MAY 1987 ADDENDA

Date of Issue: June 1, 1987

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

INSERVICE INSPECTION PROGRAM FOR
ASME CLASS 1, 2, AND 3 COMPONENTS

Revision 3

This is an Addenda to the loose-leaf version of the Inservice Inspection Program for ASME Class 1, 2, and 3 Components, Revision 3, and are issued in the form of replacement pages. Revisions, additions, or deletions are incorporated directly into the affected pages. It is advisable, however, that these title sheets and all replaced pages be retained for reference in Tab 9 of the correspondence section.

SUMMARY OF CHANGES:

This is the THIRD addenda to be published to the Inservice Inspection Program for ASME Class 1, 2, and 3 Components, Revision 3.

Replace or insert the pages listed. Changes given below are identified on the pages by a margin note (May 1987) next to the affected area.

SECTION	PAGE(S)	DESCRIPTION
TABLE OF CONTENTS	3 of 3	Deleted "Former IGSCC susceptible welds".
INTRODUCTION	1, 5, 6	Clarified 2nd ten year interval, and deleted Relief Request #2.
DATA FORMAT LEGEND and NOTES	3 of 3	Added "W81CAL" Field.
SYSTEM/COMPONENTS ABBREVIATIONS FOR ASME CLASS 1	3 of 4 4 of 4	Minor changes due to IGSCC pipe replacement.
MATERIAL SPECIFICATION ABBREVIATION	4	Add new materials to reflect recent design modifications.
CNS-UT CALIBRATION STANDARDS	1 through 3	Update list to reflect new blocks and associated CNSNO's.

SECTION	PAGE(S)	DESCRIPTION
ASME CAT. B-D	1 and 2	Change inspection period for N4(FW) nozzles to ensure 0619 exams are scheduled properly.
ASME CAT. B-F	1	Make changes to reflect IGSCC pipe replacement.
ASME CAT. B-G-2	1 and 2	Deleted several valves from category.
ASME CAT. B-J	1 through 13	Miscellaneous changes due to IGSCC pipe replacement. Removed old welds and added new weld I.D.'s.
ASME CAT. B-K-1	1 and 2	Add new information for recirculation pump lugs.
ASME CAT. B-M-2	1 and 2	Deleted recirc. bypass valves and head spray valves.
ASME CAT. B-P	1, 1 and 2	Change VT procedure to 7.0.8.
ASME CAT. C-C	1 through 4	Deletions per head spray removal, DC 86-078.
ASME CAT. C-F	1 through 24	Deletions per head spray removal, DC 86-078.
ASME CAT. F-A	1 and 2	Changes per head spray and pipe replacement DC's.
ASME CAT. F-B	1 through 6	Changes per head spray and pipe replacement DC's.
ASME CAT. F-C	1 through 14	Changes per head spray and pipe replacement DC's.
AUGMENTED INSERVICE INSPECTIONS	1	Add AISI Type 4.
AUGMENTED ISI - TAB 2	1	Change "Period" field information to enhance scheduling.
FORMER IGSCC SUSCEPTIBLE WELDS	Delete	Delete per new Table of Contents.
AUGMENTED ISI - TAB 4	1	Add jet pump beam listing.
WELD TYPE DRAWINGS	1	Changed index to reflect pipe replacement outage.

SECTION	PAGE(S)	DESCRIPTION
WELD TYPE DRAWINGS - TAB 12	Replace V12A with CNS-NB-1	Pipe replacement DC.
WELD TYPE DRAWINGS - TAB 13	Replace V13A with CNS-NB-1	Pipe replacement DC.
WELD TYPE DRAWINGS - TAB 16	Replace V16A with CNS-NB-1	Pipe replacement DC.
WELD TYPE DRAWINGS - TAB 19	Replace V19A with CNS-NB-1	Pipe replacement DC.
WELD TYPE DRAWINGS - TAB 31	Add Tab 31 and Drawing CNS-PPG-1 Sheet 1	Pipe replacement DC.
WELD TYPE DRAWINGS - TAB 32	Add Tab 32 and Drawing CNS-PPG-1 Sheet 2	Pipe replacement DC.
WELD TYPE DRAWINGS - TAB 33	Add Tab 33 and Drawing CNS-RR-25	Pipe replacement DC.
WELD TYPE DRAWINGS - TAB 34	Add Tab 34 and Drawing CNS-RR-26	Pipe replacement DC.
ISI DRAWINGS	1	Change index to reflect pipe replacement DC.
ISI DRAWINGS - TAB 1	Replace existing with CNS-CS-3	Pipe replacement DC.
ISI DRAWINGS - TAB 2	Replace existing with CNS-CS-4	Pipe replacement DC.
ISI DRAWINGS - TAB 3	Replace existing with CNS-RWCU-3	Pipe replacement DC.
ISI DRAWINGS - TAB 8	Replace existing with CB&I 10	Pipe replacement DC.
ISI DRAWINGS - TAB 19	Leave tab, delete drawing.	Pipe replacement DC.
ISI DRAWINGS - TAB 20	Replace existing with CNS-RR-37	Pipe replacement DC.
ISI DRAWINGS - TAB 21	Leave tab, delete drawing.	Pipe replacement DC.
ISI DRAWINGS - TAB 22	Replace existing with CNS-RR-38	Pipe replacement DC.

SECTION	PAGE(S)	DESCRIPTION
ISI DRAWINGS - TAB 23	Leave tab, delete drawing.	Pipe replacement DC.
ISI DRAWINGS - TAB 39	Replace existing drawing with revised drawing.	Head spray DC.
W81 RELIEF REQUESTS	Replace existing index with new index.	Relief Request #2 was not granted per the NRC SER for Cooper's ISI Program.
2ND INTERVAL NIS-1 FORMS	Add pp. 1 of 61 through 7 of 61.	Fall 1986 outage NIS-1 Form.
EXAM COMPONENT INDEXES	Add pp. 1 of 54 through 54 of 54	Fall 1986 outage exam component index.
CORRESPONDENCE	Replace existing index with new index.	Add Tabs 8, 9, 10.
CORRESPONDENCE - TAB 9	Add Tab 9 and the May 1987 addenda documentation.	May 1987 addenda.
CORRESPONDENCE - TAB 8	Add Tab 8 and the SER for Cooper's ISI Program.	Add SER.
CORRESPONDENCE - TAB 10	Add Tab 10 and 316 NG material specification.	New material specification per pipe replacement DC.

TABLE OF CONTENTS

	DESCRIPTION
ASME Category C-H	All Pressure Retaining Components
	ASME Class 3 Categories
ASME Category D-A	Systems in Support of Reactor Shutdown Function
ASME Category D-B	Systems in Support of Emergency Core Cooling, Containment Heat Removal, Atmosphere Cleanup, and Residual Heat Removal
ASME Category D-C	Systems in Support of Residual Heat Removal from Spent Fuel Storage Pool
	ASME Section XI Hangers & Supports
ASME Category F-A	Plate and Shell Type Supports
ASME Category F-B	Linear Type Supports
ASME Category F-C	Component Standard Supports
Augmented Inservice Inspections	
Former Pipe Whip Welds (Old 1 AISI)	

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Weld Type Drawings

Examination Boundaries (P&ID's)

Isometrics for Class 1 & 2 Components

ISI Drawings (Reference ISI Program Rev. 2, Information Only)

W81 Relief Requests

ASME Section XI S75 vs W81

ISI Program Status

Correspondence

NDE Procedures

INTRODUCTION

INSERVICE INSPECTION PROGRAM DESCRIPTION

1.0 Basis for the Inservice Inspection Program

The base document from which the ISI plan, schedule, and program are developed is 10CFR50.55a(g). Burns and Roe, the Architect Engineer for Cooper Nuclear Station during construction were NPPD's agent in determining the ASME Code classifications of our plant components. NRC Reg. Guide 1.26 was not yet published; hence, it was not used during Burns and Roe's classification. NPPD has not, nor are there plans to reclassify all the plant components in accordance with the newer regulations and guides, however, as a guidance for component's inspection applicability, the NRC Regulatory Guide 1.36, Revision 3, February, 1976, is being used for determining examination boundaries primarily for Class 2 and 3 systems.

2.0 The Second Ten Year Inspection Interval

2.1 The commercial operation date for Cooper Nuclear Station is July 1, 1974. The end of the first interval was extended from June 30, 1984, to September 1, 1985, due to the 1984/85 pipe replacement outage. This was allowed by IWA-2400(c). The end of the second interval will be June 30, 1994. May, 1987

2.2 The three inspection periods during the second interval are as follows:

1st Period: From September 1, 1985 to June 30, 1988

2nd Period: From July 1, 1988 to February 28, 1991

3rd Period: From March 1, 1991 to June 30, 1994

3.0 Applicable ASME Code

The Inservice Inspection of ASME Class 1, 2, and 3 components are performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code, 1980 Edition through Winter, 1981 Addenda, except where specific written relief from examinations and testings determined to be impractical has been granted by the NRC pursuant to 10CFR Part 50, Section 50.55a(g)(6)(i).

4.0 Inservice Inspection Program

4.1 The Inservice Inspection (ISI) Program is a detailed living document which is available to the regulatory authorities for audit.

6.0 Examination Boundaries cont'd

	P&ID	SYSTEM
6.3.22	13095-12-FSK-1-1	Post Accident Sampling

7.0 Augmented Inservice Inspections

7.1 Augumented Inservice Inspections (AISI) are not ASME Section XI Code Requirements but are 1) additional examination areas, or 2) increased inspection frequency or combinations of both which are requested by the Nuclear Regulatory Commission.

7.2 When examination components fall into the scheduled testing of both ISI and AISI, then credit for both requirements are taken (no double testing).

7.3 There are presently 4 types of Augumented Inservice Inspections required at Cooper Nuclear Station: MAY 1987

TYPE	DESCRIPTION
1	All ring girder bolting and ring girder anchor bolting is to be volumetrically inspected each ten year interval. The Anchor Bolting adjacent to the Inboard MSIV is to be visually inspected each ten year interval. (Reference NRC DRO Bulletin #74-3).
2	Ultrasonic examination of the feedwater nozzle safe ends, bores, and inside blend radii, liquid penetrant examination of the feedwater nozzles, and visual inspection of the feedwater spargers as required per Table 2 and Section 4.3.2.4 of NUREG-0619.
3	Visual inspection of the Core Spray Spargers and the Core Spray Piping inside the RPV shall be inspected each refueling outage. (Reference IE Bulletin No. 80-13).
4	Ultrasonic examinations, utilizing GE procedure TP508.0654 Rev. D or equivalent, are conducted to assessthe integrity of the jet pump hold-down beams at the mid length ligament areas bounding the beam bolt. These examinations shall be performed once during the 2nd Ten Year Interval. Oct 85

7.4 The following ASME Catagory welds are being eliminated from the Augumented Inspection, and are listed in separate section of the ISI Program.

7.4.1 Weld susceptible to Intergranular stress corrosion cracking that are required to be inspected per NUREG-0313.

7.4.2 Welds catagory B-F and B-J that are designated as "Pipe Whip".

8.0 Relief Requests

Oct 85

8.1 When an ASME Code Class 1, 2 or 3 component is determined to be impractical to inspect in accordance with ASME Section XI IWA-2000, IWB-2000, IWC-2000, IWD-2000 or IWF-2000, a specific written relief request from the ASME Code is submitted to the NRC in accordance with Section 3.0 (above). Each written relief request contains the following information as a minimum:

8.1.1 Identification of component(s) for which relief is requested

8.1.2 ASME Section III Code Class

8.1.3 The specific ASME Code requirement that has been determined to be impractical

8.1.4 Cooper Nuclear Station relief justification(s) information for requesting relief

8.1.5 Specific alternative inspection(s) in lieu of ASME Code Section XI requirement(s)

8.2 The following is a list of Relief Requests:

Relief Request No.	Description	
1	ASME Category B-J, Inaccessible welds, primary containment	
2	See Note 1.	May 1987
3	ASME Category B-D, RPV Top Head Nozzle inner radii	
4	ASME Category C-F, Inaccessible welds in floor penetrations	
5	ASME Category C-A, Inaccessible welds on the RHR Heat Exchanger	
6	ASME Category B-A, Inaccessible RPV welds	

NOTE 1: Relief Request No. 2, "ASME Category C-F, RHR Drywell Spray Internal to Drywell", was not granted by the NRC and thus removed per the May, 1987 addenda. Reference Tab 8 of correspondence section.

DATA FORMAT LEGEND AND NOTES

DATA FORMAT LEGEND & NOTES (con't.)

FIELD	DESCRIPTION
SPEC	Cooper Nuclear Station design specification from piping design tables.
SS	Snubber stroke in inches. See Note 2.
S/T	Nominal pipe schedule or thickness in inches.
STYPE	Component Support Type Abbreviation. See Note 2.
SYSTEM	Piping/component system.
UTO	Ultrasonic test (with zero degree transducer) index number which correlates to the specific NDE Procedure to be used. See also NDE Procedure listing, Note 1.
UT45	Ultrasonic test (with 45 degree transducer) index number which correlates to the specific NDE Procedure to be used. See also NDE procedure listing, Note 1.
UT60	Ultrasonic test (with 60 degree transducer) index number which correlates to the specific NDE procedure to be used. See also NDE procedure listing, Note 1.
VT	Visual test index number which correlates to the specific NDE procedure to be used. See also NDE procedure listing, Note 1.
WELD	Weld type of component. See also weld type drawings.
W81CAL	Cooper Nuclear Station Calibration standard used to determine UT calibration and which meets the requirements of ASME Section XI, 1980 Edition, Winter 1981 Addenda. May 87

Notes:

1) When a component is to be inspected, a number representing the Procedure number to be used will be placed in the respective column; for example, #7 in the Data listing equates to Procedure IP-W812, Rev. 1, "Liquid Penetrant Examination of Nuclear Power Plant Components". See "NDE Procedure" for the complete listing. May 87

2) This data field is specific to hangers and supports. See Hanger and Support Abbreviations for a complete listing.

3) Because of the change from using ISI drawings to using Isometrics, there may not be Isometric or drawings for all components, but there will be either a drawing number or Isometric.

SYSTEM/COMPONENTS
ABBREVIATIONS FOR ASME CLASS 1

SYSTEM/COMPONENT ABBREVIATIONS FOR ASME CLASS 1

SYSTEM/COMPONENT ABBREVIATIONS	SYSTEM/COMPONENTS	
PRC	Pressure Retaining Bolting - Washers	Oct 85
PRD	Pressure Retaining Bolting - Bushings	
PRE	Pressure Retaining Bolting - Ligaments	
PRF	Ring Girder Anchor Bolts	
PRG	RPV Skirt-to-Ring Girder Bolts	
PSA	HPCI Steam	
PWA	HPCI Water	
RCA	CRD Return	
RCIC	Reactor Core Isolation Cooling (Bolting)	
RF	Reactor Feedwater Bolting	
RFH	Reactor Feedwater Hanger	
RFS	Reactor Feedwater Seismic Restraint	
RHA	20" RHR Supply	
RHB	RHR - Loop A	
RHC	RHR - Loop B	
RHD	6" RHR Head Spray	
RHH	RHR Hanger	
RHR	Residual Heat Removal (Bolting)	
RHS	RHR Seismic Restraint	
RAH/RAD	Recirculation - Loop A Discharge	
RAS	Recirculation - Loop A Suction	May 87
RBH/RBD	Recirculation - Loop A Discharge	
RBS	Recirculation - Loop A Suction	
RR	Reactor Recirculation (Bolting)	
RRA	Recirculation - Loop B	

SYSTEM/COMPONENT ABBREVIATIONS FOR ASME CLASS 1

SYSTEM/COMPONENT ABBREVIATIONS	SYSTEM/COMPONENTS
RRB	Recirculation - Loop B
RRC	Recirculation - Loop B
RRD	Recirculation - Loop B
RRE	Recirculation - Loop B
RRF	Recirculation - Loop A
RRG	Recirculation - Loop A
RRH	Recirculation - Loop A
RRJ	Recirculation - Loop A
RRK	Recirculation - Loop A
RRP	Reactor Recirculation Pump
RSA	RCIC - Steam
RVI	Reactor Vessel Instrumentation
RWA	RCIC - Water
RWCU	Reactor Water Cleanup (Bolting)
SLC	Standby Liquid Control
SSA	MS Seismic Restraint Loop A
SSB	MS Seismic Restraint Loop B
SSC	MS Seismic Restraint Loop C
SSD	MS Seismic Restraint Loop D
VCB	RPV Circumferential Welds
VLA	RPV Shell Course 1 Longitudinal Welds
VLB	RPV Shell Course 2 Longitudinal Welds
VLC	RPV Shell Course 3 Longitudinal Welds
VLD	RPV Shell Course 4 Longitudinal Welds
HM	RPV Bottom Head Meridional

May 87

MATERIAL SPECIFICATION ABBREVIATION

MATERIAL SPECIFICATION ABBREVIATION

Mat. Spec. Abbreviation	Material Specification/Description	
F-25	SA-216 WCB	May 87
P-20	316 NG stainless steel in accordance with NPPD Contract 83-41, Section G, Page C-13. Also see correspondence section, Tab 10.	May 87

NOTE: Material specification abbreviations correspond with Cooper Nuclear Station's Material Specification Coding Tables used during construction, except for material specifications greater than P-17 and F-22, and RPV-1, which have been added.

CNS-UT CALIBRATION STANDARDS

COOPER NUCLEAR STATION UT CALIBRATION STANDARDS - BY NO.
25 APR 1987

STD NO.	CNSNO.	SIZE.	SCH.	TKNS...	SCHED	MAT'L.	ID.STAMP.....	HT.NO.....	DRAWING.NO.....	REMARKS.....
1	19172	3	160	0.438	J	P1	CNS-GE-3-120-C	N32750	GEC-1005	
2	19173	4	160	0.531	J	P1	CNS-GE-4-140-C	L45042	GEC-1007	
3	19174	6	160	0.719	J	P1	CNS-GE-6-160-C	N55590	GEC-1008	
4	19175	10	120	0.844	H	P1	CNS-GE-10-120-C	N54958	GEC-1009	
5	19176	12	160	1.312	J	P1	CNS-GE-12-140-C	36A309	GEC-1010	
6	19177	14	160	1.406	J	P1	CNS-GE-14-160-C	52918	GEC-1011	
7	19178	16	160	1.594	J	P1	CNS-GE-16-160-C	21077	GEC-1012	
8	19179	20	N/A	1.5	N/A		CNS-GE-20-C	M52851	GEC-1013	A-515.GR.7
9	19180	3	80	0.300	F	P12	CNS-GE-3-80-SS	M6445	GEC-1014	
10	19181	4	80	0.377	F	P12	CNS-GE-4-80-SS	80359	GEC-1015	
11	19182	6	80	0.432	F	P12	CNS-GE-6-80-SS	47779	GEC-1016	
12	19183	10	80	0.594	F	P15	CNS-GE-10-80-SS	651345	GEC-1017	
13	19184	12	80	0.688	F	P14	CNS-GE-12-80-SS	DXR0155	GEC-1018	
14	19185	20	N/A	1.5	N/A	P12	CNS-GE-20-80-SS	316086-1A	GEC-1019	FLAT BLOCK
15	19186	RPV	N/A	4.8	N/A		CNS.CAL.STD.NO.15	C-2274-1	GEC-1020	SA-533.GR.B
16	19187	RPV	N/A	7.1	N/A		CNS.CAL.STD.NO.16	C-2274-1	GEC-1021	SA-533.GR.B
17	19188	6	160	0.719	J	P12	CNS-GE-6-160-SS	M2857	GEC-1002	
18	19189	4	160	0.531	J	P12	CNS-GE-4-160-SS	M2951	GEC-1001	
19	19190	16	N/A	0.750	N/A	P1	CNS-GE-16-75-CS	L64209	GEC-1003	
20	19191	5	160	0.700	J	CS/RPV	CRD.CAP	CS/15342.1	GEC-1022	WELDED.STANDARD.CARBON.STEEL/I NCONEL
21	19192	6.25	N/A	148.7/8	N/A		CNS.CAL.STD.NO.21	44709	GEC-1004	SA-540.GR.B24.RPV.CLOSURE.STUD
22	19193	N/A	N/A		N/A		CNS.CAL.STD.NO.22	D84528	GEC-1023	NOZZLE.INNER.RADIUS.ZONE.1.&.2 .TRANSFER.BLOCK
23	19194	2.75	N/A	118.1/2	N/A		CNS.CAL.STD.NO.23	44709	GEC-1005	SA-540.GR.B24.REACTOR.RECIRC.B OLT
24	19195	N/A	N/A	7.15	N/A		CNS.CAL.STD.NO.24	D84528	GEC-1030	N1.NIR.ZONE.3
25	19196	N/A	N/A	4.851	N/A		CNS.CAL.STD.NO.25	D84528	GEC-1059	N2.NIR.ZONE.3
26	19197	N/A	N/A	7.44	N/A		CNS.CAL.STD.NO.26	D84528	GEC-1060	N3.NIR.ZONE 3
27	19198	N/A	N/A	5.515	N/A		CNS.CAL.STD.NO.27	D84528	GEC-1061	N4.NIR.ZONE.3
28	19199	N/A	N/A	5.00	N/A		CNS.CAL.STD.NO.28	D84528	GEC-1062	N5.NIR.ZONE.3
29	19200	N/A	N/A	8.625	N/A		CNS.CAL.STD.NO.29	D84528	GEC-1063	N8.NIR.ZONE.3
30	19201	N/A	N/A	3.00	N/A		CNS.CAL.STD.NO.30	D84528	GEC-1064	N9.NIR.ZONE.3
31	19202	4	160	0.531	J	P-12	CNS.CAL.STD.NO.31	M2951	GEC-1024	
32	19203	5	160	0.625	J		CNS.CAL.STD.NO.32	386576	GEC-1024	
33	19204	10	140	1.000	I		CNS.CAL.STD.NO.33	9709	GEC-1024	
34	19205	12	60	0.562	E		CNS.CAL.STD.NO.34	27647	GEC-1024	
35	19206	22	80	1.277	F	P12	CNS.CAL.STD.NO.35	3E4745	GEC-1024	TP304
36	19207	24	60	0.968	E	P12	CNS.SL.STD.NO.36	B17154	GEC-1024	TP304
37	19208	24	80	1.218	F	P12	CNS.CAL.STD.NO.37	3E745	GEC-1024	TP304
38	19209	28	N/A	1.138	N/A		CNS.CAL.STD.NO.38	3E4745	GEC-1024	
39	19210	28	80	1.031	F	P17		3E4140	GEC-1024	
40	19211	46		0.750		P1		J31586	GEL-10508	FLAT BLOCK
41		12	120	1.00			81-12-09	78158	N/A	LASALLE.BLOCK-BORROWED
42	19212	8	80	.500	F	P1	CNS.CAL.STD.NO.42	N98269	N/A	SA-106.GR.B
43	19213	8	80	.500	F		CNS.CAL.STD.NO.43	A22256	N/A	SA-333.GR.6
44	19214	N/A	N/A	.998*		S.S	07-16-83		N/A	DELTA.W.SIZING,FLAT.I8SCC.INDI CATIONS
45	19234	N/A	N/A	.680		S.S	07-16-83		N/A	DELTA.W.SIZINGH,FLAT.I6SCC.IND ICATIONS
46	19215	N/A	N/A	.445		S.S	07-16-83		N/A	DELTA.W.SIZING,FLAT.I8SCC.INDI

STD NO.	CNSNO.	SIZE.	SCH.	THKNS...	SCHED	MAT'L.	ID.STAMP.....	HT.NO.....	DRAWING.NO.....	REMARKS.....
										CATIONS
47		10		".400		S.S	DWG.TS-0-1076			OVERLAY.CLAD.BLOCK
48	19216	6	80	.432	F	P-20	CNS-48-6-80-SS	D411303	CP-1079/1.0F.4	RACU
49	19217	10	80	.593	F	P-20	CNS-49-10-80-SS	D460703	CP-1079/2.0F.4	CORE SPRAY
50	19218	12	80	.687	F	P-20	CNS-50-12-80-SS	D431604	CP-1079/2.0F.4	RECIRC. RISERS
51	19219	13	N/A	1.125	N/A	P-20	CNS-51-13-1.125-SS	D421504.(F	CP-1079/2.0F.4	CORE SPRAY NOZ TO SE
52	19220	14	140	1.28	1	P-20	CNS-52-14-140-SS	D421504.(F	CP-1079/2.0F.4	RECIRC RISER NOZ TO SE
53	19221	20	80	1.03	F	P-20	CNS-53-20-80-SS	D421504.(F	CP-1079/3.0F.4	RHR SUCT. RECIRC. A LOOP
54	19222	22	80	1.125	F	P-20	CNS-54-22-80-SS	D421504.(F	CP-1079/3.0F.4	RECIRC HEADER TO CROSS
55	19223	24	80	1.218	F	P-20	CNS-55-24-80-SS	D421504.(F	CP-1079/3.0F.4	RHR DISCHARGE/RTN A & B LOOPS
56	19224	28	N/A	1.25	N/A	P-20	CNS-56-28-1.25-SS	D421504	CP-1079/4.0F.4	RECIRC SUCT
57	19225	29	N/A	1.935	N/A		CNS-57-29-1.935-SS	P33761	CP-1079/4.0F.4	RECIRC SUCT NOZ TO SE
58	19226	30	N/A	2.25	N/A		CNS-58-30-2.25-SS	P33761	CP-1079/4.0F.4	RECIRC RHR TEE TO CROSS
59	19227	29	N/A	1.620	N/A	RPV-3	CNS-59-29-1.620-CS	68575	CP-1080/3.0F.3	RECIRC N-SE
60	19228	14	N/S	.972	N/A	RPV-3	CNS-60-14-.972-CS	127300	CP-1080/2.0F.3	RECIRC N-SE
61	19229	13	N/A	.844	N/A	RPV-2	CNS-61-13-.844-CS	6A11375	CP-1080/1.0F.3	CORE SPRAY N-SE
62		4	160	.531		F22				
63		4	160	.531		P2				
64		4	80	.337		F19				
65		4	80	.337		P14				
66		6	120	.562		P14				
67		6	120	.562		F22				
68		6	120	.562		P2				
69		6	120	.562		P6				
70		6	120	.562		P9				
71		8	80	.500		F19				
72		8	EH	.875		P2				
73	20964	8	100	.593		P1	CNS-73-8-100-CS	21285	CP-1087/3.0F.5	SEE DRWG CP-1087/1.0F.5 FOR NOTES
74		8	100	.593		F1				
75	20966	8	120	.718		P1	CNS-75-8-120-CS	21285	CP-1087/3.0F.5	SEE DRWG CP-1087/1.0F.5 FOR NOTES
76		8	120	.718		F1				
77		10	100	.718		F1				
78	20965	10	100	.718		P1	CNS-78-10-100-CS	L80291	CP-1087/3.0F.5	SEE DRWG CP-1087/1.0F.5 FOR NOTES
79		14	100	.718		P2				
80		10	80	.593		F1				
81		18		.932		F1				HPCI PUMP
82		12	60	.562		F1				
83		12	120	1.00		P2				
84		12	120	1.00		F22				
85	20967	12	160	1.312		P2	CNS-85-12-160-CS	52329	CP-1087/5.0F.5	SEE DRWG CP-1087/1.0F.5 FOR NOTES
86		12	160	1.312		F22				
87		12	100	.843		P1				
88		12	100	.843		F1				
89	20974	14	100	.938		P1	CNS-89-14-100-CS	W46199	CP-1087/3.0F.5	SEE DRWG CP-1087/1.0F.5 FOR NOTES
90		14	100	.938		F1				
91		14	120	1.093		P1				

COOPER NUCLEAR STATION UT CALIBRATION STANDARDS - BY NO.
25 APR 1987

STD NO.	CNSNO.	SIZE.	SCH.	TKNS...	SCHED	MAT'L.	ID.STAMP.....	HT.NO.....	DRAWING.NO.....	REMARKS.....
92		14	140	1.250		F22				
93		16	80	.844		P2				
95		18	80	.938		P2				
96	20963	18	100	1.156		P1	CNS-96-18-100-CS	202	CP-1087/2.OF.5	SEE DRWG CP-1087/1.OF.5 FOR NOTES
97	20962	18	160	1.781		P1	CNS-97-18-160-CS	651695	CP-1087/2.OF.5	SEE DRWG CP-1087/1.OF.5 FOR NOTES
98		18	140	1.562		F22				
99		18	140	1.562		P2				
100	20973	18	120	1.375		P1	CNS-100-18-120-CS	C3590	CP-1087/2.OF.5	SEE DRWG CP-1087/1.OF.5 FOR NOTES
101	20972	18	40	.562		P1	CNS-101-18-40-CS	02.511	CP-1087/4.OF.5	SEE DRWG CP-1087/1.OF.5 FOR NOTES
102	20971	20	40	.594		P1	CNS-102-20-40-CS	651314	CP-1087/4.OF.5	SEE DRWG CP-1087/1.OF.5 FOR NOTES
103	20970	20	80	1.031		P1	CNS-103-20-80-CS	953042	CP-1087/1.OF.5	SEE DRWG CP-1087/1.OF.5 FOR NOTES
104	20969	24	30	.562		P1	CNS-104-24-30-CS	541702	CP-1087/4.OF.5	SEE DRWG CP-1087/1.OF.5 FOR NOTES
105		20	80	1.031		P12				
106	20968	24	80	1.218		P1	CNS-106-24-60-CS	652031	CP-1087/1.OF.5	ORIG P3 MATERIAL IS OBSOLETE, P1 IS SUBSTITUTE
107	19230	5.5	---	.812		316.SS	CNS-107-5.5-.812-SS	DCN	CP-1082	JET PUMP INST. SAFE END
108	19231	9	---	1.575		316.SS	CNS-108-9-1.575-SS		CP-1083	RHR-RWCU ELBOWLET
109	19232	5.5	---	.625		4508.C	CNS-109-5.5-.625-CS		CP-1084	JET PUMP INST. NOZ
110	19233	4	80	0.337		316L	CNS-110-4-80-SS	DCN	CP-1085	RECIRC SYSTEM DECON FLANGE
111	NA*	12		1.13		CS/SS	GE-61	84Z/CPA		*BORROWED GE BLOCK(TRI-METAL) FOR N-2 EXAMS
112	NA*	28		1.31		CS/SS	INC-BUT-002	184866		*BORROWED GE BLOCK(TRI-METAL) FOR N-1 EXAMS

ASME CAT. B-D

COOPER NUCLEAR STATION
LIST OF ASME SECTION XI COMPONENTS BY CATEGORY
30 MAY 1987

PIPE	CAT	CNT	CFIG	SIZE	S/T	MAT	CAL	WELD CAL	WELD	DWG	ISO	VT	PT	MT	UT0	UT45	UT60	INT	PER	RR	REMARKS
NVE-BD-N1B	B-D	1	N-VE	28"	6.4"	RPV 1	16		V12	27					1	1	1	2	3		
NVE-BD-N2A	B-D	1	N-VE	12"	6.4"	RPV 1	16		V13	27					1	1	1	2	3		
NVE-BD-N2B	B-D	1	N-VE	12"	6.4"	RPV 1	16		V13	27					1	1	1	2	3		
NVE-BD-N2E	B-D	1	N-VE	12"	6.4"	RPV 1	16		V13	27					1	1	1	2	2		
NVE-BD-N2J	B-D	1	N-VE	12"	6.4"	RPV 1	16		V13	27					1	1	1	2	2		
NVE-BD-N2K	B-D	1	N-VE	12"	6.4"	RPV 1	16		V13	27					1	1	1	2	2		
NVE-BD-N3B	B-D	1	N-VE	12"	6.4"	RPV 1	16		V14	27					1	1	1	2	2		
NVE-BD-N3D	B-D	1	N-VE	24"	5.4"	RPV 1	16		V14	27					1	1	1	2	2		
NVE-BD-N4A	B-D	1	N-VE	12"	5.4"	RPV 1	16		V15	27					1	1	1	2	2		
NVE-BD-N4C	B-D	1	N-VE	12"	5.4"	RPV 1	16		V15	27					1	1	1	2	3		
NVE-BD-N5A	B-D	1	N-VE	10"	5.4"	RPV 1	16		V16	27					1	1	1	2	2		
NVE-BD-N5B	B-D	1	N-VE	10"	5.4"	RPV 1	16		V16	27					1	1	1	2	3		
NVE-BD-N6A	B-D	1	N-VE	6	3.4"	RPV 1	15		V17	26					1	1	1	2	3		
NVE-BD-N6B	B-D	1	N-VE	6	3.4"	RPV 1	15		V17	26					1	1	1	2	2		
NVE-BD-N8A	B-D	1	N-VE	5	3.4	RPV 1	16		V19	27					1	1	1	2	2		
NVE-BD-N9	B-D	1	N-VE	5"	5.4"	RPV 1	16		V20	27					1	1	1	2	3		
NVIR-BD-N2J	B-D	1	NIR	12"	---	RPV 1	22,25		---	27							13,14,15	2	2		CA - COMPOUND ANGLE
NVIR-BD-N2K	B-D	1	NIR	12"	---	RPV 1	22,25		---	27							13,14,15	2	2		CA - COMPOUND ANGLE
NVIR-BD-N3B	B-D	1	NIR	24"	---	RPV 1	22,26		---	27							13,14,15	2	2		CA - COMPOUND ANGLE
NVIR-BD-N3D	B-D	1	NIR	24"	---	RPV 1	22,26		---	27							13,14,15	2	2		CA - COMPOUND ANGLE
NVIR-BD-N5A	B-D	1	NIR	10"	---	RPV 1	22,28		---	27							13,14,15	2	2		CA - COMPOUND ANGLE
NVIR-BD-N5B	B-D	1	NIR	10"	---	RPV 1	22,28		---	27							13,14,15	2	3		CA - COMPOUND ANGLE
NVIR-BD-N8B	B-D	1	NIR	5"	---	RPV 1	16,22,29		---	27						3	13,14,15	2	3		CA - COMPOUND ANGLE
NVE-BD-N2D	B-D	1	N-VE	12"	6.4"	RPV 1	16		V13	27	---				1	1	1	2	3		
NVE-BD-N3C	B-D	1	N-VE	24"	5.4"	RPV 1	16		V14	27	---				1	1	1	2	3		
NVE-BD-N8B	B-D	1	N-VE	5	3.4	RPV 1	16		V19	27	---				1	1	1	2	3		
NVIR-BD-N1B	B-D	1	NIR	28"	---	RPV 1	22,24		--	27	---						13,14,15	2	3		CA - COMPOUND ANGLE
NVIR-BD-N2A	B-D	1	NIR	12"	---	RPV 1	22,25		--	27	---						13,14,15	2	3		CA - COMPOUND ANGLE
NVIR-BD-N2B	B-D	1	NIR	12"	---	RPV 1	22,25		--	27	---						13,14,15	2	3		CA - COMPOUND ANGLE
NVIR-BD-N2D	B-D	1	NIR	12"	---	RPV 1	22,25		--	27	---						13,14,15	2	3		CA - COMPOUND ANGLE
NVIR-BD-N3C	B-D	1	NIR	24"	---	RPV.1	22,26		---	27	---						13,14,15	2	3		CA - COMPOUND ANGLE
NVIR-BD-N9	B-D	1	NIR	---	---		22,30		---	27	---					3	13,14,15				
NVE-BD-N3A	B-D	1	N-VE	24"	5.4"	RPV 1	16	16	V14	27	26				1	1	1	2	1		
NVE-BD-N7	B-D	1	N-VE	6	3.4"	RPV 1	15	15	V18	26	26				1	1	1	2	1		
NVIR-BD-N7	B-D	1	NIR	6	---	RPV 1	N/A		---	26	26		7					2	1		RI-03
NVE-BD-N1A	B-D	1	N-VE	28"	6.4"	RPV 1	16	16	V12	27	27				1	1	1	2	1		
NVE-BD-N2F	B-D	1	N-VE	12"	6.4"	RPV 1	16	16	V13	27	27				1	1	1	2	1		
NVE-BD-N2G	B-D	1	N-VE	12"	6.4"	RPV 1	16	16	V13	27	27				1	1	1	2	1		
NVE-BD-N2H	B-D	1	N-VE	12"	6.4"	RPV 1	16	16	V13	27	27				1	1	1	2	1		
NVE-BD-N4B	B-D	1	N-VE	12"	5.4"	RPV 1	16	16	V15	27	27				1	1	1	2	1		
NVE-BD-N4D	B-D	1	N-VE	12"	5.4"	RPV 1	16	16	V15	27	27				1	1	1	2	1		
NVIR-BD-4A	B-D	1	NIR	24"			22,27			27											CA - COMPOUND ANGLE
NVIR-BD-N1A	B-D	1	NIR	28"	---	RPV 1	22,24,16	22,24	--	27	27						13,14,15	2	1		CA - COMPOUND ANGLE
NVIR-BD-N2C	B-D	1	NIR	12"	---	RPV 1	22,25	22,25	--	27	27						13,14,15	2	1		CA - COMPOUND ANGLE
NVIR-BD-N2F	B-D	1	NIR	12"	---	RPV 1	22,25	22,25	--	27	27						13,14,15	2	1		CA - COMPOUND ANGLE
NVIR-BD-N2G	B-D	1	NIR	12"	---	RPV 1	22,25	22,25	--	27	27						13,14,15	2	1		CA - COMPOUND ANGLE
NVIR-BD-N3A	B-D	1	NIR	24"	---	RPV 1	22,26	22,26	---	27	27						13,14,15	2	1		CA - COMPOUND ANGLE
NVIR-BD-N4A	B-D		NIR	14"	---	RPV-1		22,27	---	27	27						13,14,15	2	A2		CA - COMPOUND ANGLE
NVIR-BD-N4B	B-D	1	NIR	14"	---	RPV 1	22,27	22,27	---	27	27						13,14,15	2	A2		CA - COMPOUND ANGLE
NVIR-BD-N4C	B-D	1	NIR	14"	---	RPV 1	22,27		---	27	27						13,14,15	2	A2		CA - COMPOUND ANGLE

