/C	FE,PI		FE,PI
MO-2063	2	D-3	B-1	14	G	M	37.0	O	O/C	FE,PI		FE,PI
MO-2067	2	B-5	B-1	12	G	M	16.0	C	O	FE,PI		FE,PI
MO-2068	2	B-5	B-1	12	G	M	17.0	C	O	FE,PI		FE,PI
MO-2071	2	C-5	B-1	8	GL	M	5.0	C	C	FE,PI		FE,PI
RV-2064	2	D-3	C-1	1	RV	SA	N/A	C	O	SP		SP
AI-611	None	C-4	A,C-1	.75	C	SA	N/A	O	C	FE,LK		LK

ASME SECTION XI VALVE TEST REQUIREMENTS												
SYSTEM:	RCIC (Steam Side)										P&ID NO.:	M-125
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Vlv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
CV-2082A	2	C-1	B-1	1	GL	A	<2	O	C	FE,PI		FE,PI
CV-2848	None	A-4	B-1	1	GL	A	<2	O/C	C	FE,PI		FE,PI
MO-2075	1	D-5	A-1	3	G	M	20	O	O/C	FE,LJ,PI		FE,LJ,PI
MO-2076	1	D-4	A-1	3	G	M	20	O	O/C	FE,LJ,PI		FE,LJ,PI
MO-2078	2	D-2	B-1	3	GL	M	11.0	C	O/C	FE,PI		FE,PI
MO-2096	2	A-3	B-1	2	GL	M	5.0	C	O	FE,PI		FE,PI
RCIC-9	2	B-6	A,C-1	8	C	SA	N/A	C	O/C	FE,LJ	RCIC-1	FE (OPEN),LJ
RCIC-10	2	B-6	C-1	8	SC	SA	N/A	C	O	FE		FE
RCIC-14	2	A-4	C-1	2	C	SA	N/A	C	O	FE		FE
RCIC-16	None	A-5	C-1	2	C	SA	N/A	C	C	FE	RCIC-2	FR
RCIC-17	2	B-5	C-1	2	C	SA	N/A	C	C	FE	RCIC-2	FR
RCIC-57	2	B-6	C-1	1.50	C	SA	N/A	C	C	FE	RCIC-3	FR
RCIC-59	2	B-6	C-1	1.50	C	SA	N/A	C	C	FE	RCIC-3	FR
RV-2097	3	B-3	C-1	1	RV	SA	N/A	C	O	SP		SP
PSD-2089	2	C-5	D-1	8	RD	SA	N/A	C	O	N/A		N/A
SV-4283	2	B-4	B-1	1	GL	S	<2	C	C	FE,PI		FE,PI

ASME SECTION XI VALVE TEST REQUIREMENTS												
SYSTEM:	RCIC (Water Side)										P&ID NO.:	M-126
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Vlv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
AO-13-22	2	B-5	C-1	4	C	SA	N/A	C	O	FE,PI		FC,PI
CV-2104	2	A-3	B-1	2	GL	A	<2.0	C	O/C	FE,PI		FE,PI
MO-2100	2	A-5	B-1	6	G	M	26.0	C	O	FE,PI		FE,PI
MO-2101	2	D-4	B-1	6	G	M	28.0	C	O	FE,PI		FE,PI
MO-2102	2	D-4	B-1	6	G	M	27.0	O	O/C	FE,PI		FE,PI
MO-2106	2	B-5	B-1	4	G	M	12.0	C	O	FE,PI		FE,PI
MO-2107	2	B-5	B-1	4	G	M	13.0	C	O	FE,PI		FE,PI
MO-3502	2	D-5	B-1	4	G	M	5.0	C	C	FE,PI		FE,PI
RCIC-31	2	A-4	C-1	6	C	SA	N/A	C	O	FE	RCIC-4	RR
RCIC-37	2	A-4	C-1	2	C	SA	N/A	C	O	FE	RCIC-5	RR
RCIC-41	2	D-4	C-1	6	C	SA	N/A	C	O	FE		FE
RV-2103	2	D-3	C-1	1	C	SA	N/A	C	O	SP		SP
AI-612	None	C-5	A,C-1	.75	C	SA	N/A	O	C	FE,LK		LK

ASME SECTION XI VALVE TEST REQUIREMENTS												
SYSTEM:	Standby Liquid Control System										P&ID NO.:	M-127
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Vlv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
11-14A	2	D-5	D-1	1.50	XP	SA	N/A	C	O	EX		EX
11-14B	2	E-5	D-1	1.50	XP	SA	N/A	C	O	EX		EX
RV-11-39A	2	C-4	C-1	1.50	RV	SA	N/A	C	O	SP		SP
RV-11-398	2	B-4	C-1	1.50	RV	SA	N/A	C	O	SP		SP
XP-3-1	2	C-4	C-1	1.50	C	SA	N/A	C	O/C	FE		FE
XP-3-2	2	B-4	C-1	1.50	C	SA	N/A	C	O/C	FE		FE
XP-6	1	D-6	A,C-1	1.50	C	SA	N/A	C	O/C	FE,LJ	SLC-1	FR,LJ
XP-7	1	C-6	A,C-1	1.50	C	SA	N/A	C	O/C	FE,LJ	SLC-1	FR,LJ

ASME SECTION XI VALVE TEST REQUIREMENTS												
SYSTEM:	Reactor Water Cleanup System										P&ID NO.:	M-128
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Vlv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
MO-2397	1	D-8	A-1	4	G	M	23.0	O	C	FE,LJ,PI		FE,LJ,PI
MO-2398	1	D-7	A-1	4	G	M	18.0	O	C	FE,LJ,PI		FE,LJ,PI
RC-6-1	2	D-6	C-1	11/2	C	SA	N/A	O	C	FE	RWCU-1	FR
RC-6-2	2	D-7	C-1	11/2	C	SA	N/A	O	C	FE	RWCU-1	FR

ASME SECTION XI VALVE TEST REQUIREMENTS												
SYSTEM:	Primary Containment Nitrogen Control System										P&ID NO.:	M-130
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Vlv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
CV-3267	2	C-4	A-1	1	GL	A	6.0	O	C	FE,LJ,PI		FE,LJ,PI
CV-3268	2	C-4	A-1	1	GL	A	6.0	O	C	FE,LJ,PI		FE,LJ,PI
CV-3269	2	D-4	A-1	1	GL	A	6.0	O	C	FE,LJ,PI		FE,LJ,PI
CV-3311	2	C-5	A-1	1	GL	A	6.0	O	C	FE,LJ,PI		FE,LJ,PI
CV-3312	2	C-5	A-1	1	GL	A	6.0	O	C	FE,LJ,PI		FE,LJ,PI
CV-3313	2	C-4	A-1	1	GL	A	6.0	O	C	FE,LJ,PI		FE,LJ,PI
CV-3314	2	C-5	A-1	1	GL	A	6.0	O	C	FE,LJ,PI		FE,LJ,PI
SV-3307	2	C-5	A-1	0.75	GL	S	<2	O	C	FE,LJ,PI		FE,LJ,PI
SV-3308	2	C-5	A-1	0.75	GL	S	<2	O	C	FE,LJ,PI		FE,LJ,PI

ASME SECTION XI VALVE TEST REQUIREMENTS												
SYSTEM:	Containment Atmosphere Monitoring System										P&ID NO.:	NH-91197
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Vlv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
SV-4001A	2	B-6	A-1	0.75	GL	S	<2	C	C	FE,LJ,PI		FE,LJ,PI
SV-4001B	2	B-6	A-1	0.75	GL	S	<2	C	C	FE,LJ,PI		FE,LJ,PI
SV-4002A	2	A-5	A-1	0.75	GL	S	<2	C	C	FE,LJ,PI		FE,LJ,PI
SV-4002B	2	A-4	A-1	0.75	GL	S	<2	C	C	FE,LJ,PI		FE,LJ,PI
SV-4003A	2	A-5	A-1	0.75	GL	S	<2	C	C	FE,LJ,PI		FE,LJ,PI
SV-4003B	2	A-4	A-1	0.75	GL	S	<2	C	C	FE,LJ,PI		FE,LJ,PI
SV-4004A	2	A-4	A-1	0.75	GL	S	<2	C	C	FE,LJ,PI		FE,LJ,PI
SV-4004B	2	A-4	A-1	0.75	GL	S	<2	C	C	FE,LJ,PI		FE,LJ,PI
SV-4005A	2	B-4	A-1	0.75	GL	S	<2	C	C	FE,LJ,PI		FE,LJ,PI
SV-4005B	2	B-4	A-1	0.75	GL	S	<2	C	C	FE,LJ,PI		FE,LJ,PI
SV-4020A	2	A-6	A-1	0.75	GL	S	<2	C	C	FE,LJ,PI		FE,LJ,PI
SV-4020B	2	A-6	A-1	0.75	GL	S	<2	C	C	FE,LJ,PI		FE,LJ,PI

ASME SECTION XI VALVE TEST REQUIREMENTS												
SYSTEM:	Post Accident Sampling										P&ID NO.:	NF-96042
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Vlv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
PAS-58-1	2	B-7	C-1	0.75	C	SA	N/A	C	C	FE		FC
PAS-58-2	2	A-7	C-1	0.75	C	SA	N/A	C	C	FE		FC
SV-4081	1	C-5	A-1	0.75	GL	S	<2	C	C	FE,LJ,PI		FE,LJ,PI
SV-4082	1	C-5	A-1	0.75	GL	S	<2	C	C	FE,LJ,PI		FE,LJ,PI

ASME SECTION XI VALVE TEST REQUIREMENTS												
SYSTEM:	Service Air System										P&ID NO.:	M-131 SH4
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Vlv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
AS-78	2	D-8	A-2	1	G	H	N/A	C	C	LJ		LJ
AS-79	2	D-7	A-2	1	G	H	N/A	C	C	LJ		LJ

ASME SECTION XI VALVE TEST REQUIREMENTS												
SYSTEM:	Alternate SRV Nitrogen Supply System										P&ID NO.:	M-131 SH10
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Vlv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
AI-596	None	C-4	C-1	1	C	SA	N/A	C	O	FE		FR
AI-597	None	D-4	C-1	1	C	SA	N/A	C	O	FE		FR
AI-598	2	B-5	A,C-1	1	C	SA	N/A	C	O/C	FE,LJ		FE,LJ
AI-599	2	C-5	A,C-1	1	C	SA	N/A	C	O/C	FE,LJ		FE,LJ
SV-4234	2	C-5	A-1	1	GL	S	<2	C	O/C	FE,LJ,PI		FE,LJ,PI
SV-4235	2	B-5	A-1	1	GL	S	<2	C	O/C	FE,LJ,PI		FE,LJ,PI

ASME SECTION XI VALVE TEST REQUIREMENTS												
SYSTEM:	Instrument Air-Reactor Building and Drywell										P&ID NO.:	M-131 SH12
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Vlv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
AI-11-5	None	C-7	A,C-1	1	C	SA	N/A	O	C	FE,LK		LK
AI-11-6	None	C-7	A,C-1	1	C	SA	N/A	O	C	FE,LK		LK
AI-11-7	None	D-7	A,C-1	1	C	SA	N/A	O	C	FE,LK		LK
AI-11-8	None	D-7	A,C-1	1	C	SA	N/A	O	C	FE,LK		LK
AI-12-9	None	B-5	A,C-1	1	C	SA	N/A	O	C	FE,LK		LK
AI-12-10	None	B-5	A,C-1	1	C	SA	N/A	O	C	FE,LK		LK
AI-12-11	None	D-5	A,C-1	1	C	SA	N/A	O	C	FE,LK		LK
AI-12-12	None	C-5	A,C-1	1	C	SA	N/A	O	C	FE,LK		LK
AI-13-1	None	B-3	A,C-1	.75	C	SA	N/A	C	C	FE,LK		LK
AI-13-2	None	B-3	A,C-1	.75	C	SA	N/A	C	C	FE,LK		LK
AI-13-3	None	C-3	A,C-1	.75	C	SA	N/A	C	C	FE,LK		LK
AI-13-4	None	D-3	A,C-1	.75	C	SA	N/A	C	C	FE,LK		LK
AI-13-5	None	B-3	A,C-1	.75	C	SA	N/A	C	C	FE,LK		LK
AI-13-6	None	C-3	A,C-1	.75	C	SA	N/A	C	C	FE,LK		LK
AI-13-7	None	A-3	A,C-1	.75	C	SA	N/A	C	C	FE,LK		LK
AI-13-8	None	C-3	A,C-1	.75	C	SA	N/A	C	C	FE,LK		LK
AI-571	2	C-5	A,C-1	2	C	SA	N/A	O	C	FE,LJ	IA-1	LJ
CV-1478	2	C-5	A-1	2	GL	A	<2	O	C	FE,LJ,PI		FC,LJ,PI

ASME SECTIQN XI VALVE TEST REQUIREMENTS												
SYSTEM:	Instrument Air-Reactor Building										P&ID NO.:	M-131 SH14
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Vlv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
CV-7956	2	B-6	A-1	0.75	GL	A	<2	C	C	FE,LJ,PI		FE,LJ,PI
AI-226-1	2	C-4	A,C-1	0.25	C	SA	N/A	O	C	FE,LJ	IA-2	RR,LJ
AI-613	None	D-7	A,C-1	0.25	C	SA	NA	O	C	FE,LK		LK
AI-614	None	C-7	A,C-1	0.25	C	SA	N/A	O	C	FE,LK		LK
AI-615	None	C-6	A,C-1	0.25	C	SA	N/A	O	C	FE,LK		LK
AI-616	None	C-6	A,C-1	0.25	C	SA	N/A	O	C	FE,LK		LK
AI-617	None	B-6	A,C-1	0.25	C	SA	N/A	O	C	FE,LK		LK
AI-618	None	B-3	A,C-1	0.25	C	SA	N/A	O	C	FE,LK		LK
AI-619	None	B-3	A,C-1	0.25	C	SA	N/A	O	C	FE,LK		LK

ASME SECTION XI VALVE TEST REQUIREMENTS												
SYSTEM:	Diesel Oil										P&ID NO.:	M-133
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Vlv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
FO-2	None	C-3	C-1	1	C	SA	N/A	O	C	FE		FE
FO-5	None	D-3	C-1	2	C	SA	N/A	O/C	O	FE		FE
FO-43	None	B-2	C-1	1.5	C	SA	N/A	O/C	O	FE		FE
FO-44	None	B-2	C-1	1.5	C	SA	N/A	O	O	FE		FE
GSA-32-1	None	B-4	C-1	.75	C	SA	N/A	O/C	C	FE		FE
GSA-32-2	None	B-3	C-1	.75	C	SA	N/A	O/C	C	FE		FE
GSA-32-3	None	E-2	C-1	.75	C	SA	N/A	O/C	C	FE		FE
GSA-32-4	None	E-2	C-1	.75	C	SA	N/A	O/C	C	FE		FE
RV-1523	None	D-3	C-1	.75	RV	SA	N/A	C	O	SP		SP
RV-3216	None	B-3	C-1	.50	RV	SA	N/A	C	O	SP		SP
RV-3217	None	B-3	C-1	.50	RV	SA	N/A	C	O	SP		SP
RV-3218	None	A-3	C-1	.50	RV	SA	N/A	C	O	SP		SP
RV-3219	None	B-3	C-1	.50	RV	SA	N/A	C	O	SP		SP
RV-3220	None	B-3	C-1	.50	RV	SA	N/A	C	O	SP		SP
RV-3221	None	A-3	C-1	.50	RV	SA	N/A	C	O	SP		SP
RV-3224	None	E-2	C-1	.50	RV	SA	N/A	C	O	SP		SP
RV-3225	None	E-3	C-1	.50	RV	SA	N/.A	C	O	SP		SP
RV-3226	None	E-3	C-1	.50	RV	SA	N/A	C	O	SP		SP
RV-3227	None	E-2	C-1	.50	RV	SA	N/A	C	O	SP		SP
RV-3228	None	E-3	C.1	.50	RV	SA	N/A	C	O	SP		SP
RV-3229	None	E-3	C-1	.50	RV	SA	N/A	C	O	SP		SP

ASME SECTION XI VALVE TEST REQUIREMENTS												
SYSTEM:	Fuel Pool Cooling & Cleanup System										P&ID NO.:	M-135
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Vlv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
PC-20-1	3	E-3	C-1	6	C	S/A	N/A	O	C	FE	FP-1	RR
PC-20-2	3	E-3	C-1	6	C	SA	N/A	O	C	FE	FP-1	RR