COOPER NUCLEAR STATION

LIST OF ASME SECTION XI COMPONENTS BY CATEGORY

30 MAY 1987

PIPE.....	CAT..	CNT.	CFIG...	SIZE	S/T....	MAT.....	CAL.....	WB1.CAL.	WELD...	DWG ISO.....	VT...	PT	MT	UT0.....	UT45....	UT60....	INT	PER....	RR...	REMARKS.....
																13,14,15	2	A2		CA - COMPOUND ANGLE
NVIR-BD-N4D	B-D	1	NIR	14"	---	RPV 1	22,27	22,27	---	27 27										
NVE-BD-N2C	B-D	1	N-VE	12"	6.4"	RPV 1	16	16	V13	27 GE.E-232-239			1	1		1	2	1		
NVIR-BD-N2E	B-D	1	NIR	12"	---	RPV 1	22,25		--	42 GE.E-232-239						13,14,15	2	2		CA - COMPOUND ANGLE
NVIR-BD-N2H	B-D	1	NIR	12"	---	RPV 1	22,25		---	42 GE.E-232-239						13,14,15	2	1		CA - COMPOUND ANGLE
NVIR-BD-N6A	B-D	1	NIR	6	---	RPV 1	N/A		---	26 GE.E-232-239		7					2	3		RI-03
NVIR-BD-N6B	B-D	1	NIR	6	---	RPV 1	N/A		---	26 GE.E-232-239		7					2	2		RI-03
NVIR-BD-N8A	B-D	1	NIR	5"	---	RPV 1	16,22,29		---	42 GE.E-232-239					3	13,14,15	2	2		CA - COMPOUND ANGLE
	***	56																		

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ASME CAT. B-F

COOPER NUCLEAR STATION

LIST OF ASME SECTION XI COMPONENTS BY CATEGORY

25 APR 1987

PIPE	CAT	CNT	CFIG	SIZE	S/T	MAT	CAL	WBI.CAL	WELD	DWG ISO	VT	PT	MT	UT0	UT45	UT60	INT	PER	RR	REMARKS
CWB-BF-9	B-F	1	P-P	4	160	P2/P12		2/18	B-W	2513-1	7	6		6			2	1		
JPA-BF-1	B-F	1	SE-N	6	0.828	P20/RPV-1	107/109	107/109	CBI-20	CE232-241-5	7	6		6			2	2		
JPB-BF-1	B-F	1	SE-N	6	0.828	P20/RPV-1	107/109	107/109	CBI-20	CE232-241-5	7	6		6			2	3		
CSB-BF-1	B-F	1	SE-N	13.4	1.06	P20/RPV-1	61/51	61/51	CBI-14	CNS-CS-3	7	6		6			2	1		
CSB-BF-4A	B-F	1	P-E	10	0.631	P20/P2	4/49	4/49	CBI-53	CNS-CS-3	7	6		6			2	1		
CSA-BF-1	B-F	1	SE-N	13.4	1.06	P20/RPV-1	61/51	61/51	CBI-14	CNS-CS-4	7	6		6			2	1		
CSA-BF-4A	B-F	1	P-E	10	0.631	P20/P2	4/49	4/49	CBI-51	CNS-CS-4	7	6		6			2	2		
RAD-BF-7	B-F	1	P-P	24	1.218	P20/P3	7/55		CBI-29	CNS-RR-37	7	6		6			2	3		
RAS-BF-1	B-F	1	SE-N	29	1.973	P20/RPV-1		59/57	CBI-18	CNS-RR-37	7	6		6			2	1		
RAS-BF-12	B-F	1	P-P	20	1.031	P20/P3	7/53		CBI-29	CNS-RR-37	7	6		6			2	1		
RAF-BF-1	B-F	1	SE-N	14	1.187	P20/RPV-1	60/52	60/52	CBI-11	CNS-RR-37	7	6		6			2	3		
RAG-BF-1	B-F	1	SE-N	14	1.187	P20/RPV-1	60/52	60/52	CBI-11	CNS-RR-37	7	6		6			2	3		
RAH-BF-1	B-F	1	SE-N	14	1.187	P20/RPV-1	60/52	60/52	CBI-11	CNS-RR-37	7	6		6			2	1		
RAJ-BF-1	B-F	1	SE-N	14	1.187	P20/RPV-1	60/52	60/52	CBI-11	CNS-RR-37	7	6		6			2	2		
RAK-BF-1	B-F	1	SE-N	14	1.187	P20/RPV-1	60/52	60/52	CBI-11	CNS-RR-37	7	6		6			2	2		
RBD-BF-7	B-F	1	P-P	24	1.218	P20/P3	7/55		CBI-42	CNS-RR-38	7	6		6			2	2		
RBS-BF-1	B-F	1	SE-N	29	1.973	P20/RPV-1	57/59	57/59	CBI-18	CNS-RR-38	7	6		6			2	2		
RBA-BF-1	B-F	1	SE-N	14	1.187	P20/RPV-1	52/60	60/52	CBI-11	CNS-RR-38	7	6		6			2	3		
RBB-BF-1	B-F	1	SE-N	14	1.187	P20/RPV-1	60/52	60/52	CBI-11	CNS-RR-38	7	6		6			2	3		
RBC-BF-1	B-F	1	SE-N	14	1.187	P20/RPV-1	60/52	60/52	CBI-11	CNS-RR-38	7	6		6			2	1		
RBD-BF-1	B-F	1	SE-N	14	1.187	P20/RPV-1	60/52	60/52	CBI-11	CNS-RR-38	7	6		6			2	3		
RBE-BF-1	B-F	1	SE-N	14	1.187	P20/RPV-1	60/52	60/52	CBI-11	CNS-RR-38	7	6		6			2	1		
	***	22																		
***		22																		

ASME CAT. B-G-2

COOPER NUCLEAR STATION
INSERVICE INSPECTION PROGRAM-REV. 3
25 APR 1987

PIPE.....	CAT..	CFIG...	DWG	ISO.....	VT...	INT	PER....	REMARKS.....
RR-MO-43B	B-G-2	BLT	23		B	2	2	
RR-MO-53B	B-G-2	BLT	23	---	B	2	3	
CS-14A	B-G-2	BLT	1	2501-1	B	2	3	
CS-14B	B-G-2	BLT	2	2501-1	B	2	2	
CS-AO-13A	B-G-2	BLT	1	2501-1	B	2	2	
CS-AO-13B	B-G-2	BLT	2	2501-1	B	2	3	
CS-MO-12A	B-G-2	BLT	1	2501-1	B	2	1	
CS-MO-12B	B-G-2	BLT	2	2501-1	B	2	1	
RWCU-1#	B-G-2	BLT	3	2503-1	B	2	1	
RWCU-MO-18	B-G-2	BLT	3	2503-1	B	2	3	
HPCI-MO-16	B-G-2	BLT	13	2506-1	B	2	2	
RCIC-MO-15	B-G-2	BLT	24	2506-2	B	2	1	
RCIC-MO-16	B-G-2	BLT	24	2506-2	B	2	2	
MS-AO-86A	B-G-2	BLT	9	2506-4	B	2	3	
MS-AO-86B	B-G-2	BLT	10	2506-4	B	2	3	
MS-AO-86C	B-G-2	BLT	11	2506-4	B	2	3	
MS-AO-86D	B-G-2	BLT	12	2506-4	B	2	2	
RCIC-AO-22	B-G-2	BLT	25	2509-1	B	2	3	
RCIC-MO-21	B-G-2	BLT	25	2509-1	B	2	3	
RF-11	B-G-2	BLT	5	2509-1	B	2	2	
RF-15-CV	B-G-2	BLT	5	2509-1	B	2	3	
RF-16-CV	B-G-2	BLT	5	2509-1	B	2	3	
RWCU-15 CV	B-G-2	BLT	4	2509-1	B	2	2	
RWCU-MO-68	B-G-2	BLT	4	2509-1	B	2	3	
HPCI-AO-18	B-G-2	BLT	14	2509-2	B	2	3	
RF-13	B-G-2	BLT	6	2509-2	B	2	1	
RF-13-CV	B-G-2	BLT	6	2509-2	B	2	1	
RF-14-CV	B-G-2	BLT	6	2509-2	B	2	2	
RHR-MO-17	B-G-2	BLT	16	2510-1	B	2	1	
RHR-MO-18	B-G-2	BLT	16	2510-1	B	2	3	
RHR-MO-88	B-G-2	BLT	16	2510-1	B	2	3	
RHR-MO-25B	B-G-2	BLT	18	2510-3	B	2	2	
RHR-MO-81B	B-G-2	BLT	18	2510-3	B	2	3	
RHR-MO-25A	B-G-2	BLT	17	2510-4	B	2	1	
RHR-MO-81A	B-G-2	BLT	17	2510-4	B	2	3	
RHR-BG2-2	B-G-2	BLT	19	2510-5	B	2	3	
RF-29-MV	B-G-2	BLT		2649-4	B	2	2	
RF-30-MV	B-G-2	BLT	7	2849-4	B	2	2	
MS-AO-80A	B-G-2	BLT	9	GE731E611	B	2	1	
MS-AO-80B	B-G-2	BLT	10	GE731E611	B	2	1	
MS-AO-80C	B-G-2	BLT	11	GE731E611	B	2	1	
MS-AO-80D	B-G-2	BLT	12	GE731E611	B	2	1	
MS-RV-70A	B-G-2	BLT	9	GE731E611	B	2	1	
MS-RV-70B	B-G-2	BLT	12	GE731E611	B	2	3	
MS-RV-70C	B-G-2	BLT	12	GE731E611	B	2	2	
MS-RV-71A	B-G-2	BLT	9	GE731E611	B	2	2	
MS-RV-71B	B-G-2	BLT	9	GE731E611	B	2	2	
MS-RV-71C	B-G-2	BLT	10	GE731E611	B	2	3	
MS-RV-71D	B-G-2	BLT	10	GE731E611	B	2	2	
MS-RV-71E	B-G-2	BLT	11	GE731E611	B	2	1	

PIPE.....	CAT..	CFIG...	DWG ISO.....	VT...	INT	PER....	REMARKS.....
MS-RV-71F	B-G-2	BLT	11 GE731E611	B	2	2	
MS-RV-71G	B-G-2	BLT	12 GE731E611	B	2	1	
MS-RV-71H	B-G-2	BLT	12 GE731E611	B	2	3	
MSA-BG2-17	B-G-2	BLT	9 GE731E611	B	2	3	
MSA-BG2-22	B-G-2	BLT	9 GE731E611	B	2	3	
MSA-BG2-27	B-G-2	BLT	9 GE731E611	B	2	3	
MSB-BG2-16	B-G-2	BLT	10 GE731E611	B	2	3	
MSB-BG2-21	B-G-2	BLT	10 GE731E611	B	2	3	
MSC-BG2-19	B-G-2	BLT	11 GE731E611	B	2	3	
MSC-BG2-24	B-G-2	BLT	11 GE731E611	B	2	3	
MSD-BG2-17	B-G-2	BLT	12 GE731E611	B	2	3	
MSD-BG2-22	B-G-2	BLT	12 GE731E611	B	2	3	
MSD-BG2-27	B-G-2	BLT	12 GE731E611	B	2	3	
MSD-BG2-31	B-G-2	BLT	12 GE731E611	B	2	3	

ASME CAT. B-J

COOPER NUCLEAR STATION
LIST OF ASME SECTION XI COMPONENTS BY CATEGORY
25 APR 1987

PIPE.....	CAT..	CNT.	CFIG...	SIZE	S/T....	MAT.....	CAL.....	WR1.CAL.	WELD...	DWG ISO.....	VT...	PT	MT	UT#	UT45	UTAP	INT	PER	AR...	REMARKS.....
PSA-BJ-1	B-J	1	E-WE	10"	100	F1	4		J-9F	13 2506-1		7	6	6			2	2		
PSA-BJ-11	B-J	1	P-P	10"	100	P1	4	78	J-9F	13 2506-1		7	6	6						
PSA-BJ-12	B-J	1	P-E	10"	100	P1	4	78	J-9	13 2506-1		7	6	6						
PSA-BJ-15	B-J	1	E-VA	10"	100	F1	4		J-9F	13 2506-1		7	6	6						
PSA-BJ-16	B-J	1	VA-P	10"	100	P1	4	78	J-9F	13 2506-1		7	6	6						
PSA-BJ-17*	B-J	1	P-E	10"	100	P1	4	78	J-9	13 2506-1		7	6	6			2	3	A	* FORMER PIPE WHIP EXAM
PSA-BJ-18*	B-J	1	E-P	10"	100	P1	4	78	J-9	13 2506-1		7	6	6			2	3	A	* FORMER PIPE WHIP EXAM
PSA-BJ-2	B-J	1	P-E	10"	100	P1	4	78	J-9	13 2506-1		7	6	6			2	2		
PSA-BJ-20	B-J	1	P-E	10"	100	P1	4	78	J-9	13 2506-1		7	6	6						
PSA-BJ-21	B-J	1	E-P	10"	100	F1	4		J-9F	13 2506-1		7	6	6						
PSA-BJ-22	B-J	1	P-FH	10"	100	F1	4		J-9F	13 2506-1		7	6	6					RI-03	RI-01
PSA-BJ-24	B-J	1	FH-VA	10"	100	F1	4		J-9F	13 2506-1		7	6	6						
PSA-BJ-3	B-J	1	P-E	10"	100	P1	4	78	J-9	13 2506-1		7	6	6						
PSA-BJ-4	B-J	1	E-P	10"	120	P1	4		J-9	13 2506-1		7	6	6						
PSA-BJ-8	B-J	1	P-E	10"	120	P1	4		J-9	13 2506-1		7	6	6						
PSA-BJ-9	B-J	1	E-P	10"	100	P1	4	78	J-9	13 2506-1		7	6	6						
RSA-BJ-1	B-J	1	P-E	3"	160	P1	1		J-9F	24 2506-2		7	6	6			2	3		
RSA-BJ-10	B-J	1	E-P	3"	160	P1	1		J-9	24 2506-2		7	6	6						
RSA-BJ-11	B-J	1	P-E	3"	160	P1	1		J-9	24 2506-2		7	6	6						
RSA-BJ-12	B-J	1	E-VA	3"	160	F1	1		J-9F	24 2506-2		7	6	6						
RSA-BJ-13	B-J	1	VA-P	3"	160	P1	1		J-9F	24 2506-2		7	6	6						
RSA-BJ-13A	B-J	1	P-FH	3"	160	P1	1		J-9F	24 2506-2		7	6	6					RI-03	RI-01
RSA-BJ-14	B-J	1	FH-P	3"	160	P1	1		J-9F	24 2506-2		7	6	6						
RSA-BJ-15	B-J	1	P-E	3"	160	P1	1		J-9	24 2506-2		7	6	6						
RSA-BJ-16	B-J	1	E-P	3"	160	P1	1		J-9F	24 2506-2		7	6	6						
RSA-BJ-17	B-J	1	P-E	3"	160	P1	1		J-9F	24 2506-2		7	6	6						
RSA-BJ-18	B-J	1	E-P	3"	160	P1	1		J-9	24 2506-2		7	6	6						
RSA-BJ-19	B-J	1	P-E	3"	160	P1	1		J-9	24 2506-2		7	6	6						
RSA-BJ-2	B-J	1	E-P	3"	160	P1	1		J-9	24 2506-2		7	6	6						
RSA-BJ-20	B-J	1	E-P	3"	160	P1	1		J-9	24 2506-2		7	6	6						
RSA-BJ-21	B-J	1	P-VA	3"	160	P1	1		J-9F	24 2506-2		7	6	6						
RSA-BJ-3	B-J	1	P-E	3"	160	P1	1		J-9F	24 2506-2		7	6	6						
RSA-BJ-4	B-J	1	E-P	3"	160	P1	1		J-9	24 2506-2		7	6	6						
RSA-BJ-5	B-J	1	P-E	3"	160	P1	1		J-9	24 2506-2		7	6	6						
RSA-BJ-6	B-J	1	E-P	3"	160	P1	1		J-9	24 2506-2		7	6	6						
RSA-BJ-7*	B-J	1	P-E	3"	160	P1	1		J-9	24 2506-2		7	6	6			2	3	A	* FORMER PIPE WHIP EXAM
RSA-BJ-8*	B-J	1	E-P	3"	160	P1	1		J-9F	24 2506-2		7	6	6			2	2	A	* FORMER PIPE WHIP EXAM
RSA-BJ-9	B-J	1	P-E	3"	160	P1	1		J-9	24 2506-2		7	6	6						
MSDR-BJ-1	B-J	1	CAP-P	3"	160	P1	1		J-9S	2506-3		7	6	6						
MSDR-BJ-10	B-J	1	P-V	3"	160	P1	1		J-9F	2506-3		7	6	6						MS-MO-77
MSDR-BJ-2	B-J	1	P-V	3"	160	P1	1		J-9F	2506-3		7	6	6						MS-MO-74
MSDR-BJ-3	B-J	1	V-PC	3"	160	P1	1		J-9F	2506-3		7	6	6						MS-MO-74
MSDR-BJ-4	B-J	1	PC-P	3"	160	P1	1		J-9F	2506-3		7	6	6						
MSDR-BJ-5	B-J	1	P-P	3"	160	P1	1		J-9S	2506-3		7	6	6						
MSDR-BJ-6	B-J	1	P-E	3"	160	P1	1		J-9S	2506-3		7	6	6						
MSDR-BJ-7	B-J	1	E-P	3"	160	P1	1		J-9S	2506-3		7	6	6						

COOPER NUCLEAR STATION
LIST OF ASME SECTION II COMPONENTS BY CATEGORY
25 APR 1987

PIPE.....	CAT..	CNT.	FFIG...	SIZE	S/T....	MAT.....	CAL.....	WB1.CAL.	WELD...	DWG ISO.....	VT...	PT	MT	UTØ.....	UT45....	UT6Ø....	INT	PER....	RR...	REMARKS.....
MSDR-BJ-8	B-J	1	P-E	3"	16Ø	P1	1		J-9S	2586-3		7	6	6						
MSDR-BJ-9	B-J	1	E-P	3"	16Ø	P1	1		J-9S	2586-3		7	6	6						
MSA-BJ-46	B-J	1	FH-P	24"	8Ø	P1	8	1Ø6	J-9	9 2586-4		7	6	6						
MSA-BJ-48	B-J	1	P-VA	24"	8Ø	P1	8	1Ø6	J-9	9 2586-4		7	6	6						
MSB-BJ-42	B-J	1	FH-P	24"	8Ø	P1	8	1Ø6	J-9	1Ø 2586-4		7	6	6						
MSB-BJ-43	B-J	1	P-P	24"	8Ø	P1	8	1Ø6	J-9	1Ø 2586-4		7	6	6						
MSB-BJ-44	B-J	1	P-VA	24"	8Ø	P1	8	1Ø6	J-9	1Ø 2586-4		7	6	6						
MSC-BJ-47	B-J	1	P-P	24"	8Ø	P1	8	1Ø6	J-9	11 2586-4		7	6	6						
MSC-BJ-48	B-J	1	P-VA	24"	8Ø	P1	8	1Ø6	J-9	11 2586-4		7	6	6						
FWA-BJ-1*	B-J	1	SE-P	12"	14Ø	P2	5		J-9	5 2589-1		7	6	6			2	3 A		* FORMER PIPE WHIP EXAM
FWA-BJ-10*	B-J	1	E-P	12"	14Ø	P2	5		J-9	5 2589-1		7	6	6			2	2 A		* FORMER PIPE WHIP EXAM
FWA-BJ-111	B-J	1	N-SE	12"	1.5	P2	6		V-15A	5 2589-1		/	6	6			2	3A2		
FWA-BJ-14	B-J	1	P-P	12"	14Ø	P2	5		J-9	5 2589-1		7	6	6			2	2		
FWA-BJ-17	B-J	1	P-RED	12"	14Ø	P2	5		J-9	5 2589-1		7	6	6						
FWA-BJ-19*	B-J	1	RED-T	18"	14Ø	F22	7		J-9	5 2589-1		7	6	6			2	3 A		* FORMER PIPE WHIP EXAM
FWA-BJ-2	B-J	1	P-E	12"	14Ø	P2	5		J-9	5 2589-1		7	6	6			2	3		
FWA-BJ-20*	B-J	1	T-VA	18"	14Ø	F22	7		J-9	5 2589-1		7	6	6			2	2 A		* FORMER PIPE WHIP EXAM
FWA-BJ-22	B-J	1	VA-P	18"	14Ø	P2	7		J-9	5 2589-1		7	6	6						
FWA-BJ-23*	B-J	1	P-E	18"	14Ø	P2	7		J-9	5 2589-1		7	6	6			2	2 A		* FORMER PIPE WHIP EXAM
FWA-BJ-25*	B-J	1	E-P	18"	14Ø	P2	7		J-9	5 2589-1		7	6	6			2	3 A		* FORMER PIPE WHIP EXAM
FWA-BJ-26	B-J	1	P-E	18"	14Ø	P2	7		J-9	5 2589-1		7	6	6						
FWA-BJ-27	B-J	1	E-P	18"	14Ø	P2	7		J-9	5 2589-1		7	6	6						
FWA-BJ-29	B-J	1	P-E	18"	14Ø	P2	7		J-9	5 2589-1		7	6	6						
FWA-BJ-3	B-J	1	E-P	12"	14Ø	P2	5		J-9	5 2589-1		7	6	6			2	3		
FWA-BJ-31	B-J	1	E-VA	18"	14Ø	F22	7		J-9	5 2589-1		7	6	6						
FWA-BJ-33	B-J	1	VA-P	18"	14Ø	F22	7		J-9	5 2589-1		7	6	6						
FWA-BJ-35	B-J	1	FH-P	18"	14Ø	P2	7		J-9	5 2589-1		7	6	6					RI-Ø3	RI-Ø1
FWA-BJ-36	B-J	1	P-FH	18"	14Ø	P2	7		J-9	5 2589-1		7	6	6						
FWA-BJ-37	B-J	1	P-FH	18"	14Ø	P2	7		J-9	5 2589-1		7	6	6						
FWA-BJ-44	B-J	1	P-VA	18"	14Ø	P2	7		J-9	5 2589-1		7	6	6						
FWA-BJ-45	B-J	1	VA-P	18"	14Ø	P2	7		J-9	5 2589-1		7	6	6						
FWA-BJ-5	B-J	1	P-E	12"	14Ø	P2	5		J-9	5 2589-1		7	6	6			2	3		
FWA-BJ-6	B-J	1	E-P	12"	14Ø	P2	5		J-9	5 2589-1		7	6	6			2	3		
FWA-BJ-8	B-J	1	P-E	12"	14Ø	P2	5		J-9	5 2589-1		7	6	6						
FWA-BJ-9	B-J	1	E-E	12"	14Ø	F22	5		J-9	5 2589-1		7	6	6						
FWB-BJ-1*	B-J	1	SE-P	12"	14Ø	P2	5		J-9S	5 2589-1		7	6	6			2	3 A		* FORMER PIPE WHIP EXAM
FWB-BJ-10	B-J	1	E-RT	12"	14Ø	F22	5		J-9	5 2589-1		7	6	6						
FWB-BJ-111	B-J	1	N-SE	12"	1.5	P2	6		V-15A	5 2589-1		7	6	6			2	1A2		
FWB-BJ-2	B-J	1	P-E	12"	14Ø	P2	5		J-9	5 2589-1		7	6	6			2	3		
FWB-BJ-3	B-J	1	E-P	12"	14Ø	P2	5		J-9	5 2589-1		7	6	6			2	3		
FWB-BJ-5	B-J	1	P-P	12"	14Ø	P2	5		J-9	5 2589-1		7	6	6						
FWB-BJ-6	B-J	1	P-E	12"	14Ø	P2	5		J-9	5 2589-1		7	6	6						
FWB-BJ-7	B-J	1	E-P	12"	14Ø	P2	5		J-9	5 2589-1		7	6	6						

COOPER NUCLEAR STATION
LIST OF ASME SECTION XI COMPONENTS BY CATEGORY
25 APR 1987

PIPE.....	CAT..	CNT.	CF1&...	SIZE	S/T....	MAT.....	CAL.....	WØ1.CAL.	WELD...	DWG ISO.....	VI...	PT	MT	UTØ.....	UT45....	UT6Ø....	INT	*ER....	AR...	REMARKS.....
FWB-BJ-9	B-J	1	P-E	12"	14Ø	P2	5		J-9	5 2589-1		7	6	6						
RWA-BJ-1	B-J	1	B-P	4"	16Ø	P2	2		J-9	25 2589-1		7	6	6						
RWA-BJ-1Ø	B-J	1	E-P	4"	16Ø	P2	2		J-9	25 2589-1		7	6	6						
RWA-BJ-1Ø1	B-J	1	P-P	8"	.875	P2	3		J-9	25 2589-1		7	6	6						
RWA-BJ-11	B-J	1	P-P	4"	16Ø	P2	2		J-9	25 2589-1		7	6	6						
RWA-BJ-12	B-J	1	P-VA	4"	16Ø	P2	2		J-9	25 2589-1		7	6	6						
RWA-BJ-13	B-J	1	VA-P	4"	16Ø	P2	2		J-9	25 2589-1		7	6	6						
RWA-BJ-2	B-J	1	P-E	4"	16Ø	P2	2		J-9	25 2589-1		7	6	6						
RWA-BJ-3	B-J	1	E-P	4"	16Ø	P2	2		J-9	25 2589-1		7	6	6						
RWA-BJ-4	B-J	1	P-E	4"	16Ø	P2	2		J-9	25 2589-1		7	6	6						
RWA-BJ-5	B-J	1	E-P	4"	16Ø	P2	2		J-9	25 2589-1		7	6	6						
RWA-BJ-6	B-J	1	T-P	4"	16Ø	P2	2		J-9	25 2589-1		7	6	6			2	3		
RWA-BJ-7	B-J	1	P-P	4"	16Ø	P2	2		J-9	25 2589-1		7	6	6						
RWA-BJ-8	B-J	1	P-P	4"	16Ø	P2	2		J-9	25 2589-1		7	6	6			2	3		
RWA-BJ-9	B-J	1	P-E	4"	16Ø	P2	2		J-9	25 2589-1		7	6	6						
FWC-BJ-1*	B-J	1	SE-P	12"	14Ø	P2	5		J-9	6 2589-2		7	6	6			2	3 A		* FORMER PIPE WHIP EXAM
FWC-BJ-1Ø	B-J	1	T-P	12"	14Ø	F22	5		J-9	6 2589-2		7	6	6			2	3 A		
FWC-BJ-111	B-J	1	N SE	12"	1.5	P2	6		V-15A	6 2589-2		7	6	6			2	2A2		
FWC-BJ-2	B-J	1	P-E	12"	14Ø	P2	5		J-9	6 2589-2		7	6	6						
FWC-BJ-3	B-J	1	P-E	12"	14Ø	P2	5		J-9	6 2589-2		7	6	6			2	3		
FWC-BJ-5	B-J	1	P-P	12"	14Ø	P2	5		J-9	6 2589-2		7	6	6						
FWC-BJ-6	B-J	1	P-E	12"	14Ø	P2	5		J-9	6 2589-2		7	6	6						
FWC-BJ-7	B-J	1	E-P	12"	14Ø	P2	5		J-9	6 2589-2		7	6	6						
FWC-BJ-9	B-J	1	P-E	12"	14Ø	P2	5		J-9	6 2589-2		7	6	6						
FWD-BJ-1*	B-J	1	SE-P	12"	14Ø	P2	5		J-9F	6 2589-2		7	6	6			2	3 A		* FORMER PIPE WHIP EXAM
FWD-BJ-1Ø	B-J	1	E-P	12"	14Ø	P2	5		J-9	6 2589-2		7	6	6						
FWD-BJ-111	B-J	1	N-SE	12"	1.5	P2	6		V-15A	6 2589-2		7	6	6			2	2A2		
FWD-BJ-14	B-J	1	P-P	12"	14Ø	P2	5		J-9	6 2589-2		7	6	6						
FWD-BJ-17	B-J	1	P-RED	12"	14Ø	P2	5		J-9	6 2589-2		7	6	6						
FWD-BJ-18*	B-J	1	RED-T	18"	14Ø	F22	7		J-9	6 2589-2		7	6	6			2	2 A		* FORMER PIPE WHIP EXAM
FWD-BJ-19*	B-J	1	P-VA	18"	14Ø	F22	7		J-9F	6 2589-2		7	6	6			2	3 A		* FORMER PIPE WHIP EXAM
FWD-BJ-2	B-J	1	E-P	12"	14Ø	P2	5		J-9	6 2589-2		7	6	6			2	3		
FWD-BJ-2Ø	B-J	1	VA-P	18"	14Ø	P2	7		J-9F	6 2589-2		7	6	6						
FWD-BJ-23*	B-J	1	P-E	18"	14Ø	P2	7		J-9	6 2589-2		7	6	6			2	2 A		* FORMER PIPE WHIP EXAM
FWD-BJ-24*	B-J	1	E-P	18"	14Ø	P2	7		J-9	6 2589-2		7	6	6			2	3 A		* FORMER PIPE WHIP EXAM
FWD-BJ-25	B-J	1	P-E	18"	14Ø	P2	7		J-9	6 2589-2		7	6	6						
FWD-BJ-27	B-J	1	E-E	18"	14Ø	F22	7		J-9	6 2589-2		7	6	6						
FWD-BJ-29	B-J	1	E-VA	18"	14Ø	F22	7		J-9F	6 2589-2		7	6	6						
FWD-BJ-3	B-J	1	P-E	12"	14Ø	P2	5		J-9	6 2589-2		7	6	6			2	3		
FWD-BJ-31	B-J	1	VA-P	18"	14Ø	P2	7		J-9F	6 2589-2		7	6	6						
FWD-BJ-34	B-J	1	FH-P	18"	14Ø	P2	7		J-9	6 2589-2		7	6	6					R2-Ø3	R1-Ø1
FWD-BJ-36	B-J	1	FH-T	18"	14Ø	P2	7		J-9F	6 2589-2		7	6	6						
FWD-BJ-38	B-J	1	T-VA	18"	14Ø	F22	7		J-9F	6 2589-2		7	6	6						
FWD-BJ-39	B-J	1	VA-P	18"	14Ø	P2	7		J-9F	6 2589-2		7	6	6						

COOPER NUCLEAR STATION
LIST OF ASME SECTION XI COMPONENTS BY CATEGORY
25 APR 1987

PIPE.....	CAT..	CNT.	CFIG...	SIZE	S/T....	MAT.....	CAL.....	WBI.CAL.	WELD...	DWG	ISO.....	VT...	PT	MT	UT0.....	UT45....	UT60....	INT	PER....	RR...	REMARKS.....
FWD-BJ-5	B-J	1	P-E	12"	140	P2	5		J-9	6	2589-2		7	6	6						
FWD-BJ-6	B-J	1	E-P	12"	140	P2	5		J-9	6	2589-2		7	6	6						
FWD-BJ-8	B-J	1	P-E	12"	140	P2	5		J-9	6	2589-2		7	6	6						
FWD-BJ-9	B-J	1	E-E	12"			5			6	2589-2		7	6	6						
FWD-BJ-9*	B-J	1	E-E	12"	140	F22	5		J-9	6	2589-2		7	6	6			2	3 A		* FORMER PIPE WHIP EXAM
PWA-BJ-1	B-J	1	E-T	14"	140	F22	6		J-9F	14	2589-2		7	6	6			2	3		
PWA-BJ-2	B-J	1	E-E	14"	140	F22	6		J-9	14	2589-2		7	6	6			2	3		
PWA-BJ-3	B-J	1	P-E	14"	140	F22	6		J-9	14	2589-2		7	6	6						
PWA-BJ-4	B-J	1	P-VA	14"	140	P2	6		J-9F	14	2589-2		7	6	6						
RHA-BJ-11	B-J	1	P-E	28"	1.063"	P3	9		J-9	16	2510-1		7	6	6						
RHA-BJ-11A	B-J	1	IA	28"	1.063"	P3	8		J-9S	16	2510-1		7	6	6						
RHA-BJ-11B	B-J	1	OA	28"	1.063"	P3	8		J-9S	16	2510-1		7	6	6						
RHA-BJ-12*	B-J	1	P-P	28"	1.063"	P3	8		J-9F	16	2510-1		7	6	6			2	3 A		* FORMER PIPE WHIP EXAM
RHA-BJ-12A	B-J	1	LS	28"	1.063"	P3	8		J-9S	16	2510-1		7	6	6						
RHA-BJ-14*	B-J	1	P-P	28"	1.063"	P3	8		J-9	16	2510-1		7	6	6			2	3 A		* FORMER PIPE WHIP EXAM
RHA-BJ-14A	B-J	1	LS	28"	1.063"	P3	8		J-9S	16	2510-1		7	6	6						
RHA-BJ-15	B-J	1	P-E	28"	1.063"	P3	8		J-9	16	2510-1		7	6	6						
RHA-BJ-15A	B-J	1	IA	28"	1.063"	P3	8		J-9S	16	2510-1		7	6	6						
RHA-BJ-15B	B-J	1	OA	28"	1.063"	P3	8		J-9S	16	2510-1		7	6	6						
RHA-BJ-16	B-J	1	E-E	28"	1.063"	F22	8		J-9	16	2510-1		7	6	6						
RHA-BJ-16A	B-J	1	IA	28"	1.063"	F22	8		J-9S	16	2510-1		7	6	6						
RHA-BJ-16B	B-J	1	OA	28"	1.063"	F22	8		J-9S	16	2510-1		7	6	6						
RHA-BJ-17	B-J	1	E-P	28"	1.063"	P3	8		J-9	16	2510-1		7	6	6						
RHA-BJ-17A	B-J	1	LS	28"	1.063"	P3	8		J-9S	16	2510-1		7	6	6						
RHA-BJ-18	B-J	1	P-E	28"	1.063"	P3	8		J-9	16	2510-1		7	6	6						
RHA-BJ-18A	B-J	1	IA	28"	1.063"	P3	8		J-9S	16	2510-1		7	6	6						
RHA-BJ-18B	B-J	1	OA	28"	1.063"	P3	8		J-9S	16	2510-1		7	6	6						
RHA-BJ-19	B-J	1	E-P	28"	1.063"	P3	8		J-9	16	2510-1		7	6	6						
RHA-BJ-19A	B-J	1	LS	28"	1.063"	P3	8		J-9S	16	2510-1		7	6	6						
RHA-BJ-22	B-J	1	P-E	28"	1.063"	P3	8		J-9	16	2510-1		7	6	6						
RHA-BJ-22A	B-J	1	IA	28"	1.063"	P3	8		J-9S	16	2510-1		7	6	6						
RHA-BJ-22B	B-J	1	OA	28"	1.063"	P3	8		J-9S	16	2510-1		7	6	6						
RHA-BJ-23	B-J	1	E-P	28"	1.063"	P3	8		J-9	16	2510-1		7	6	6						
RHA-BJ-23A	B-J	1	LS	28"	1.063"	P3	8		J-9S	16	2510-1		7	6	6						
RHA-BJ-25	B-J	1	P-VA	28"	1.063"	P3	8		J-9F	16	2510-1		7	6	6						
RHA-BJ-27	B-J	1	VA-E	28"	1.063"	F22	8		J-9F	16	2510-1		7	6	6						
RHA-BJ-27A	B-J	1	IA	28"	1.063"	F22	8		J-9S	16	2510-1		7	6	6						
RHA-BJ-27B	B-J	1	OA	28"	1.063"	F22	8		J-9S	16	2510-1		7	6	6						
RHA-BJ-29	B-J	1	E-E	28"	1.063"	F22	8		J-9F	16	2510-1		7	6	6						
RHA-BJ-29A	B-J	1	IA	28"	1.063"	F22	8		J-9S	16	2510-1		7	6	6						
RHA-BJ-29B	B-J	1	OA	28"	1.063"	F22	8		J-9S	16	2510-1		7	6	5						
RHA-BJ-30	B-J	1	E-P	28"	1.063"	F22	9		J-9	16	2510-1		7	6	6						
RHA-BJ-30A	B-J	1	P-FW	28"	1.063"	F22	8		J-9	16	2510-1		7	6	6					RI-03	RI-01
RHA-BJ-31	B-J	1	FW-VA	28"	1.063"	F22	8		J-9	16	2510-1		7	6	6						
RHA-BJ-6	B-J	1	VA-E	28"	1.063"	F22	8		J-9F	16	2510-1		7	6	6			2	2		
RHA-BJ-6A	B-J	1	IA	28"	1.063"	F22	8		J-9S	16	2510-1		7	6	6			2	2		
RHA-BJ-6B	B-J	1	OA	28"	1.063"	F22	8		J-9S	16	2510-1		7	6	6			2	2		

COOPER NUCLEAR STATION
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PIPE	CAT	CNT	CFIG	SIZE	S/Y	MAT	CAL	WR1.CAL	WELD	DWG ISO	V	PT	MT	UTA	UT45	UT6A	INT	FER	RR	REMARKS
RHA-BJ-7	B-J	1	S-P	28"	1.063"	P3	B		J-9	16 2510-1		7	6	6			2	2		
RHA-BJ-7A	B-J	1	LS	28"	1.063"	P3	B		J-9S	16 2510-1		7	6	6						
RHA-BJ-8	B-J	1	P-E	28"	1.063"	P3	B		J-9	16 2510-1		7	6	6						
RHA-BJ-8A	B-J	1	IA	28"	1.063"	P3	B		J-9S	16 2510-1		7	6	6						
RHA-BJ-8B	B-J	1	OA	28"	1.063"	P3	B		J-9S	16 2510-1		7	6	6						
RHA-BJ-9	B-J	1	E-P	28"	1.063"	P3	B		J-9	16 2510-1		7	6	6						
RHA-BJ-9A	B-J	1	LS	28"	1.063"	P3	B		J-9S	16 2510-1		7	6	6						
RHD-BJ-23*	B-J	1	P-E	6"	120	P9	3		J-9	19 2510-2		7	6	6			2	2 A		* FORMER PIPE WHIP EXAM
RHC-BJ-1	B-J	1	VA-E	24"	1.063"	F22	B		J-9F	18 2510-3		7	6	6			2	2		
RHC-BJ-10*	B-J	1	P-E	24"	1.063"	P3	B		J-9	18 2510-3		7	6	6			2	2 A		* FORMER PIPE WHIP EXAM
RHC-BJ-10A	B-J	1	IA	24"	1.063"	P3	B		J-9S	18 2510-3		7	6	6						
RHC-BJ-10B	B-J	1	OA	24"	1.063"	P3	B		J-9S	18 2510-3		7	6	6						
RHC-BJ-12	B-J	1	E-P	24"	1.063"	P3	B		J-9F	18 2510-3		7	6	6						
RHC-BJ-12A	B-J	1	LS	24"	1.063"	P3	B		J-9S	18 2510-3		7	6	6						
RHC-BJ-15*	B-J	1	P-P	24"	1.063"	P3	B		J-9F	18 2510-3		7	6	6			2	2 A		* FORMER PIPE WHIP EXAM
RHC-BJ-15A	B-J	1	LS	24"	1.063"	P3	B		J-9S	18 2510-3		7	6	6						
RHC-BJ-17	B-J	1	P-E	24"	1.063"	P3	B		J-9	18 2510-3		7	6	6						
RHC-BJ-17A	B-J	1	IA	24"	1.063"	P3	B		J-9S	18 2510-3		7	6	6						
RHC-BJ-17B	B-J	1	OA	24"	1.063"	P3	B		J-9S	18 2510-3		7	6	6						
RHC-BJ-18	B-J	1	E-P	24"	1.063"	P3	B		J-9	18 2510-3		7	6	6						
RHC-BJ-18A	B-J	1	LS	24"	1.063"	P3	B		J-9S	18 2510-3		7	6	6						
RHC-BJ-19	B-J	1	P-VA	24"	1.063"	P3	B		J-9F	18 2510-3		7	6	6						
RHC-BJ-1A	B-J	1	IA	24"	1.063"	F22	B		J-9S	18 2510-3		7	6	6			2	2		
RHC-BJ-1B	B-J	1	OA	24"	1.063"	F22	B		J-9S	18 2510-3		7	6	6			2	2		
RHC-BJ-2	B-J	1	E-P	24"	1.063"	P3	B		J-9	18 2510-3		7	6	6			2	2		
RHC-BJ-22	B-J	1	VA-E	24"	1.063"	F22	B		J-9F	18 2510-3		7	6	6						
RHC-BJ-22A	B-J	1	IA	24"	1.063"	F22	B		J-9S	18 2510-3		7	6	5						
RHC-BJ-22B	B-J	1	OA	24"	1.063"	F22	B		J-9S	18 2510-3		7	6	6						
RHC-BJ-23	B-J	1	E-P	24"	1.063"	F22	B		J-9F	18 2510-3		7	6	6						
RHC-BJ-24	B-J	1	FW-P	24"	1.063"	F22	B		J-9	18 2510-3		7	6	6					A1-A3 R1-R1	
RHC-BJ-25	B-J	1	VA-FW	24"	1.063"	F22	B		J-9F	18 2510-3		7	6	6						
RHC-BJ-2A	B-J	1	LS	24"	1.063"	P3	B		J-9S	18 2510-3		7	6	6			2	2		
RHC-BJ-6	B-J	1	P-E	24"	1.063"	P3	B		J-9	18 2510-3		7	6	6						
RHC-BJ-6A	B-J	1	IA	24"	1.063"	P3	B		J-9S	18 2510-3		7	6	6						
RHC-BJ-6B	B-J	1	OA	24"	1.063"	P3	B		J-9S	18 2510-3		7	6	6						
RHC-BJ-7	B-J	1	E-P	24"	1.063"	P3	B		J-9F	18 2510-3		7	6	6						
RHC-BJ-7A	B-J	1	LS	24"	1.063"	P3	B		J-9S	18 2510-3		7	6	6						
RHC-BJ-8	B-J	1	P-E	24"	1.063"	P3	B		J-9	18 2510-3		7	6	6						
RHC-BJ-8A	B-J	1	IA	24"	1.063"	P3	B		J-9S	18 2510-3		7	6	6						
RHC-BJ-8B	B-J	1	OA	24"	1.063"	P3	B		J-9S	18 2510-3		7	6	6						
RHC-BJ-9	B-J	1	E-P	24"	1.063"	P3	B		J-9	18 2510-3		7	6	6						
RHC-BJ-9A	B-J	1	LS	24"	1.063"	P3	B		J-9S	18 2510-3		7	6	6						
RHB-BJ-1	B-J	1	VA-E	24"	1.063"	F12	B		J-9F	17 2510-4		7	6	6			2	3		
RHB-BJ-1B	B-J	1	P-E	24"	1.063"	P3	B		J-9	17 2510-4		7	6	6						
RHB-BJ-1BA	B-J	1	IA	24"	1.063"	P3	B		J-9S	17 2510-4		7	6	6						
RHB-BJ-1BB	B-J	1	OA	24"	1.063"	P3	B		J-9S	17 2510-4		7	6	6						
RHB-BJ-11	B-J	1	E-P	24"	1.063"	P3	B		J-9F	17 2510-4		7	6	6						

COOPER NUCLEAR STATION
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PIPE.....	CAT..	CNT.	CFIG...	SIZE	S/T....	MAT.....	CAL.....	WBI.CAL.	WELD...	DWG ISO.....	...	VT...	PT	MT	UT@.....	UT45....	UT60....	INT	PER....	RR...	REMARKS.....
RHB-BJ-11A	B-J	1	LS	24"	1.063"	P3	B		J-9S	17 2510-4		7	6		6						
RHB-BJ-17*	B-J	1	P-P	24"	1.063"	P3	B		J-9F	17 2510-4		7	6		6			2	3 A		* FORMER PIPE WHIP EXAM
RHB-BJ-17A	B-J	1	LS	24"	1.063"	P3	B		J-9S	17 2510-4		7	6		6						
RHB-BJ-18*	B-J	1	P-P	24"	1.062"	P3	B		J-9	17 2510-4		7	6		6			2	3 A		* FORMER PIPE WHIP EXAM
RHB-BJ-18A	B-J	1	LS	24"	1.063"	P3	B		J-9S	17 2510-4		7	6		6						
RHB-BJ-1A	B-J	1	1A	24"	1.063"	F12	B		J-9S	17 2510-4		7	6		6			2	3		
RHB-BJ-1B	B-J	1	DA	24"	1.063"	F12	B		J-9S	17 2510-4		7	6		6			2	3		
RHB-BJ-2	B-J	1	P-E	24"	1.063"	P3	B		J-9	17 2510-4		7	6		6			2	3		
RHB-BJ-20	B-J	1	P-E	24"	1.063"	P3	B		J-9	17 2510-4		7	6		6						
RHB-BJ-20A	B-J	1	1A	24"	1.063"	P3	B		J-9S	17 2510-4		7	6		6						
RHB-BJ-20B	B-J	1	DA	24"	1.063"	P3	B		J-9S	17 2510-4		7	6		6						
RHB-BJ-21	B-J	1	E-P	24"	1.063"	P3	B		J-9	17 2510-4		7	6		6						
RHB-BJ-21A	B-J	1	LS	24"	1.063"	P3	B		J-9S	17 2510-4		7	6		6						
RHB-BJ-22	B-J	1	P-VA	24"	1.062"	P3	B		J-9F	17 2510-4		7	6		6						
RHB-BJ-25	B-J	1	VA-E	24"	1.063"	F22	B		J-9F	17 2510-4		7	6		6						
RHB-BJ-25A	B-J	1	1A	24"	1.063"	F22	B		J-9S	17 2510-4		7	6		6						
RHB-BJ-25B	B-J	1	DA	24"	1.063"	F22	B		J-9S	17 2510-4		7	6		6						
RHB-BJ-26	B-J	1	E-P	24"	1.062"	P3	B		J-9	17 2510-4		7	6		6						
RHB-BJ-27	B-J	1	P-E	24"	1.062"	P3	B		J-9	17 2510-4		7	6		6						
RHB-BJ-27A	B-J	1	1A	24"	1.063"	P3	B		J-9S	17 2510-4		7	6		6						
RHB-BJ-27B	B-J	1	DA	24"	1.063"	P3	B		J-9S	17 2510-4		7	6		6						
RHB-BJ-28	B-J	1	E-P	24"	1.063"	F22	B		J-9	17 2510-4		7	6		6						
RHB-BJ-28A	B-J	1	FA-P	24"	1.063"	F22	B		J-9	17 2510-4		7	6		6					R1-03	R1-01
RHB-BJ-29	B-J	1	VA-FA	24"	1.063"	F22	B		J-9	17 2510-4		7	6		6						
RHB-BJ-2A	B-J	1	P-P	24"	1.063"	P3	B		J-9S	17 2510-4		7	6		6			2	3		
RHB-BJ-7	B-J	1	P-E	24"	1.062"	P3	B		J-9	17 2510-4		7	6		6						
RHB-BJ-7A	B-J	1	1A	24"	1.063"	P3	B		J-9S	17 2510-4		7	6		6			2	3		
RHB-BJ-7B	B-J	1	DA	24"	1.063"	P3	B		J-9S	17 2510-4		7	6		6						
RHB-BJ-8	B-J	1	E-P	24"	1.062"	P3	B		J-9	17 2510-4		7	6		6						
RHB-BJ-8A	B-J	1	LS	24"	1.063"	P3	B		J-9S	17 2510-4		7	6		6						
RHD-BJ-1	B-J	1	P-F	6"	120	F22	3		J-9	19 2510-5		7	6		6						
RHD-BJ-18*	B-J	1	P-F	6"	120	P9	3		J-9F	19 2510-5		7	6		6			2	3 A		* FORMER PIPE WHIP EXAM
RHA-BJ-3A	B-J	1	LS	28"	1.063"	P2	B		J-9S	16 2511-1		7	6		6			2	3		
FWA-BJ-46	B-J	1	P-E	18"	140	P2	7		J-9F	7 2849-4		7	6		6						
FWA-BJ-47	B-J	1	E-E	18"	120	F1	7		J-9	7 2849-4		7	6		6						
FWA-BJ-48	B-J	1	E-P	18"	120	P1	7	100	J-9F	7 2849-4		7	6		6						
FWA-BJ-50	B-J	1	P-E	18"	120	P1	7	100	J-9	7 2849-4		7	6		6			2	1		
FWA-BJ-51	B-J	1	E-P	18"	120	P1	7	100	J-9	7 2849-4		7	6		6			2	1		
FWA-BJ-52	B-J	1	P-E	18"	120	P1	7	100	J-9F	7 2849-4		7	6		6			2	1		
FWA-BJ-53	B-J	1	E-P	18"	120	P1	7	100	J-9	7 2849-4		7	6		6			2	1		
FWA-BJ-54	B-J	1	P-E	18"	120	P1	7	100	J-9F	7 2849-4		7	6		6			2	1		
FWA-BJ-55	B-J	1	E-P	18"	120	P1	7	100	J-9	7 2849-4		7	6		6						
FWA-BJ-56	B-J	1	P-E	18"	120	P1	7	100	J-9	7 2849-4		7	6		6						
FWA-BJ-57	B-J	1	P-E	18"	120	P1	7	100	J-9	7 2849-4		7	6		6						
FWA-BJ-58	B-J	1	P-E	18"	120	P1	7	100	J-9	7 2849-4		7	6		6						
FWA-BJ-59	B-J	1	E-P	18"	120	P1	7	100	J-9	7 2849-4		7	6		6						
FWA-BJ-60	B-J	1	P-REI	18"	120	P1	7	100	J-9F	7 2849-4		7	6		6			2	1		

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PIPE.....	CAT..	CNT.	CFIG...	SIZE	S/T....	MAT.....	CAL.....	WBI.CAL.	WELD. .	DWG ISO.....	VT...	PT	MT	UT0.....	UT45....	UT60....	INT	PER....	RR...	REMARKS.....
FWA-BJ-61	B-J	1	RED-E	24"	120	P1	8		J-9	7 2849-4	7	6	6							
FWA-BJ-62	B-J	1	E-P	24"	120	P1	8		J-9	7 2849-4	7	6	6							
FWA-BJ-67	B-J	1	P-E	18"	120	P1	7	100	J-9	7 2849-4	7	6	6							
FWA-BJ-671	B-J	1	P-P	18"	120	P1	7	100	J-9F	7 2849-4	7	6	6							
FWA-BJ-672	B-J	1	P-P	18"	120	P1	7	100	J-9F	7 2849-4	7	6	6							
FWA-BJ-673	B-J	1	P-P	18"	120	P1	7	100	J-9F	7 2849-4	7	6	6							
FWA-BJ-68	B-J	1	P-E	18"	120	P1	7	100	J-9	7 2849-4	7	6	6							
FWA-BJ-69	B-J	1	P-E	18"	120	P1	7	100	J-9	7 2849-4	7	6	6							
FWA-BJ-691	B-J	1	P-E	18"	120	P1	7	100	J-9	7 2849-4	7	6	6				2	1		
FWA-BJ-692	B-J	1	P-E	18"	120	P1	7	100	J-9	7 2849-4	7	6	6				2	1		
FWA-BJ-693	B-J	1	P-WE	18"	160	P1	7	97	J-9	7 2849-4	7	6	6				2	1		
FWA-BJ-694	B-J	1	P-WE	8"	120	P1	3		J-9	7 2849-4	7	6	6							
FWA-BJ-73	B-J	1	P-VA	18"	120	P1	3	100	J-9	7 2849-4	7	6	6							
FWA-BJ-731	B-J	1	P-P	18"	120	P1	7	100	J-9	7 2849-4	7	6	6							
FWAB-BJ-63	B-J	1	P-P	24"	120	P1	8	100	J-9	7 2849-4	7	6	6							
FWAB-BJ-631	B-J	1	P-P	24"	120	P1	8		J-9	7 2849-4	7	6	6							
FWAB-BJ-63A	B-J	1	P-P	18"	120	P1	7		J-9	7 2849-4	7	6	6							
FWAB-BJ-64	B-J	1	P-RED	24"	120	P1	8		J-9	7 2849-4	7	6	6							
FWAB-BJ-64A	B-J	1	LS	24"	120	P1	8		J-9	7 2849-4	7	6	6							
FWAB-BJ-65	B-J	1	P-WE	24"	120	P1	7		J-9	7 2849-4	7	6	6							
FWAB-BJ-651	B-J	1	WE-CAP	18"	120	P1	4		J-9	7 2849-4	7	6	6							
FWAB-BJ-65A	B-J	1	E-RED	18"	120	P1	7		J-9	7 2849-4	7	6	6							
FWAB-BJ-66	B-J	1	E-E	18"	120	P1	7		J-9	7 2849-4	7	6	6							
FWD-BJ-40	B-J	1	P-E	18"	160	P2	7		J-9F	7 2849-4	7	6	6							
FWD-BJ-41	B-J	1	E-E	18"	120	T1	7		J-9	7 2849-4	7	6	6							
FWD-BJ-43	B-J	1	E-P	18"	120	P1	7	100	J-9F	7 2849-4	7	6	6				2	1		
FWD-BJ-431	B-J	1	P-P	18"	120	P1	7	100	J-9	7 2849-4	7	6	6				2	1		
FWD-BJ-44	B-J	1	P-E	18"	120	P1	7	100	J-9	7 2849-4	7	6	6				2	1		
FWD-BJ-45	B-J	1	E-P	18"	120	P1	7	100	J-9	7 2849-4	7	6	6							
FWD-BJ-46	B-J	1	P-E	18"	120	P1	7	100	J-9F	7 2849-4	7	6	6							
FWD-BJ-47	B-J	1	E-P	18"	120	P1	7	100	J-9	7 2849-4	7	6	6							
FWD-BJ-48	B-J	1	P-E	18"	120	P1	7	100	J-9F	7 2849-4	7	6	6							
FWD-BJ-49	B-J	1	E-P	18"	120	P1	7	100	J-9	7 2849-4	7	6	6							
FWD-BJ-50	B-J	1	P-E	18"	120	P1	7	100	J-9	7 2849-4	7	6	6							
FWD-BJ-51	B-J	1	E-P	18"	120	P1	7	100	J-9	7 2849-4	7	6	6							
FWD-BJ-52	B-J	1	P-E	18"	120	P1	7	100	J-9F	7 2849-4	7	6	6							
FWD-BJ-53	B-J	1	E-P	18"	120	P1	7	100	J-9	7 2849-4	7	6	6							
FWD-BJ-54	B-J	1	P-RED	18"	120	P1	7	100	J-9F	7 2849-4	7	6	6							
FWD-BJ-541	B-J	1	RED-E	24"	120	P1	8		J-9	7 2849-4	7	6	6							
FWD-BJ-542	B-J	1	E-P	24"	120	P1	8		J-9	7 2849-4	7	6	6							
FWD-BJ-56	B-J	1	P-E	18"	120	P1	7	100	J-9	7 2849-4	7	6	6							
FWD-BJ-57	B-J	1	P-P	18"	120	P1	7	100	J-9	7 2849-4	7	6	6							
FWD-BJ-58	B-J	1	P-P	18"	120	P1	7	100	J-9F	7 2849-4	7	6	6							
FWD-BJ-59	B-J	1	P-P	18"	120	P1	7	100	J-9	7 2849-4	7	6	6							
FWD-BJ-591	B-J	1	P-WE	18"	160	P1	7		P-W1	7 2849-4	7	6	6							
FWD-BJ-63	B-J	1	P-E	18"	120	P1	7	100	J-9	7 2849-4	7	6	6							
FWD-BJ-66	B-J	1	E-VA	18"	120	P1	7		J-9F	7 2849-4	7	6	6							
FWD-BJ-695	B-J	1	P-E	8"	120	P1	3	75	J-9	7 2849-5B	7	6	6				2	1		
FWD-BJ-696	B-J	1	E-VA	8"	120	P1	3		J-9	7 2849-5B	7	6	6							
FWD-BJ-592	B-J	1	P-WE	8"	120	P1	3	75	J-9	7 2849-5B	7	6	6				2	1		

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PIPE	CAT	CNT	CFIG	SIZE	S/T	MAT	CAL	WBI.CAL	WELD	DWG ISO	VT	PT	MT	UT0	UT45	UT60	INT	PER	RR	REMARKS
FWD-BJ-593	B-J	1	P-E	8"	120	P1	3	75	J-9	7 2849-58		7		6	6		2	1		
FWD-BJ-593A	B-J		P-P	8"	120	P1		75	J-9	7 2849-58		7		6	6					
FWD-BJ-594	B-J	1	E-VA	8"	120	F1	3		J-9	7 2849-58		7		6	6					
CSB-BJ-2	B-J	1	P-SE	10		P20	49	49		CNS-CS-3		7		6	6		2	1		
CSB-BJ-3	B-J	1	P-P	10		P20	49	49		CNS-CS-3		7		6	6		2	1		
CSB-BJ-4	B-J	1	E-P	10		P20	49	49		CNS-CS-3		7		6	6		2	1		
CSA-BJ-2	B-J	1	P-SE	10		P20	49			CNS-CS-4		7		6	6					
CSA-BJ-3	B-J	1	P-P	10		P20	49			CNS-CS-4		7		6	6					
CSA-BJ-4	B-J	1	E-P	10		P20	49			CNS-CS-4		7		6	6					
RAD-BJ-1	B-J	1	PU-P	28		P20	56	56		CNS-RR-37		7		6	6		2	1		
RAD-BJ-2	B-J	1	P-VA	28		P20	56	56		CNS-RR-37		7		6	6		2	1		
RAD-BJ-3	B-J	1	VA-P	28		P20	56	56		CNS-RR-37		7		6	6		2	1		
RAD-BJ-4	B-J	1	P-T	28		P20	56	56		CNS-RR-37		7		6	6		2	1		
RAS-BJ-5	B-J	1	T-4W	30		P20	58			CNS-RR-37		7		6	6					
RAD-BJ-6	B-J	1	P-T	24		P20	55			CNS-RR-37		7		6	6					
RAH-BJ-1	B-J	1	4W-P	22		P20	54			CNS-RR-37		7		6	6					
RAH-BJ-2	B-J	1	4W-P	22		P20	54			CNS-RR-37		7		6	6					
RAS-BJ-10	B-J	1	W-E	9		P20	108			CNS-RR-37		7		6	6					
RAS-BJ-11	B-J	1	E-E	20		P20	53	53		CNS-RR-37		7		6	6		2	1		
RAS-BJ-13	B-J	1	P-V	20		P20	7	53		CNS-RR-37		7		6	6		2	1		
RAS-BJ-2	B-J	1	SE-P	28		P20	56	56		CNS-RR-37		7		6	6		2	1		
RAS-BJ-3	B-J	1	P-T	28		P20	56			CNS-RR-37		7		6	6					
RAS-BJ-4	B-J	1	T-P	28		P20	56			CNS-RR-37		7		6	6					
RAS-BJ-5	B-J	1	P-VA	28		P20	56			CNS-RR-37		7		6	6					
RAS-BJ-6	B-J	1	VA-P	28		P20	56			CNS-RR-37		7		6	6					
RAS-BJ-6A	B-J	1	P-WE	28		P20	56			CNS-RR-37		7		6	6					
RAS-BJ-6B	B-J	1	WE-F	4		P20	10/110			CNS-RR-37		7		6	6					
RAS-BJ-7	B-J	1	P-E	28		P20	56			CNS-RR-37		7		6	6					
RAS-BJ-8	B-J	1	E-PU	28		P20	56			CNS-RR-37		7		6	6					
RAS-BJ-9	B-J	1	T-E	20		P20	53			CNS-RR-37		7		6	6					
RRF-BJ-2	B-J	1	P-SE	12		P20	50			CNS-RR-37		7		6	6					
RRF-BJ-3	B-J	1	P-P	12		P20	50			CNS-RR-37		7		6	6					
RRF-BJ-4	B-J	1	P-P	12		P20	50			CNS-RR-37		7		6	6					
RRF-BJ-5	B-J	1	R-P	12		P20	50			CNS-RR-37		7		6	6					
RRG-BJ-2	B-J	1	P-SE	12		P20	50			CNS-RR-37		7		6	6					
RRG-BJ-3	B-J	1	T-P	12		P20	50			CNS-RR-37		7		6	6					
RRH-BJ-2	B-J	1	P-SE	12		P20	50	50		CNS-RR-37		7		6	6		2	1		
RRH-BJ-3	B-J	1	R-P	12		P20	50	50		CNS-RR-37		7		6	6		2	1		
RRJ-BJ-2	B-J	1	P-SE	12		P20	50			CNS-RR-37		7		6	6					
RRJ-BJ-3	B-J	1	T-P	12		P20	50			CNS-RR-37		7		6	6					
RRK-BJ-2	B-J	1	P-SE	12		P20	50			CNS-RR-37		7		6	6					
RRK-BJ-3	B-J	1	P-P	12		P20	50			CNS-RR-37		7		6	6					
RRK-BJ-4	B-J	1	P-P	12		P20	50			CNS-RR-37		7		6	6					
RRK-BJ-5	B-J	1	P-P	12		P20	50			CNS-RR-37		7		6	6					
RBD-BJ-1	B-J	1	PU-P	28		P20	56			CNS-RR-38		7		6	6					
RBD-BJ-2	B-J	1	P-VA	28		P20	56			CNS-RR-38		7		6	6					
RBD-BJ-3	B-J	1	VA-P	28		P20	56			CNS-RR-38		7		6	6					
RBD-BJ-4	B-J	1	P-T	28		P20	56			CNS-RR-38		7		6	6					
RBD-BJ-5	B-J	1	T-4W	30		P20	58			CNS-RR-38		7		6	6					
RBD-BJ-6	B-J	1	P-T	24		P20	55			CNS-RR-38		7		6	6					

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PIPE	CAT	CNT	CFIG	SIZE	S/T	MAT	CAL	WELD.CAL	WELD	DWG	ISO	VT	PT	MT	UT0	UT45	UT60	INT	PER	RR	REMARKS
RBH-BJ-1	B-J	1	4W-P	2[illegible]		P20	54				CNS-RR-3B		7		6	6					
RBH-BJ-2	B-J	1	4W-P	22		P20	54				CNS-RR-3B		7		6	6					
RBS-BJ-2	B-J	1	SE-P	28		P20	56				CNS-RR-3B		7		6	6					
RBS-BJ-3	B-J	1	P-P	28		P20	56				CNS-RR-3B		7		6	6					
RBS-BJ-4	B-J	1	P-P	28		P20	56				CNS-RR-3B		7		6	6					
RBS-BJ-5	B-J	1	P-VA	28		P20	56				CNS-RR-3B		7		6	6					
RBS-BJ-6	B-J	1	VA-P	28		P20	56				CNS-RR-3B		7		6	6					
RBS-BJ-6A	B-J	1	P-WE	28		P20	56				CNS-RR-3B		7		6	6					
RBS-BJ-6B	B-J	1	WE-F	4		P20	10/110				CNS-RR-3B		7		6	6					
RBS-BJ-7	B-J	1	P-E	28		P20	56				CNS-RR-3B		7		6	6					
RBS-BJ-8	B-J	1	E-PU	28		P20	56				CNS-RR-3B		7		4	6					
RRA-BJ-2	B-J	1	P-SE	12		P20	50				CNS-RR-3B		7		6	6					
RRA-BJ-3	B-J	1	P-P	12		P20	50				CNS-RR-3B		7		6	6					
RRA-BJ-4	B-J	1	P-E	12		P20	50				CNS-RR-3B		7		6	6					
RRA-BJ-5	B-J	1	R-P	12		P20	50				CNS-RR-3B		7		6	6					
RRB-BJ-2	B-J	1	P-SE	12		P20	50				CNS-RR-3B		7		6	6					
RRB-BJ-3	B-J	1	T-P	12		P20	50				CNS-RR-3B		7		6	6					
RRC-BJ-2	B-J	1	P-SE	12		P20	50				CNS-RR-3B		7		6	6					
RRC-BJ-3	B-J	1	R-P	12		P20	50				CNS-RR-3B		7		6	6					
RRD-BJ-2	B-J	1	P-SE	12		P20	50				CNS-RR-3B		7		6	6					
RRD-BJ-3	B-J	1	T-P	12		P20	50				CNS-RR-3B		7		6	6					
RRE-BJ-2	B-J	1	P-SE	12		P20	50	50			CNS-RR-3B		7		6	6		2	1		
RRE-BJ-3	B-J	1	P-P	12		P20	50	50			CNS-RR-3B		7		6	6		2	1		
RRE-BJ-4	B-J	1	P-E	12		P20	50	50			CNS-RR-3B		7		6	6		2	1		
RRE-BJ-5	B-J	1	R-P	12		P20	50	50			CNS-RR-3B		7		6	6		2	1		
CWA-BJ-1	B-J	1	P-P	6		P20	48				CNS-RWCU-3		7		6	6					
CWA-BJ-10	B-J	1	E-P	6		P20	48	48			CNS-RWCU-3		7		6	6		2	1		
CWA-BJ-12	B-J	1	P-VA	6"		P20	48	48			CNS-RWCU-3		7		6	6		2	1		
CWA-BJ-14	B-J	1	P-P	6		P20	48	48			CNS-RWCU-3		7		6	6		2	1		
CWA-BJ-2	B-J	1	P-P	6		P20	48	48			CNS-RWCU-3		7		6	6		2	1		
CWA-BJ-3	B-J	1	P-P	6		P20	48				CNS-RWCU-3		7		6	6					
CWA-BJ-4	B-J	1	P-VA	6"		P20	48				CNS-RWCU-3		7		6	6					
CWA-BJ-5	B-J	1	VA-P	6		P20	48				CNS-RWCU-3		7		6	6					
CWA-BJ-6	B-J	1	P-P	6		P20	48				CNS-RWCU-3		7		6	6					
CWA-BJ-7	B-J	1	P-VA	6		P20	48				CNS-RWCU-3		7		6	6					
CWA-BJ-8	B-J	1	VA-P	6		P20	48				CNS-RWCU-3		7		6	6					
CWA-BJ-9	B-J	1	P-E	6"		P20	48				CNS-RWCU-3		7		6	6					
MSA-BJ-1*	B-J	1	SE-P	24"	B0	P3	8	106	J-9	9	GE731E611		7		6	6		2	2 A		* FORMER PIPE WHIP EXAM
MSA-BJ-10	B-J	1	P-E	24"	B0	P3	8	106	J-9	9	GE731E611		7		6	6					
MSA-BJ-10A	B-J	1	IA	24"	B0	P3	8	106	J-9S	9	GE731E611		7		6	6					
MSA-BJ-10B	B-J	1	E-P	24"	B0	P3	8	106	J-9S	9	GE731E611		7		6	6					
MSA-BJ-111	B-J	1	N-SE	24"	1.593	P3	8		V-14A	9	GE731E611		7		6	6		2	2		
MSA-BJ-12	B-J	1	E-P	24"	B0	P3	8	106	J-9	9	GE731E611		7		6	6					
MSA-BJ-12A	B-J	1	LS	24"	B0	P3	8	106	J-9S	9	GE731E611		7		6	6					
MSA-BJ-14	B-J	1	SAD-P	6"	1[illegible]0	P1	3		N/A	9	GE731E611		7		6	6					
MSA-BJ-15	B-J	1	P-P	6"	1[illegible]0	P1	3		J-9	9	GE731E611		7		6	6					
MSA-BJ-16	B-J	1	P-F	6"	160	P1	3		J-9	9	GE731E611		7		6	6					
MSA-BJ-19	B-J	1	SAD-P	6"	1[illegible]0	P1	3		N/A	9	GE731E611		7		6	6					
MSA-BJ-10	B-J	1	LS	24"	B0	P3	8	106	J-9S	9	GE731E611		7		6	6		2	2		

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PIPE	CAT	CNT	CFIG	SIZE	S/T	MAT	CAL	WBI.CAL	WELD	DWG ISO	VT	PT	MT	UT0	UT45	UT60	INT	PER	RR	REMARKS
MSA-BJ-2	B-J	1	P-E	24"	80	P3	8	106	J-9	9 GE731E611		7		6	6		2	2		
MSA-BJ-20	B-J	1	P-P	6"	160	P1	3		J-9	9 GE731E611		7		6	6					
MSA-BJ-21	B-J	1	P-F	6"	160	P1	3		J-9	9 GE731E611		7		6	6					
MSA-BJ-23	B-J	1	P-P	24"	80	P3	8	106	J-9	9 GE731E611		7		6	6					
MSA-BJ-23A	B-J	1	LS	24"	80	P3	8	106	J-9S	9 GE731E611		7		6	6					
MSA-BJ-24	B-J	1	SAD-P	6"	160	P1	3		N/A	9 GE731E611		7		6	6					
MSA-BJ-25	B-J	1	P-P	6"	160	P1	3		J-9	9 GE731E611		7		6	6					
MSA-BJ-26	B-J	1	P-F	6"	160	P1	3	106	J-9	9 GE731E611		7		6	6					
MSA-BJ-29	B-J	1	P-E	24"	80	P3	8	106	J-9	9 GE731E611		7		6	6					
MSA-BJ-29A	B-J	1	IA	24"	80	P3	8	106	J-9S	9 GE731E611		7		6	6					
MSA-BJ-29B	B-J	1	OA	24"	80	P3	8	106	J-9S	9 GE731E611		7		6	6					
MSA-BJ-2A	B-J	1	IA	24"	80	P3	8	106	J-9S	9 GE731E611		7		6	6		2	2		
MSA-BJ-2B	B-J	1	OA	24"	80	P3	8		J-9S	9 GE731E611		7		6	6		2	2		
MSA-BJ-3	B-J	1	E-P	24"	80	P3	8	106	J-9	9 GE731E611		7		6	6		2	2		
MSA-BJ-30	B-J	1	E-P	24"	80	P3	8	106	J-9	9 GE731E611		7		6						
MSA-BJ-35*	B-J	1	P-E	24"	80	P3	8	106	J-9	9 GE731E611		7		6	6		2	1		* FORMER PIPE WHIP EXAM
MSA-BJ-35A	B-J	1	IA	24"	80	P3	8	106	J-9S	9 GE731E611		7		6	6					
MSA-BJ-35B	B-J	1	OA	24"	80	P3	8	106	J-9S	9 GE731E611		7		6	6					
MSA-BJ-36*	B-J	1	E-P	24"	80	P3	8	106	J-9	9 GE731E611		7		6	6		2	1		* FORMER PIPE WHIP EXAM
MSA-BJ-38	B-J	1	P-VA	24"	80	P3	8	106	J-9	9 GE731E611		7		6	6					
MSA-BJ-39	B-J	1	P-FH	24"	80	P1	8	106	J-9	10 GE731E611		7		6	6					
MSA-BJ-3A	B-J	1	LS	24"	80	P3	8	106	J-9S	9 GE731E611		7		6	6		2	2		
MSB-BJ-4	B-J	1	P-P	24"	80	P3	8	106	J-9	9 GE731E611		7		6	6		2	2		
MSA-BJ-42	B-J	1	VA-P	24"	80	P3	8	1J6	J-9	9 GE731E611		7		6	6					
MSA-BJ-43	B-J	1	P-FH	24"	80	P1	8	106	J-9	9 GE731E611		7		6	6				RI-03	RI-01
MSA-BJ-4A	B-J	1	LS	24"	80	P3	8	106	J-9S	9 GE731E611		7		6	6		2	2		
MSA-BJ-5	B-J	1	P-P	24"	80	P3	8	106	J-9	9 GE731E611		7		6	6		2	2		
MSA-BJ-5A	B-J	1	LS	24"	80	P3	8	106	J-9S	9 GE731E611		7		6	6		2	2		
MSA-BJ-7	B-J	1	P-E	24"	80	P3	8	106	J-9	9 GE731E611		7		6	6					
MSA-BJ-7A	B-J	1	LS	24"	80	P3	8	106	J-9S	9 GE731E611		7		6	6					
MSB-BJ-1*	B-J	1	SE-P	24"	80	P3	8	106	J-9	10 GE731E611		7		6	6		2	3 A		* FORMER PIPE WHIP EXAM
MSB-BJ-10	B-J	1	P-P	24"	80	P3	8	106	J-9	10 GE731E611		7		6	6					
MSB-BJ-10A	B-J	1	LS	24"	80	P3	8	106	J-9S	10 GE731E611		7		6	6					
MSB-BJ-111	B-J	1	N-SE	24"	1.593	P3	8		V-14A	10 GE731E611		7		6	6					
MSB-BJ-13	B-J	1	SAD-P	6"	160	P1	3		N/A	10 GE731E611		7		6	6					
MSB-BJ-14	B-J	1	P-P	6"	160	P1	3		J-9	10 GE731E611		7		6	6					
MSB-BJ-15	B-J	1	P-F	6"	160	P1	3		J-9	10 GE731E611		7		6	6					
MSB-BJ-18	B-J	1	SAD-P	6"	160	P1	3		N/A	10 GE731E611		8								
MSB-BJ-19	B-J	1	P-P	6"	160	P1	3		J-9	10 GE731E611		7		6	6					
MSB-BJ-1A	B-J	1	LS	24"	80	P3	8	106	J-9S	10 GE731E611		7		6	6		2	3		
MSB-BJ-2	B-J	1	P-E	24"	80	P3	8	106	J-9	10 GE731E611		7		6	6		2	3		
MSB-BJ-20	B-J	1	P-F	6"	160	P1	3		J-9	10 GE731E611		7		6	6					
MSB-BJ-22	B-J	1	P-E	24"	80	P3	8	106	J-9	10 GE731E611		7		6	6					
MSB-BJ-22A	B-J	1	IA	24"	80	P3	8	106	J-9S	10 GE731E611		7		6	6					
MSB-BJ-22B	B-J	1	OA	24"	80	P3	8	106	J-9S	10 GE731E611		7		6	6					
MSB-BJ-23	B-J	1	E-P	24"	80	P3	8	106	J-9	10 GE731E611		7		6	6					
MSB-BJ-23*	B-J	1	P-E	24"	80	P3	8	106	J-9	10 GE731E611		7		6	6		2	1		* FORMER PIPE WHIP