ASME SECTION XI VALVE TEST REQUIREMENTS												
SYSTEM:	Open (Dirty) Radwaste Sump System										P&ID NO.:	M-137
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Vlv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
AO-2541A	2	E-2	A-1	2	G	A	30.0	O	C	FE,LJ,PI		FE,LJ,PI
AO-2541B	2	E-1	A-1	2	G	A	30.0	O	C	FE,LJ,PI		FE,LJ,PI

ASME SECTION XI VALVE TEST REQUIREMENTS												
SYSTEM:	Closed (Clean) Radwaste Sump System										P&ID NO.:	M-138
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Vlv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
AO-2561A	2	E-2	A-1	2	G	A	30	O	C	FE,LJ,PI		FE,LJ,PI
AO-2561B	2	E-1	A-1	2	G	A	30	O	C	FE,LJ,PI		FE,LJ,PI

ASME SECTION XI VALVE TEST REQUIREMENTS												
SYSTEM:	Primary Containment & Atmospheric Control System										P&ID NO.:	M-143
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Vlv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
AO-2377	2	C-2	A-1	18	BF	A	15	C	C	FE,LJ,PI		FE,LJ,PI
AO-2378	2	B-3	A-1	18	BF	A	15	C	C	FE,LJ,PI		FE,LJ,PI
AO-2379	2	C-2	A-1	20	BF	A	40	C	O/C	FE,LJ,PI		FE,LJ,PI
AO-2380	2	B-2	A-1	20	BF	A	40	C	O/C	FE,LJ,PI		FE,LJ,PI
AO-2381	2	C-3	A-1	18	BF	A	15	C	C	FE,LJ,PI		FE,LJ,PI
AO-2382A	None	B-4	A,C-1	18	C	SA	N/A	C	O/C	FE,PI,LK		FE,LK,PI
AO-2382B	None	B-4	A,C-1	18	C	SA	N/A	C	O/C	FE,PI,LK		FE,LK,PI
AO-2382C	None	B-4	A,C-1	18	C	SA	N/A	C	O/C	FE,PI,LK		FE,LK,PI
AO-2382E	None	B-4	A,C-1	18	C	SA	N/A	C	O/C	FE,PI,LK		FE,LK,PI
AO-2382F	None	B-4	A,C-1	18	C	SA	N/A	C	O/C	FE,PI,LK		FE,LK,PI
AO-2382G	None	B-4	A,C-1	18	C	SA	N/A	C	O/C	FE,PI,LK		FE,LK,PI
AO-2382H	None	B-4	A,C-1	18	C	SA	N/A	C	O/C	FE,PI,LK		FE,LK,PI
AO-2382K	None	B.4	A,C-1	18	C	SA	N/A	C	O/C	FE,PI,LK		FE,LK,PI
AO-2383	2	B-6	A-1	18	BF	A	15	C	C	FE,LJ,PI		FE,LJ,PI
AO-2386	2	D-6	A-1	18	BF	A	15	C	C	FE,LJ,PI		FE,LJ,PI
AO-2387	2	D-6	A-1	18	BF	A	15	C	C	FE,LJ,PI		FE,LJ,PI
AO-2896	2	C-6	A-1	18	BF	A	15	C	C	FE,LJ,PI		FE,LJ,PI
CV-2384	2	A-6	A-1	2	GL	A	8.0	C	C	FE,LJ,PI		FE,LJ,PI
CV-2385	2	C-6	A-1	2	GL	A	8.0	C	C	FE,LJ,PI		FE,LJ,PI
DWV-8-1	2	B-2	A,C-1	20	C	SA	N/A	C	O/C	FE,LJ		FE,LJ
DWV-8-2	2	C-2	A,C-1	20	C	SA	N/A	C	O/C	FE,LJ		FE,LJ

ASME SECTION XI VALVE TEST REQUIREMENTS												
SYSTEM:	Service Water Systems and Makeup Intake Structure (RHRSW)										P&ID NO.:	M-811
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Vlv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
AV-3147	3	C-4	C-1	3	AR	SA	N/A	O	C	FE		FE
AV-3148	3	B-8	C-1	3	AR	SA	N/A	O	C	FE		FE
AV-3149	3	B-4	C-1	3	AR	SA	N/A	O	C	FE		FE
AV-3150	3	B-8	C-1	3	AR	SA	N/.A	O	C	FE		FE
RHRSW-1-1	3	C-4	C-1	12	C	SA	N/A	C	O/C	FE		FE
RHRSW-1-2	3	C-8	C-1	12	C	SA	N/A	C	O/C	FE		FE
RHRSW-1-3	3	C-4	C-1	12	C	SA	N/A	C	O/C	FE		FE
RHRSW-1-4	3	C-8	C-1	12	C	SA	N/A	C	O/C	FE		FE
RV-3038	3	C-4	C-1	1	RV	SA	N/A	C	O	SP		SP
RV-3039	3	C-7	C-1	1	RV	SA	N/A	C	O	SP		SP
SW-21-1	3	C-3	C-1	1	C	SA	N/A	O	C	FE	SW-1	RR
SW-21-2	3	C-7	C-1	1	C	SA	N/A	O	C	FE	SW-1	RR
SW-22-1	None	C-3	C-1	1	C	SA	N/A	O	C	FE	SW-1	RR
SW-22-2	None	C-7	C-1	1	C	SA	N/A	O	C	FE	SW-1	RR

ASME SECTION XI VALVE TEST REQUIREMENTS												
SYSTEM:	Service Water Systems and Makeup Intake Structure (ESW)										P&ID NO.:	M-811
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Vlv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
AV-3155	3	B-5	C-1	2	AR	SA	N/A	O	C	FE		FE
AV-3156	3	B-6	C-1	2	AR	SA	N/A	O	C	FE		FE
AV-4024	3	C-4	C-1	1	AR	SA	N/A	O	C	FE		FE
AV-4026	3	C-6	C-1	1	AR	SA	N/A	O	C	FE		FE
ESW-1	3	B-5	C-1	4	C	SA	N/A	C	O	FE		FE
ESW-2	3	B-6	C-1	4	C	SA	N/A	C	O	FE		FE
SW-15	None	D-7	C-1	4	C	SA	N/A	C	C	FE	ESW-2	RR
SW-16	3	D-7	C-1	4	C	SA	N/A	C	C	FE	ESW-2	RR
SW-17	None	D-7	C-1	4	C	SA	N/A	C	C	FE	ESW-2	RR
SW-18	3	D-7	C-1	4	C	SA	N/A	C	C	FE	ESW-2	RR
ESW-13	None	D-6	C-1	4	C	SA	N/A	O	C	FE	ESW-2	RR
ESW-14	3	D-6	C-1	4	C	SA	N/A	O	C	FE	ESW-2	RR
ESW-15	None	D-5	C-1	4	C	SA	N/A	O	C	FE	ESW-2	RR
ESW-16	3	D-4	C-1	4	C	SA	N/A	O	C	FE	ESW-2	RR
ESW-17	3	C-6	C-1	4	C	SA	N/A	C	O	FE		FE
ESW-18	3	C-4	C-1	4	C	SA	N/A	C	O	FE		FE
ESW-23	3	C-6	C-1	4	C	SA	N/A	C	O	FE		FE
ESW-24	3	C-4	C-1	4	C	SA	N/A	C	O	FE		FE

ASME SECTION XI VALVE TEST REQUIREMENTS												
SYSTEM:	Combustible Gas Control System Div 1 (East)										P&ID NO.:	NH-94896
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Vlv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
AO-7422A	2	D-7	A-1	4	GL	A	20	C	O/C	FE,LJ,PI,FS		FE,LJ,PI,FS
AO-7423A	2	D-7	A-1	4	GL	A	20	C	O/C	FE,LJ,PI,FS		FE,LJ,PI,FS
AO-7424A	2	B-7	A-1	6	GL	A	20	C	O/C	FE,LJ,PI,FS		FE,LJ,PI,FS
AO-7425A	2	B-7	A-1	6	GL	A	20	C	O/C	FE,LJ,PI,FS		FE,LJ,PI,FS
CGC-12-1	3	A-5	C-1	1.50	C	SA	N/A	C	O/C	FE		FE
MO-4043A	3	D-5	B-1	3	GL	M	55	C	O	FE,PI		FE,PI
MO-4044A	3	C-5	B-1	3	GL	M	53	C	O	FE,PI		FE,PI
MO-4047A	3	B-4	B-1	0.75	GL	M	25	C	O	FE,PI		FE,PI
RV-4032A	3	B-5	C-1	1	RV	SA	N/A	C	O	SP		SP
SV-4033A	2	A-6	B-1	2	GL	S	<2	C	O	FE,PI		FE,PI
SV-4034A	2	A-6	B-1	2	GL	S	<2	C	O	FE,PI		FE,PI
SV-4054A	3	A-5	B-1	0.75	GL	S	<2	C	O	FE,PI		FE,PI