COOPER NUCLEAR STATION
LIST OF ASME SECTION XI COMPONENTS BY CATEGORY
30 MAY 1987

PIPE	CAT	CNT	CFIG	SIZE	S/T	MAT	CAL	WBI.CAL	WELD	DWG ISO	VT	PT	MT	UT0	UT45	UT60	INT	PER	RR	REMARKS
																				EXAM
MSB-BJ-28A	B-J	1	IA	24"	80	P3	8	106	J-9S	10 GE731E611		7	6	6						
MSB-BJ-28B	B-J	1	DA	24"	80	P3	8	106	J-9S	10 GE731E611		7	6	6						
MSB-BJ-29*	B-J	1	E-E	24"	80	P3	8	106	J-9	10 GE731E611		7	6	6			2	1		* FORMER PIPE WHIP EXAM
MSB-BJ-29A	B-J	1	IA	24"	80	P3	8	106	J-9S	10 GE731E611		7	6	6						
MSB-BJ-29B	B-J	1	DA	24"	80	P3	8	106	J-9S	10 GE731E611		7	6	6						
MSB-BJ-2A	B-J	1	IA	24"	80	P3	8	106	J-9S	10 GE731E611		7	6	6			2	3		
MSB-BJ-2B	B-J	1	DA	24"	80	P3	8	106	J-9S	10 GE731E611		7	6	6			2	3		
MSB-BJ-3	B-J	1	E-P	24"	80	P3	8	106	J-9	10 GE731E611		7	6	6			2	2		
MSB-BJ-30	B-J	1	E-E	24"	80	P3	8	106	J-9	10 GE731E611		7	6	6						
MSB-BJ-30A	B-J	1	IA	24"	80	P3	8	106	J-9S	10 GE731E611		7	6	6						
MSB-BJ-30B	B-J	1	DA	24"	80	P3	8	106	J-9S	10 GE731E611		7	6	6						
MSB-BJ-31	B-J	1	E-P	24"	80	P3	8	106	J-9	10 GE731E611		7	6	6						
MSB-BJ-34	B-J	1	P-VA	24"	80	P3	8	106	J-9	10 GE731E611		7	6	6						
MSB-BJ-38	B-J	1	VA-P	24"	80	P3	8	106	J-9	10 GE731E611		7	6	6						
MSB-BJ-39	B-J	1	P-FH	24"	80	P1	8	107	J-9	10 GE731E611		7	6	6					RI-03	RI-01
MSB-BJ-3A	B-J	1	LS	24"	80	P3	8	106	J-9S	10 GE731E611		7	6	6			2	3		
MSB-BJ-4	B-J	1	P-P	24"	80	P3	8	106	J-9	10 GE731E611		7	6	6			2	3		
MSB-BJ-4A	B-J	1	LS	24"	80	P3	8	106	J-9S	10 GE731E611		7	6	6			2	3		
MSB-BJ-6	B-J	1	P-P	24"	80	P3	8	106	J-9	10 GE731E611		7	6	6						
MSB-BJ-6A	B-J	1	LS	24"	80	P3	8	106	J-9S	10 GE731E611		7	6	6						
MSB-BJ-8	B-J	1	P-P	24"	80	P3	8	106	J-9	10 GE731E611		7	6	6						
MSB-BJ-8A	B-J	1	IA	24"	80	P3	8	106	J-9S	10 GE731E611		7	6	6						
MSB-BJ-8B	B-J	1	DA	24"	80	P3	8	106	J-9S	10 GE731E611		7	6	6						
MSC-BJ-1*	B-J	1	SE-P	24"	80	P3	8	106	J-9	11 GE731E611		7	6	6			2	3 A		* FORMER PIPE WHIP EXAM
MSC-BJ-11	B-J	1	P-E	24"	80	P3	8	106	J-9	11 GE731E611		7	6	6						
MSC-BJ-111	B-J	1	N-SE	24"	1.593	P3	8		V-14A	11 GE731E611		7	6	6						
MSC-BJ-11A	B-J	1	IA	24"	80	P3	8	106	J-9S	11 GE731E611		7	6	6						
MSC-BJ-11B	B-J	1	DA	24"	80	P3	8	106	J-9S	11 GE731E611		7	6	6						
MSC-BJ-13	B-J	1	E-P	24"	80	P3	8	106	J-9	11 GE731E611		7	6	6						
MSC-BJ-13A	B-J	1	LS	24"	80	P3	8	106	J-9S	11 GE731E611		7	6	6						
MSC-BJ-16	B-J	1	SAD-P	6"	160	P1	3		N/A	11 GE731E611		7	6	6						
MSC-BJ-17	B-J	1	P-P	6"	160	P1	3		J-9	11 GE731E611		7	6	6						
MSC-BJ-18	B-J	1	P-F	6"	160	P1	3		J-9	11 GE731E611		7	6	6						
MSC-BJ-1A	B-J	1	LS	24"	80	P3	8	106	J-9S	11 GE731E611		7	6	6			2	3		
MSC-BJ-2	B-J	1	P-E	24"	80	P3	8	106	J-9	11 GE731E611		7	6	6			2	3		
MSC-BJ-21	B-J	1	SAD-P	6"	160	P1	3		N/A	11 GE731E611		7	6	6						
MSC-BJ-22	B-J	1	P-P	6"	160	P1	3		J-9	11 GE731E611		7	6	6						
MSC-BJ-23	B-J	1	P-F	6"	160	P1	3		J-9	11 GE731E611		7	6	6						
MSC-BJ-25*	B-J	1	P-WE	3"	160	P1	1		N/A	11 GE731E611		7	6	6			2	2 A		* FORMER PIPE WHIP EXAM
MSC-BJ-26	B-J	1	P-E	24"	80	P3	8	106	J-9	11 GE731E611		7	6	6						
MSC-BJ-26A	B-J	1	IA	24"	80	P3	8	106	J-9S	11 GE731E611		7	6	6						
MSC-BJ-26B	B-J	1	DA	24"	80	P3	8	106	J-9S	11 GE731E611		7	6	6						
MSC-BJ-27	B-J	1	E-P	24"	80	P3	8	106	J-9	11 GE731E611		7	6	6						
MSC-BJ-2A	B-J	1	IA	24"	80	P3	8	106	J-9S	11 GE731E611		7	6	6						
MSC-BJ-2B	B-J	1	DA	24"	80	P3	8	106	J-9S	11 GE731E611		7	6	6			2	3		
MSC-BJ-3*	B-J	1	E-P	24"	80	P3	8	106	J-9	11 GE731E611		7	6	6			2	3 A		* FORMER PIPE WHIP

COOPER NUCLEAR STATION
LIST OF ASME SECTION XI COMPONENTS BY CATEGORY
30 MAY 1987

PIPE	CAT	CNT	CF16	SIZE	S/T	MAT	CAL	WBI.CAL.	WELD	DWG ISO	VT	PT	MT	UT0	UT45	UT60	INT	PER	RR	REMARKS
																				EXAM
MSC-BJ-32	B-J	1	P-E	24"	80	P3	8	106	J-9	11 GE731E611	7	6		6			2	1		
MSC-BJ-32A	B-J	1	IA	24"	80	P3	8	106	J-9S	11 GE731E611	7	6		6						
MSC-BJ-32B	B-J	1	DA	24"	80	P3	8	106	J-9S	11 GE731E611	7	6		6						
MSC-BJ-33	B-J	1	E-P	24"	80	P3	8	33	J-9	11 GE731E611	7	6		6						
MSC-BJ-33A	B-J	1	LS	24"	80	P3	8	106	J-9S	11 GE731E611	7	6		6						
MSC-BJ-34	B-J	1	P-E	24"	80	P3	8	106	J-9	11 GE731E611	7	6		6						
MSC-BJ-34A	B-J	1	IA	24"	80	P3	8	106	J-9S	11 GE731E611	7	6		6						
MSC-BJ-34B	B-J	1	DA	24"	80	P3	8	106	J-9S	11 GE731E611	7	6		6						
MSC-BJ-35*	B-J	1	E-P	24"	80	P3	8	106	J-9	11 GE731E611	7	6		6			2	1		* FORMER PIPE WHIP EXAM
MSC-BJ-35A	B-J	1	LS	24"	80	P3	8	106	J-9S	11 GE731E611	7	6		6						
MSC-BJ-38	B-J	1	P-VA	24"	80	P3	8	106	J-9	11 GE731E611	7	6		6						
MSC-BJ-38A	B-J	1	LS	24"	80	P3	8	106	J-9S	11 GE731E611	7	6		6			2	3		
MSC-BJ-42	B-J	1	VB-P	24"	80	P3	8	106	J-9	11 GE731E611	7	6		6						
MSC-BJ-43	B-J	1	P-FN	24"	80	P1	8	106	J-9	11 GE731E611	7	6		6					R1-03	R1-01
MSC-BJ-46	B-J	1	FN-P	24"	80	P1	8	106	J-9	11 GE731E611	7	6		6						
MSC-BJ-5	B-J	1	P-P	24"	80	P3	8	106	J-9	11 GE731E611	7	6		6						
MSC-BJ-5A	B-J	1	LS	24"	80	P3	8	106	J-9S	11 GE731E611	7	6		6						
MSC-BJ-7	B-J	1	P-P	24"	80	P3	8	106	J-9	11 GE731E611	7	6		6						
MSC-BJ-7A	B-J	1	LS	24"	80	P3	8	106	J-9	11 GE731E611	7	6		6						
MSL-BJ-8*	B-J	1	P-WE	24"	100	P3	8		J-9	11 GE731E611	7	6		6			2	3 A		* PIPE WHIP EXAM
MSD-BJ-1*	B-J	1	SE-P	24"	80	P3	8	106	J-9	12 GE731E611	7	6		6			2	2 A		* FORMER PIPE WHIP EXAM
MSD-BJ-10	B-J	1	P-E	24"	80	P3	8	106	J-9	12 GE731E611	7	6		6						
MSD-BJ-10A	B-J	1	IA	24"	80	P3	8	106	J-9S	12 GE731E611	7	6		6						
MSD-BJ-10B	B-J	1	DA	24"	80	P3	8	106	J-9S	12 GE731E611	7	6		6						
MSD-BJ-111	B-J	1	N-SE	24"	1.593	P3	8		V-14A	12 GE731E611	7	6		6						
MSD-BJ-12	B-J	1	E-P	24"	80	P3	8	106	J-9	12 GE731E611	7	6		6						
MSD-BJ-12A	B-J	1	LS	24"	80	P3	8	106	J-9	12 GE731E611	7	6		6						
MSD-BJ-14	B-J	1	SAD-P	6"	160	P1	3		N/A	12 GE731E611	7	6		6						
MSD-BJ-15	B-J	1	P-P	6"	160	P1	3		J-9	12 GE731E611	7	6		6						
MSD-BJ-16	B-J	1	P-F	6"	160	P1	3		J-9	12 GE731E611	7	6		6						
MSD-BJ-19	B-J	1	SAD-P	6"	160	P1	3		N/A	12 GE731E611	7	6		6						
MSD-BJ-1A	B-J	1	LS	24"	80	P3	8	106	J-9S	12 GE731E611	7	6		6			2	2		
MSD-BJ-2	B-J	1	P-E	24"	80	P3	8	106	J-9	12 GE731E611	7	6		6						
MSD-BJ-20	B-J	1	P-P	6"	160	P1	3		J-9	12 GE731E611	7	6		6						
MSD-BJ-21	B-J	1	P-F	6"	160	P1	3		J-9	12 GE731E611	7	6		6						
MSD-BJ-23	B-J	1	P-P	24"	80	P3	8	106	J-9	12 GE731E611	7	6		6						
MSD-BJ-23A	B-J	1	LS	24"	80	P3	8	106	J-9S	12 GE731E611	7	6		6						
MSD-BJ-24	B-J	1	SAD-P	6"	160	P1	3		N/A	12 GE731E611	7	6		6						
MSD-BJ-25	B-J	1	P-P	6"	160	P1	3		J-9	12 GE731E611	7	6		6						
MSD-BJ-26	B-J	1	P-F	6"	160	P1	3		J-9	12 GE731E611	7	6		6						
MSD-BJ-28	B-J	1	SAD-P	6"	160	P1	3		N/A	12 GE731E611	7	6		6						
MSD-BJ-29	B-J	1	P-P	6"	160	P1	3		J-9	12 GE731E611	7	6		6						
MSD-BJ-2A	B-J	1	IA	24"	80	P3	8	106	J-9S	12 GE731E611	7	6		6						
MSD-BJ-2B	B-J	1	DA	24"	80	P3	8	106	J-9S	12 GE731E611	7	6		6						
MSD-BJ-3	B-J	1	E-P	24"	80	P3	8	106	J-9	12 GE731E611	7	6		6						
MSD-BJ-30	B-J	1	P-F	6"	160	P1	3		J-9	12 GE731E611	7	6		6						
MSD-BJ-32	B-J	1	P-E	24"	80	P3	8	106	J-9	12 GE731E611	7	6		6						

COOPER NUCLEAR STATION
LIST OF ASME SECTION XI COMPONENTS BY CATEGORY
30 MAY 1987

PIPE	CAT	ENT	CFIG	SIZE	S/T	MAT	CAL	WBI.CAL	WELD	DWG ISO	VT	PT	MT	UT0	UT45	UT60	INT	PER	RR	REMARKS
MSD-BJ-33A	B-J	1	1A	24"	B0	P3	8	106	J-9S	12 GE731E611		7		6	6					
MSD-BJ-33B	B-J	1	0A	24"	B0	P3	8	106	J-9S	12 GE731E611		7		6	6					
MSD-BJ-34	B-J	1	E-P	24"	B0	P3	9	106	J-9	12 GE731E611		7		6	6					
MSD-BJ-39*	B-J	1	P-E	24"	B0	P3	8	106	J-9	12 GE731E611		7		6	6		2	1		* FORMER PIPE WHIP EXAM
MSD-BJ-39A	B-J	1	1A	24"	B0	P3	8	106	J-9S	12 GE731E611		7		6	6		2	1		
MSD-BJ-39B	B-J	1	0A	24"	B0	P3	8	106	J-9S	12 GE731E611		7		6	6		2	1		
MSD-BJ-3A	B-J	1	LS	24"	B0	P3	8	106	J-9S	12 GE731E611		7		6	6					
MSD-BJ-4	B-J	1	P-P	24"	B0	P3	8	106	J-9	12 GE731E611		7		6	6					
MSD-BJ-40*	B-J	1	E-P	24"	B0	P3	8	106	J-9	12 GE731E611		7		6	6		2	1		* FORMER PIPE WHIP EXAM
MSD-BJ-42	B-J	1	P-V6	24"	B0	P3	8	106	J-9	12 GE731E611		7		6	6					
MSD-BJ-46	B-J	1	V6-P	24"	B0	P3	8	106	J-9	12 GE731E611		7		6	6					
MSD-BJ-47	B-J	1	P-FH	24"	B0	P1	8	106	J-9	12 GE731E611		7		6	6				R1-03	R1-01
MSD-BJ-4A	B-J	1	LS	24"	B0	P3	8	106	J-9S	12 GE731E611		7		6	6					
MSD-BJ-5	B-J	1	P-P	24"	B0	P3	8	106	J-9	12 GE731E611		7		6	6					
MSD-BJ-50	B-J	1	FH-P	24"	P0	P1	8	106	J-9	12 GE731E611		7		6	6					
MSD-BJ-51	B-J	1	P-P	24"	B0	P1	8	106	J-9	12 GE731E611		7		6	6		2	3		
MSD-BJ-52	B-J	1	P-V6	24"	B0	P1	8	106	J-9	12 GE731E611		7		6	6					
MSD-BJ-5A	B-J	1	LS	24"	B0	P3	8	106	J-9S	12 GE731E611		7		6	6					
MSD-BJ-7	B-J	1	P-P	24"	B0	P3	8	106	J-9S	12 GE731E611		7		6	6					
MSD-BJ-7A	B-J	1	LS	24"	B0	P3	8	106	J-9S	12 GE731E611		7		6	6					

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ASME CAT. B-K-1

COOPER NUCLEAR STATION
LIST OF ASME SECTION XI COMPONENTS BY CATEGORY
19 MAY 1987

PIPE	CAT	CNT	CFIG	SIZE	S/T	MAT	CAL	WBT.CAL	WELD	SWS	ISO	VT	PT	MT	UTB	UT45	UTAP	INT	PER	RR	REMARKS
FSA-BK1-19	B-K-1	1		N/A		N/A	N/A			13	2586-1	T						2	BJ		
FSA-BK1-23	B-K-1	1		N/A		N/A	N/A			13	2586-1	T						2	BJ		
RSB-BK1-14	B-K-1	1		N/A		N/A	N/A			24	2586-2	T						2	BJ		
MSE-BR1-46	B-K-1	1	P-N	2"	XH	P1					2586-3	T						2	BJ		MSH-152
FWA-BK1-12	B-K-1	1		N/A		N/A	N/A			5	2589-1	T						2	BJ		
FWA-BK1-14	B-K-1	1		N/A		N/A	N/A			5	2589-1	T						2	BJ		
FWA-BK1-32	B-K-1	1		N/A		N/A	N/A			5	2589-1	T						2	BJ		
FWA-BK1-36	B-K-1	1		N/A		N/A	N/A			5	2589-1	T						2	BJ		
FWA-BK1-4	B-K-1	1		N/A		N/A	N/A			5	2589-1	T						2	BJ		
FWA-BK1-7	B-K-1	1		N/A		N/A	N/A			5	2589-1	T						2	BJ		
FWB-BK1-4	B-K-1	1		N/A		N/A	N/A			5	2589-1	T						2	BJ		
FWB-BK1-6	B-K-1	1		N/A		N/A	N/A			5	2589-1	T						2	1		
FWC-BK1-4	B-K-1	1		N/A		N/A	N/A			6	2589-2	T						2	BJ		
FWC-BK1-8	B-K-1	1		N/A		N/A	N/A			6	2589-2	T						2	BJ		
FWC-BK1-12	B-K-1	1		N/A		N/A	N/A			6	2589-2	T						2	BJ		
FWD-BK1-15	B-K-1	1		N/A		N/A	N/A			6	2589-2	T						2	BJ		
FWD-BK1-16	B-K-1	1		N/A		N/A	N/A			6	2589-2	T						2	BJ		
FWC-BK1-22	B-K-1	1		N/A		N/A	N/A			6	2589-2	T						2	BJ		
FWC-BK1-26	B-K-1	1		N/A		N/A	N/A			6	2589-2	T						2	BJ		
FWD-BK1-30	B-K-1	1		N/A		N/A	N/A			6	2589-2	T						2	BJ		
FWD-BK1-4	B-K-1	1		N/A		N/A	N/A			6	2589-2	T						2	BJ		
FWD-BK1-7	B-K-1	1		N/A		N/A	N/A			6	2589-2	T						2	BJ		
RHR-BR1-2#	B-K-1	3	SP	---		N/A	---			16	2518-1	T						2	BJ		
RHR-BR1-24	B-K-1	1		N/A		N/A	N/A			16	2518-1	T						2	BJ		
RHC-BR1-13	B-K-1	1	SP	---		N/A	---			18	2518-3	T						2	BJ		
RHC-BR1-24	B-K-1	1		N/A		N/A	N/A			18	2518-3	T						2	BJ		
RHR-BR1-1#	B-K-1	1		N/A		N/A	N/A			17	2518-4	T						2	BJ		
RHR-BR1-9	B-K-1	1	SP	---		N/A	---			17	2518-4	T						2	BJ		
FWA-BR1-48	B-K-1	1		N/A		N/A	N/A			7	2849-4	T						2	BJ		
FWC-BR1-53	B-K-1	1	N/A	N/A		N/A	N/A			42	2849-4	T						2	1		
FWA-BR1-57	B-K-1	1		N/A		N/A	N/A			7	2849-4	T						2	BJ		
FWC-BR1-42	B-K-1	1		N/A		N/A	N/A			7	2849-4	T						2	BJ		
FWC-BR1-46	B-K-1	1		N/A		N/A	N/A			7	2849-4	T						2	BJ		
FWD-BR1-50	B-K-1	1		N/A		N/A	N/A			7	2849-4	T						2	BJ		
RR-BK1-1A	B-K-1	1	LUG	N/A		N/A		N/A			CNS-RR-37	T						2	1		INTEGRAL LUG FOR SUPPORTS SS1A/H5A
RR-BK1-2A	B-K-1	1	LUG	N/A		N/A		N/A			CNS-RR-37	T						2	2		INTEGRAL LUG FOR SUPPORTS SS2A/H7A
RR-BK1-3A	B-K-1	1	LUG	N/A		N/A		N/A			CNS-RR-37	T						2	3		INTEGRAL LUG FOR SUPPORTS SS3A/H6A
RR-BK1-4A	B-K-1	1	LUG	N/A		N/A		N/A			CNS-RR-37	T						2	1		INTEGRAL LUG FOR SUPPORT RR-H1
RR-BK1-1B	B-K-1	1	LUG	N/A		N/A		N/A			CNS-RR-36	T						2	1		INTEGRAL LUG FOR SUPPORTS SS1B/H5B
RR-BK1-2B	B-K-1	1	LUG	N/A		N/A		N/A			CNS-RR-38	T						2	2		INTEGRAL LUG FOR SUPPORTS SS2B/H7B
RR-BK1-3B	B-K-1	1	LUG	N/A		N/A		N/A			CNS-RR-36	T						2	3		INTEGRAL LUG FOR SUPPORTS SS3B/H6B
RR-BK1-4B	B-K-1	1	LUG	N/A		N/A		N/A			CNS-RR-38	T						2	3		INTEGRAL LUG FOR SUPPORT RR-H2

COOPER NUCLEAR STATION
LIST OF ASME SECTION XI COMPONENTS BY CATEGORY
19 MAY 1987

PIPE	CAT	CNT	CFIG	SIZE	S/T	MAT	CAL	WELDCAL	WELD	DWG ISO	VT	PT	MT	UTA	UTAS	UTAR	INT	PER	RR	REMARKS
CWA-BK1-24	B-K-1	1		N/A		N/A	N/A			3 CNS-RWCU-2		7					2	1		
CWA-BK1-29	B-K-1	1		N/A		N/A	N/A			3 CNS-RWCU-3		7					2	BJ		
MSA-BK1-11	B-K-1	1		N/A		N/A	N/A			9 GE731E611		7					2	1		
MSA-BK1-13	B-K-1	1		N/A		N/A	N/A			9 GE731E611		7					2	BJ		
MSA-BK1-18	B-K-1	1		N/A		N/A	N/A			9 GE731E611		7					2	BJ		
MSA-BK1-20	B-K-1	1	SP	---		N/A	---			9 GE731E611		7					2	BJ		
MSA-BK1-44	B-K-1	1		N/A		N/A	N/A			9 GE731E611		7					2	BJ		
MSA-BK1-6	B-K-1	1		N/A		N/A	N/A			9 GE731E611		7					2	BJ		
MSB-BK1-11	B-K-1	1		N/A		N/A	N/A			10 GE731E611		7					2	1		
MSB-BK1-12	B-K-1	1		N/A		N/A	N/A			10 GE731E611		7					2	1		
MSB-BK1-17	B-K-1	1		N/A		N/A	N/A			10 GE731E611		7					2	BJ		
MSB-BK1-32	B-K-1	1		N/A		N/A	N/A			10 GE731E611		7					2	BJ		
MSB-BK1-48	B-K-1	1		N/A		N/A	N/A			10 GE731E611		7					2	BJ		
MSB-BK1-5	B-K-1	1		N/A		N/A	N/A			10 GE731E611		7					2	BJ		
MSC-BK1-12	B-K-1	1		N/A		N/A	N/A			11 GE731E611		7					2	BJ		
MSC-BK1-14	B-K-1	1		N/A		N/A	N/A			11 GE731E611		7					2	BJ		
MSC-BK1-15	B-K-1	1		N/A		N/A	N/A			11 GE731E611		7					2	BJ		
MSC-BK1-28	B-K-1	1		N/A		N/A	N/A			11 GE731E611		7					2	BJ		
MSC-BK1-29	B-K-1	1		N/A		N/A	N/A			11 GE731E611		7					2	BJ		
MSC-BK1-6	B-K-1	1	SP	---		N/A	---			11 GE731E611		7					2	BJ		
MSD-BK1-11	B-K-1	1		N/A		N/A	N/A			12 GE731E611		7					2	BJ		
MSD-BK1-13	B-K-1	1		N/A		N/A	N/A			12 GE731E611		7-					2	BJ		
MSD-BK1-18	B-K-1	1		N/A		N/A	N/A			12 GE731E611		7					2	BJ		
MSD-BK1-32	B-K-1	1		N/A		N/A	N/A			12 GE731E611		7					2	BJ		
MSD-BK1-46	B-K-1	1		N/A		N/A	N/A			12 GE731E611		7					2			
MSD-BK1-6	B-K-1	1		N/A		N/A	N/A			12 GE731E611		7					2	BJ		
RDS-BK1-21	B-K-1	1	LUGS						F	SWEC-13895.19-E		7					2	BJ		PSA-1

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ASME CAT. B-M-2

PIPE.....	CAT..	SYSTEM.....	GRP	SIZE	DESIGN	MANUFACTURER...	MANF.METHOD	DWG	ISO.....	VT...	INT	PER....	REMARKS.....
CS-14A-BM2	B-M-2	CORE SPRAY	A	10"	GATE	ANCHOR	CAST CS	1	2501-1	10	2	*	
CS-14B-BM2	B-M-2	CORE SPRAY	A	10"	GATE	ANCHOR	CAST CS	2	2501-1	10	2	*	
CS-MO-12A-BM2	B-M-2	CORE SPRAY	A	10"	GATE	ANCHOR	CAST CS	1	2501-1	10	2	*	
CS-MO-12B-BM2	B-M-2	CORE SPRAY	A	10"	GATE	ANCHOR	CAST CS	2	2501-1	10	2	*	
CS-AO-13A-BM2	B-M-2	CORE SPRAY	B	10"	CHECK	ATWOOD MORRILL	CAST CS	1	2501-1	10	2	*	
CS-AO-13B-BM2	B-M-2	CORE SPRAY	B	10"	CHECK	ATWOOD MORRILL	CAST CS	2	2501-1	10	2	*	
RWCU-10-BM2	B-M-2	RW CLEAN-UP	C	6"	GATE	ANCHOR	CAST CS	3	2503-1	10	2	*	
RWCU-MO-15-BM2	B-M-2	RW CLEAN-UP	C	6"	GATE	ANCHOR	CAST CS	3	2503-1	10	2	*	
RWCU-MO-18-BM2	B-M-2	RW CLEAN-UP	C	6"	GATE	ANCHOR	CAST CS	3	2503-1	10	2	*	
RF-13-CV-BM2	B-M-2	FEEDWATER	D	18"	CHECK	ANCHOR	CAST CS	6	2509-2	10	2	*	
RF-14-CV-BM2	B-M-2	FEEDWATER	D	18"	CHECK	ANCHOR	CAST CS	6	2509-2	10	2	*	
RF-15-CV-BM2	B-M-2	FEEDWATER	D	18"	CHECK	ANCHOR	CAST CS	5	2509-1	10	2	*	
RF-16-CV-BM2	B-M-2	FEEDWATER	D	18"	CHECK	ANCHOR	CAST CS	5	2509-1	10	2	*	
RF-11-BM2	B-M-2	FEEDWATER	E	18"	GATE	ANCHOR	CAST CS	5	2509-1	10	2	*	
RF-13-BM2	B-M-2	FEEDWATER	E	18"	GATE	ANCHOR	CAST CS	6	2509-2	10	2	*	
RF-29-MV-BM2	B-M-2	FEEDWATER	E	18"	GATE	ANCHOR	CAST CS	7	2849-4	10	2	*	
RF-30-MV-BM2	B-M-2	FEEDWATER	E	18"	GATE	ANCHOR	CAST CS	7	2849-4	10	2	*	
MS-RV-70A-BM2	B-M-2	MAIN STEAM	F	6"	SAFETY	CROSBY	CAST CS	9	GE731E611	10	2	*	
MS-RV-70B-BM2	B-M-2	MAIN STEAM	F	6"	SAFETY	CROSBY	CAST CS	12	GE731E611	10	2	*	
MS-RV-70C-BM2	B-M-2	MAIN STEAM	F	6"	SAFETY	CROSBY	CAST CS	12	GE731E611	10	2	*	
MS-RV-71A-BM2	B-M-2	MAIN STEAM	G	6"	RELIEF	TARGET ROCK	CAST CS	9	GE731E611	10	2	*	
MS-RV-71B-BM2	B-M-2	MAIN STEAM	G	6"	RELIEF	TARGET ROCK	CAST CS	9	GE731E611	10	2	*	
MS-RV-71C-BM2	B-M-2	MAIN STEAM	G	6"	RELIEF	TARGET ROCK	CAST CS	10	GE731E611	10	2	*	
MS-RV-71D-BM2	B-M-2	MAIN STEAM	G	6"	RELIEF	TARGET ROCK	CAST CS	10	GE731E611	10	2	*	
MS-RV-71E-BM2	B-M-2	MAIN STEAM	G	6"	RELIEF	TARGET ROCK	CAST CS	11	GE731E611	10	2	*	
MS-RV-71F-BM2	B-M-2	MAIN STEAM	G	6"	RELIEF	TARGET ROCK	CAST CS	11	GE731E611	10	2	*	
MS-RV-71G-BM2	B-M-2	MAIN STEAM	G	6"	RELIEF	TARGET ROCK	CAST CS	12	GE731E611	10	2	*	
MS-RV-71H-BM2	B-M-2	MAIN STEAM	G	6"	RELIEF	TARGET ROCK	CAST CS	12	GE731E611	10	2	*	
MS-AO-80A-BM2	B-M-2	MAIN STEAM	H	24"	GLOBE	ROCKWELL	CAST CS	12	GE731E611	10	2	*	
MS-AO-80B-BM2	B-M-2	MAIN STEAM	H	24"	GLOBE	ROCKWELL	CAST CS	10	GE731E611	10	2	*	
MS-AO-80C-BM2	B-M-2	MAIN STEAM	H	24"	GLOBE	ROCKWELL	CAST CS	11	GE731E611	10	2	*	
MS-AO-80D-BM2	B-M-2	MAIN STEAM	H	24"	GLOBE	ROCKWELL	CAST CS	12	GE731E611	10	2	*	
MS-AO-86A-BM2	B-M-2	MAIN STEAM	H	24"	GLOBE	ROCKWELL	CAST CS	9	2586-4	10	2	*	
MS-AO-86B-BM2	B-M-2	MAIN STEAM	H	24"	GLOBE	ROCKWELL	CAST CS	10	2586-4	10	2	*	
MS-AO-86C-BM2	B-M-2	MAIN STEAM	H	24"	GLOBE	ROCKWELL	CAST CS	11	2586-4	10	2	*	
MS-AO-86D-BM2	B-M-2	MAIN STEAM	H	24"	GLOBE	ROCKWELL	CAST CS	12	2586-4	10	2	*	
HPCI-MO-15-BM2	B-M-2	HPCI	I	10"	GATE	ANCHOR	CAST CS	13	2586-1	10	2	*	
HPCI-MO-16-BM2	B-M-2	HPCI	I	10"	GATE	ANCHOR	CAST CS	13	2586-1	10	2	*	
HPCI-AO-18-BM2	B-M-2	HPCI	J	14"	CHECK	ATWOOD MORRILL	CAST CS	14	2589-2	10	2	*	
RHR-MO-17-BM2	B-M-2	RHR-SDC	K	20"	GATE	ANCHOR	CAST CS	16	2510-1	10	2	*	
RHR-MO-18-BM2	B-M-2	RHR-SDC	K	20"	GATE	ANCHOR	CAST CS	16	2510-1	10	2	*	
RHR-MO-88-BM2	B-M-2	RHR-SDC	K	20"	GATE	ANCHOR	CAST CS	16	2510-1	10	2	*	
RHR-MO-25A-BM2	B-M-2	RHR-LOOP-"A"	L	24"	GATE	ANCHOR	CAST CS	17	2510-4	10	2	*	
RHR-MO-25B-BM2	B-M-2	RHR-LOOP-"A"	L	24"	GATE	ANCHOR	CAST CS	18	2510-3	10	2	*	
RHR-MO-81A-BM2	B-M-2	RHR-LOOP-"A"	L	24"	GATE	ANCHOR	CAST CS	17	2510-4	10	2	*	
RHR-MO-81B-BM2	B-M-2	RHR-LOOP-"A"	L	24"	GATE	ANCHOR	CAST CS	18	2510-3	10	2	*	
RHR-AO-68A-BM2	B-M-2	RHR-LOOP-"A"	M	24"	CHECK	ATWOOD MORRILL	CAST CS	17	2510-4	10	2	*	
RHR-AO-68B-BM2	B-M-2	RHR-LOOP-"A"	M	24"	CHECK	ATWOOD MORRILL	CAST CS	18	2510-3	10	2	*	
RR-MO-43A-BM2	B-M-2	RECIRCULATION	Q	28"	GATE	ANCHOR	CAST SS	21		10	2	*	
RR-MO-43B-BM2	B-M-2	RECIRCULATIO	Q	28"	GATE	ANCHOR	CAST SS	23		10	2	*	