ASME SECTION XI VALVE TEST REQUIREMENTS												
SYSTEM:	Combustible Gas Control System Div 11 (West)										P&ID NO.:	NH-94897
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Vlv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
AO-7422B	2	D-7	A-1	4	GL	A	20	C	O/C	FE,LJ,PI,FS		FE,LJ,PI,FS
AO-7423B	2	D-7	A-1	4	GL	A	20	C	O/C	FE,LJ,PI,FS		FE,LJ,PI,FS
AO-7424B	2	B-7	A-1	6	GL	A	20	C	O/C	FE,LJ,PI,FS		FE,LJ,PI,FS
AO-7425B	2	B-7	A-1	6	GL	A	20	C	O/C	FE,LJ,PI,FS		FE,LJ,PI,FS
CGC-12-2	3	A-5	C-1	1.50	C	SA	N/A	C	O/C	FE		FE
MO-4043B	3	D-5	B-1	3	GL	M	52	C	O	FE,PI		FE,PI
MO-4044B	3	C-5	B-1	3	GL	M	54	C	O	FE,PI		FE,PI
MO-4047B	3	B-4	B-1	0.75	GL	M	31	C	O	FE,PI		FE,PI
RV-4032B	3	B-5	C-1	1	RV	SA	N/A	C	O	SP		SP
SV-4033B	2	A-6	B-1	2	GL	S	<2	C	O	FE,PI		FE,PI
SV-4034B	2	A-6	B-1	2	GL	S	<2	C	O	FE,PI		FE,PI
SV-4054B	3	A-5	B-1	0.75	GL	S	<2	C	O	FE,PI		FE,PI

ASME SECTION XI VALVE TEST REQUIREMENTS												
SYSTEM:	Traversing Incore Probe System										P&ID NO.:	GE-719E520
Valve No.	ASME Class	P&ID Coord	Sect XI Category	Size (in.)	Vlv Type	Act Type	Stroke Time	Norm. Pos.	Safety Pos.	Req'd. Tests	Relief Req. No.	Tests Performed
TIP 1-1	2	D-5	A-1	0.25	BA	S	<2	O	C	FE,PI,LJ		FE,PI,LJ
TIP 2-1	2	D-5	A-1	0.25	BA	S	<2	O	C	FE,PI,LJ		FE,PI,LJ
TIP 3-1	2	D-5	A-1	0.25	BA	S	<2	O	C	FE,PI,LJ		FE,PI,LJ
TIP 1-2	2	D-5	D-1	0.25	XP	XP	N/A	O	C	EX		EX
TIP 2-2	2	D-5	D-1	0.25	XP	XP	N/A	O	C	EX		EX
TIP 3-2	2	D-5	D-1	0.25	XP	XP	N/A	O	C	EX		EX

Section 3.8

VALVE INSERVICE TEST PROGRAM

RELIEF REQUESTS

RELIEF REQUEST NUMBER RBCW-1

System: Reactor Building Cooling Water

Valve: RBCC-15

Category: A, C-1

Class: 2

Function: System check valve for system penetrating primary containment.

Impractical Test Requirements: IWV-3521; Test Frequency - exercise at least once every three months, quarterly.

Basis for Relief: This check valve is the inboard primary containment isolation valve for a system considered in service during plant operation. The normally open check valve requires an exercise in the reverse flow direction which can only be verified by leak testing. Primary containment leak testing performed each refueling, i.e. 10CFR50 Appendix J, constitutes proper valve exercising. Closing this valve during power operation would result in temperature transients in the equipment it supplies, including Recirc pump seals, possibly resulting in equipment damage. Also, this valve supplies drywell cooling during power operation and cold shutdown. Performing leak testing per Appendix J during Cold Shutdown would require de-inerting, entering containment, and shutdown of drywell cooling for an extended period, causing equipment damage and personnel hazard.

Alternative Testing: Exercise valve during refueling (at least once every two years) in conjunction with Appendix J leak testing.

Approval: Relief Request approved by virtue of being outside the scope of the positions in Generic Letter 89-04 and submitted before April 3, 1989.

RELIEF REQUEST NUMBER ESW-1

System: Emergency Service Water

Valve: SW-101, SW-102, SW-103, SW-104

Category: C-1

Class: 3

Function: To prevent diversion of ESW flow to non-safety related systems.

Impractical Test Requirements: Individual valve closure testing per IWV-3520

Basis for Relief: Each pair of valves, SW-101/SW-102 and SW-103/SW-104, are in series with no test taps installed between them. Safety function is assured if either one of the pair of valves will provide safety function. This means that testing of the pair of valves will verify system safety function. Additionally, testing these valves during power operation would require isolating cooling water to both the RHR and Core Spray pump motors and the associated room coolers, which is not desirable because it degrades the operability of these systems.

Alternative Testing: Test each pair of valves, SW-101/SW-102 and SW-103/SW-104 during cold shutdown by venting upstream of each pair.

Approval: Relief Request not implemented pending NRC review and approval.

RELIEF REQUEST NUMBER SC-1

System: Service Condensate (Keep Fill)

Valve: CST-88, CST-90, CST-92, CST-94, CST-96, CST-98, CST-189

Category: C-1

Class: 2

Function: The Keep Fill Discharge Check valves prevent diversion of RHR and Core Spray flow to non-safety related system.

Impractical Test Requirements: IWV-3521; Test Frequency - Exercise at least once every three months.

Basis for Relief: There is no means available to verify the disc in CST-88, CST-90 CST-92, CST-94, CST-96, CST-98 and CST-189 travels promptly to the seat on cessation or reversal of flow.

Alternative Testing: Valves CST-88, CST-90, CST-92, CST-94, CST-96, CST-98 and CST-189 have been disassembled and manually exercised with no discernible degradation detected. Based on the results of these inspections, one valve in each group, (CST-88, CST-92, CST-94 and CST-98), (CST-90, CST-96 and CST-189), will be inspected each refueling outage via disassembly, alternating between valves until the entire group has been tested. If degradation is detected, repairs will be made and the remaining valves in the group shall also be inspected during the same outage.

Approval: Relief Request not implemented pending NRC review and approval.

RELIEF REQUEST NUMBER FW-1

System: Nuclear Boiler System - Feedwater

Valve: FW-91-1/FW-91-2

Category: C-1

Class: 2

Function: Prevents diversion of RCIC and HPCI Flow to FW System

Impractical Test Requirements: IWV-3521; Test Frequency - exercise at least once every three months, quarterly

Basis for Relief: These normally open check valves require an exercise in the reverse flow direction which can only be verified by leak testing. Leak testing performed each refueling constitutes proper valve exercising. Closing these valves during power operation would cause plant transients resulting in reactor trip. Therefore, testing these valves at any time other than refueling could cause equipment damage, as well as requiring an unnecessary burden on the Licensee. Leak testing at Cold Shutdown requires containment entry and extended inoperability of Reactor Water Cleanup, which is not recommended, as this system is required to maintain reactor water chemistry

Alternative Testing: Perform leak testing to verify closure at refueling.

Approval: Relief Request approved by virtue of being outside the scope of the positions in Generic Letter 89-04 and submitted before April 3, 1989.

RELIEF REQUEST NUMBER FW-2

System: Primary Containment Isolation Check Valves

Valves: FW-94-1/FW-94-2, FW-97-1/FW-97-2

Category: A, C-1

Class: 1

Function: System check valves for systems penetrating primary containment.

Impractical Test Requirements: IWV-3521; Test Frequency - exercise at least once every three months, quarterly.