PIPE.....	CAT..	SYSTEM.....	GRP	SIZE	DESIGN	MANUFACTURER...	MANF.METHOD	DWG ISO.....	VT...	INT	PER....	REMARKS.....
RR-MO-53A-BM2	B-M-2	RECIRCULATION	Q	28"	GATE	ANCHOR	CAST SS	C1	1Ø	2	*	
RR-MO-53B-BM2	B-M-2	RECIRCULATION	Q	28"	GATE	ANCHOR	CAST SS	23	1Ø	2	*	
RHR-MO-27A-BM2	B-M-2	RHR-LOOP-"A"	R	24	GLOBE	ANCHOR	CAST CS	2510-4	1Ø	2	*	
RHR-MO-27B-BM2	B-M-2	RHR-LOOP-"B"	R	24	GLOBE	ANCHOR	CAST CS	2510-3	1Ø	2	*	

ASME CAT. B-P

COOPER NUCLEAR STATION
INSERVICE INSPECTION PROGRAM-REV. 3
SYSTEM HYDROSTATIC TESTS
25 APR 1987

LINE.NUMBER.....	CL	CAT.	SPEC.....	DPID.....	DCORD	CPID..	CCORD	ISO.....	VT....
1-RF-100-24*	1	B-P	RF-1	2004		2004	F9	2849-4	7.0.8
1-RF-U1-8	1	B-P	FW-1	2004	D-10	2004	G9	2849-50	7.0.8
1-RF-U2-8	1	B-P	FW-1	2004	D8	2004	G11	2849-50	7.0.8
1-MS-139-2*	1	B-P	MS1	2028-P1,1	B9	2028-P	B9	X2506-204	7.0.8
1-MS-151-2*	1	B-P	MS1	2028-P1,1	B8	2028-P	B8	X2506-204	7.0.8
1-MS-152-1*	1	B-P	PI-1S	2028-P1,1	C9	2028-P	C9	X2507-201	7.0.8
1-MS-152-1/2*	1	B-P	PI-1S	2028-P1,1	C9	2028-P	C9	X2507-201	7.0.8
1-RW-127-2*	1	B-P	RL-1S	2028-P1,1	F9	2028-P	F9	X2512-200	7.0.8
1-CRD-1194-3/4*	1	B-P	HY-1S	2039-P1,1	A7	2039-P	A7		7.0.8
1-CRD-1198-3/4*	1	B-P	HY-1S	2039-P1,1	A6	2039-P	A9		7.0.8
CRD-U10-3/4*	1	B-P	HY3	2039-P1,1	G4	2039-P	G4		7.0.8
CRD-U11-3/4*	1	B-P	HY3	2039-P1,1	G2	2039-P	G2		7.0.8
CRD-U12-3/4*	1	B-P	HY3	2039-P1,1	G4	2039-P	G4		7.0.8
CRD-U13-3/4*	1	B-P	HY3	2039-P1,1	G2	2039-P	G2		7.0.8
CRD-U14-2*	1	B-P	HY3	2039-P1,1	H2	2039-P	H2		7.0.8
CRD-U15-2*	1	B-P	HY3	2039-P1,1	H3	2039-P	H3		7.0.8
CRD-U16-3/4*	1	B-P	HY3S	2039-P1,1	J4	2039-P	J4		7.0.8
CRD-U17-3/4*	1	B-P	HY3S	2039-P1,1	J4	2039-P	J4		7.0.8
CRD-U3-1*	1	B-P	HY-1S	2039-P1,1	C9	2039-P	C9		7.0.8
CRD-U4-3/4*	1	B-P	HY-1S	2039-P1,1	D7	1029-P	D7		7.0.8
CRD-U5-3/4*	1	B-P	HY-3S	2039-P1,1	E10	2039-P	E10		7.0.8
CRD-U6-8*	1	B-P	HY-3	2039-P1,1	G3	2039-P	G3		7.0.8
CRD-U7-8*	1	B-P	HY-3	2039-P1,1	G3	2039-P	G3		7.0.8
CRD-U8-3/4*	1	B-P	HY3	2039-P1,1	G4	2039-P	G4		7.0.8
CRD-U9-3/4*	1	B-P	HY3	2039-P1,1	G3	2039-P	G3		7.0.8
1-RHR-104A-24*	1	B-P	RH-1D	2040	C5	2040	C5	2510-4 2512-1 X2510-204 X2626-207	7.0.8
1-RHR-104-B24*	1	B-P	RH-1D	2040	C8	2040	C8	2512-1 2510-3 X2626-206 X2626-207	7.0.8
1-RHR-107-6*	1	B-P	RH-1D	2040	B7	2040	B7	2510-5/2 X2510-200 X2510-242	7.0.8
1-MS-100-A24*	1	B-P	MS-1	2041	A9	2041	A9	2506-3 2506-4 X2506-201 X2506-200	7.0.8
1-MS-100-B24*	1	B-P	MS-1	2041	A9	2041	A9	2506-4 X2506-203	7.0.8
1-MS-100-C24*	1	B-P	MS-1	2041	A9	2041	A9	2506-4 X2506-203 X2506-201	7.0.8
1-MS-100-D24*	1	B-P	MS-1	2041	C10	2041	C10	2506-1 X2506-203 X2506-201	7.0.8
1-MS-117-10*	1	B-P	MS-1	2041	C5	2041	C5	2506-1 X2506-200	7.0.8
1-MS-122-3*	1	B-P	MS-1	2041	C6	2041	C6	2506-2 X2506-205	7.0.8

COOPER NUCLEAR STATION
INSERVICE INSPECTION PROGRAM-REV. 3
SYSTEM HYDROSTATIC TESTS
25 APR 1987

LINE.NUMBER.....	CL	CAT.	SPEC.....	OPID.....	DCORD	CPID..	CCORD	ISO.....	VT....
1-MS-124-3"	1	B-P	MS-1	2041	C9	2041	C9	2506-3	7.0.8
								X2506-205	
								X2506-201	
								X2506-200	
1-RHR-105-20"	1	B-P	RH-1D	2042	F2	2042	D2	NONE LISTED	7.0.8
1-RWCU-100-6"	1	B-P	CU1S	2042		2042	B1	2503-1	7.0.8
1-RWCU-105-4"	1	B-P	RF-1S	2042	A4	2042	A3	2513-1	7.0.8
1-RWCU-144-3/4"	1	B-P		2042	F2	2042	D2	X2512-200	7.0.8
1-RCIC-101-4"	1	B-P	4"-RF-1D	2043	C10	2043	C9	2509-1	7.0.8
1-RF-100-1"	1	B-P	RF-1D	2043	C9	2043	C9	2509-1	7.0.8
1-RF-100-12	1	B-P	RF-1D	2044	C11	2044	C11	2509-2	7.0.8
								2509-200	
1-RF-100-12"	1	B-P	RF-1D	2044					7.0.8
1-RF-100-18"	1	B-P	RF-1D	2044	B10	2044	B10	2509-2	7.0.8
1-CS-101-A10"	1	B-P	CS-1D	2045	C6	2045	F5	2501-1	7.0.8
1-CS-101-B10"	1	B-P	CS-1D	2045	C6	2045	E5	2501-1	7.0.8
								X2501-200	
1-CS-101A-10"	1	B-P	CS-1D	2045	C6	2045	F5	2501-1	7.0.8
1-CS-101B-10"	1	B-P	CS-1D	2045	C6	2045	E5	2501-1	7.0.8
								X2501-200	
1-SLC-101-1 1/2"	1	B-P	LC-1	2045	E7	2045	E7	X2504-200	7.0.8
			LC-2					X2504-201	
								X2505-200	
1-SLC-101-1.5"	1	B-P	LC-1	2045	E7	2045	E7	X2504-200	7.0.8
			LC-2					X2504-201	
								X2505-200	
CAD-U4-1"	1	B-P	PV-1S	2084-P1,1	H7			2304-201	7.0.8
CAD-U5-1"	1	B-P	PV-1S	2084-P1,1	C8			2304-200	7.0.8

PIPE.....	CAT..	SYSTEM.....	VT...	INT PER....	REMARKS.....
REACTOR COOLANT B-P			7.8.3	2 *1,2,3,	*SYSTEM LEAKAGE PRESSURE TESTS PRIOR TO STARTUP FOLLOWING EACH REACTOR REFUELING OUTAGE. FOR SYSTEM HYDROSTATIC TESTING SEE "SYSTEM HYDROSTATIC TESTS"
REACTOR FEEDWAT B-P			7.8.6	2 *1,2,3	BETWEEN 1ST AND 2ND PRIMARY CONTAINMENT BOUNDARY. *SYSTEM LEAKAGE PRESSURE TESTS PRIOR TO STARTUP FOLLOWING EACH REACTOR REFUELING OUTAGE. FOR SYSTEM HYDROSTATIC TESTING SEE "SYSTEM HYDOSTATIC TESTS".

ASME CAT. C-C

COOPER NUCLEAR STATION
LIST OF ASME SECTION XI COMPONENTS BY CATEGORY
25 APR 1987

PIPE.....	CAT	. CNT.	CFIG...	SIZE	S/T....	MAT.....	CAL.....	WBI.CAL.	WELD...	DWG	ISO.....	VT...	PT	MT	UT0.....	UT45....	UT60....	INT	PER....	RR...	REMARKS.....
RCT-CE1-3	C-C	1		N/A		N/A	N/A			37		7						2	I		
HPEI-CC-47	C-C	1	P-H	20"	.375	P1			J-9F		2601-1	7						2	CF,CG		BSH-91
HPEI-CC-55	C-C	1	P-H	20"	.375	P1/F1			J-9S		2601-1	7						2	CF,CG		
RSA-CE1-1	C-C	1	P-SB	N/A		N/A	N/A			38	2601-4	7						2	CF,CG		
CSB-CC-32	C-C	1	E-SB	12"	STD	P1			J-1F		2602-1	7						2	CF,CG		CS4-7
CSB-CC-41	C-C	1	E-H	12"	STD	F1			J-1F		2602-1	7						2	CF,CG		CS4-8
CSB-CC-51	C-C	1	P-H	12"	STD	P1			J-1F		2602-1	7						2	CF,CG		CS4-10
CSB-CC-57	C-C	1	E-H	12"	STD	F1			J-1F		2602-1	7						2	CF,CG		CS4-11
CSB-CH-63	C-C	1	E-H	12"	STD	F1			J-1F		2602-1	7						2	CF,CG		CS4-12
CSA-CC-27	C-C	1	E-SAD	12"	.375	F1			J-1F		2602-2	7						2	CF,CG		CS4-16
CSA-CC-38	C-C	1	P-HSL	12"	.375	P1			F		2602-2	7						2	CF,CG		CSH-18A
CSA-CC-10	C-C	1	P-SB	16"	.375	P1			F		2603-1	7						2	CF,CG		CSS-13
CSA-CC-6	C-C	1	P-H	16"	.375	P1			F		2603-1	7						2	1		CSH-4
CSB-CC-10	C-C	1	P-SB	16"	.375	P1			J-9F		2603-2	7						2	CF,CG		CSS14A
CSB-CC-13	C-C	1	RE-H	14"	.375	F1			J-9F		2603-2	7						2	CF,CG		CSH-3
CSB-CC-4	C-C	1	P-H	16"	.375	P1			J-9S		2603-2	7						2	CF,CG		CSH-1
CSB-CC-9	C-C	1	P-H	16"	.375	P1			J-9F		2603-2	7						2	CF,CG		CSH-2
CSB-CC-79	C-C	1	E-H	10"	STD	F1			J-9F		2603-3	7						2	CF,CG		
CSB-CC-84	C-C	1	P-SSL	10"	STD	P1			J-9F		2603-3	7						2	CF,CG		
CSB-CC-85	C-C	1	P-SSL	10"	STD	P1			J-9F		2603-3	7						2	CF,CG		
CSB-CC-89	C-C	1	E-H	10"	STD	F1			J-9F		2603-3	7						2	CF,CG		
CSA-CC-73	C-C	1	P-SSL	10"	.365	P1					2603.4	7						2	CF,CG		CSS-17
CSA-CC-79	C-C	1	P-H	10"	.365	P1			J-9S		2603.4	7						2	CF,CG		CSH-34
CWA-CC-32	C-C	1	E-H	6"	---	P-12			F		2605-4	7						2	1		HGR.CUH-91
CWA-CC-39	C-C	1	P-HSL	6"	---	P-12			---		2605-4	7						2	I		CUH-9S
CWA-CC-41	C-C	1	E-H	6"	---	P-12			F		2605-4	7						2	1		CUH-93
HPID-CC-16	C-C	1	E-H	10"	.938				J-9F		2609-1	7						2	1		HPH-7
HPID-CC-5	C-C	1	P-H	10"	.938				J-9F		2609-1	7						2	1		HPH-6
HPID-CF-10	C-C	1	P-P	14"	.938	P1/...			J-9F		2609-1	7						2	CF,CG		
HPID-CF-6	C-C	1	P-E	14"	.938	P1/F1			J-9F		2609-1	7						2	CF,CG		
HPID-CF-7	C-C	1	E-P	14"	.938	F1/P1			J-9S		2609-1	7						2	CF,CG		
HPID-CF-8	C-C	1	P-E	14"	.938	P1/F1			J-9S		2609-1	7						2	CF,CG		
HPID-CF-9	C-C	1	E-P	14"	.938	F1/P1			J-9S		2609-1	7						2	CF,CG		
HPIS-CC-11	C-C	1	P-H	16"	.375	P1			J-9F		2611-6	7						2	CF,CG		HPH-10
HPIS-CC-18	C-C	1	P-H	16"	.375	P1			J-9F		2611-6	7						2	CF,CG		HPH-10A
HPIS-CC-22	C-C	1	P-H	16"	.375	P1			9F		2611-6	7						2	CF,CG		HPH-11
HPIS-CC-4	C-C	1	P-H	16"	.375	P1			J-9F		2611-6	7						2	CF,CG		HPH-8
HPIS-CC-6	C-C	1	P-H	16"	.375	P1			J-9F		2611-6	7						2	CF,CG		HPH-9
RSA-CC-25	C-C	1	P-H	8"	40	P1			J-9F		2614-1	7						2	CF,CG		LUGS,.MSH-121
RSA-CC-26	C-C	1	P-SB	8"	40	P1			J-9F		2614-1	7						2	CF,CG		MSS-6
RAS-CE1-1	C-C	1	E-H	N/A		N/A	N/A			29	2614-2	7						2	CF,CG		
RBS-CE1-1	C-C	1	E-H	N/A		N/A	N/A			30	2614-2	7						2	CF,CG		
HPEI-CC-14	C-C	1	P-H	20"	.375	P1			J-9F		2614-3	7						2	CF,CG		MSH-154A
HPEI-CC-17	C-C	1	P-H	20"	.375	P1			J-9F		2614-3	7						2	CF,CG		MSH-155A
HPEI-CC-22	C-C	1	P-SB	20"	.375	P1			J-9F		2614-3	7						2	CF,CG		MSS-2
HPEI-CC-32	C-C	1	P-SB	16"	.375	P1			J-9F		2614-3	7						2	CF,CG		MSS-4
RWA-CC-36	C-C	1	P-H	6"	.280	P1			J-9F		2621-1	7						2	CF,CG		RCH-5
RWA-CC-52A	C-C	1	E-H	6"	.280	F1			J-9F		2621-1	7						2	CF,CG		RCH-6
HPID-CC-24	C-C	1	E-SB	10"	1.093	F1			J-9F		2623-2	7						2	CF,CG		RFS-3
HPID-CC-38	C-C	1	E-SB	10"	1.093	F1			J-9F		2623-2	7						2	CF,CG		RFS-5

COOPER NUCLEAR STATION
LIST OF ASME SECTION XI COMPONENTS BY CATEGORY
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PIPE.....	CAT..	CNT.	CFIG...	SIZE	S/T....	MAT.....	CAL.....	WBI.CAL.	WELD...	DWG	ISO.....	VT...	PT	MT	UT0.....	UT45....	UT60....	INT	PER....	RR...	REMARKS.....
HPID-CC-39	C-C	1	E-SB	14"	1.093	P1			J-9F		2623-2	7						2	CF,CG		RFS-4
RHB-CC-22	C-C	1	P-H	28"	30	P1			S		2624-1	7						2	CF,CG		RHH-26
RHB-CC-26	C-C	1	P-H	28"	30	P1			S		2624-1	7						2	CF,CG		RHH-24A
RHB-CE1-1	C-C	1	P-H	N/A		N/A	N/A			29	2624-1	7						2	CF,CG		
RHB-CE1-2	C-C	1	E-H	N/A		N/A	N/A			29	2624-1	7						2	CF,CG		
RHB-CE1-3	C-C	1	E-H	N/A		N/A	N/A			29	2624-1	7						2	CF,CG		RHH-30
RHB-CE1-4	C-C	1	P-H	N/A		N/A	N/A			29	2624-1	7						2	CF,CG		
RPA-CC-20	C-C	1	E-SP	16"	40	F1			...F		2624-1	7						2	CF,CG		SHH-21
RPC-CC-24A	C-C	1	E-H	16"	40	F1			...F		2624-1	7						2	CF,CG		RHS-55
RAW-CE1-9	C-C	1	P-H	---		N/A	---			35	2624-2	7						2	CF,CG		
RHB-CC-37	C-C	1	P-H	24"	30	P1			F		2624-2	7						2	CF,CG		RHH-93
RHB-CC-44	C-C	1	E-H	24"	30	F1			F		2624-2	7						2	CF,CG		RHH-89
RHB-CC-48	C-C	1	P-SB	24"	30	P1			F		2624-2	7						2	CF,CG		RHS-24
RHB-CC-49	C-C	1	P-SB	24"	30	P1			F		2624-2	7						2	CF,CG		RHS-23
RHB-CC-51	C-C	1	E-SB	24"	30	F1			F		2624-2	7						2	CF,CG		RHS-22
RHB-CC-53	C-C	1	E-H	24"	30	F1			F		2624-2	7						2	CF,CG		RHH-90
RHB-CC-56	C-C	1	E-H	24"	30	F1			F		2624-2	7						2	CF,CG		RHH-91
RHB-CC-59	C-C	1	E-SB	24"	30	F1			F		2624-2	7						2	CF,CG		RHS-21
RHG-CC-1	C-C	1	P-H	10"	.365	P1			F		2624-2	7						2	CF,CG		RHH-93A.LUGS
RHG-CC-18	C-C	1	E-H	10"	.365	F1			F		2624-2	7						2	CF,CG		RHH-99
RAW-CE1-14	C-C	1		N/A		N/A	N/A			37	2624-3A	7						2	CF,CG		
RAW-CE1-15	C-C	1		N/A		N/A	N/A			37	2624-3A	7						2	CF,CG		
RCT-CE1-1	C-C	1	P-H	N/A		N/A	N/A			37	2624-3A	7						2	1		
RCT-CE1-2	C-C	1	P-H	N/A		N/A	N/A			37	2624-3A	7						2	1		
RBW-CE1-10	C-C	1		N/A		N/A	N/A			37	2624-3B	7						2	CF,CG		
RBW-CE1-11	C-C	1		N/A		N/A	N/A			37	2624-3B	7						2	CF,CG		
RBW-CE1-12	C-C	1		N/A		N/A	N/A			37	2624-3B	8						2	1		
RBW-CE1-8	C-C	1	E-H	N/A		N/A	N/A			37	2624-3B	7						2	CF,CG		
RBW-CE1-9	C-C	1	P-H	N/A		N/A	N/A			37	2624-3B	7						2	CF,CG		
RBW-CE1-11	C-C	1	P-SB								2624-3B							2	CF,CG		
RCT-CE1-4	C-C	1		N/A		N/A	N/A			37	2624-3B	7						2	CF,CG		
RHC-CC-32	C-C	1	E-H	28"	30	F1			F		2624-3B	7						2	CF,CG		RHH-46
RHC-CC-36	C-C	1	P-H						F		2624-3B	7						2	CF,CG		RHH-47
RHC-CE1-1	C-C	1	E-H	N/A		N/A	N/A			38	2624-3B	7						2	CF,CG		
RHC-CE1-2	C-C	1		N/A		N/A	N/A			38	2624-3B	7						2	CF,CG		
RHC-CE1-3	C-C	1	E-H	N/A		N/A	N/A			38	2624-3B	7						2	CF,CG		
RHC-CF-24	C-C	1	P-H	28"	30	P1			BW		2624-3C	7						2	CF,CG		RHH-41
RPB-CC-20	C-C	1	E-H	16"	40	F1			F		2624-3C	7						2	CF,CG		RHH-39
RPB-CC-28	C-C	1	P-SB	16"	40	P1			F		2624-3C	7						2	CF,CG		RHS-42
RPB-CC-32	C-C	1	E-H	16"	40	F1			F		2624-3C	7						2	CF,CG		RHH-40
RPD-CC-19	C-C	1	E-H	16"	40	F1			F		2624-3C	7						2	CF,CG		RHH-38
RBW-CE1-5	C-C	1		N/A		N/A	N/A			36	2624-4	7						2	CF,CG		
RBW-CE1-6	C-C	1		N/A		N/A	N/A			36	2624-4	7						2	CF,CG		
RHC-CC-41	C-C	1	P-H	24"	30	P1			C		2624-5	7						2	1		RHH-64
RHC-CC-45	C-C	1	P-SB	24"	30	P1			F		2624-5	7						2	1		RHS-32
RHC-CC-51	C-C	1	E-SB	24"	30	F1			F		2624-5	7						2	1		RHS-30
RHC-CC-52	C-C	1	E-H	24"	30	F1			F		2624-5	7						2	CF,CG		RHH-52
RHC-CC-58	C-C	1	P-H	24"	30	P1			F		2624-5	7						2	CF,CG		RHH-69.LUGS
RHD-CE1-1	C-C	1	E-H	N/A		N/A	N/A			39	2624-6	7						2	CF,CG		
RHD-CE1-2	C-C	1	P-H	N/A		N/A	N/A			39	2624-6	7						2	CF,CG		

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PIPE.....	CAT..	CNT.	CFIG...	SIZE	S/T....	MAT.....	CAL.....	WBI.CAL.	WELD...	DWG ISO.....	VT...	PT	MT	UTØ.....	UT45....	UT6Ø....	INT	PER....	RR...	REMARKS.....
RHD-CE1-3	C-C	1	P-H	N/A		N/A	N/A			39 2624-6		7					2	CF,CG		
RHD-CE1-4	C-C	1	P-H	N/A		N/A	N/A			39 2624-6		7					2	CF,CG		
RHD-CE1-5	C-C	1	P-H	N/A		N/A	N/A			39 2624-6		7					2	CF,CG		
RHE-CC-3	C-C	1	E-SP	10"	.365	F1			...F	2624-7		7					2	CF,CG		RHH-14B
RAW-CE1-3	C-C	1		N/A		N/A	N/A			33 2625-1		7					2	CF,CG		
RAW-CE1-4	C-C	1		N/A		N/A	N/A			33 2625-1		7					2	CF,CG		
RAW-CE1-5	C-C	1	P-H	20"		N/A	---			33 2625-1		7					2	CF,CG		RHS-76
RAW-CE1-6	C-C	1		N/A		N/A	N/A			33 2625-1		7					2	CF,CG		
RAW-CE1-7	C-C	1		N/A		N/A	N/A			33 2625-1		7					2	CF,CG		
RBW-CC-35B	C-C	1	T-SB	16"	.375	F1			...F	2625-1		7					2	CF,CG		
RBW-CE1-3	C-C	1	T-SB	16"	.375	F1			...F	2625-1		7					2	CF,CG		RHS-6B
RAW-CC-8A	C-C	1	T-SB	16"	.375	F1			...F	2625-2		7					2	CF,CG		RHS-6S
RAW-CE1-1	C-C	1	T-SB	N/A		N/A	N/A			33 2625-2		7					2	CF,CG		
RAW-CE1-2	C-C	1	T-SB	N/A		N/A	N/A			33 2625-2		7					2	CF,CG		
RBW-CE1-3	C-C	1		N/A		N/A	N/A			34 2625-2		7					2	CF,CG		
RBW-CE1-4	C-C	1		N/A		N/A	N/A			34 2625-2		7					2	CF,CG		
RBW-CE1-3	C-C	1		N/A		N/A				2625-2		7					2	CF,CG		
RPA-CC-16	C-C	1	T-H	20"	.375	F1			...F	2625-2		7					2	CF,CG		RHH-1
RPB-CC-14	C-C	1	E-H	20"	.375	F1			...F	2625-2		7					2	CF,CG		RHH-14
RHA-CE1-1	C-C	1		N/A		N/A	N/A			33 2625-3		7					2	1		
RHA-CE1-2	C-C	1		N/A		N/A	N/A			33 2625-3		7					2	1		
RBW-CC-13A	C-C	1	H	20"	.375	P1			...F	2625-4		7					2	CF,CG		RHH-13
RBW-CE1-1	C-C	1	E-H	34						2625-4		7					2	CF,CG		
RBW-CE1-2	C-C	1		N/A		N/A	N/A			34 2625-4		7					2	CF,CG		
RBW-CE1-4A	C-C	1		N/A		N/A	N/A			34 2625-4		7					2	CF,CG		
RBW-CE1-4B	C-C	1		N/A		N/A	N/A			34 2625-4		7					2	CF,CG		
RBW-CE1-4C	C-C	1		N/A		N/A	N/A			34 2625-4		7					2	CF,CG		
RPB-CC-15	C-C	1	P-H	20"	.375	P1			...F	2625-4		7					2	CF,CG		
RPA-CC-1B	C-C	1	P-H	20"	.375	P1			...F	2626-1		7					2	CF,CG		RHS-5
RPA-CC-6	C-C	1	P-H	20"	.375	P1			...F	2626-1		7					2	CF,CG		RHH-6
RPC-CC-4	C-C	1	P-H	20"	.375	P1			...F	2626-1		7					2	CF,CG		RHH-3A
RPC-CC-9	C-C	1	P-H	20"	.375	P1			...F	2626-1		7					2	CF,CG		RHH-2
RPB-CC-18	C-C	1	P-H	20"	.375	P1			...F	2626-2		7					2	CF,CG		RHH-18
RPB-CC-6	C-C	1	P-H	20"	.375	P1			...F	2626-2		7					2	CF,CG		RHH-19
RPB-CC-7	C-C	1	P-H	20"	.375	P1			...F	2626-2		7					2	CF,CG		RHH-16A
RPB-CC-4	C-C	1	P-H	20"	.375	P1			J-9F	2626-2		7					2	CF,CG		RHH-16A
RPB-CC-8	C-C	1	P-H	20"	.375	P1			J-9F	2626-2		7					2	CF,CG		RHS-15
RAW-CE1-11	C-C	1	P-H	N/A		N/A	N/A			35 2626-3		7					2	CF,CG		
RBW-CE1-7	C-C	1		N/A		N/A	N/A			36 2626-4		7					2	CF,CG		
PSA-CE1-1	C-C	1		N/A		N/A	N/A			32 2629-1		7					2	CF,CG		
PSA-CE1-2	C-C	1		N/A		N/A	N/A			32 2629-1		7					2	CF,CG		
PSA-CE1-3	C-C	1		N/A		N/A	N/A			32 2629-1		7					2	CF,CG		
PSA-CE1-4	C-C	1		N/A		N/A	N/A			32 2629-1		7					2	CF,CG		
PSA-CE1-5	C-C	1		N/A		N/A	N/A			32 2629-1		7					2	CF,CG		
PSA-CE1-6	C-C	1		N/A		N/A	N/A			32 2629-1		7					2	CF,CG		
PSA-CE1-7	C-C	1		N/A		N/A	N/A			32 2629-1		7					2	CF,CG		
RAS-CE1-2	C-C	1	P-H	---		N/A	---			31 2629-1		7					2	CF,CG		
RAS-CE1-3	C-C	1		N/A		N/A	N/A			31 2629-1		7					2	CF,CG		
RAS-CE1-4	C-C	1		N/A		N/A	N/A			31 2629-1		7					2	CF,CG		
RAS-CE1-5	C-C	1		N/A		N/A	N/A			32 2629-1		7					2	CF,CG		

COOPER NUCLEAR STATION
LIST OF ASME SECTION XI COMPONENTS BY CATEGORY
25 APR 1987

PIPE.....	CAT..	CNT.	CFIG...	SIZE	S/T....	MAT.....	CAL.....	WØ1.CAL.	WELD...	DWG ISO.....	VT...	PT	MT	UTØ.....	UT45....	UT6Ø....	INT	PER....	RR...	REMARKS.....
RBS-CE1-2	C-C	1		N/A		N/A	N/A			32 2629-1	7						2	CF,CG		
RBS-CE1-3	C-C	1		N/A		N/A	N/A			32 2629-1	7						2	CF,CG		
RAW-CF-65E	C-C	1	LUGS	1Ø"	.5ØØ					CB&I-69	7						2	CF,CG		RAW-TH-1
RBW-CF-71E	C-C	1	LUGS	1Ø"	.5ØØ					CB&I-69	7						2	CF,CG		RBW-TH-1
RHE-CC-26	C-C	1	H	12"	1.ØØØ				F	CB&I-73	7						2	CF,CG		RHE-H-1
RHE-CC-27	C-C	1	H	12"	1.ØØØ				F	CB&I-73	7						2	CF,CG		RHE-H-2
RHG-CC-37	C-C	1	H	12"	1.312				F	CB&I-73	7						2	CF,CG		RHG-H-1
RHG-CC-38	C-C	1	H	12"	1.312				F	CB&I-73	7						2	CF,CG		RHG-H-2
RPC-CC-28A	C-C	1				F1/F1			...F	E-SP	7						2	CF,CG		RHH-23
PNC-CE1-3	C-C	1	P-H	---		N/A	---			4Ø RCØ-755-2	7						2	CF,CG		
PNC-CE1-4	C-C	1		N/A		N/A	N/A			4Ø RCØ-755-2	7						2	CF,CG		
PNC-CE1-5	C-C	1	P-H	N/A		N/A	N/A			4Ø RCØ-755-2	7						2	CF,CG		
PNC-CE1-7	C-C	1	P-H	N/A		N/A	N/A			4Ø RCØ-755-2	7						2	CF,CG		
SDS-CE1-21	C-C	1		N/A		N/A	N/A			44 SGW-13095.19-EP	7						2	CF,CG		
RHR-CC-2A	C-C	1	VE-SP	46		-	-		N/A	41 SWECO.M-82454	6						2	CF,CG		
RHR-CC-2B	C-C	1	VE-SP	46		-	-		N/A	41 SWECO.M-82454	7						2	CF,CG		

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ASME CAT. C-F

COOPER NUCLEAR STATION

LIST OF ASME SECTION XI COMPONENTS BY CATEGORY

25 APR 1987

PIPE.....	CAT..	CNT.	CFIG...	SIZE	S/T....	MAT.....	CAL.....	WB1.CAL.	WELD...	DWG ISO.....	VT...	PT	MT	UT0.....	UT45....	UT60....	INT	PER....	RR...	REMARKS.....
CSA-CF-32	C-F		E-P	12"	.375	P1			J-9S										C5.11	
CSA-CF-54	C-F		E-P	12"	.375	P1			J-9S			7							C5.11	
CSA-CF-68	C-F		E-P	10"	.365	P1			J-9S		7									1
CSB-CF-5	C-F		P-E	16"	.375	P1			J-9S			7							C5.11	
RHR-CF-36	C-F	RI-0	RE-P	10"	1.125	P2						7			6		6		C5.21	INSIDE DRYWELL MAY NEED RR
RPB-CF-23A	C-F	1	P-V	16"	40	P1			J-9F			7	6	6						RHR-LV-11
HPEI-CF-43	C-F	1	P-T	20"	.375	P1			J-9S	2601-1										
HPEI-CF-44	C-F	1	T-P	20"	.375	P1			J-9S	2601-1		7								
HPEI-CF-45	C-F	1	P-E	20"	.375	P1			J-9S	2601-1		7								
HPEI-CF-46	C-F	1	E-P	20"	.375	P1			J-9F	2601-1		7								
HPEI-CF-48	C-F	1	P-E	20"	.375	P1			J-9S	2601-1		7								
HPEI-CF-49	C-F	1	E-P	20"	.375	P1			J-9S	2601-1										
HPEI-CF-50	C-F	1	P-E	20"	.375	P1			J-9F	2601-1										
HPEI-CF-51	C-F	1	E-P	20"	.375	P1			J-9S	2601-1		7								
HPEI-CF-52	C-F	1	P-E	20"	.375	P1			J-9F	2601-1		7								
HPEI-CF-54	C-F	1	E-P	20"	.375	P1			J-9S	2601-1		7								
HPEI-CF-55	C-F	1	E-P	20"	.375	P1			J-9S	2601-1		7								
HPEI-CF-56	C-F	1	P-RE	20"	.375	P1			J-9S	2601-1		7								
HPEI-CF-57	C-F	1	RE-E	24"	.375	F1			J-9S	2601-1		7								
HPEI-CF-58	C-F	1	E-P	24"	.375	P1			J-9S	2601-1		7								
HPEI-CF-59	C-F	1	P-P	24"	.375	P1			J-9F	2601-1		7								X-2i4
HPEI-CF-60	C-F	1	T-P	10"	.365	P1			J-9S	2601-1		7								
HPEI-CF-61	C-F	1	P-CAP	10"	.365	P1			J-9S	2601-1										
RSA-CF-13	C-F	1	P-P	8"	40	P1	3		J-9	38 2601-4		7	6	6			2	3		
RSA-CF-14	C-F	1	P-E	8"	STD.	P1	3		J-9F	38 2601-4		7								
RSA-CF-15	C-F	1	P-E	8"	40	P1	3		J-9	38 2601-4		7	6	6						
RSA-CF-16	C-F	1	P-E	8"	40	P1	3		J-9	38 2601-4		7	6	6						
RSA-CF-17	C-F	1	P-E	8"	40	P1	3		J-9	38 2601-4		7	6	6						
RSA-CF-18	C-F	1	P-E	8"	40	P1	3		J-P	38 2601-4		7	6	6			2	2		
RSA-CF-19	C-F	1	P-E	8"	40	P1	3		J-P	38 2601-4		7	6	6						
RSA-CF-21	C-F	1	R-N	12"	Stu.	F1	4		J-P	38 2601-4		7								
CSB-CF-27	C-F	1	PU-R	8"	STD	F1			J-9F	2602-1		7								CORE.SPRAY.PUMP.1B
CSB-CF-28	C-F	1	R-E	12"	STD	F1			J-9S	2602-1										
CSB-CF-29	C-F	1	E-P	12"	STD	P1			J-9S	2602-1		7								
CSB-CF-30	C-F	1	P-E	12"	STD	P1			J-9S	2602-1		7								
CSB-CF-31	C-F	1	E-E	12"	STD	F1			J-9S	2602-1		7								
CSB-CF-33	C-F	1	E-V	12"	STD	F1			J-9F	2602-1		7								
CSB-CF-34	C-F	1	V-P	12"	STD	P1			J-9F	2602-1		7								
CSB-CF-36	C-F	1	P-P	12"	STD	P1			J-9F	2602-1		7								
CSB-CF-37	C-F	1	P-P	12"	STD	P1			J-9F	2602-1		7								
CSB-CF-38	C-F	1	P-RT	12"	STD	P1			J-9S	2602-1		7								
CSB-CF-39	C-F	1	RT-P	12"	STD	P1			J-9S	2602-1		7								
CSB-CF-40	C-F	1	P-E	12"	STD	P1			J-9S	2602-1		7								
CSB-CF-42	C-F	1	E-P	12"	STD	P1			J-9F	2602-1		7								
CSB-CF-43	C-F	1	P-E	12"	STD	P1			J-9S	2602-1		7								
CSB-CF-44	C-F	1	E-P	12"	STD	P1			J-9S	2602-1		7								
CSB-CF-45	C-F	1	E-P	12"	STD	P1			J-9S	2602-1		7								
CSB-CF-46	C-F	1	E-P	12"	STD	P1			J-9S	2602-1		7								
CSB-CF-47	C-F	1	P-E	12"	STD	P1			J-9F	2602-1		7								