Basis for Relief: These check valves are the inboard/outboard feedwater primary containment isolation valves and are considered in service during plant operation. The normally open check valves require an exercise in the reverse flow direction which can only be verified by leak testing. Primary containment leak testing performed each refueling, i.e., 10CFR50, Appendix J, constitutes proper valve exercising. Closing these valves during power operation would cause plant transients resulting in reactor trip. During cold shutdown, these valves are partially open to provide Reactor Water Cleanup function, which is required for reactor cooling or reactor water chemistry maintenance. Leak testing at Cold Shutdown requires de-inerting, entering containment, and performing testing identical to 10CFR50 Appendix J testing. Therefore, testing these valves at any time other than refueling could cause equipment damage, as well as requiring an unnecessary burden on the Licensee.

Alternative Testing: Perform 10CFR50, Appendix J testing to verify closure at refueling.

Approval: Relief Request approved by virtue of being outside the scope of the positions in Generic Letter 89-04 and submitted before April 3, 1989.

RELIEF REQUEST NUMBER NB-1

System: Nuclear Boiler System - Steam Supply ADS and Relief/Safety Valves

Valves: RV-2-71A/RV-2-71B/RV-2-71C/RV-2-71D/RV-2-71E/RV-2-71F/ RV-2-71G/RV-2-71H

Category: BC-1

Class: 1

Function: Provide automatic depressurization and/or overpressure protection or the reactor coolant pressure boundary.

Impractical Test Requirements: IWV-3411; Test Frequency - exercise at least once every three months.

IWV-3413; Power operated valves - full stroke and measure stroke time.

IWV-3415; Fail Safe - at least once every three months.

Basis for Relief: If the valves were to fail to re-close after testing, the plant would be placed in a LOCA condition. Stroke time is a function of reactor pressure and, therefore, shall not be measured during exercising test. In addition, a recent study (BWR Owners Group Evaluation of NUREG-0737 Item II.K.3.16; "Reduction of Challenges and Failures of Relief Valves") recommends that the number of ADS and/or relief/safety valves openings be reduced as much as possible. Based on this study and the potential for causing a possible LOCA condition, exercise testing of the ADS and/or relief/safety valves is delayed to refueling. Testing these valves at Cold Shutdown is impossible due to the need for nuclear steam to lift each valve.

Alternative Testing: Exercise valves during refueling, i.e. startup, in accordance with Monticello Technical Specifications.

Approval: Relief Request approved by virtue of being outside the scope of the positions in Generic Letter 89-04 and submitted before April 3, 1989.

RELIEF REQUEST NUMBER REC-1

System: Recirc Loops Pumps and Motors Nuclear Boiler System

Valves: XR27-1/XR27-2/XR25-1/XR25-2

Category: A, C-1

Class: 2

Function: Prevents reversal of flow from recirc seals to the CRD System.

Impractical Test Requirements: IWV-3521, Test Frequency - exercise at least once every three months, quarterly.

Basis for Relief: These valves are the inlet valves for the lower recirc pump seals. Exercising could result in loss of seal water to lower seals of the Reactor Coolant Recirculation pumps causing plant trip or equipment damage. The reactor coolant recirculation pumps are normally operated during all plant operating conditions except refueling. Testing during Cold Shutdown would require entering containment, de-inerting, and performing testing identical to 10CFR50 Appendix J testing, which contributes to an unnecessary burden on the Licensee with no corresponding increase in plant safety.

Alternative Testing: Exercise the valves closed during refueling, in conjunction with Appendix J leak testing.

Approval: Relief Request approved by virtue of being outside the scope of the positions in Generic Letter 89-04 and submitted before April 3, 1989.

RELIEF REQUEST NUMBER CRD-1

System: Control Rod Hydraulic System

Valves: CRD-114, CV-126, CV-127

Category: C-1, B-1,B-1

Class: 2, 1, 2

Function: CRD-114; Exhaust scram discharge flow from the CRD during a scram.

CV-126; Provide a scram accumulator pressure to the bottom of the control rod drive piston during a scram.

CV-127; Exhaust scram discharge water from the top of the control rod drive piston during a scram.

Impractical Test Requirements: IWV-3411, IWV-3521; Test Frequency - exercise at least once every three months, quarterly.

Basis for Relief: The above listed valves are located on each of the 121 hydraulic control units. There is no practical method of testing these valves in accordance with Section XI requirements. There is no instrumentation installed to verify proper seating of the check valves and the control valves operate too rapidly to measure stroke time. Technical Specifications require all control rods to be scram tested once per operating cycle. These valves are all exercised one full cycle during a scram. Proper operation of these valves and the safety function of the control rod drive system are verified by the scram testing.

Alternative Testing: See basis.

Approval: Relief Request approved through position in Generic Letter 89-04.

RELIEF REQUEST NUMBER CRD-2

System: Control Rod Hydraulic System

Valves: CRD-115

Category: C-1

Class: 2

Function: Prevents depressurization of accumulator charges on cessation of flow.

Impractical Test Requirements: IWV-3521; Test Frequency - exercise at least once every three months, quarterly.

Basis for Relief: The above listed valve is located on each of the 121 hydraulic control units. These valves can be tested to verify proper seating only by doing a special test during cold shutdown/refueling.

Alternative Testing: The test would involve depressurizing the accumulator charging water header and watching for accumulator low pressure alarms. Depressurizing the charging water header would cause a reversal of flow and the ball discs of the CRD 115 valves should move to their seats. If a ball disc did not move to its seat, the associated accumulator would rapidly depressurize and an alarm on low accumulator pressure would be received shortly thereafter. This test will be performed at least once each operating cycle, i.e., refueling.

Approval: Relief Request approved through position in Generic Letter 89-04.

RELIEF REQUEST NUMBER CRD-3

System: Control Rod Hydraulic System

Valves: CRD-138

Category: C-1

Class: 2

Function: Prevent diversion of scram water into cooling water header

Impractical Test Requirements: IWV-3521; Test Frequency - exercise at least once every three months.

Basis for Relief: The CRD-138 valve is located on each of the 121 hydraulic control units. Normal control rod motion (or lack or motion) is not a conclusive indicator of cooling water header check valve operability. Normal control rod movement is required weekly by Technical Specifications to demonstrate operability of each drive sub-system. Failure of a control rod to move will not be automatically attributed to the cooling water check valve. The only conclusive way to determine the operability of these valves and verify proper seating is during control rod drive differential pressure testing (CRD D/P). The CRD D/P testing is done only during refueling outages due to the extensive instrumentation required to be set up and due to the number of control rod drives that have to be tested.

Alternative Testing: Test the CRD-138 valves during CRD D/P testing during refueling outages.

Approval: Relief Request not implemented pending NRC review and approval.

RELIEF REQUEST NUMBER RHR-1

System: Residual Heat Removal

Valves: RHR8-1/RHR8-2

Category: C-1

Class: 2

Function: Provide minimum flow recirculation from the RHR pumps.

Impractical Test Requirements: Full flow test open quarterly per IWV-3520.

Basis for Relief: There is no means of measuring flowrate through this valve during quarterly pump testing. Operating the pump with only the minimum flow recirculation line available is not good operating practice, as recommended by the NRC for pump protection. This means there is no normal test method to examine these valves condition except disassembly.

Alternative Testing: These valves have been disassembled and manually exercised with no discernible degradation detected. Based on the results of these inspections, one valve will be inspected each refueling outage alternating between the valves. If degradation is detected, repairs will be made and the remaining valve shall also be inspected.

Approval: Relief Request approved through position in Generic Letter 89-04.

RELIEF REQUEST NUMBER RHRSW-1

System: Residual Heat Removal Service Water

Valves: RHRSW-17

Category: C-1

Class: 2

Function: Allows service water as emergency supply to RHR System.

Impractical Test Requirements: IWV-3521; Test Frequency - exercise at least once every three months, quarterly.

Basis for Relief: There is no means available to establish full flow through RHRSW-17 without cross-contaminating the RHR and RHRSW Systems.

Alternative Testing: RHRSW-17 has been disassembled and manually exercised with no discernible degradation detected. Based on the results of these inspections, the valve shall be inspected every other refueling outage via disassembly. If problems are detected repairs will be made and the disassembly sequence shall be evaluated to determine if it should continue at every other refueling outage. Partial valve stroking during cold shutdowns shall be performed when possible.

Approval: Relief Request approved through position in Generic Letter 89-04.

RELIEF REQUEST NUMBER CS-1

System: Core Spray

Valves: CST-103-1/CST-104-1

Category: C-1

Class: 2

Function: To prevent diversion of core spray flow to condensate storage system.

Impractical Test Requirements: Individual valve closure testing per IWV-3520.

Basis for Relief: Valves CST-103-1/CST-104-1 are in series with no test taps installed between them. Safety function is assured if either one of the valves will provide safety function. This means that testing of the pair of valves will verify system safety function.

Alternative Testing: Test the pair of valves, CST-103-1/CST-104-1, during each quarterly pump test by observing any indication of increased pressure on Pressure Indicator PI-7325 upstream.

Approval: Relief Request approved by virtue of being outside the scope of the positions in Generic Letter 89-04 and submitted before April 3, 1989.

RELIEF REQUEST NUMBER HPCI-1

System: High Pressure Coolant Injection

Valves: HPCI-9

Category: A, C-1

Class: 2

Function: To provide a path to the torus for HPCI Turbine exhaust steam.

Impractical Test Requirements: IWV-3521; Test Frequency - exercise at least once every three months, quarterly.

Basis for Relief: There is no means available to verify the disc travels promptly to the seat on cessation or reversal of flow or that the disc moves promptly away from the seat when the closing differential is removed and flow through the valve is initiated.

Alternative Testing: Exercised closed during 10CFR50 Appendix J testing at refueling. Open flow testing is assured for HPCI-9 via the successful quarterly HPCI turbine run.

Approval: Relief Request approved by virtue of being outside the scope of the positions in Generic Letter 89-04 and submitted before April 3, 1989.

RELIEF REQUEST NUMBER HPCI-2

System: High Pressure Coolant Injection

Valves: HPCI-14/HPCI-15

Category: C-1

Class: 2

Function: To provide a path to the torus for HPCI Turbine Exhaust condensate.

Impractical Test Requirements: IWV-3521; Test Frequency - exercise at least once every three months, quarterly.

Basis for Relief: There is no means available to verify the disc travels promptly to the seat on cessation or reversal of flow or that the disc moves promptly away from the seat when the closing differential is removed and flow through the valve is initiated.

Alternative Testing: Exercised during 10CFR50 Appendix J testing at refueling.

Approval: Relief Request approved by virtue of being outside the scope of the positions in Generic Letter 89-04 and submitted before April 3, 1989.

RELIEF REQUEST NUMBER HPCI-3

System: High Pressure Coolant Injection

Valves: HPCI-65/HPCI-71

Category: C-1

Class: 2

Function: Prevents flow from HPCI System to torus.

Impractical Test Requirements: IWV-3521; Test Frequency - exercise at least once every three months, quarterly.

Basis for Relief: There is no means available to verify the disc in HPCI-65/HPCI-71 travels promptly to the seat on cessation or reversal of flow for normally open valves or the disc moves promptly away from the seat when the closing differential is removed and flow through the valve is initiated for normally closed valves.

Alternative Testing: The safety-related position of HPCI-65/HPCI-71 (HPCI turbine exhaust line vacuum breaker check valves) is closed. Closure will be verified by leak rate testing each refueling outage. These are not Appendix J related valves and therefore will not be categorized "A".

Approval: Relief Request approved by virtue of being outside the scope of the positions in Generic Letter 89-04 and submitted before April 3, 1989.

RELIEF REQUEST NUMBER HPCI-4

System: High Pressure Coolant Injection

Valves: HPCI-31

Category: C-1

Class: 2

Function: Allows torus water to flow into the HPCI System.

Impractical Test Requirements: IWV-3521; Test Frequency - exercise at least once every three months, quarterly.

Basis for Relief: HPCI-31 cannot be exercised during power operation ("open" safety-relate position), since this would require injecting torus water into RCS which would cause chemistry control problems. Furthermore, there is no means available to verify the disc in HPCI-31 travels promptly to the seat on cessation or reversal of flow or the disc moves promptly away from the seat when the closing differential is removed and flow through the valve is initiated.

Alternative Testing: This valve has been disassembled and manually exercised with no discernible degradation detected. Based on the results on the results of these inspections, the valve shall be inspected every other refueling outage via disassembly. If problems are detected, repairs will be made and the disassembly sequence shall be evaluated to determine if it should continue at every other refueling outage. Partial valve stroking during cold shutdowns shall be performed when possible.

Approval: Relief Request approved through position in Generic Letter 89-04.

RELIEF REQUEST NUMBER HPCI-5

System: High Pressure Coolant Injection

Valves: HPCI-42

Category: C-1

Class: 2

Function: Provide minimum flow recirculation from the HPCI pump.

Impractical Test Requirements: Full flow test open quarterly per IWV-3520.

Basis for Relief: There is no means of measuring flowrate through this valve during quarterly pump testing. Operating the pump with only the minimum flow recirculation line available is not good operating practice, as recommended by the NRC for pump protection. This means there is not normal test method to examine the valve condition except disassembly.

Alternative Testing: This valve has been disassembled and manually exercised with no discernible degradation detected. Based on the results of these inspections, the valve shall be inspected every other refueling outage via disassembly. If problems are detected, repairs will be made and the disassembly sequence shall be evaluated to determine if it should continue at every other refueling outage.

Approval: Relief Request approved through position in Generic Letter 89-04.

RELIEF REQUEST NUMBER RCIC-1

System: Reactor Core Isolation Cooling

Valves: RCIC-9

Category: A, C-1

Class: 2

Function: To provide a path to the torus for RCIC Turbine exhaust steam.

Impractical Test Requirements: IWV-3521; Test Frequency - exercise at least once every three months, quarterly.

Basis for Relief: There is no means available to verify the disc travels promptly to the seat on cessation or reversal of flow or that the disc moves promptly away from the seat when the closing differential is removed and flow through the valve is initiated.

Alternative Testing: Exercise closed during 10CFR50 Appendix J testing at refueling. Open flow testing is assured for RCIC-9 via the successful quarterly RCIC turbine run.

Approval: Relief Request approved by virtue of being outside the scope of the positions in Generic Letter 89-04 and submitted before April 3, 1989.

RELIEF REQUEST NUMBER RCIC-2

System: Reactor Core Isolation Cooling

Valves: RCIC-16/RCIC-17

Category: C-1

Class: 2

Function: To provide a path to the torus for RCIC Turbine exhaust condensate.

Impractical Test Requirements: IWV-3521; Test Frequency - exercise at least once every three months, quarterly.

Basis for Relief: There is no means available to verify the disc travels promptly to the seat on cessation or reversal of flow or that the disc moves promptly away from the seat when the closing differential is removed and flow through the valve is initiated.

Alternative Testing: Exercise closed during 10CFR50 Appendix J testing at refueling.

Approval: Relief Request approved by virtue of being outside the scope of the positions in Generic Letter 89-04 and submitted before April 3, 1989.

RELIEF REQUEST NUMBER RCIC-3

System: Reactor Core Isolation Cooling

Valves: RCIC-57/RCIC-59

Category: C-1

Class: 2

Function: Prevents flow from RCIC System to torus.

Impractical Test Requirements: IWV-3521; Test Frequency - exercise at least once every three months, quarterly.

Basis for Relief: There is no means available to verify the disc in RCIC-57/RCIC-59 travels promptly to the seat on cessation of reversal of flow or that the disc moves promptly away from the seat when the closing differential is removed and flow through the valve is initiated.

Alternative Testing: The safety-related position of RCIC-57/RCIC-59 (RCIC turbine exhaust line vacuum breaker check valves) is closed. Closure will be verified by leak rate testing each refueling outage. These are not Appendix J related valves and therefore will not be categorized "A".

Approval: Relief Request approved by virtue of being outside the scope of the positions in Generic Letter 89-04 and submitted before April 3, 1989.

RELIEF REQUEST NUMBER RCIC-4

System: Reactor Core Isolation Cooling

Valve: RCIC-31

Category: C-1

Class: 2

Function: Allows torus water to flow into the RCIC System.

Impractical Test Requirements: IWV-3521; Test Frequency - exercise at least once every three months, quarterly.

Basis for Relief: RCIC-31 cannot be exercised during power operation ("open" safety-related position), since this would require injecting torus water into RCS which would cause chemistry control problems. Furthermore, there is no means available to verify the disc in RCIC-31 travels promptly to the seat on cessation or reversal of flow or that the disc moves promptly away from the seat when the closing differential is removed and flow through the valve is initiated.