COOPER NUCLEAR STATION
LIST OF ASME SECTION XI COMPONENTS BY CATEGORY
25 APR 1987

PIPE.....	CAT..	CNT.	CFI...	SIZE	S/T....	MAT.....	CAL.....	WBI.CAL.	WELD...	DWG ISO.....	VT...	PT	MT	UT0.....	UT45....	UT60....	INT PER....	RR...	REMARKS.....
CSB-CF-48	C-F	1	E-P	12"	STD	P1			J-95	2602-1		7							
CSB-CF-49	C-F	1	R-E	12"	STD	F1			J-95	2602-1		7							
CSB-CF-50	C-F	1	E-P	12"	STD	P1			J-9F	2602-1									
CSB-CF-52	C-F	1	P-E	12"	STD	P1			J-95	2602-1		7							
CSB-CF-53	C-F	1	E-P	12"	STD	P1			J-95	2602-1									
CSB-CF-54	C-F	1	P-E	12"	STD	P1			J-95	2602-1		7							
CSB-CF-55	C-F	1	E-P	12"	STD	P1			J-95	2602-1		7							
CSB-CF-56	C-F	1	P-E	12"	STD	P1			J-95	2602-1		7							
CSB-CF-58	C-F	1	E-P	12"	STD	P1			J-9F	2602-1		7							
CSB-CF-59	C-F	1	P-E	12"	STD	P1			J-95	2602-1		7							
CSB-CF-60	C-F	1	E-E	12"	STD	F1			J-95	2602-1		7							
CSB-CF-61	C-F	1	E-P	12"	STD	P1			J-9F	2602-1		7							
CSB-CF-62	C-F	1	P-E	12"	STD	P1			J-95	2602-1									
CSB-CF-64	C-F	1	E-P	12"	STD	P1			J-9F	2602-1		7							
CSB-CF-65	C-F	1	P-E	12"	STD	P1			J-95	2602-1		7							
CSB-CF-66	C-F	1	E-P	12"	STD	P1			J-9F	2602-1		7							
CSB-CF-67	C-F	1	P-F	12"	STD	P1			J-95	2602-1									
CSB-CF-68	C-F	1	F-P	12"	STD	P1			J-9F	2602-1		7							
CSB-CF-69	C-F	1	P-RE	12"	STD	P1			J-95	2602-1		7							
CSB-CF-70	C-F	1	RE-P	12"	100	P1			J-9F	2602-1		7	6		6				
CSB-CF-71	C-F	1	RT-V	10"	STD	F1			J-95	2602-1									
CSB-CF-72	C-F	1	V-P	10"	STD	P1			J-9F	2602-1		7							
CSB-CF-73	C-F	1	P-E	10"	STD	P1			J-9F	2602-1		7							
CSB-CF-74	C-F	1	E-F	10"	STD	F1			J-95	2602-1		7							
CSA-CF-25	C-F	1	R-P	12"	.375	F1-F1			J-95	2602-2		7							
CSA-CF-25A	C-F	1	PU-R	10"	.375"	F1			J-9F	2602-2		7	6		6				CORE.SPRAY.PUMP.1A
CSA-CF-26	C-F	1	P-E	12"	.375	P1			J-95	2602-2		7							
CSA-CF-28	C-F	1	E-V	12"	.375	F1			J-9F	2602-2		7							
CSA-CF-29	C-F	1	V-P	12"	.375	P1			J-9F	2602-2		7							
CSA-CF-30	C-F	1	P-E	12"	.375	P1			J-95	2602-2		7							
CSA-CF-31	C-F	1	E-E	12"	.375	F1			J-95	2602-2		7							
CSA-CF-33	C-F	1	P-P	12"	.375	P1			J-9F	2602-2		7							
CSA-CF-34	C-F	1	P-P	12"	.375	P1			J-95	2602-2		7							
CSA-CF-35	C-F	1	P-P	12"	.375	P1			J-95	2602-2		7							
CSA-CF-36	C-F	1	P-E	12"	.375	P1			J-9F	2602-2		7							
CSA-CF-37	C-F	1	E-P	12"	.375	P1			J-95	2602-2		7							
CSA-CF-39	C-F	1	P-T	12"	.375	P1			J-9F	2602-2		7							
CSA-CF-40	C-F	1	T-P	12"	.375	P1			J-95	2602-2		7							
CSA-CF-41	C-F	1	P-E	12"	.375	P1			J-95	2602-2		7							
CSA-CF-42	C-F	1	E-P	12"	.375	P1			J-95	2602-2		7							
CSA-CF-43	C-F	1	P-E	12"	.375	P1			J-95	2602-2		7							
CSA-CF-44	C-F	1	E-P	12"	.375	P1			J-95	2602-2		7							
CSA-CF-45	C-F	1	P-E	12"	.375	P1			J-9F	2602-2		7							
CSA-CF-46	C-F	1	E-P	12"	.375	P1			J-95	2602-2									
CSA-CF-47	C-F	1	P-E	12"	.375	P1			J-95	2602-2		7							
CSA-CF-48	C-F	1	E-P	12"	.375	P1			J-9F	2602-2		7							
CSA-CF-49	C-F	1	P-P	12"	.375	P1			J-9F	2602-2		7							
CSA-CF-50	C-F	1	P-E	12"	.375	P1			J-95	2602-2		7							
CSA-CF-51	C-F	1	E-P	12"	.375	P1			J-95	2602-2		7							
CSA-CF-52	C-F	1	P-P	12"	.375	P1			J-9F	2602-2		7							

COOPER NUCLEAR ,TATION
LIST OF ASME SECTION XI COMPONENTS BY CATEGORY
25 APR 1987

PIPE.....	CAT..	CNT.	CFIG...	SIZE	S/T....	MAT.....	CAL.....	WBI.CAL.	WELD...	DWG ISO.....	VT...	PT	MT	UT0.....	UT45....	UT60....	INT	PER....	RR...	REMARKS.....
CSA-CF-53	C-F	1	P-E	12"	.375	P1			J-95	2602-2	7									
CSA-CF-55	C-F	1	P-E	12"	.375	P1			J-9F	2602-2										
CSA-CF-56	C-F	1	E-P	12"	.375	P1			J-95	2602-2	7									
CSA-CF-57	C-F	1	P-E	12"	.375	P1			J-95	2602-2	7									
CSA-CF-58	C-F	1	E-P	12"	.375	P1			J-95	2602-2	7									
CSA-CF-59	C-F	1	P-R	12"	.375	F1			J-95	2602-2	7									
CSA-CF-60	C-F	1	R-V	12"	100	F1			J-9F	2602-2	7	6		6						
CSA-CF-61	C-F	1	T-V	10"	.365"	F1			J-9F	2602-2	7	6		6						
CSA-CF-62	C-F	1	V-P	10"	.365"	P1			J-9F	2602-2	7	6		6						
CSA-CF-63	C-F	1	P-E	10"	.365"	P1			J-95	2602-2	7	6		6						
CSA-CF-64	C-F	1	E-P	10"	.365"	P1			J-95	2602-2										
CSA-CF-65	C-F	1	P-F	10"	.365"	P1			J-95	2602-2	7	6		6						
CSA-CF-1	C-F	1	FC-E	16"	.375	P1	N/A		J-9A	2603-1	7						2	1		
CSA-CF-11	C-F	1	P-RE	16"	.375	P1			J-9F	2603-1	7									
CSA-CF-12	C-F	1	RE-V	14"	.375	F1			J-9F	2603-1	7									CS-LV-10
CSA-CF-13	C-F	1	V-P	14"	.375	P1			J-9F	2603-1	7									CS-LV-10
CSA-CF-14	C-F	1	P-V	14"	.375	P1			J-9F	2603-1	7									CS-MO-7A
CSA-CF-15	C-F	1	V-P	14"	.375	P1			J-9F	2603-1	7									CS-MO-7A
CSA-CF-16	C-F	1	P-T	14"	.438	P1			J-95	2603-1	7									
CSA-CF-17	C-F	1	T-PU	14"	.438	F1			J-9F	2603-1	7									CS-PUMP-1A
CSA-CF-18	C-F	1	T-P	14"	.438	P1			J-9F	2603-1	7									
CSA-CF-19	C-F	1	P-F	14"	.375	P1			J-9F	2603-1	7									
CSA-CF-2	C-F	1	E-F	16"	.375	F1	N/A		J-9F	2603-1	7						2	1		
CSA-CF-20	C-F	1	F-P	14"	.375	P1			J-9F	2603-1	7									
CSA-CF-21	C-F	1	P-F	14"	.375	P1			J-9F	2603-1	7									
CSA-CF-22	C-F	1	F-P	14"	.375	P1			J-9F	2603-1	7									
CSA-CF-23	C-F	1	P-V	14"	.375	P1			J-9F	2603-1	7									CS-LV-CC
CSA-CF-24	C-F	1	V-P	14"	.375	P1			J-9F	2603-1	7									CS-LV-CC
CSA-CF-3	C-F	1	E-P	16"	.375	P1	N/A		J-5S	2603-1	7						2	1		
CSA-CF-4	C-F	1	P-E	16"	.375	P1			J-5S	2603-1	7									
CSA-CF-5	C-F	1	E-P	16"	.375	P1			J-5S	2603-1	7									
CSA-CF-7	C-F	1	P-E	16"	.375	P1			J-95	2603-1	7									
CSA-CF-8	C-F	1	E-P	16"	.375	P1			J-95	2603-1	7									
CSA-CF-9	C-F	1	P-P	16"	.375	P1			J-9F	2603-1	7									
CSB-CF-1	C-F	1	N-E	16"	.375	F1			J-9F	2603-2	7									
CSB-CF-11	C-F	1	P-P	16"	.375	P1			J-9F	2603-2	7									
CSB-CF-12	C-F	1	P-RE	16"	.375	P1			J-9F	2603-2	7									
CSB-CF-14	C-F	1	RE-V	14"	.375	F1			J-9F	2603-2										CS-LV-67
CSB-CF-15	C-F	1	V-P	14"	.375	P1			J-9F	2603-2	7									CS-LV-67
CSB-CF-16	C-F	1	P-V	14"	.375	P1			J-9F	2603-2	7									CS-MO-7B
CSB-CF-17	C-F	1	V-P	14"	.375	P1			J-9F	2603-2	7									CS-MO-7B
CSB-CF-18	C-F	1	P-T	14"	40	P1			J-95	2603-2	7	6		6						
CSB-CF-19	C-F	1	T-PU	14"	40	F1			J-9F	2603-2										CS-PUMP-1B
CSB-CF-2	C-F	1	E-E	16"	.375	F1			J-9F	2603-2	7									
CSB-CF-20	C-F	1	P-F	14"	.375	P1			J-95	2603-2	7									
CSB-CF-21	C-F	1	P-F	14"	.375	P1			J-9F	2603-2	7									
CSB-CF-22	C-F	1	F-P	14"	.375	P1			J-9F	2603-2	7									
CSB-CF-23	C-F	1	P-F	14"	.375	P1			J-9F	2603-2	7									
CSB-CF-24	C-F	1	F-P	14"	.375	P1			J-9F	2603-2	7									
CSB-CF-25	C-F	1	P-VA	14"	.375	P1			J-9F	2603-2	7									

COOPER NUCLEAR STATION
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PIPE.....	CAT..	CNT.	CFIG...	SIZE	S/T....	MAT.....	CAL.....	WBI.CAL.	WELD...	DWG ISO.....	VT...	PT	MT	UT#.....	UT45....	UT60....	INT PER....	RR...	REMARKS.....
CSB-CF-26	C-F	1	VA-P	14"	.375	P1			J-9F	2603-2		7							
CSB-CF-3	C-F	1	E-P	16"	.375	P1			J-9S	2603-2		7							
CSB-CF-4	C-F	1	P-P	16"	.375	P1			J-9S	2603-2		7							CSH-1
CSB-CF-6	C-F	1	E-P	16"	.375	P1			J-9S	2603-2		7							
CSB-CF-7	C-F	1	P-E	16"	.375	P1			J-9S	2603-2		7							
CSB-CF-8	C-F	1	E-P	16"	.375	P1			J-9S	2603-2									
CSB-CF-76	C-F	1	F-P	10"	STD	P1			J-9S	2603-3									
CSB-CF-78	C-F	1	P-E	10"	STD	P1			J-9S	2603-3		7							
CSB-CF-80	C-F	1	E-P	10"	STD	P1			J-9F	2603-3		7							
CSB-CF-82	C-F	1	P-E	10"	STD	P1			J-9S	2603-3		7							
CSB-CF-83	C-F	1	E-P	10"	STD	P1			J-9S	2603-3		7							
CSB-CF-86	C-F	1	P-E	10"	STD	P1			J-9S	2603-3		7							
CSB-CF-87	C-F	1	E-P	10"	P1STD				J-9S	2603-3		7							
CSB-CF-88	C-F	1	P-E	10"	STD	P1			J-9F	2603-3		7							
CSB-CF-90	C-F	1	E-P	10"	STD	P1			J-9S	2603-3		7							
CSB-CF-91	C-F	1	P-E	10"	STD	P1			J-9S	2603-3		7							
CSB-CF-92	C-F	1	E-P	10"	STD	P1			J-9F	2603-3		7							
CSB-CF-93	C-F	1	P-E	10"	STD	P1			J-9-5S	2603-3		7							
CSB-CF-94	C-F	1	E-P	10"	.365/.5	P2			J-9F	2603-3		7	6	6					
CSA-CF-67	C-F	1	F-E	10"	.365	F1			J-9S	2603-4		7							CS-VE3.PARTS.SAME.AS .CS-VE2
CSA-CF-69	C-F	1	E-E	10"	.365	F1			J-9S	2603-4									
CSA-CF-70	C-F	1	E-P	10"	.365	P1			J-9F	2603-4		7							
CSA-CF-74	C-F	1	P-E	10"	.365	P1			J-9S	2603.4		7							
CSA-CF-75	C-F	1	E-P	10"	.365	P1			J-9S	2603.4		7							
CSA-CF-76	C-F	1	P-E	10"	.365	P1			J-9S	2603.4		7							
CSA-CF-77	C-F	1	E-P	10"	.365	P1			J-9F	2603.4		7							
CSA-CF-78	C-F	1	P-E	10"	.365	P1			J-9S	2603.4									
CSA-CF-80	C-F	1	E-P	10"	.365	P1			J-9S	2603.4		7							
CSA-CF-81	C-F	1	P-E	10"	.365	P1			J-9F	2603.4		7							
CSA-CF-82	C-F	1	E-P	10"	.365	P1			J-9S	2603.4									
CSA-CF-83	C-F	1	P-E	10"	.365	P1			J-9S	2603.4		7							
CSA-CF-84	C-F	1	E-P	10"	.365	P2			J-9F	2603.4		7							
CWA-CF-30A	C-F		P-P	6	80		48			2605-2		7							
CWA-CF-33A	C-F		P-P	6	80		11			2605-2		7							
CWA-CF-33B	C-F		P-P	6	80		11			2605-2		7							
CWA-CF-30	C-F	1	V-P	6"	80	P12	48		J9F	2505-4							2	1	
CWA-CF-31	C-F	1	P-E	6"	80	P12			J9S	2605-4							2	1	
CWA-CF-33	C-F	1	E-P	6"	80	P-12			J9S	2605-4		7	6	6					
CWA-CF-34	C-F	1	P-T	6"	80	P-12			J-9F	2605-4		7	6	6					
CWA-CF-37	C-F	1	T-E	6"	80	P-12			J9S	2605-4		7	6	6					
CWA-CF-38	C-F	1	E-P	6"	80	P-12	N/A		J9S	2605-4		7	6	6					
CWA-CF-40	C-F	1	P-E	6"	80	P-12			J-9S	2605-4		7	6	6					
CWA-CF-42	C-F	1	E-RT	6"	80	P-12			J-9F	2605-4									
CWA-CF-43	C-F	1	RT-R	6"	80	P-12			J-9S	2605-4		7	6	6					
CWA-CF-44	C-F	1	RT-R	6"	80	P-12			J-9S	2605-4		7	6	6					
HPID-CF-1	C-F	1	PU-R	10	.938	F1	N/A	4	J-9F	2609-1		7	6	6			2	1	HPCI.PUMP
HPID-CF-10A	C-F	1	P-F	14"	.938	P1	N/A	89	J-9S	2609-1		7	6	6			2	1	
HPID-CF-12	C-F	1	F-P	14"	.938	P1	N/A	89	J-9F	2609-1		7	6	6			2	1	
HPID-CF-13	C-F	1	P-E	14"	.938	P1			J-9S	2609-1									

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PIPE	CAT	CNT	CFIG	SIZE	S/T	MAT	CAL	W81.CAL	WELD	DWG	ISO	VT	PT	MT	UT0	UT45	UT60	INT	PER	RR	REMARKS
HPID-CF-14	C-F	1	E-P	14"	.938	P1			J-9S	2609	-1										
HPID-CF-15	C-F	1	P-E	14"	.938	P1			J-9S	2609	-1	7	6		6						
HPID-CF-17	C-F	1	E-V	14"	1.093	F1			J-9F	2609	-1	7	6		6						HPCI-MO-20
HPID-CF-2	C-F	1	R-E	14	.938	F1	N/A	89	J-9S	2609	-1	7	6		6			2	1		
HPID-CF-3	C-F	1	E-P	14	.938	P1	N/A	89	J-9S	2609	-1	7	6		6			2	1		
HPIS-CF-1	C-F	1	P-E	16"	.844	P1			J-9F	2611	-6	7	6		6						
HPIS-CF-10	C-F	1	E-P	16"	.375	P1			J-9F	2611	-6	7						2	1		
HPIS-CF-12	C-F	1	P-E	16"	.375	P1	N/A		J-9S	2611	-6							2	1		
HPIS-CF-13	C-F	1	E-P	16"	.375	P1	N/A		J-9S	2611	-6	7						2	1		
HPIS-CF-14	C-F	1	P-V	16"	.375	P1	N/A		J-9F	2611	-6	7						2	1		HPCI-LV-12
HPIS-CF-15	C-F	1	V-E	16"	.375	F1	N/A		J-9F	2611	-6	7						2	1		HPCI-LV-12
HPIS-CF-16	C-F	1	E-V	16"	.375	F1	N/A		J-9F	2611	-6	7						2	1		HPCI-MO-58
HPIS-CF-17	C-F	1	V-P	16"	.375	F1			J-9F	2611	-6	7									HPCI-MO-58
HPIS-CF-19	C-F	1	P-V	16"	.375	P1			J-9F	2611	-6	7									HPCI-CV-11
HPIS-CF-2	C-F	1	E-E	16"	.375	F1			J-9F	2611	-6	7									
HPIS-CF-20	C-F	1	V-T	16"	.375	F1			J-9F	2611	-6	7									HPCI-CV-11
HPIS-CF-21	C-F	1	T-P	16"	.375	P1			J-9S	2611	-6	7									
HPIS-CF-23	C-F	1	P-P	16"	.375	P1			J-9S	2611	-6										
HPIS-CF-24	C-F	1	P-V	16"	.375	P1			J-9F	2611	-6	7									HPCI-CV-10
HPIS-CF-25	C-F	1	V-V	16"	.375	F1			J-9F	2611	-6	7									HPCI-CV-10.TO.HPCI-M0-17
HPIS-CF-26	C-F	1	T-F	16"	.375				J-9F	2611	-6	7									
HPIS-CF-28	C-F	1	F-P	16"	.375	P1			J-9S	2611	-6	7									
HPIS-CF-29	C-F	1	P-F	16"	.375	P1			J-9S	2611	-6	7									
HPIS-CF-3	C-F	1	E-P	16"	.375	P1			J-9S	2611	-6	7									
HPIS-CF-31	C-F	1	F-E	16"	.375	F1			J-9S	2611	-6	7									
HPIS-CF-32	C-F	1	E-RE	16	.375	F1			J-9S	2611	-6	7									
HPIS-CF-33	C-F	1	RE-P	14	.375	P1			J-9S	2611	-6	7									
HPIS-CF-34	C-F	1	P-PU	14	.375	P1			J-9F	2611	-6	7									HPIC.PUMP
HPIS-CF-5	C-F	1	P-P	16"	.375	P1			J-9F	2611	-6	7									
HPIS-CF-7	C-F	1	P-E	16"	.375	P1			J-9S	2611	-6	7									
HPIS-CF-8	C-F	1	E-P	16"	.375	P1			J-9S	2611	-6	7									
HPIS-CF-9	C-F	1	P-E	16"	.375	P1			J-9F	2611	-6										
RSA-CF-1	C-F	1	T-F	8"	40	F1	3		J-9	38	2614-1	7	6		6			2	3		
RSA-CF-10	C-F	1	P-V	8"	40	F1	3		J-9F	38	2614-1	7	6		6						
RSA-CF-101	C-F	1	P-T	8"	40	P1	3		J-9	38	2614-1	7	6		6						
RSA-CF-102	C-F	1	P-CAP	8"	40	P1	3		J-9	38	2614-1	7	6		6						
RSA-CF-11	C-F	1	P-V	8"	40	P1	3		J-9F	38	2614-1	7	6		6						
RSA-CF-12	C-F	1	P-V	8"	40	P1	3		J-9F	38	2614-1	7	6		6			2	3		
RSA-CF-2	C-F	1	P-E	8"	40	P1	N/A		J-9	38	2614-1	7						2	1		
RSA-CF-20	C-F	1	P-R	8"	40	P1	3		J-P	38	2614-1	7	6		6						
RSA-CF-22	C-F	1	T-P	8"	40	P1			J-9S		2614-1	7	6		6						
RSA-CF-23	C-F	1	P-E	8"	40	P1			J-9S		2614-1	7	6		6						
RSA-CF-24	C-F	1	E-P	8"	40	P1			J-9F		2614-1	7	6		6						
RSA-CF-27	C-F	1	P-E	8"	40	P1	N/A		J-9S		2614-1	7						2	1		
RSA-CF-28	C-F	1	E-F	8"	40	P1	N/A		J-9S		2614-1	7						2	1		
RSA-CF-29	C-F	1	P-E	8"	40	P1			J-9S		2614-1	7	6		6						
RSA-CF-3	C-F	1	P-E	8"	40	P1	3		J-9	38	2614-1	7	6		6			2	2		
RSA-CF-30	C-F	1	E-F	8"	40	P1			J-9F		2614-1	7	6		6						
RSA-CF-32	C-F	1	F-P	8"	40	F1			J-9F		2614-1	7	6		6						

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PIPE	CAT	CNT	CFIG	SIZE	% I	MAT	CAL	WBI.CAL	WELD	DWG ISO	VT	PT	MT	UT0	UT45	UT60	INT	PER	RR	REMARKS
RSA-CF-4	C-F	1	P-E	8"	40	P1	3		J-9	38 2614-1		7		6	6					
RSA-CF-5	C-F	1	P-E	8"	40	P1	3		J-9	38 2614-1		7		6	6					
RSA-CF-6	C-F	1	P-E	8"	40	P1	3		J-9	38 2614-1		7		6	6					
RSA-CF-7	C-F	1	P-T	8"	40	P1	3		J-9	38 2614-1		7		6	6					
RSA-CF-7@1	C-F	1	P-T	8"	40	P1	3		J-9	38 2614-1		7		6	6					
RSA-CF-8	C-F	1	E-T	8"	40	F1	3		J-9	38 2614-1		7		6	6					
RSA-CF-9	C-F	1	E-V	8"	40	F1	3		J-9F	38 2614-1		7		6	6					
RAS-CF-1	C-F	1	T-N	20"	40	F1	N/A	102	J-9	29 2614-2		7		6	6		2	1		
RAS-CF-1@	C-F	1	R-R	8"	80	F1	N/A		J-9F	29 2614-2		7					2	1		
RAS-CF-2	C-F	1	T-R	20"	40	F1	19		J-9F	29 2614-2		7		6	6					
RAS-CF-3	C-F	1	E-R	18"	40	F1	19		J-9	29 2614-2		7		6	6					
RAS-CF-4	C-F	1	P-E	18"	40	P1	19		J-9	29 2614-2		7		6	6		2	2		
RAS-CF-5	C-F	1	P-E	18"	40	P1	19		J-9	29 2614-2		7		6	6					
RAS-CF-6	C-F	1	P-E	18"	40	P1	19		J-9	29 2614-2		7		6	6					
RAS-CF-7	C-F	1	P-E	18"	40	P1	19		J-9	29 2614-2		7		6	6					
RAS-CF-8	C-F	1	P-E	18"	40	P1	19		J-9	29 2614-2		7		6	6		2	3		
RAS-CF-9	C-F	1	P-R	18"	40	P1	19		J-9	29 2614-2		7		6	6					
RBS-CF-1	C-F	1	T-N	20"	40	F1	N/A	102	J-9F	30 2614-2		7		6	6		2	1		
RBS-CF-1@	C-F	1	R-R	8"	80	F1	N/A		J-9F	30 2614-2		7					2	1		
RBS-CF-2	C-F	1	T-R	20"	40	F1	N/A	102	J-9	30 2614-2		7		6	6		2	1		
RBS-CF-3	C-F	1	E-R	18"	40	F1	N/A	101	J-9	30 2614-2		7		6	6		2	1		
RBS-CF-4	C-F	1	P-E	18"	40	P1	N/A	101	J-9	30 2614-2		7		6	6		2	1		
RBS-CF-5	C-F	1	P-E	18"	40	P1	N/A	101	J-9	30 2614-2		7		6	6		2	1		
RBS-CF-6	C-F	1	P-E	18"	40	P1	19		J-9	30 2614-2		7		6	6					
RBS-CF-7	C-F	1	P-E	18"	40	P1	19		J-9F	30 2614-2		7		6	6					
RBS-CF-8	C-F	1	P-E	18"	40	P1	19		J-9	30 2614-2		7		6	6					
RBS-CF-9	C-F	1	P-R	18"	40	P1	19		J-9	30 2614-2		7		6	6					
HPEI-CF-1@	C-F	1	P-CAP	20"	.594	P1		102	J-9S	2614-3		7		6	6		2	1		
HPEI-CF-11	C-F	1	T-P	20"	.375	P1			J-9F	2614-3		7					2	1		
HPEI-CF-12	C-F	1	P-E	20"	.375	P1			J-9F	2614-3		7					2	1		
HPEI-CF-13	C-F	1	E-P	20"	.375	P1			J-9S	2614-3		7								
HPEI-CF-15	C-F	1	P-E	20"	.375	P1			J-9S	2614-3		7								
HPEI-CF-16	C-F	1	E-P	20"	.375	P1			J-9F	2614-3		7					2	1		
HPEI-CF-18	C-F	1	P_	20"	.375	P1			J-9S	2614-3		7								
HPEI-CF-19	C-F	1	E-P	20"	.375	P1			J-9F	2614-3										
HPEI-CF-2	C-F	1	F-RE	18"	.562	F1			J-9S	2614-3		7		6	6					
HPEI-CF-2@	C-F	1	P-E	20"	.375	P1			J-9F	2614-3		7								
HPEI-CF-21	C-F	1	E-P	20"	.375	P1			J-9S	2614-3		7								
HPEI-CF-23	C-F	1	P-E	20"	.375	P1			J-9S	2614-3		7								
HPEI-CF-24	C-F	1	E-V	20"	.375	F1			J-9F	2614-3		7								HPCI-CV-15
HPEI-CF-25	C-F	1	V-P	20"	.375	P1			J-9F	2614-3		7								HPCI-CV-15
HPEI-CF-26	C-F	1	P-P	20"	.375	P1			J-9F	2614-3		7								
HPEI-CF-27	C-F	1	P-P	20"	.375	P1			J-9F	2614-3		7								
HPEI-CF-28	C-F	1	P-V	20"	.375	P1			J-9F	2614-3		7								HPCI-LV-44
HPEI-CF-29	C-F	1	V-P	20"	.375	P1			J-9F	2614-3		7								HPCI-LV-44
HPEI-CF-3	C-F	1	RE-P	20"	.594	P1			J-9S	2614-3		7		6	6					
HPEI-CF-3@	C-F	1	T-P	16"	.375	P1			J-9F	2614-3		7								
HPEI-CF-31	C-F	1	P-E	16"	.375	P1			J-9S	2614-3		7								
HPEI-CF-33	C-F	1	E-P	16"	.375	P1			J-9F	2614-3		7								
HPEI-CF-34	C-F	1	P-E	16"	.375	P1			J-9F	2614-3		7								

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PIPE	CAT	CNT	CFIG	SIZE	S/T	MAT	CAL	WBI.CAL	WELD	DWG ISO	VT	PT	MT	UT0	UT45	UT60	INT PER	AR	REMARKS
HPEI-CF-35	C-F	1	E-P	16"	.375	P1			J-9S	2614-3		7							
HPEI-CF-36	C-F	1	P-E	16"	.375	P1			J-9S	2614-3		7							
HPEI-CF-37	C-F	1	E-P	16"	.375	P1			J-9S	2614-3		7							
HPEI-CF-38	C-F	1	P-P	16"	.375	P1			J-9F	2614-3									
HPEI-CF-39	C-F	1	P-F	16"	.375	P1			J-9S	2614-3		7							
HPEI-CF-4	C-F	1	P-T	20"	.594	P1			J-9S	2614-3		7		6		6			
HPEI-CF-41	C-F	1	F-P	16"	.375	P1			J-9S	2614-3		7							
HPEI-CF-42	C-F	1	P-P	16"	.375	P1			J-9F	2614-3		7							
HPEI-CF-5	C-F	1	T-T	20"	.594	F1			J-9S	2614-3		7		6		6			
HPEI-CF-6	C-F	1	WE-P	6"	.280	P1			J-9S	2614-3		7							
HPEI-CF-9	C-F	1	T-P	20"	.594	P1			J-9S	2614-3		7		6		6			
RWA-CF-14	C-F	1	N-P	6"	.280	P1			J-9F	2621-1									
RWA-CF-15	C-F	1	P-E	6"	.280	P1			J-9S	2621-1		7							
RWA-CF-16	C-F	1	E-P	6"	.280	P1			J-9F	2621-1		7							
RWA-CF-17	C-F	1	P-E	6"	.280	P1			J-9S	2621-1									
RWA-CF-18	C-F	1	E-P	6"	.280	P1			J-9S	2621-1		7							
RWA-CF-19	C-F	1	P-E	6"	.280	P1			J-9S	2621-1		7							
RWA-CF-20	C-F	1	E-P	6"	.280	P1			J-9S	2621-1		7							
RWA-CF-21	C-F	1	P-E	6"	.280	P1			J-9S	2621-1									
RWA-CF-22	C-F	1	E-P	6"	.280	P1			J-9S	2621-1		7							
RWA-CF-23	C-F	1	P-E	6"	.280	P1			J-9S	2621-1		7							
RWA-CF-24	C-F	1	E-P	6"	.280	P1			J-9F	2621-1									
RWA-CF-25	C-F	1	P-E	6"	.280	P1			J-9S	2621-1		7							
RWA-CF-26	C-F	1	E-P	6"	.280	P1			J-9F	2621-1		7							
RWA-CF-27	C-F	1	P-E	6"	.280	P1			J-9S	2621-1		7							
RWA-CF-28	C-F	1	E-V	6"	.280	F1			J-9F	2621-1		7							RCIC-LV-23
RWA-CF-29	C-F	1	V-P	6"	.280	P1			J-9F	2621-1		7							RCIC-LV-23
RWA-CF-30	C-F	1	P-E	6"	.280	P1			J-9S	2621-1		7							
RWA-CF-31	C-F	1	E-P	6"	.280	P1			J-9S	2621-1		7							
RWA-CF-32	C-F	1	P-E	6"	.280	P1			J-9S	2621-1									
RWA-CF-33	C-F	1	E-P	6"	.280	P1			J-9S	2621-1		7							
RWA-CF-34	C-F	1	P-V	6"	.280	P1			J-9F	2621-1		7							RCIC-MO-41
RWA-CF-35	C-F	1	V-P	6"	.280	P1			J-9F	2621-1									RCIC-MO-41
RWA-CF-37	C-F	1	P-V	6"	.280	P1			J-9F	2621-1		7							RCIC-CV-11
RWA-CF-38	C-F	1	V-T	6"	.280	F1			J-9F	2621-1		7							RCIC-CV-11
RWA-CF-39	C-F	1	T-T	6"	.280	F1			J-9S	2621-1		7							
RWA-CF-40	C-F	1	T-V	6"	.280	F1			J-9F	2621-1		7							RCIC-CV-10
RWA-CF-41	C-F	1	V-V	6"	.280	F1			J-9F	2621-1		7							RCIC-CU-10.TB.RCIC-M O-10
RWA-CF-42	C-F	1	T-P	6"	.280	P1	N/A		J-9S	2621-1		7					2	1	
RWA-CF-42A	C-F	1	P-V	6"	.280	P1	NA		J-9S	2621-1		7					2	1	RCIC-LV-10
RWA-CF-43	C-F	1	P-V	6"	.280	P1	N/A		J-9F	2621-1		7					2	1	RCIC-LV-10
RWA-CF-44	C-F	1	E-P	6"	.280	P1	N/A		J-9S	2621-1		7					2	1	
RWA-CF-45	C-F	1	P-F	6"	.280	P1	N/A		J-9S	2621-1		7					2	1	
RWA-CF-46	C-F	1	F-P	6"	.280	P1			J-9S	2621-1		7							
RWA-CF-47	C-F	1	P-F	6"	.280	P1			J-9S	2621-1		7							
RWA-CF-48	C-F	1	F-P	6"	.280	P1			J-9S	2621-1		7							
RWA-CF-49	C-F	1	P-PU	6"	.280	P1			J-9F	2621-1									RCIC.PUMP
RWA-CF-50	C-F	1	T-E	6"	.280	F1			J-9S	2621-1		7							
RWA-CF-51	C-F	1	E-P	6"	.280	P1			J-9S	2621-1		7							

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PIPE.....	CAT..	CNT.	CFIG...	SIZE	S/T....	MAT.....	CAL.....	WGT.CAL.	WELD...	DWG ISO.....	VT...	PT	MT	UT#	UT45....	UT60....	INT PER...	RR...	REMARKS.....
RWA-CF-52	C-F	1	F-E	6"	.280	P1			J-9S	2621-1	7								
RWA-CF-53	C-F	1	E-P	6"	.280	P1			J-9S	2621-1	7								
RWA-CF-54	C-F	1	P-E	6"	.280	P1			J-9S	2621-1	7								
RWA-CF-55	C-F	1	E-P	6"	.280	P1			J-9S	2621-1	7								
RWA-CF-56	C-F	1	P-E	6"	.280	P1-F1			J-9S	2621-1	7								
RWA-CF-57	C-F	1	E-E	6"	.280	F1			J-9S	2621-1	7								
RWA-CF-58	C-F	1	E-P	6"	.280	P1			J-9F	2621-1	7								
RWA-CF-59	C-F	1	P-E	6"	.280	P1			J-9S	2621-2	7								
RWA-CF-60	C-F	1	E-P	6"	.280	P1			J-9F	2621-2	7								
RWA-CF-61	C-F	1	P-E	6"	.280	P1			J-9S	2621-2	7								
RWA-CF-62	C-F	1	E-P	6"	.280	P1			J-9?	2621-2	7								
RWA-CF-63	C-F	1	P-E	6"	.280	F1			J-9F	2621-2	7								
RWA-CF-64	C-F	1	E-P	6"	.280	P1			J-9S	2621-2	7								
RWA-CF-65	C-F	1	P-E	6"	.280	P1			J-9S	2621-2	7								
RWA-CF-66	C-F	1	E-P	6"	.280	P1			J-9S	2621-2	7								
RWA-CF-67	C-F	1	P-T	6"	.280	P1			J-9S	2621-2	7								
RWA-CF-68	C-F	1	T-R	6"	.280	F1			J-9S	2621-2	7								
HPID-CF-18	C-F	1	V-P	14"	1.093	P1			J-9F	2623-2	7	6		6					HPCI-MO-20
HPID-CF-19	C-F	1	P-T	14"	1.093	P1			J-9S	2623-2	7	6		6					
HPID-CF-20	C-F	1	T-P	14"	1.093	P1			J-9S	2623-2									
HPID-CF-21	C-F	1	P-E	14"	1.093	P1			J-9S	2623-2	7	6		6					
HPID-CF-22	C-F	1	E-P	14"	1.093	P1			J-9S	2623-2	7	6		6					
HPID-CF-23	C-F	1	P-E	14"	1.093	P1			J-9S	2623-2	7	6		6					
HPID-CF-25	C-F	1	E-E	14"	1.093	F1			J-9S	2623-2									
HPID-CF-26	C-F	1	E-P	14"	1.093	P1			J-9F	2623-2	7	6		6					
HPID-CF-27	C-F	1	P-E	14"	1.093	P1			J-9S	2623-2	7	6		6					
HPID-CF-28	C-F	1	E-P	14"	1.093	P1			J-9S	2623-2	7	6		6					
HPID-CF-29	C-F	1	P-E	14"	1.093	P1			J-9S	2623-2	7	6		6					
HPID-CF-30	C-F	1	E-P	14"	1.093	P1			J-9F	2623-2	7	6		6					
HPID-CF-31	C-F	1	P-E	14"	1.093	P1			J-9S	2623-2									
HPID-CF-32	C-F	1	E-P	14"	1.093	P1			J-9S	2623-2									
HPID-CF-33	C-F	1	P-E	14"	1.093	P1			J-9F	2623-2	7	6		6					
HPID-CF-34	C-F	1	E-P	14"	1.093	P1			J-9S	2623-2	7	6		6					
HPID-CF-35	C-F	1	P-E	14"	1.093	P1			J-9S	2623-2	7	6		6					
HPID-CF-36	C-F	1	E-P	14"	1.093	P1			J-9F	2623-2	7	6		6					
HPID-CF-37	C-F	1	P-E	14"	1.093	P1			J-9S	2623-2	7	6		6					
HPID-CF-40	C-F	1	E-P	14"	1.093	P1			J-9S	2623-2	7	6		6					
HPID-CF-41	C-F	1	P-E	14"	1.093	P1			J-9S	2623-2	7	6		6					
HPID-CF-42	C-F	1	E-P	14"	1.093	P1			J-9F	2623-2	7	6		6					
HPID-CF-43	C-F	1	P-E	14"	1.093	P1			J-9S	2623-2									
HPID-CF-44	C-F	1	E-V	14"	1.092	F1			J-9F	2623-2	7	6		6					
HPID-CF-45	C-F	1	E-R	14"	1.093	F1			J-9S	2623-2	7	6		6					
HPID-CF-46	C-F	1	R-P	10"	.843	P1			J-9S	2623-2	7	6		6					
HPID-CF-47	C-F	1	P-P	10"	.843	P1			J-9F	2623-2	7	6		6					RO-135
HPID-CF-48	C-F	1	P-P	10"	.843	P1			J-9F	2623-2	7	6		6					RO-155
HPID-CF-49	C-F	1	P-V	10"	.843	P1			J-9F	2623-2	7	6		6					HPCI-MO-21
HPID-CF-50	C-F	1	V-P	10"	.843	P1			J-9F	2623-2									HPCI-MO-21
HPID-CF-51	C-F	1	P-V	10"	.843	P1			J-9F	2623-2	7	6		6					HPCI-MO-24
RAS-CF-26	C-F	1	E-E	8"	100	F1	3		J-9F	31 2624-1	7	6		6					
RBS-CF-25	C-F	1	P-CAP	8"	100	P1	3		J-9	32 2624-1	7	6		6					