Alternative Testing: This valve has been disassembled and manually exercised with no discernible degradation detected. Based on the results of these inspections, the valve shall be inspected every other refueling outage via disassembly. If problems are detected, repairs will be made and the disassembly sequence shall be evaluated to determine if it should continue at every other refueling outage.

Approval: Relief Request approved through position in Generic Letter 89-04.

RELIEF REQUEST NUMBER RCIC-5

System: Reactor Core Isolation Cooling

Valve: RCIC-37

Category: C-1

Class: 2

Function: Provide minimum flow recirculation from the RCIC pump.

Impractical Test Requirements: Full flow test open quarterly per IWV-3250.

Basis for Relief: There is no means of measuring flowrate through this valve during quarterly pump testing. Operating the pump with only the minimum flow recirculation line available is not good operating practice, as recommended by the NRC for pump protection. This means there is no normal test method to examine valve conditions except disassembly.

Alternative Testing: This valve has been disassembled and manually exercised with no discernible degradation detected. Based on the results of these inspections, the valve shall be inspected every other refueling outage via disassembly. If problems are detected, repairs will be made and the disassembly sequence shall be evaluated to determine if it should continue at every other refueling outage

Approval: Relief Request approved through position in Generic Letter 89-04.

RELIEF REQUEST NUMBER SCL-1

System: Standby Liquid Control System

Valve: XP-6, XP-7

Category: AC-1

Class: 1

Function: Standby Liquid Control Injection Check Valves

Impractical Test Requirements: IWV-3521; Test Frequency - exercise at least once every three months, quarterly.

Basis for Relief: To verify forward flow operability during normal operation would require firing a squib valve and injecting water into the reactor vessel using the SLC pumps. Injecting water during operation could result in adverse plant conditions such as changes in reactivity, power transients, thermal shock induced cracking and a possible plant trip. At cold shutdown, an injection would cause extensive plant water chemistry changes, require a major cleanup and restoration of plant equipment.

Alternative Testing: Verify forward flow operability during refueling while performing the standby liquid control system injection test, which pumps demineralized water into the reactor vessel. Reverse flow testing will be performed during Appendix J leak rate testing.

Approval: Relief Request approved by virtue of being outside the scope of the positions in Generic Letter 89-04 and submitted before April 3, 1989.

RELIEF REQUEST NUMBER RWCU-1

System: Reactor Water Cleanup

Valve: RC6-1/RC6-2

Category: C-1

Class: 2

Function: Prevent flow diversion from HPCI/RCIC injection.

Impractical Test Requirements: Full stroke quarterly power IWV-3520.

Basis for Relief: Closure testing these valves requires testing identical to Local Leak Rate Testing. Closing these valves interrupts RWCU flow, which is required in all modes except refueling to maintain water chemistry and reduce radioactivity. Closure testing would require an extended period of inoperability of the primary feedwater system, as well as HPCI/RCIC during power operation. In Cold Shutdown, RWCU operates to reduce reactor coolant system contamination.

Alternative Testing: Verify closure at refueling by performance of leak testing.

Approval: Relief Request approved by virtue of being outside the scope of the positions in Generic Letter 89-04 and submitted before April 3, 1989.

RELIEF REQUEST NUMBER IA-1

System: Instrument Air - Reactor Building and Drywell

Valve: AI-571

Category: AC-1

Class: 2

Function: Backflow prevention through instrument air line from containment.

Impracticai Test Requirements: IWV-3521; Test Frequency - exercise at least once every three months, quarterly.

Basis for Relief: Check valve AI-571 allows instrument air to ADS and non-ADS accumulators. The only means of verifying valve closure requires testing similar to 10CFR50 Appendix J. Performing this test during power operation would interrupt instrument air to the accumulators.

Alternative Testing: Exercise the valve closed by performance of 10CFR50 Appendix J leak testing during refueling.

Approval: Relief Request approved by virtue of being outside the scope of the positions in Generic Letter 89-04 and submitted before April 3, 1989.

RELIEF REQUEST NUMBER iA-2

System: Instrument Air - Reactor Building and Drywell

Valve: AI-226-1

Category: AC-1

Class: 2

Function: Prevent reversal of flow in TIP purge line.

Impractical Test Requirements: IWV-3521; Test Frequency - exercise at least once every three months, quarterly.

Basis for Relief: Check valve AI-226-1 is a normally open check valve that is in service during all modes of operation. In addition, there is no means available to verify the disc travels promptly to the seat on cessation or reversal of flow.

Alternative Testing: Exercise valve by performance of 10CFR50 Appendix J leak testing during refueling.

Approval: Relief Request approved by virtue of being outside the scope of the positions in Generic Letter 89-04 and submitted before April 3, 1989.

RELIEF REQUEST NUMBER FP-1

System: Fuel Pool Cooling and Cleanup System

Valve: PC-20-1/PC-20-2

Category: C-1

Class: 3

Function: Prevents siphoning of water from fuel storage pool into fuel pool cleanup system.

Impractical Test Requirements: IWV-3521; Test Frequency - exercise at least once every three months, quarterly.

Basis for Relief: There is no means available to verify the disc in PC-20-1/PC-20-2 travels promptly to the seat on cessation or reversal of flow or that the disc moves promptly away from the seat when the closing differential is removed and flow through the valve is initiated.

Alternative Testing: Valves PC-20-1/PC-20-2 have been disassembled and manually exercised with no discernible degradation detected. Based on the results of these inspections, one valve will be inspected each refueling outage alternating between the valves. If degradation is detected, repairs will be made and the remaining valve shall also be inspected.

Approval: Relief Request approved through position in Generic Letter 89-04.

RELIEF REQUEST NUMBER SW-1

System: RHR Service Water Systems and Makeup Intake Structure

Valve: SW-21-1/SW-21-2/SW-22-1/SW-22-2

Category: C-1

Class: 3

Function: Prevents reversal of RHRSW flow into the service water system.

Impracticai Test Requirements: Individual valve closure testing per IWV-3520.

Basis for Relief: Each pair of valves, SW-21-1/SW-21-2 and SW-22-1/SW-22-2, are in series with no test taps installed between them. Safety function is assured if either one of the pair of valves will provide safety function. This means that testing of the pair of valves will verify system safety function

Alternative Testing: Test each pair of valves, SW-21-1/SW-21-2 and SW-22-1/SW-22-2, during each quarterly pump test by venting upstream of each pair.

Approvai: Relief Request approved by virtue of being outside the scope of the positions in Generic Letter 89-04 and submitted before April 3, 1989.

RELIEF REQUEST NUMBER ESW-2

System: Service Water Systems and Makeup Intake Structure

Valve: SW-15/SW-16/SW-17/SW-18/ESW-13/ESW-14/ESW-15/ESW-16

Category: C-1

Class: 3

Function: Prevents reversal of flow from emergency water system into the service water system.

Impractical Test Requirements: Individual valve closure testing per IWV-3520.

Basis for Relief: Each pair of valves are in series with no test taps installed between them. Safety function is assured if either one of the pair of valves will provide safety function. This means that testing of the pair of valves will verify system safety function.

Alternative Testing: Test each pair of valves during each quarterly pump test by venting upstream of each pair.

Approval: Relief Request approved by virtue of being outside the scope of the positions in Generic Letter 89-04 and submitted before April 3, 1989.

RELIEF REQUEST NUMBER GR-1

System: As applicable

Valves: All fast-acting solenoid operated valves with short-stroke time less than or equal to 2 seconds.

Category: A, B

Class: As applicable

Function:

Impractical Test Requirements: IWV-3300, Valve Position Indicator Verification - valves with remote position indicators shall be observed at least once every two years to verify that valve operation is accurately indicated.

Basis for Relief: These valves require disassembly of the actuator components to verify operation. Additionally, each valve has minimal stroke time (less than 2 seconds) and stem travel (approximately 0.075 inch). The accurate visual verification of valve operation is not possible due to the minimal stem travel and short stroke period. This visual observation would not contribute significantly to the assurance of safe and proper valve operation.

Alternative Testing: The valve open indication/position is verified by normal system parameters during operation and/or the valve shut indication/position is verified by 10CFR50 Appendix J testing. Based on valve design, if either open or closed position is verified for each valve, and a successful valve stroke is verified, the position indication systems for these valves will be considered adequately tested under ASME Section XI.

Approval: Relief Request approved by virtue of being outside the scope of the positions in Generic Letter 89-04 and submitted before April 3, 1989.

RELIEF REQUEST NUMBER GR-2

System: As applicable

Valve: Valve Test Tables

Category: A and AC

Class: As applicable

Function: As applicable

Impractical Test Requirements: IWV-3427(b); Corrective Action - for valves 6 in. nominal pipe size and larger, if a leakage rate exceeds the rate determined by the previous test by an amount that reduces the margin between measured leakage rate and the maximum permissible rate by 50% or greater, the test frequency shall be double. (IWV-3427(b))

Basis for Relief: These valves are located inside containment or inside radiation areas during operation and testing on an increased frequency would increase radiation exposure for testing personnel. Testing is now being performed during refueling to minimize exposure. With increase frequency, operational constraints would be placed upon the plant during cold shutdown. Monticello Nuclear Plant feels that the leakage rates for valves 6 in. and larger do not show enough consistency in the level of degradation prior to reaching the maximum leakage limit to justify maintaining these additional corrective action and trending requirements . This is in keeping with the recently ASME-approved OM-10 philosophy on Inservice Testing of Valves, which does not require trending of leakage rates.

Alternative Testing: Valves will be replaced or repaired as required when the leakage rate exceeds that stated by the Owner.

Approval: Relief Request approved:

1. through position for containment isolation valves in Generic Letter 89-04.

2. by virtue of being outside the scope of the position for pressure isolation valves in Generic Letter 89-04 and submitted before April 3, 1989.

RELIEF REQUEST NUMBER GR-3

System: Various

Valve: Various

Category: All those identified category A or A/C containment isolation valves in the associated Valve Test Program.

Class: As Applicable

Function: Various

Impractical Test Requirements: IWV-3421 through 3425 regarding leak rate test methodology, and IWV 3427(b).

Basis for Relief: In keeping with NRC Staff position, all CIV testing shall be performed under 10CFR50 Appendix J in addition to IWV-3426 and IWV-3427(a) of Section XI. Testing per 10CFR50 Appendix J meets the intent of leak rate testing per Section XI, but will be controlled via the Local Leak Rate Testing Program.

Alternative Testing: Monticello shall test all CIVs under the requirements of 10CFR50 Appendix J, in addition to IWV-3426 and IWV-3427(a) of Section XI.

Approval: Relief Request approved through position in Generic Letter 89-04.

Section 3.9

COLD SHUTDOWN TESTING

JUSTIFICATIONS

VALVES TESTED AT COLD SHUTDOWN

System	P&ID NO.	Valves	Justification
Recirc Loops Nuclear Boiler	M-117-1	MO-2-53A MO-2-53B	The recirculation pump suction and discharge valves are in the main flowpath of the Reactor Recirculation System which is necessary to maintain reactivity control of the reactor. Cycling of these valves during power operation would interrupt the driving core flow, possibly resulting in severe changes to core power level, causing plant shutdown.
Reactor Building Cooling Water System	M-111	MO-1426 MO-4229 MO-4230	Full-stroking these valves during power operation would interrupt cooling flow to the Recirculation Pump Seals, causing equipment damage. In addition, interruption of cooling water to the drywell has the potential to cause unit shutdown due to high drywell temperature or pressure.
RHR Service Water	M-112	CV-1728 CV-1729	Full-stroke testing of these valves during power operation causes inoperability of the RHR system, which is not allowable in accordance with plant policy and NRC guidance. A quarterly part-stroke at power will be performed.
RHR	M-120 M-121	AO-10-46A AO-10-46B	These valves cannot be stroke tested open during operation due to the inability to overcome reactor coolant pressure. Testing also requires containment entry, which is not possible at power.
RHR	M-120 M-121	MO-1987 MO-1989 MO-1988 MO-1986	These valves cannot be stroke tested during power operation due to the interlock which requires only one suction source for RHR open at one time. Cycling open the Shutdown Cooling Supply valve would make one entire loop of RHR inoperable, which is not allowable in accordance with plant policy and NRC guidance.
RHR	M-121	MO-2026 MO-2027 MO-2029 MO-2030	All of these valves connect directly to the reactor coolant system and are interlocked on reactor pressure. Opening these valves during power operation could cause over-pressurization of downstream piping.

System	P&ID NO.	Valves	Justification
Core Spray	M-122	AO-14-13A AO-14-13B	These valves cannot be stroke tested open during operation due to the inability to overcome reactor coolant pressure. Testing also requires containment entry, which is not possible at power.
HPCI	M-124	AO-23-18	Opening this valve fully requires the reactor to be in a depressurized condition, i.e. Cold Shutdown, to ensure full stroke using the valve operator.
RCIC	M-126	AO-13-22	Testing this valve during power operation requires access to the steam chase while high radiation exists. Personnel protection requires minimizing exposure.
Instrument Air	M-131 SH-12	CV-1478	Closing this valve during power operation disrupts instrument air to several safety-related components inside containment. Failure during testing in the closed direction would require plant shutdown.
Post-Accident Sampling	NF-96042	PAS-58-1 PAS-58-2	Full stroke testing of these valves during power operation causes inoperability of the RHR system, which is not allowable in accordance with plant policy and NRC guidelines. These valves will be full stroked during cold shutdown.
Steam Jet Air Ejectors	M-104 SH-2	AO-1825A AO-1825B	Cycling valves requires starting/stopping condenser mechanical vacuum pump. Plant operating procedures prohibit pump operation above 5% reactor power.
RHR Service Water and Emergency Service Water Systems	M-112	SW-101 SW-102 SW-103 SW-104	Exercising these valves during power operation would require isolating motor oil cooling water to the RHR and core spray pump motors which is not allowable in accordance with plant policy and NRC guidance.

Section 3.10

EXCESS FLOW CHECK VALVES

TESTED DURING VESSEL HYDROSTATIC/LEAK TEST EACH REFUELING

EXCESS FLOW CHECK VALVES
TESTED DURING VESSEL HYDROSTATIC/LEAK TEST EACH REFUELING

Penetration No.	P&ID No.
X-27A	M-116
X-27B	M-116
X-27C	M-122
X-28A	M-116
X-28E	M-116
X-28F	M-115
X-29A	M-116
X-30B	M-115-1
X-30C	M-115-1
X-30E	M-115-1
X-30F	M-115-1
X-31A	M-117-1
X-31B	M-117-1
X-31D	M-117-1
X-31E	M-117-2
X-31F	M-117-2
X-32A	M-117-1
X-32B	M-117-1
X-32D	M-117-1
X-32E	M-117-2
X-32F	M-117-2
X-33A	M-115
X-33B	M-115
X-33C	M-115
X-33D	M-115
X-33E	M-115
X-33F	M-115
X-34C	M-115-1
X-34D	M-115-1
X-34E	M-115-1
X-34F	M-115-1
X-40A-A	M-116
X-40A-B	M-116
X-40A-C	M-116

EXCESS FLOW CHECK VALVES
TESTED DURING VESSEL HYDROSTATIC/LEAK TEST EACH REFUELING
(Cont'd.)

Penetration No.	P&ID No.
X-40A-D	M-116
X-40A-E	M-116
X-40A-F	M-116
X-40B-A	M-116
X-40B-B	M-116
X-40B-C	M-116
X-40B-D	M-116
X-40B-E	M-116
X-40B-F	M-116
X-40C-A	M-116
X-40C-B	M-116
X-40C-C	M-116
X-40C-D	M-116
X-40C-E	M-116
X-40C-F	M-116
X-40D-A	M-116
X-40D-B	M-116
X-40D-C	M-116
X-40D-D	M-116
X-40D-E	M-116
X-40D-F	M-116
X-49A	M-125
X-49B	M-125
X-49C	M-123
X-49D	M-123
X-49E	M-115
X-49F	M-115
X-50A	M-122
X-50B	M-117-1
X-50C	M-117-1
X-50D	M-116
X-51A	M-117-1

EXCESS FLOW CHECK VALVES
TESTED DURING VESSEL HYDROSTATIC/LEAK TEST EACH REFUELING
(Cont'd.)

Penetration No.	P&ID No.
X-51B	M-117-1
X-51C	M-117-1
X-51D	M-117-1
X-51E	M-117-1
X-51F	M-117-1
X-52A	M-117-1
X-52B	M-117-1
X-52C	M-117-1
X-52D	M-117-1
X-52E	M-117-1
X-52F	M-117-1
X-53A	M-116
X-53B	M-116
X-54A	M-116
X-54B	M-116