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PIPE.....	CAT..	CNT.	CFIG...	SIZE	S/T....	MAT.....	CAL.....	WELD...	DWG ISO.....	VT...	PT	MT	UT0.....	UT45....	UT60....	INT	PER....	RR...	REMARKS.....
RHB-CF-1	C-F	1	P-T	16"	40	P1	N/A	J-9F	29 2624-1	7						2	1		
RHB-CF-10	C-F	1	P-E	16"	40	P1	19	J-9	29 2624-1	7	6		6						
RHB-CF-11	C-F	1	P-E	16"	40	P1	19	J-9	29 2624-1	7	6		6						
RHB-CF-12	C-F	1	P-E	16"	40	P1	19	J-9	29 2624-1	7	6		6						
RHB-CF-13	C-F	1	E-V	16"	40	F1		J-9	29 2624-1	7						2	1		
RHB-CF-14	C-F	1	E-V	16"	40	F1	19	J-9	29 2624-1	7	6		6						
RHB-CF-15	C-F	1	P-E	16"	40	P1	19	J-9	29 2624-1	7	6		6						
RHB-CF-16	C-F	1	P-R	16"	40	P1	19	J-9	29 2624-1	7	6		6						
RHB-CF-17	C-F	1	T-R	28"	40	F1	19	J-9	29 2624-1	7	6		6						
RHB-CF-18	C-F	1	R-T	28"	30	F1		J-9S	2624-1	7	6		6						
RHB-CF-19	C-F	1	T-E	28"	30	F1	N/A	J-9S	2624-1							2	1		
RHB-CF-2	C-F	1	P-E	16"	40	P1	19	J-9	29 2624-1	7	6		6			2	2		
RHB-CF-20	C-F	1	E-P	28"	30	P1	N/A	J-9S	2624-1	7						2	1		
RHB-CF-21	C-F	1	P-P	28"	30	P1	N/A	J-9S	2624-1	7						2	1		
RHB-CF-23	C-F	1	P-P	28"	30	P1	N/A	J-9S	2624-1	7						2	1		
RHB-CF-24	C-F	1	P-E	28"	30	P1	N/A	J-9S	2624-1	7						2	1		
RHB-CF-25	C-F	1	E-P	28"	30	P1		J-9F	2624-1	7						2	1		F66-WELD NOT ACCESSIBLE-IN CONCRETE
RHB-CF-27	C-F	1	P-P	28"	30	P1		J-9F	2624-1	7	6		6						
RHB-CF-28	C-F	1	P-T	28"	30	P1		J-9S	2624-1	7	6		6						
RHB-CF-29	C-F	1	T-V	28"	30	F1		J-9F	2624-1										RHR-MO-66A
RHB-CF-3	C-F	1	P-E	16"	40	P1	19	J-9	29 2624-1	7	6		6			2	3		
RHB-CF-30	C-F	1	V-P	28"	30	P1		J-9F	2624-1	7	6		6						RHR-MO-66A
RHB-CF-31	C-F	1	P-E	28"	30	P1		J-9S	2624-1	7	6		6						
RHB-CF-32	C-F	1	E-P	28"	30	P1		J-9S	2624-1	7	6		6						
RHB-CF-33	C-F	1	P-E	28"	30	P1		J-9S	2624-1	7	6		6						
RHB-CF-34	C-F	1	E-P	28"	30	P1		J-9S	2624-1	7	6		6						
RHB-CF-4	C-F	1	P-E	16"	40	P1	19	J-9	29 2624-1	7	6		6						
RHB-CF-5	C-F	1	P-E	16"	40	P1	19	J-9	29 2624-1	7	6		6						
RHB-CF-6	C-F	1	P-E	16"	40	P1	19	J-9	29 2624-1	7	6		6						
RHB-CF-7	C-F	1	P-E	16"	40	P1	19	J-9	29 2624-1	7	6		6						
RHB-CF-8	C-F	1	P-E	16"	40	P1	19	J-9F	29 2624-1	7	6		6						
RHB-CF-9	C-F	1	P-E	16"	40	P1	19	J-9	29 2624-1	7	6		6						
RPA-CF-21	C-F	1	E-V	16"	40	F1		J-9F	2624-1	7	6		6						RHR-CV-14
RPA-CF-22	C-F	1	V-P	16"	40	P1		J-9F	2624-1	7	6		6						RHR-CV-14
RPA-CF-23	C-F	1	P-WE	3"	80	P1		J-9S	2624-1										
RPA-CF-24	C-F	1	V-E	16"	40	F1		J-9F	2624-1	7	6		6						RHR-LV-11
RPA-CF-25	C-F	1	E-P	16"	40	P1	N/A	J-9F	2624-1	7						2	1		
RPA-CF-26	C-F	1	P-E	16"	40	P1	N/A	J-9S	2624-1							2	1		
RPA-CF-27	C-F	1	E-P	16"	40	P1		J-9S	2624-1	7	6		6						
RPA-CF-28	C-F	1	P-E	16"	40	P1		J-9S	2624-1	7	6		6						
RPA-CF-29	C-F	1	E-P	16"	40	P1		J-9S	2624-1	7	6		6						
RPA-CF-30	C-F	1	P-E	16"	40	P1		J-9F	2624-1	7	6		6						
RPA-CF-31	C-F	1	E-RED	16"	40	F1		J-9S	2624-1	7	6		6						
RPA-CF-32	C-F	1	R-T	28"	40	F1		J-9S	2624-1										
RPC-CF-19	C-F	1	PU-E	16"	40	F1		J-9F	2624-1	7	6		6						RHR-PUMP1C
RPC-CF-21	C-F	1	E-V	16"	40	F1		J-9F	2624-1	7	6		6						RHR-CV-16
RPC-CF-22	C-F	1	V-P	16"	40	P1		J-9F	2624-1	7	6		6						RHR-CV-16
RPC-CF-23A	C-F	1	P-V	16"	40	P1		J-9F	2624-1	7	6		6						RHR-LV-13

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PIPE.....	CAT..	CNT.	CFIG...	SIZE	S/T....	MAT.....	CAL.....	WBI.CAL.	WELD...	DWG	ISO.....	VT...	PT	MT	UTF.....	UT45....	UT60....	INT	PER....	RR...	REMARKS.....
RPC-CF-24	C-F	1	V-E	16"	40	P1			J-9F		2624-1		7		6		6				RHR-LV-13
RPC-CF-25	C-F	1	E-P	16"	40	P1			J-9S		2624-1		7		6		6				
RPC-CF-26	C-F	1	P-E	16"	40	P1			J-9S		2624-1		7		6		6				
RPC-CF-27	C-F	1	E-P	16"	40	P1			J-9S		2624-1		7		6		6				
RPC-CF-28	C-F	1	P-E	16"	40	P1			J-9S		2624-1										
RPC-CF-29	C-F	1	E-P	16"	40	P1			J-9S		2624-1		7		6		6				
RPC-CF-30	C-F	1	P-T	16"	40	P1			J-9F		2624-1		7		6		6				
RAS-CF-55	C-F	1	F-VA	18"	STD.	P1	19		J-9F	35	2624-2		7								
RAW-CF-39	C-F	1	T-R	24"	30	F1	19		J-9	35	2624-2		7		6		6				
RAW-CF-40	C-F	1	E-R	18"	30	F1	19		J-9	35	2624-2		7		6		6				
RAW-CF-41	C-F	1	E-E	18"	30	F1	19		J-9	35	2624-2		7		6		6	2	3		
RAW-CF-42	C-F	1	P-E	18"	30	P1	19		J-9	35	2624-2		7		6		6				
RAW-CF-43	C-F	1	P-E	18"	30	P1	19		J-9	35	2624-2		7		6		6				
RAW-CF-44	C-F	1	E-V	18"	30	F1	19		J-9F	35	2624-2		7		6		6				
RAW-CF-45	C-F	1	P-V	18"	30	P1	19		J-9	35	2624-2		7		6		6				
RAW-CF-46	C-F	1	P-V	6"	.280	F1	3		J-9F	35	2624-2		7								
RAW-CF-47	C-F	1	P-V	6"	.280	P1	3		J-9F	35	2624-2		7								
RAW-CF-54	C-F	1	F-WE	6"	.280	P1	3		J-9	35	2624-2		7								
RAW-CF-56	C-F	1	E-VA	18"	STD.	F1	3		J-9F	35	2624-2		7								
RAW-CF-78	C-F	1	P-P	24"	30	P1	19		J	37	2624-2		7		6		6	2	2		
RAW-CF-79	C-F	1	P-E	24"	30	P1	19		J-9F	37	2624-2		7		6		6				
RAW-CF-80	C-F	1	E-E	24"	30	F1	19		J-9	37	2624-2		7		6		6				
RAW-CF-81	C-F	1	P-E	24"	30	P1	19		J-9	37	2624-2		7		6		6				
RAW-CF-82	C-F	1	P-P	24"	30	P1	19		J-9	37	2624-2		7		6		6				
RAW-CF-83	C-F	1	P-E	24"	30	P1	19		J-9	37	2624-2		7		6		6				
RAW-CF-84	C-F	1	E-T	24"	30	F1	19		J-9	37	2624-2		7		6		6				
RFG-CF-24	C-F	1	E-P	10"	.365	P1			J-9S		2624-2		7								
RHR-CF-35	C-F	1	P-T	20"	30	P1			J-9F		2624-2		7		6		6				
RHR-CF-36	C-F	1	T-P	24"	30	P1			J-9F		2624-2		7		6		6				
RHR-CF-38	C-F	1	P-P	24"	30	P1			J-9F		2624-2										
RHR-CF-39	C-F	1	P-T	24"	30	P1			J-9F		2624-2		7		6		6				
RHR-CF-40	C-F	1	T-T	24"	30	F1			J-9S		2624-2		7		6		6				
RHR-CF-41	C-F	1	T-P	24"	30	P1			J-9F		2624-2		7		6		6				
RHR-CF-43	C-F	1	P-E	24"	30	P1			J-9S		2624-2		7		6		6				
RHR-CF-45	C-F	1	E-P	24"	30	F1			J-9S		2624-2		7		6		6				
RHR-CF-46	C-F	1	P-E	24"	30	P1			J-9S		2624-2		7		6		6				
RHR-CF-47	C-F	1	E-P	24"	30	P1			J-9F		2624-2										
RHR-CF-50	C-F	1	P-E	24"	30	P1			J-9S		2624-2		7		6		6				
RHR-CF-52	C-F	1	E-E	24"	30	F1			J-9S		2624-2		7		6		6				
RHR-CF-54	C-F	1	E-P	24"	30	P1			J-9S		2624-2		7		6		6				
RHR-CF-55	C-F	1	P-E	24"	30	P1			J-9S		2624-2		7		6		6				
RHR-CF-57	C-F	1	E-P	24"	30	P1			J-9S		2624-2		7		6		6				
RHR-CF-58	C-F	1	P-E	24"	30	P1			J-9F		2624-2		7		6		6				
RHR-CF-A0	C-F	1	E-E	24"	30	F1			J-9F		2624-2		7		6		6				
RHR-CF-61	C-F	1	E-V	24"	60	F1			J-9F		2624-2		7		6		6				RHR-MO-27A
RHR-CF-10	C-F	1	E-P	10"	.365	P1			J-9S		2624-2		7								
RHR-CF-11	C-F	1	P-E	10"	.365	P1			J-9S		2624-2		7								
RHR-CF-12	C-F	1	E-P	10"	.365	P1			J-9S		2624-2		7								
RHR-CF-13	C-F	1	P-E	10"	.365	P1			J-9S		2624-2		7								
RHR-CF-14	C-F	1	E-P	10"	.365	P1			J-9S		2624-2		7								

COOPER NUCLEAR STATION
LIST OF ASME SECTION XI COMPONENTS BY CATEGORY
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PIPE	CAT	CNT	CFIG	SIZE	S/T	MAT	CAL	WELD.CAL	WELD	DWG ISO	VT	PT	MT	UT0	UT45	UT60	INT PER	RR	REMARKS
RHR-CF-15	C-F	1	F-E	10"	.365	P1			J-9S	2624-2		7							
RHR-CF-16	C-F	1	E-F	10"	.365	P1			J-9F	2624-2		7							
RHR-CF-17	C-F	1	F-E	10"	.365	P1			J-9S	2624-2		7							
RHR-CF-19	C-F	1	E-V	10"	.365	P1			J-9F	2624-2		7							RHR-MO-31A
RHR-CF-2	C-F	1	T-E	10"	.365	P1			J-9S	2624-2		7							
RHR-CF-20	C-F	1	V-F	10"	.365	P1			J-9F	2624-2									RHR-MO-31A
RHR-CF-21	C-F	1	F-E	10"	.365	P1			J-9S	2624-2		7							
RHR-CF-22	C-F	1	E-F	10"	.365	P1			J-9F	2624-2		7							
RHR-CF-23	C-F	1	F-E	10"	.365	P1			J-9S	2624-2									
RHR-CF-25	C-F	1	F-R	10"	.365	P1			J-9S	2624-2		7							
RHR-CF-26	C-F	1	R-E	10"	.365/1.	P1			J-9S	2624-2		7	6	6					ELBOW.SCH.160
RHR-CF-27	C-F	1	E-F	12"	1.312/.	P2			J-9F	2624-2		7	6	6					ELBOW.SCH.160
RHR-CF-3	C-F	1	E-F	10"	.365	P1			J-9F	2624-2									
RHR-CF-4	C-F	1	F-E	10"	.365	P1			J-9S	2624-2		7							
RHR-CF-5	C-F	1	E-V	10"	.365	P1			J-9F	2624-2		7							RHR-MO-26A
RHR-CF-6	C-F	1	V-E	10"	.365	P1			J-9F	2624-2									2HR-MO-26A
RHR-CF-6A	C-F	1	F-F	10"	.365	P1			J-9S	2624-2		7							
RHR-CF-7	C-F	1	F-E	10"	.365	P1			J-9S	2624-2		7							
RHR-CF-8	C-F	1	E-F	10"	.365	P1			J-9S	2624-2		7							
RHR-CF-9	C-F	1	F-E	10"	.365	P1			J-9F	2624-2		7							
RAW-CF-66	C-F	1	E-F	28"	40	P1	19		J-9	37 2624-3A		7	6	6					
RAW-CF-67	C-F	1	E-R	28"	40	F1	19		J-9	37 2624-3A		7	6	6					
RAW-CF-68	C-F	1	R-R	16"	40	P1	19		J-9	37 2624-3A		7	6	6					
RAW-CF-69	C-F	1	F-E	16"	40	P1	19		J-9	37 2624-3A		7	6	6			2	3	
RAW-CF-70	C-F	1	E-V	16"	40	F1	19		J-9F	37 2624-3A		7	6	6					
RAW-CF-71	C-F	1	F-V	16"	40	P1	19		J-9	37 2624-3A		7	6	6					
RAW-CF-72	C-F	1	F-T	16"	40	P1	19		J-9	37 2624-3A		7	6	6					
RAW-CF-73	C-F	1	R-T	24"	30	P1	19		J-9	37 2624-3A		7	6	6					
RAW-CF-74	C-F	1	R-T	24"	30	P1	19		J-9	37 2624-3A		7	6	6					
RAW-CF-75	C-F	1	R-T	24"	30	P1	19		J-9	37 2624-3A		7	6	6					
RAW-CF-75I	C-F	1	R-R	16"	40	P1	19		J-9	37 2624-3A		7	6	6					
RAW-CF-76	C-F	1	R-E	24"	30	P1	19	164	J-9	37 2624-3A		7	6	6			2	1	
RAW-CF-77	C-F	1	R-E	24"	30	P1	19		J-9	37 2624-3A		7	6	6					
RCT-CF-1	C-F	1	T-R	24"	30	F1	19		J-9	37 2624-3A		7	6	6			2	3	
RCT-CF-10	C-F	1	F-E	28"	30	P1	19		J-9F	37 2624-3A		7	6	6					
RCT-CF-11	C-F	1	R-F	28"	30	P1	19		J-9	37 2624-3A		7	6	6			2	3	
RCT-CF-12	C-F	1	R-E	28"	30	P1	19		J-9F	37 2624-3A		7	6	6					
RCT-CF-13	C-F	1	R-E	28"	30	P1	19		J-9	37 2624-3A		7	6	6					
RCT-CF-15	C-F	1	R-E	28"	30	P1	19		J-9	37 2624-3A		7					2	1	
RCT-CF-16	C-F	1	R-E	28"	30	P1	19		J-9F	37 2624-3A		7	6	6					
RCT-CF-2	C-F	1	R-R	24"	30	F1	19		J-9	37 2624-3A		7	6	6					
RCT-CF-3	C-F	1	V-R	28"	30	F1	19		J-9F	37 2624-3A		7	6	6					
RCT-CF-4	C-F	1	R-V	28"	30	P1	19		J-9F	37 2624-3A		7	6	6					
RCT-CF-5	C-F	1	R-E	28"	30	P1	19		J-9F	37 2624-3A		7					2	1	
RCT-CF-6	C-F	1	R-E	28"	30	P1	19		J-9	37 2624-3A		7	6	6					
RCT-CF-7	C-F	1	R-E	28"	30	P1	19		J-9	37 2624-3A		7	6	6					
RCT-CF-8	C-F	1	R-E	28"	30	P1	19		J-9	37 2624-3A		7	6	6					
RCT-CF-9	C-F	1	R-E	28"	30	P1	19		J-9	37 2624-3A		7	6	6			2	2	
SW-CF-1	C-F	1	R-T	14"	30	P1	4		J-9	37 2624-3A		7					2	1	
SW-CF-2	C-F	1	R-E	14"	30	P1	4		J-9	37 2624-3A		7	6	6					

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PIPE	CAT	CNT	CFIG	SIZE	S/T	MAT	CAL	WEI.CAL	WELD	DWG ISO	VT	PT	MT	UT0	UT45	UT0#	INT	PER	RP	REMARKS
SW-CF-3	C-F	1	E-E	14"	30	P1	4		J-9	37 2624-3A		7	6	6						
SW-CF-4	C-F	1	P-E	14"	30	P1	4		J-9	37 2624-3A		7	6	6						
SW-CF-5	C-F	1	P-V	14"	30	P1	4		J-9	37 2624-3A		7	6	6			2	2		
RBW-CF-72	C-F	1	E-N	28"	40.	P1	19		J-9F	37 2624-3B		7	6	6						
RBW-CF-73	C-F	1	E-R	28"	40.	P1	19		J-9	37 2624-3B		7	6	6						
RBW-CF-74	C-F	1	R-P	16"	40.	P1	19		J-9	37 2624-3B		7	6	6						
RBW-CF-75	C-F	1	P-E	16"	40.	P1	19		J-9	37 2624-3B		7	6	6						
RBW-CF-76	C-F	1	E-V	16"	40.	P1	19		J-9F	37 2624-3B		7	6	6						
RBW-CF-77	C-F	1	P-V	16"	40.	P1	19		J-9F	37 2624-3B		7	6	6						
RBW-CF-78	C-F	1	P-T	16"	40.	P1	19		J-9	37 2624-3B		7	6	6						
RBW-CF-79	C-F	1	P-T	24"	30	P1	19		J-9	37 2624-3B		7	6	6			2	2		
RBW-CF-80	C-F	1	P-V	24"	30	P1	19		J-9	37 2624-3B		7	6	6						
RBW-CF-81	C-F	1	P-P	24"	30	P1	19		J-9	37 2624-3B		7	6	6						
RBW-CF-82	C-F	1	P-E	24"	30	P1	19		J-9F	37 2624-3B		7	6	6						
RBW-CF-83	C-F	1	P-E	24"	30	P1	19		J-9	37 2624-3B		7	6	6						
RBW-CF-84	C-F	1	E-E	24"	30	P1	19		J-9	37 2624-3B		7	6	6						
RBW-CF-85	C-F	1	P-E	24"	30	P1	19		J-9	37 2624-3B		7	6	6						
RBW-CF-86	C-F	1	P-E	24"	30	P1	19		J-9F	37 2624-3B		7	6	6						
RBW-CF-87	C-F	1	E-T	24"	30	P1	19		J-9	37 2624-3B		7	6	6						
RCT-CF-14*	C-F	1	P-P	28"	30	P1	19		J-9	37 2624-3B		7	6	6						
RCT-CF-17*	C-F	1	P-P	28"	30	P1	19		J-9	37 2624-3B		7	6	6						
RCT-CF-18	C-F	1	P-E	28"	30	P1	19		J-9F	37 2624-3B		7	6	6						
RCT-CF-19	C-F	1	P-E	28"	30	P1	19		J-9	37 2624-3B		7	6	6						
RCT-CF-20	C-F	1	P-E	28"	30	P1	19		J-9	37 2624-3B		7	6	6			2	2		
RCT-CF-21	C-F	1	P-E	28"	30	P1	19		J-9	37 2624-3B		7	6	6						
RCT-CF-22	C-F	1	P-E	28"	30	P1	19		J-9F	37 2624-3B		7	6	6						
RCT-CF-23	C-F	1	P-E	28"	30	P1	19		J-9	37 2624-3B		7	6	6						
RCT-CF-24	C-F	1	P-P	28"	30	P1	19		J-9F	37 2624-3B		7	6	6						
RCT-CF-25	C-F	1	P-R	28"	30	P1	19		J-9	37 2624-3B		7	6	6			2	2		
RCT-CF-26	C-F	1	T-R	24"	30	F1	19		J-9	37 2624-3B		7	6	6						
RHC-CF-1	C-F	1	P-T	16"	40	P1	19		J-9F	38 2624-3B		7	6	6						
RHC-CF-10	C-F	1	P-E	16"	40	P1	19		J-9F	38 2624-3B		7	6	6						
RHC-CF-11	C-F	1	P-E	16"	30	P1	19		J-9	38 2624-3B		7	6	6						
RHC-CF-12	C-F	1	P-E	16"	40	P1	19		J-9	38 2624-3B		7	6	6						
RHC-CF-13	C-F	1	E-V	16"	40	F1	19		J-9F	38 2624-3B		7	6	6						
RHC-CF-14	C-F	1	E-V	16"	30	F1	19		J-9F	38 2624-3B		7	6	6						
RHC-CF-15	C-F	1	P-E	16"	40	P1	19		J-9	38 2624-3B		7	6	6						
RHC-CF-16	C-F	1	P-R	16"	40	P1	19		J-9	38 2624-3B		7	6	6						
RHC-CF-17	C-F	1	R-T	28"	40	F1	19		J-9	38 2624-3B		7	6	6			2	2		
RHC-CF-18	C-F	1	T-E	28"	30	F1			J-9S	2624-3B		7	6	6						
RHC-CF-19	C-F	1	E-P	28"	30	P1			J-9S	2624-3B		7	6	6						
RHC-CF-2	C-F	1	P-E	16"	40	P1	19		J-9	38 2624-3B		7	6	6			2	2		
RHC-CF-20	C-F	1	P-E	28"	30	P1			J-9S	2624-3B		7	6	6						
RHC-CF-27	C-F	1	T-V	28"	30	F1			J-9F	2624-3B										RHR-MO-66B
RHC-CF-28	C-F	1	V-P	28"	30	P1			J-9F	2624-3B		7	6	6						RHR-MO-66B
RHC-CF-29	C-F	1	P-E	28"	30	P1			J-9F	2624-3B		7	6	6						
RHC-CF-3	C-F	1	P-E	16"	40	P1	19		J-9	38 2624-3B		7	6	6						
RHC-CF-30	C-F	1	E-P	28"	30	P1			J-9S	2624-3B		7	6	6						
RHC-CF-31	C-F	1	P-E	28"	30	P1			J-9S	2624-3B		7	6	6						
RHC-CF-33	C-F	1	E-P	28"	30	P1			J-9F	2624-3B		7	6	6						

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PIPE.....	CAT..	CNT.	CFIG...	SIZE	S/T....	MAT.....	CAL.....	WELD...	DWG	ISO.....	VT...	PT	MT	UTØ.....	UT45....	UT60....	INT	PER....	RR...	REMARKS.....
RSC-CF-34	C-F	1	P-T	28"	3Ø	P1		J-9S		2624-3B		7	6	6						
RHC-CF-35	C-F	1	T-P	24"	3Ø	P1		J-9F		2624-3B		7	6	6						
RHC-CF-37	C-F	1	P-P	24"	3Ø	P1		J-9F		2624-3B		7	6	6						
RHC-CF-4	C-F	1	P-E	16"	4Ø	P1	19	J-9	3B	2624-3B		7	6	6						
RHC-CF-5	C-F	1	P-E	16"	4Ø	P1	19	J-9	3B	2624-3B		7	6	6						
RHC-CF-6	C-F	1	P-E	16"	4Ø	P1	19	J-9F	3B	2624-3B		7	6	6						
RHC-CF-7	C-F	1	P-E	16"	4Ø	P1	19	J-9	3B	2624-3B		7	6	6						
RHC-CF-8	C-F	1	P-E	16"	4Ø	P1	19	J-9	3B	2624-3B		7	6	6						
RHC-CF-9	C-F	1	P-E	16"	4Ø	P1	19	J-9	3B	2624-3B		7	6	6						
RHC-CF-21	C-F	1	E-P	28"	3Ø	P1		BW		2624-3C		7	6	6						
RHC-CF-22	C-F	1	P-P	28"	3Ø	P1		BW		2624-3C		7	6	6						
RHC-CF-23	C-F	1	P-P	28"	3Ø	P1		BW		2624-3C		7	6	6						
RHC-CF-25	C-F	1	P-P	28"	3Ø	P1		BW		2624-3C		7	6	6						
RHC-CF-26	C-F	1	P-T	28"	3Ø	P1		BW		2624-3C		7	6	6						
RPB-CF-19	C-F	1	PU-E	16"	4Ø	P1		J-9F		2624-3C		7	6	6						RHR.PUMP1"B"
RPB-CF-22	C-F	1	E-V	16"	4Ø	P1		J-9F		2624-3C		7	6	6						RHR-CV-15
RPB-CF-23	C-F	1	V-P	16"	4Ø	P1		J-JF		2624-3C		7	6	6						RHR-CV-15
RPB-CF-25	C-F	1	P-V	16"	4Ø	P1		J-9F		2624-3C		7	6	6						RHR-LV-12
RPB-CF-26	C-F	1	V-E	16"	4Ø	P1		J-9F		2624-3C		7	6	6						RHR-LV-12
RPB-CF-27	C-F	1	E-P	16"	4Ø	P1		J-9S		2624-3C		7	6	6						
RPB-CF-29	C-F	1	P-E	16"	4Ø	P1		F		2624-3C		7	6	6						
RPB-CF-3Ø	C-F	1	E-P	16"	4Ø	P1		J-9S		2624-3C		7	6	6						
RPB-CF-31	C-F	1	P-E	16"	4Ø	P1		J-9S		2624-3C		7	6	6						
RPB-CF-33	C-F	1	E-P	16"	4Ø	P1		J-9S		2624-3C		7	6	6						
RPB-CF-34	C-F	1	P-T	16"	4Ø	P1		J-9F		2624-3C		7	6	6						
RPB-CF-18	C-F	1	V-E	16"	4Ø	F1		J-9F		2624-3C		7	6	6						
RPB-CF-21	C-F	1	E-V	16"	4Ø	F1		J-9F		2624-3C		7	6	6						RHR-CV-17
RPB-CF-22	C-F	1	V-P	16"	4Ø	P1		J-9F		2624-3C										RHR-CV-17
RPB-CF-24	C-F	1	P-V	16"	4Ø	P1		J-9F		2624-3C		7	6	6						RHR-LV-14
RPB-CF-25	C-F	1	V-E	16"	4Ø	F1		J-9F		2624-3C										RHR-LV-14
RPB-CF-26	C-F	1	E-P	16"	4Ø	P1		J-9S		2624-3C		7	6	6						
RPB-CF-27	C-F	1	P-E	16"	4Ø	P1		J-9S		2624-3C		7	6	6						
RPB-CF-28	C-F	1	E-P	16"	4Ø	P1		J-9S		2624-3C		7	6	6						
RPB-CF-29	C-F	1	P-E	16"	4Ø	P1		J-9S		2624-3C		7	6	6						
RPB-CF-3Ø	C-F	1	E-P	16"	4Ø	P1		J-9F		2624-3C		7	6	6						
RPB-CF-31	C-F	1	P-E	16"	4Ø	P1		J-9S		2624-3C										
RPB-CF-32	C-F	1	E-R	16"	4Ø	F1		J-9S		2624-3C		7	6	6						
RPB-CF-33	C-F	1	R-T	28"	3Ø	F1		J-9S		2624-3C		7	6	6						
RBW-CF-45	C-F	1	T-R	24"	3Ø	F1	19	J-9	3b	2624-5		7	6	6			2	3		
RBW-CF-46	C-F	1	E-R	18"	3Ø	F1	19	J-9F	3b	2624-5		7	6	6						
RBW-CF-47	C-F	1	E-E	18"	3Ø	F1	19	J-9	3b	2624-5		7	6	6						
RBW-CF-48	C-F	1	P-E	18"	3Ø	F1	N/A	J-9	3b	2624-5		7					2	1		
RBW-CF-49	C-F	1	P-E	18"	3Ø	P1	19	J-9	3b	2624-5		7	6	6						
RBW-CF-50	C-F	1	E-V	18"	3Ø	F1	19	J-9F	3b	2624-5		7	6	6						
RBW-CF-51	C-F	1	P-V	18"	3Ø	P1	19	J-9F	3b	2624-5		7	6	6						
RBW-CF-52	C-F	1	P-V	6"	.28Ø	P1	3	J-9F	3b	2624-5		7					2	2		
RBW-CF-6Ø	C-F	1	P-WE	6"	.28Ø	P1	3	J-9F	3b	2624-5		7								
RBW-CF-61	C-F	1	P-V	18"	3Ø	P1	19	J-9F	3b	2624-5		7	6	6						
RHC-CF-38	C-F	1	P-T	24"	3Ø	P1		J-9F		2624-5		7	6	6						
RHC-CF-39	C-F	1	T-T	24"	3Ø	F1		J-9S		2624-5		7	6	6						

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PIPE	CAT	CNT	CFIG	SIZE	S/T	MAT	CAL	WELD	DWG ISO	VT	PT	MT	UTR	UT45	UT60	INT	PER	RR	REMARKS
RHC-CF-40	C-F	1	T-P	24"	30	P1		J-9F	2624-5		7	6	6						
RHC-CF-42	C-F	1	P-E	24"	30	P1		J-9S	2624-5		7	6	6						
RHC-CF-43	C-F	1	E-E	24"	30	P1		J-9S	2624-5		7	6	6						
RHC-CF-44	C-F	1	E-P	24"	30	P1		J-9F	2624-5		7	6	6						
RHC-CF-46	C-F	1	P-E	24"	30	P1		J-9S	2624-5		7	6	6						
RHC-CF-47	C-F	1	E-P	24"	30	P1		J-9S	2624-5		7	6	6						
RHC-CF-48	C-F	1	P-E	24"	30	P1		J-9F	2624-5		7	6	6						
RHC-CF-50	C-F	1	E-E	24"	30	P1		J-9F	2624-5		7	6	6						
RHC-CF-53	C-F	1	E-P	24"	30	P1		J-9S	2624-5		7	6	6						
RHC-CF-54	C-F	1	P-E	24"	30	P1		J-9S	2624-5		7	6	6						
RHC-CF-55	C-F	1	E-P	24"	30	P1		J-9F	2624-5		7	6	6						
RHC-CF-56	C-F	1	P-P	24"	30	P1		J-9S	2624-5		7	6	6						
RHC-CF-57	C-F	1	P-P	24"	30	P1		J-9S	2624-5		7	6	6						
RHC-CF-59	C-F	1	P-P	24"	30	P1		J-9S	2624-5		7	6	6						
RHC-CF-60	C-F	1	P-V	24"	30	P1		J-9F	2624-5										RHR-MV-27B
RHD-CF-1A	C-F	1	P-T	12"	.375	P1		BW	2624-5										
RHD-CF-1B	C-F	1	P-E	12"	.375	P1		BW	2624-5		7								
RHD-CF-1C	C-F	1	E-T	12"	.562	F1		BW	2624-5		7	6	6						
RHD-CF-1	C-F	1	T-R	12"	STD.	F1	4	J-P	39 2624-6		7					2	3		
RHD-CF-10	C-F	1	P-T	8"	STD.	P1	3	J-9	39 2624-6		7					2	2		
RHD-CF-11	C-F	1	V-T	8"	STD.	F1	3	J-9	39 2624-6		7								
RHD-CF-12	C-F	1	P-T	6"	.280	P1	3	J-9F	39 2624-6		7								
RHD-CF-13	C-F	1	P-E	6"	.280	P1	3	J-9	39 2624-6		7					2	3		
RHD-CF-14	C-F	1	P-E	6"	.280	P1	3	J-9	39 2624-6		7								
RHD-CF-15	C-F	1	P-GR	6"	.280	P1	3	J-9F	39 2624-6		7								
RHD-CF-2	C-F	1	P-R	8"	STD.	P1	3	J-P	39 2624-6		7								
RHD-CF-20S	C-F	1	P-E	6"	.280	P1	3	J-9	39 2624-6		7								
RHD-CF-3	C-F	1	P-E	8"	STD.	P1	3	J-9	39 2624-6		7					2	1		
RHD-CF-4	C-F	1	P-E	8"	STD.	P1	3	J-9	39 2624-6		7								
RHD-CF-5	C-F	1	P-E	8"	STD.	P	3	J-9	39 2624-6		7								
RHD-CF-6	C-F	1	P-E	8"	STD.	P1	3	J-9F	39 2624-6		7								
RHD-CF-7	C-F	1	P-P	8"	STD.	P1	3	J-9F	39 2624-6		7	6	6						
RHD-CF-8	C-F	1	P-P	8"	STD.	P1	3	J-9	39 2624-6		7	6	6						
RHD-CF-9**	C-F	1	P-P	8"	STD.	P1	3	J-9	39 2624-6		7					2	2		RI-84
RHE-CF-1	C-F	1	RT-V	18"	STD	F1		J-9F	2624-6		7								
RHE-CF-2	C-F	1	V-E	18"	.365	F1		J-9F	2624-6		7								
RHE-CF-10	C-F	1	P-P	18"	.365	P1		J-9F	2624-7		7								
RHE-CF-11	C-F	1	P-E	18"	.365	P1		J-9S	2624-7		7								
RHE-CF-12	C-F	1	E-P	18"	.365	P1		J-9S	2624-7		7								
RHE-CF-13	C-F	1	P-E	18"	.365	P1		J-9S	2624-7		7								
RHE-CF-14	C-F	1	E-V	18"	.365	F1		J-9F	2624-7		7								
RHE-CF-15	C-F	1	V-RE	18"	80	F1		J-9F	2624-7		7	6	6						
RHE-CF-16	C-F	1	RE-PC	12"	80	F1		J-9F	2624-7		7	6	6						
RHE-CF-4	C-F	1	E-P	18"	.365	P1	N/A	J-9S	2624-7		7					2	1		
RHE-CF-5	C-F	1	P-E	18"	.365	P1	N/A	J-9S	2624-7							2	1		
RHE-CF-6	C-F	1	E-P	18"	.365	P1	N/A	J-9S	2624-7		7					2	1		
RHE-CF-7	C-F	1	P-E	18"	.365	P1		J-9S	2624-7		7					2	1		FD6 NOT ACCESSIBLE-IN CONCRETE
RHE-CF-8	C-F	1	E-E	18"	.365	F1		J-9S	2624-7										

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PIPE	CAT	CNT	CFIG	SIZE	S/T	MAT	CAL	WRI.CAL	WELD	DWG	ISO	VT	PT	MT	UT0	UT45	UT6R	INT	PER	RR	REMARKS
RHE-CF-9	C-F	1	F-P	10"	.365	P1			J-9S		2624-7	7									
RAS-CF-37	C-F	1	P-E	28"	STD.	P1	19		J-9	33	2625-1	7									
RAW-CF-14	C-F	1	P-E	28"	STD.	P1	19		J-9	33	2625-1	7									
RAW-CF-15	C-F	1	P-E	28"	STD.	P1	19		J-9	33	2625-1	7									
RAW-CF-16	C-F	1	E-T	28"	STD.	P1	19		J-9	33	2625-1	7						2			
RAW-CF-17	C-F	1	P-T	28"	STD.	P1	19		J-9	33	2625-1	7									
RAW-CF-18	C-F	1	P-E	28"	STD.	P1	19		J-9	33	2625-1	7									
RAW-CF-19	C-F	1	P-E	28"	STD.	P1	19		J-9F	33	2625-1	7									
RAW-CF-20	C-F	1	P-E	28"	STD.	P1	19		J-9	33	2625-1	7									
RAW-CF-21	C-F	1	P-E	28"	STD.	P1	19		J-9	33	2625-1	7									
RAW-CF-22	C-F	1	P-P	28"	STD.	P1	19		J-9	33	2625-1	7	6		6						
RAW-CF-23	C-F	1	P-T	28"	STD.	P1	19		J-9	33	2625-1	7									
RAW-CF-24	C-F	1	P-T	28"	STD.	P1	19		J-9F	33	2625-1	7									
RAW-CF-25	C-F	1	P-E	28"	STD.	P1	19		J-9	33	2625-1	7						2	2		
RAW-CF-26	C-F	1	P-E	28"	STD.	P1	19		J-9	33	2625-1	7									
RAW-CF-27	C-F	1	P-E	28"	STD.	P1	19		J-9F	33	2625-1	7									
RAW-CF-28	C-F	1	P-T	28"	STD.	P1	19		J-9	33	2625-1	7									
RAW-CF-28A	C-F	1	P-F	28"	STD.	P1	19		J-9	33	2625-1	7									
RAW-CF-29	C-F	1	P-F	28"	STD.	P1	19		J-9	33	2625-1	7									
RAW-CF-30	C-F	1	P-E	28"	STD.	P1	19		J-9	33	2625-1	7									
RAW-CF-31	C-F	1	P-E	28"	STD.	P1	19		J-9	33	2625-1	7									
RAW-CF-32	C-F	1	P-E	28"	STD.	P1	19		J-9	33	2625-1	7									
RAW-CF-33	C-F	1	P-E	28"	STD.	P1	19		J-9F	33	2625-1	7									
RAW-CF-34	C-F	1	P-E	28"	STD.	P1	19		J-9	33	2625-1	7									
RAW-CF-35	C-F	1	E-V	28"	STD.	P1	19		J-9F	33	2625-1	7									
RAW-CF-36	C-F	1	P-V	28"	STD.	P1	19		J-9F	33	2625-1	7									
RAW-CF-38	C-F	1	E-T	28"	STD.	P1	19		J-9	33	2625-1	7									
RPC-CF-12	C-F	1	V-E	28"	.375	F1			J-9F		2625-1	7									RHR-LV-19
RPC-CF-13	C-F	1	E-V	28"	.375	F1			J-9F		2625-1	7									RHR-MO-13C
RPC-CF-14	C-F	1	V-P	28"	.375	P1			J-9F		2625-1	7									RHR-MO-13C
RPC-CF-15	C-F	1	P-T	28"	.375	P1			J-9S		2625-1										
RPC-CF-17	C-F	1	T-P	28"	.375	P1			J-9S		2625-1	7									
RPC-CF-18	C-F	1	P-FU	28"	.375	P1			J-9F		2625-1										RHR-PUMP1"C"
RAW-CF-1	C-F	1	P-T	28"	33	P1	19		J-9	33	2625-2	7	6		6			2	3		
RAW-CF-10	C-F	1	V-R	16"	STD.	F1	19		J-9F	33	2625-2	7									
RAW-CF-11	C-F	1	P-T	28"	STD.	P11	19		J-9	33	2625-2	7									
RAW-CF-12	C-F	1	P-V	28"	STD.	P11	19		J-9F	33	2625-2	7									
RAW-CF-13	C-F	1	E-V	28"	STD.	F1	19		J-9F	33	2625-2	7									
RAW-CF-2	C-F	1	P-F	28"	STD.	P1	19		J-9	33	2625-2	7						2			
RAW-CF-3	C-F	1	P-F	28"	STD.	P1	19		J-9	33	2625-2	7									
RAW-CF-4	C-F	1	P-E	28"	STD.	P1	19		J-9	33	2625-2	7						2	2		
RAW-CF-5	C-F	1	P-E	28"	STD.	P1	19		J-9	33	2625-2	7						2	3		
RAW-CF-6	C-F	1	P-E	28"	STD.	P1	19		J-9	33	2625-2	7									
RAW-CF-7	C-F	1	P-E	28"	STD.	P1	19		J-9F	33	2625-2	7									
RAW-CF-8	C-F	1	P-T	28"	STD.	P1	19		J-9	33	2625-2	7									
RAW-CF-9	C-F	1	T-R	28"	STD.	F1	19		J-9	33	2625-2	7									
RBW-CF-28	C-F	1	P-T	28"	STD.	P1	19		J-9	34	2625-2	7									
RBW-CF-29	C-F	1	P-F	28"	STD.	P1	19		J-9	34	2625-2	7									
RBW-CF-31	C-F	1	P-E	28"	STD.	P1	19		J-9	34	2625-2	7									
RBW-CF-32	C-F	1	P-E	28"	STD.	P1	19		J-9	34	2625-2	7									

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PIPE	CAT	CNT	CFIG	SIZE	S/T	MAT	CAL	BAT.CAL	WELD	DWG ISO	VT	PT	MT	UTA	UT45	UT6A	INT	PER	PR	REMARKS
RBW-CF-33	C-F	1	P-E	28"	STD.	P1	19		J-9	34 2625-2	7									
RBW-CF-34	C-F	1	P-E	28"	STD.	P1	19		J-9F	34 2625-2	7									
RBW-CF-35	C-F	1	P-T	28"	STD.	P1	19		J-9	34 2625-2	7									
RBW-CF-36	C-F	1	T-R	28"	STD.	F1	19		J-9	34 2625-2	7									
RBW-CF-37	C-F	1	V-R	16"	STD.	F1	19		J-9F	34 2625-2	7									
RBW-CF-38	C-F	1	P-T	28"	STD.	P1	19		J-9	34 2625-2	7									
RBW-CF-39	C-F	1	P-V	28"	STD.	F1	19		J-9F	34 2625-2	7									
RBW-CF-40	C-F	1	E-V	28"	STD.	F1	19		J-9F	34 2625-2	7									
RPW-CF-12	C-F	1	V-P	28"	.375	P1			J-9F	2625-2	7									RHR-LV-17
RPW-CF-13	C-F	1	P-V	28"	.375	P1			...F	2625-2										RHR-MO-13A
RPW-CF-14	C-F	1	V-E	28"	.375	F1			...F	2625-2	7									RHR-MO-13A
RPW-CF-15	C-F	1	E-T	28"	.375	F1			...S	2625-2	7									
RPW-CF-17A	C-F	1	T-P	28"	.375	P1			J-9F	2625-2	7									
RPW-CF-18	C-F	1	P-PU	28"	.375	F1			...F	2625-2	7									RHR.PUMP.1A
RPD-CF-11	C-F	1	V-P	28"	.375	P1			J-9F	2625-2	7									RHR-LV-28
RPD-CF-12	C-F	1	P-V	28"	.375	P1			J-9F	2625-2										RHR-MO-13B
RPD-CF-13	C-F	1	V-E	28"	.375	F1			J-9F	2625-2	7									RHR-MO-13B
RPD-CF-15	C-F	1	E-T	28"	.375	F1			J-9S	2625-2	7									
RPD-CF-16A	C-F	1	T-P	28"	.375	P1			J-9F	2625-2	7									
RPD-CF-17	C-F	1	P-PU	28"	.375	F1			J-9F	2625-2	7									RHR.PUMP.1D
RHW-CF-1	C-F	1	E-T	28"	STD.	F1	19		J-9F	33 2625-3	7						2	1		
RHW-CF-2	C-F	1	P-E	28"	STD.	P1	19		J-9	33 2625-3	7						2	2		
RHW-CF-3	C-F	1	P-E	28"	STD.	P1	19		J-9	33 2625-3	7									
RHW-CF-4	C-F	1	P-E	28"	STD.	P1	19		J-9	33 2625-3	7									
RHW-CF-5	C-F	1	P-E	28"	STD.	P1	19		J-9	33 2625-3	7									
RHW-CF-6	C-F	1	P-E	28"	STD.	P1	19		J-9	33 2625-3	7									
RHW-CF-7	C-F	1	P-V	28"	STD.	P1	19		J-9	33 2625-3	7									
RBW-CF-9	C-F	1	P-T	28"	STD.	P1	19		J-9	34 2625-4	7									
RBW-CF-10	C-F	1	P-E	28"	STD.	P1	19		J-9	34 2625-4	7									
RBW-CF-11	C-F	1	P-E	28"	STD.	P1	19		J-9F	34 2625-4	7									
RBW-CF-12	C-F	1	P-E	28"	STD.	P1	19		J-9	34 2625-4	7									
RBW-CF-13	C-F	1	E-V	28"	STD.	P1	19		J-9F	34 2625-4	7						2	3		
RBW-CF-14	C-F	1	P-V	28"	STD.	P1	19		J-9F	34 2625-4	7									
RBW-CF-15	C-F	1	P-E	28"	STD.	P1	19		J-9	34 2625-4	7						2	1		
RBW-CF-16	C-F	1	P-E	28"	STD.	P1	19		J-9	34 2625-4	7									
RBW-CF-17	C-F	1	P-T	28"	STD.	P1	19		J-9	34 2625-4	7									
RBW-CF-18	C-F	1	P-T	28"	STD.	P1	19		J-9	34 2625-4	7						2	2		
RBW-CF-19	C-F	1	P-E	28"	STD.	P1	19		J-9	34 2625-4	7									
RBW-CF-2	C-F	1	P-E	28"	STD.	P1	19		J-9	34 2625-4	7									
RBW-CF-20	C-F	1	P-E	28"	STD.	P1	19		J-9F	34 2625-4	7									
RBW-CF-21	C-F	1	P-E	28"	STD.	P1	19		J-9	34 2625-4	7									
RBW-CF-22	C-F	1	P-E	28"	STD.	P1	19		J-9	34 2625-4	7									
RBW-CF-23	C-F	1	P-E	28"	STD.	P1	19		J-9	34 2625-4	7									
RBW-CF-24	C-F	1	P-E	28"	STD.	P1	19		J-9F	34 2625-4	7									
RBW-CF-25	C-F	1	P-E	28"	STD.	P1	19		J-9	34 2625-4	7									
RBW-CF-26	C-F	1	P-E	28"	STD.	P1	19		J-9	34 2625-4	7									
RBW-CF-27	C-F	1	P-E	28"	STD.	P1	19		J-9F	34 2625-4	7									
RBW-CF-3	C-F	1	P-F	28"	STD.	P1	19		J-9F	34 2625-4	7									
RBW-CF-30	C-F	1	P-F	28"	STD.	P1	19		J-9	34 2625-4	7									
RBW-CF-4	C-F	1	P-E	28"	STD.	P1	19		J-9F	34 2625-4	7									

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PIPE	CAT	CNT	CFIG	SIZE	S/T	MAT	CAL	WBI.CAL	WELD	DWG ISO	VT	PT	MT	UT0	UT45	UT60	INT	PER	AR	REMARKS
RBW-CF-41	C-F	1	E-P	28"	STD.	P1	19		J-9	34 2625-4		7								
RBW-CF-42	C-F	1	E-VA	8"	STD.	F1	3		J-9	34 2625-4		7								
RBW-CF-43	C-F	1	E-P	28"	STD.	P1	19		J-9	34 2625-4		7								
RBW-CF-44	C-F	1	E-P	28"	STD.	P1	19		J-9	34 2625-4		7								
RBW-CF-5	C-F	1	P-E	28"	STD.	P1	19		J-9	34 2625-4		7					2	1		
RBW-CF-6	C-F	1	P-E	28"	STD.	P1	19		J-9	34 2625-4		7					2	2		
RBW-CF-7	C-F	1	P-E	28"	STD.	P1	19		J-9	34 2625-4		7								
RBW-CF-8	C-F	1	P-E	28"	STD.	P1	19		J-9	34 2625-4		7								
RBW-CF-9	C-F	1	P-E	28"	STD.	P1	19		J-9	34 2625-4		7								
RPB-CF-12	C-F	1	V-E	28"	.375	F1			J-9F	2625-4		7								RHR-LV-1B
RPB-CF-13	C-F	1	E-V	28"	.375	F1			J-9F	2625-4		7								
RPB-CF-14	C-F	1	V-P	28"	.375	P1			J-9F	2625-4		7								
RPB-CF-16	C-F	1	P-T	28"	.375	P1			J-9S	2625-4		7								
RPB-CF-17	C-F	1	T-P	28"	.375	P1			J-9S	2625-4		7								
RPB-CF-18	C-F	1	P-PU	28"	.375	P1			J-9F	2625-4		7								RHR-PUMP-1B
RPA-CF-1	C-F	1	N-P	28"	.375	P1	N/A		J-9F	2626-1		7					2	1		
RPA-CF-11	C-F	1	P-V	28"	.375	P1			J-9F	2626-1		7								RHR-LV-17
RPA-CF-2	C-F	1	P-E	28"	.375	P1	N/A		J-9F	2626-1		7					2	1		
RPA-CF-3	C-F	1	E-P	28"	.375	P1	N/A		J-9S	2626-1		7					2	1		
RPA-CF-4	C-F	1	P-E	28"	.375	P1	N/A		J-9F	2626-1		7					2	1		
RPA-CF-5	C-F	1	E-P	28"	.375	P1	N/A		J-9S	2626-1		7					2	1		
RPA-CF-7	C-F	1	P-P	28"	.375	P1	N/A		J-9S	2626-1		7					2	1		
RPA-CF-8	C-F	1	P-E	28"	.375	P1			J-9S	2626-1		7								
RPA-CF-9	C-F	1	E-P	28"	.375	P1			J-9S	2626-1										
RPC-CF-1	C-F	1	N-P	28"	.375	P1			J-9F	2626-1		7								
RPC-CF-10	C-F	1	P-E	28"	.375	P1			J-9S	2626-1		7								
RPC-CF-11	C-F	1	E-V	28"	.375	F1			J-9F	2626-1		7								RHR-LV-19
RPC-CF-2	C-F	1	P-E	28"	.375	P1			J-9F	2626-1		7								
RPC-CF-3	C-F	1	E-P	28"	.375	P1			J-9S	2626-1		7								
RPC-CF-5	C-F	1	P-E	28"	.375	P1			J-9S	2626-1		7								
RPC-CF-6	C-F	1	E-P	28"	.375	P1			J-9S	2626-1		7								
RPC-CF-7	C-F	1	P-P	28"	.375	P1			J-9S	2626-1										
RPC-CF-8	C-F	1	P-P	28"	.375	P1			J-9F	2626-1		7								
RPB-CF-1	C-F	1	N-P	28"	.375	P1			J-9F	2626-2		7								
RPB-CF-11	C-F	1	P-V	28"	.375	P1			J-9F	2626-2										RHR-LV-1B
RPB-CF-2	C-F	1	P-E	28"	.375	P1			J-9S	2626-2		7								
RPB-CF-3	C-F	1	E-P	28"	.375	P1			J-9S	2626-2		7								
RPB-CF-4	C-F	1	P-E	28"	.375	P1			J-9F	2626-2		7								
RPB-CF-5	C-F	1	E-P	28"	.375	P1			J-9S	2626-2		7								
RPB-CF-8	C-F	1	P-E	28"	.375	P1			J-9S	2626-2		7								
RPB-CF-9	C-F	1	E-P	28"	.375	P1			J-9S	2626-2										
RPD-CF-1	C-F	1	N-P	28"	.375	P1			J-9F	2626-2		7								
RPD-CF-10	C-F	1	E-V	28"	.375	F1			J-9F	2626-2		7								RHR-LV-2A
RPD-CF-2	C-F	1	P-E	28"	.375	P1			J-9S	2626-2		7								
RPD-CF-3	C-F	1	E-P	28"	.375	P1			J-9S	2626-2		7								
RPD-CF-5	C-F	1	P-E	28"	.375	P1			J-9S	2626-2		7								
RPD-CF-6	C-F	1	E-P	28"	.375	P1			J-9S	2626-2		7								
RPD-CF-7	C-F	1	P-P	28"	.375	P1			J-9F	2626-2		7								
RPD-CF-9	C-F	1	P-E	28"	.375	P1			J-9S	2626-2		7								
RAW-CF-48	C-F	1	P-E	6"	.280	P1	3		J-9	35 2626-3		7								

COOPER NUCLEAR STATION
LIST OF ASME SECTION XI COMPONENTS BY CATEGORY
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PIPE.....	CAT..	CNT.	CFIG...	SIZE	S/T....	MAT.....	CAL.....	WBI.CAL.	WELD...	DWG ISO.....	VT...	PT	MT	UT0.....	UT45....	UT60....	INT	PER....	RR...	REMARKS.....
RAW-CF-49	C-F	1	F-E	6"	.280	P1	3		J-9	35 2626-3	7									
RAW-CF-50	C-F	1	P-E	6"	.280	P1	3		J-9	35 2626-3	7						2	1		
RAW-CF-51	C-F	1	P-E	6"	.280	P1	3		J-9	35 2626-3	7									
RAW-CF-52	C-F	1	P-E	6"	.280	P1	3		J-9	35 2626-3	7									
RAW-CF-53	C-F	1	E-PC	6"	.280	F1	3		J-9F	35 2626-3	7									
RAW-CF-57	C-F	1	P-E	18"	STD.	P1	19		J-9	35 2626-3	7									
RAW-CF-58	C-F	1	P-E	18"	STD.	P1	19		J-9F	35 2626-3	7									
RAW-CF-59	C-F	1	P-E	18"	STD.	P1	19		J-9	35 2626-3	7									
RAW-CF-60	C-F	1	P-E	18"	STD.	P1	19		J-9	35 2626-3	7									
RAW-CF-61	C-F	1	E-E	18"	STD.	F1	19		J-9	35 2626-3	7									
RAW-CF-62	C-F	1	E-E	18"	STD.	F1	19		J-9	35 2626-3	7									
RAW-CF-63	C-F	1	P-E	18"	STD.	P1	19		J-9	35 2626-3	7									
RAW-CF-64	C-F	1	P-E	18"	STD.	P1	19		J-9	35 2626-3	7									
RAW-CF-65	C-F	1	E-PC	18"	STD.	F1	19		J-9	35 2626-3	7						2	2		
RBW-CF-53	C-F	1	P-V	6"	.280	P1	3		J-9F	36 2626-4	7									
RBW-CF-54	C-F	1	P-E	6"	.280	F1	3		J-9	36 2626-4	7						2	3		
RBW-CF-55	C-F	1	P-E	6"	.280	P1	3		J-9	36 2626-4	7									
RBW-CF-56	C-F	1	P-E	6"	.280	P1	3		J-9	36 2626-4	7									
RBW-CF-57	C-F	1	P-E	6"	.280	P1	3		J-9	36 2626-4	7									
RBW-CF-58	C-F	1	P-E	6"	.280	P1	3		J-9	36 2626-4	7									
RBW-CF-59	C-F	1	E-PC	6"	.280	F1	3		J-9	36 2626-4	7									
RBW-CF-62	C-F	1	E-V	18"	30	F1	19		J-9F	36 2626-4	7	6		6						
RBW-CF-63	C-F	1	P-E	18"	30	P1	19		J-9	36 2626-4	7	6		6						
RBW-CF-64	C-F	1	P-E	18"	100	P1	7	96	J-9F	36 2626-4	7	6		6			2	1		
RBW-CF-65	C-F	1	P-E	18"	STD.	P1	19		J-9	36 2626-4	7									
RBW-CF-66	C-F	1	P-E	18"	STD.	P1	19		J-9	36 2626-4	7									
RBW-CF-67	C-F	1	E-E	18"	STD.	F1	19		J-9	36 2626-4	7									
RBW-CF-68	C-F	1	E-E	18"	STD.	F1	19		J-9	36 2626-4	7									
RBW-CF-69	C-F	1	P-E	18"	STD.	P1	19		J-9	36 2626-4	7									
RBW-CF-70	C-F	1	P-E	18"	STD.	P1	19		J-9	36 2626-4	7									
RBW-CF-71	C-F	1	E-PC	18	STD	F1			J-9	36 2626-4	7									
PSA-CF-1	C-F	1	P-E	10"	100	P1	4		J-9	32 2629-1	7	6		6						
PSA-CF-10	C-F	1	P-E	10"	100	P1	4		J-9	32 2629-1	7	6		6			2	3		
PSA-CF-11	C-F	1	P-E	10"	100	P1	4	78	J-9	32 2629-1	7	6		6			2	1		
PSA-CF-12	C-F	1	P-E	10"	100	P1	4		J-9	32 2629-1	7	6		6			2	2		
PSA-CF-13	C-F	1	P-E	10"	100	P1	4		J-9	32 2629-1	7	6		6						
PSA-CF-14	C-F	1	P-E	10"	100	P1	4		J-9F	32 2629-1	7	6		6						
PSA-CF-15	C-F	1	P-T	10"	100	P1	4		J-9	32 2629-1	7	6		6			2	3		
PSA-CF-16	C-F	1	T-R	10"	100	F1	4		J-9	32 2629-1	7	6		6						
PSA-CF-17	C-F	1	P-T	10"	100	P1	4		J-9	32 2629-1	7	6		6						
PSA-CF-18	C-F	1	P-E	10"	100	P1	4		J-9	32 2629-1	7	6		6						
PSA-CF-19	C-F	1	P-E	10"	100	P1	4		J-9F	32 2629-1	7	6		6						
PSA-CF-2	C-F	1	E-E	10"	100	F1	4	78	J-9	32 2629-1	7	6		6			2	1		
PSA-CF-20	C-F	1	P-E	10"	100	P1	4		J-9	32 2629-1	7	6		6						
PSA-CF-21	C-F	1	P-E	10"	100	P1	4		J-9F	32 2629-1	7	6		6						
PSA-CF-22	C-F	1	P-E	10"	100	P1	4		J-9	32 2629-1	7	6		6						
PSA-CF-23	C-F	1	P-E	10"	100	P1	4		J-9F	32 2629-1	7	6		6						
PSA-CF-24	C-F	1	P-E	10"	100	P1	4		J-9F	32 2629-1	7	6		6						
PSA-CF-25	C-F	1	P-E	10"	100	P1	4		J-9	32 2629-1	7	6		6						
PSA-CF-26	C-F	1	P-T	10"	100	P1	4		J-9F	32 2629-1	7	6		6						

COOPER NUCLEAR STATION
LIST OF ASME SECTION XI COMPONENTS BY CATEGORY
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PIPE	CAT	CNT	CFIG	SIZE	S/T	MAT	CAL	WB1.CAL	WELD	DWG ISO	VT	PT	MT	UT0	UT45	UT60	INT	PER	RR	REMARKS
PSA-CF-27	C-F	1	P-T	8"	100	P1	3		J-9	32 2629-1		7		6	6					
PSA-CF-28	C-F	1	P-T	10"	100	P1	4		J-9	32 2629-1		7		6	6					
PSA-CF-29	C-F	1	P-E	10"	100	P1	4		J-9F	32 2629-1		7		6	6					
PSA-CF-3	C-F	1	P-P	10"	100	P1	4		J-9	32 2629-1		7		6	6		2	2		
PSA-CF-30	C-F	1	P-E	10"	100	P1	4		J-9	32 2629-1		7		6	6					
PSA-CF-31	C-F	1	P-E	10"	100	P1	4		J-9	32 2629-1		7		6	6					
PSA-CF-32	C-F	1	P-T	10"	100	P1	4		J-9	32 2629-1		7		6	6					
PSA-CF-33	C-F	1	T-V	10"	100	P1	4		J-9F	32 2629-1		7		6	6					
PSA-CF-34	C-F	1	V-F	10"	100	P1	4		J-9	32 2629-1		7		6	6					
PSA-CF-35	C-F	1	P-T	10"	100	P1	4		J-9	32 2629-1		7		6	6					
PSA-CF-36	C-F	1	P-C	10"	100	P1	4		J-9	32 2629-1		7		6	6					
PSA-CF-37	C-F	1	P-V	8"	100	P1	3		J-9F	32 2629-1		7		6	6					
PSA-CF-38	C-F	1	E-V	8"	100	P1	3		J-9	32 2629-1		7		6	6					
PSA-CF-39	C-F	1	P-E	8"	100	P1	3		J-9	32 2629-1		7		6	6					
PSA-CF-4	C-F	1	P-P	10"	100	P1	4		J-9F	32 2629-1		7		6	6					
PSA-CF-40	C-F	1	P-E	8"	100	P1	3		J-9	32 2629-1		7		6	6					
PSA-CF-41	C-F	1	F-F	8"	100	P1	3		J-9	32 2629-1		7		6	6					
PSA-CF-5	C-F	1	E-T	10"	100	P1	4		J-9	32 2629-1		7		6	6					
PSA-CF-6	C-F	1	T-R	10"	100	P1	4		J-9	32 2629-1		7		6	6		2	3		
PSA-CF-7	C-F	1	E-T	10"	100	P1	4		J-9	32 2629-1		7		6	6					
PSA-CF-8	C-F	1	P-E	10"	100	P1	4	78	J-9	32 2629-1		7		6	6		2	1		
PSA-CF-9	C-F	1	P-E	10"	100	P1	4		J-9F	32 2629-1		7		6	6		2	2		
RAS-CF-11	C-F	1	E-R	2"	100	P1	3		J-9	31 2629-1		7		6	6					
RAS-CF-12	C-F	1	P-E	8"	100	P1	3		J-9	31 2629-1		7		6	6		2	2		
RAS-CF-13	C-F	1	P-E	8"	100	P1	3		J-9	31 2629-1		7		6	6		2	3		
RAS-CF-14	C-F	1	P-E	8"	100	P1	3	77	J-9	31 2629-1		7		6	6		2	1		
RAS-CF-15	C-F	1	P-E	8"	100	P1	3		J-9F	31 2629-1		7		6	6					
RAS-CF-16	C-F	1	P-E	8"	100	P1	3		J-9	31 2629-1		7		6	6					
RAS-CF-17	C-F	1	P-E	8"	100	P1	3		J-9F	31 2629-1		7		6	6					
RAS-CF-18	C-F	1	P-E	8"	100	P1	3		J-9	31 2629-1		7		6	6					
RAS-CF-19	C-F	1	P-E	8"	100	P1	3		J-9	31 2629-1		7		6	6					
RAS-CF-20	C-F	1	P-E	8"	100	P1	3		J-9	31 2629-1		7		6	6					
RAS-CF-21	C-F	1	P-E	8"	100	P1	3		J-9	31 2629-1		7		6	6					
RAS-CF-22	C-F	1	P-E	8"	100	P1	3		J-9	31 2629-1		7		6	6					
RAS-CF-23	C-F	1	P-E	8"	100	P1	3		J-9	31 2629-1		7		6	6					
RAS-CF-24	C-F	1	P-E	8"	100	P1	3		J-9F	31 2629-1		7		6	6					
RAS-CF-25	C-F	1	P-E	8"	100	P1	3		J-9	31 2629-1		7		6	6					
RAS-CF-27	C-F	1	P-E	8"	100	P1	3		J-9	31 2629-1		7		6	6					
RAS-CF-28	C-F	1	P-T	8"	100	P1	3		J-9F	31 2629-1		7		6	6		2	2		
RAS-CF-29	C-F	1	P-T	8"	100	P1	3		J-9	31 2629-1		7		6	6					
RAS-CF-30	C-F	1	P-P	8"	100	P1	3		J-9	31 2629-1		7		6	6					
RAS-CF-31	C-F	1	P-T	8"	100	P1	3		J-9	31 2629-1		7		6	6					
RAS-CF-32	C-F	1	P-E	8"	100	P1	3		J-9	31 2629-1		7		6	6					
RAS-CF-33	C-F	1	P-E	8"	100	P1	3		J-9	31 2629-1		7		6	6					
RAS-CF-34	C-F	1	P-E	8"	100	P1	3		J-9	32 2629-1		7		6	6					
RAS-CF-35	C-F	1	P-E	8"	100	P1	2		J-9	32 2629-1		7		6	6					
RAS-CF-36	C-F	1	P-R	8"	100	P1	3		J-9	32 2629-1		7		6	6		2	3		
RBS-CF-11	C-F	1	E-R	6"	100	P1	3		J-9	32 2629-1		7		6	6					
RBS-CF-12	C-F	1	P-E	8"	100	P1	3	73	J-9	32 2629-1		7		6	6		2	1		
RBS-CF-13	C-F	1	P-E	8"	100	P1	3		J-9F	32 2629-1		7		6	6		2	2		

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PIPE	CAT	CNT	CFIG	SIZE	S/T	MAT	CAL	WELD	DWG ISO	VT	PT	MT	UT0	UT45	UT60	INT	PER	RR	REMARKS
RBb-CF-14	C-F	1	P-E	8"	100	P1	3	J-9	32 2629-1		7	6	6						
RBS-CF-15	C-F	1	P-E	8"	100	P1	3	J-9F	32 2629-1		7	6	6						
RBS-CF-16	C-F	1	P-E	8"	100	P1	3	J-9	32 2629-1		7	6	6						
RBS-CF-17	C-F	1	P-E	8"	100	P1	3	J-9	32 2629-1		7	6	6						
RBS-CF-18	C-F	1	P-E	8"	100	P1	3	J-9F	32 2629-1		7	6	6						
RBS-CF-19	C-F	1	P-E	8"	100	P1	3	J-9	32 2629-1		7	6	6						
RBS-CF-20	C-F	1	E-E	8"	100	F1	3	J-9	32 2629-1		7	6	6						
RBS-CF-21	C-F	1	P-E	8"	100	P1	3	J-9	32 2629-1		7	6	6						
RBS-CF-22	C-F	1	P-E	8"	100	P1	3	J-9	32 2629-1		7	6	6						
RBS-CF-23	C-F	1	P-E	8"	100	P1	3	J-9F	32 2629-1		7	6	6						
RBS-CF-24	C-F	1	P-T	8"	100	P1	3	J-9	32 2629-1		7	6	6			2	3		
RBS-CF-241	C-F	1	T-P	8"	100	F1	3	J-9	32 2629-1		7	6	6						
RBS-CF-26	C-F	1	P-T	10"	100	P1	3	J-9F	32 2629-1		7	6	6						
RBS-CF-27	C-F	1	P-E	10"	100	P1	3	J-9F	32 2629-1		7	6	6						
RBS-CF-28	C-F	1	P-E	8"	100	P1	3	J-9	32 2629-1		7	6	6						
RBS-CF-29	C-F	1	P-E	8"	100	P1	3	J-9F	32 2629-1		7	6	6						
RBS-CF-30	C-F	1	P-E	8"	100	P1	3	J-9	32 2629-1		7	6	6						
RBS-CF-31	C-F	1	P-E	8"	100	P1	3	J-9F	32 2629-1		7	6	6						
RBS-CF-32	C-F	1	P-E	8"	100	P1	3	J-9	32 2629-1		7	6	6						
RBS-CF-33	C-F	1	P-R	8"	100	P1	3	J-9F	32 2629-1		7	6	6						
RWA-CF-2	C-F	1	P-CAP	3"	100	P1	3	J-9	31 2629-1		7	6	6						
RCC-CF-3	C-F	1	P-P	6"	.322	P5		J-4F	2048-1		7								X-24
RCC-CF-4	C-F	1	P-V	6"	.322	P5		...F	2048-1		7								RCC-MO-709
RCC-CF-1	C-F	1	V-P	6"	.322	P5		J-4F	2048-8		7								REL-MO-702
RCC-CF-2	C-F	1	P-PC	6"	.322	P5	N/A	....F	2048-8		7					2	1		X-23
RHE-CF-22	C-F	1	T-R	12"	1.000	F22		S	CB&I-20		7	6	6						INSIDE.DRYWELL MAY NEED RR
RHE-CF-23	C-F	1	T-R	12"	1.000	F22		S	CB&I-20		7	6	6						INSIDE.DRYWELL MAY NEED RR
RHE-CF-24	C-F	1	R-P	10"	1.000	F22		F	CB&I-20		7	6	6						INSIDE.DRYWELL MAY NEED RR
RHE-CF-25	C-F	1	R-P	10"	1.000	P2		F	CB&I-20		7	6	6						INSIDE.DRYWELL MAY NEED RR
RHG-CF-24	C-F	1	R-P	10"	1.000	P2		F	CB&I-20		7	6	6						
RHG-CF-33	C-F	1	T-RE	12"	1.312	F22			CB&I-20		7	6	6						INSIDE.DRYWELL MAY NEED RR
RHG-CF-34	C-F	1	T-RE	12"	1.312	F22			CB&I-20		7	6	6						INSIDE.DRYWELL MAY NEED RR
RHG-CF-35	C-F	1	RE-P	10"	1.125	P2			CB&I-20		7	6	6						INSIDE.DRYWELL MAY NEED RR
RHE-CF-17	C-F	1	P-PC	12"	1.312	P2		F	CB&I-40		7	6	6						INSIDE PENET. X-39B
RHG-CF-28	C-F	1	P-PC	12"	1.312	P2		F	CB&I-40		7	6	6						RI-#2 X-39A
RCH-CF-1A	C-F	1	P-PC	16"	1.25	P2		F	CB&I-61										X-22B
CSA-CF-85	C-F	1	P-PC	10"	1.25	P2		F	CB&I-64		7	6	6						X-223A
CSA-CF-86	C-F	1	P-E	10"	.500	P2		F	CB&I-64		7								INSIDE.TORUS
CSA-CF-87	C-F	1	E-P	10"	.500	P2		F	CB&I-64		7								INSIDE.TORUS
CSA-CF-88	C-F	1	P-E	10"	.500	P2		F	CB&I-64		7								INSIDE.TORUS
CSB-CF-95	C-F	1	P-PC	10"	1.25	P2		F	CB&I-64		7	6	6						X-223B
CSB-CF-96	C-F	1	P-E	10"	.500	P2		F	CB&I-64		7								INSIDE.TORUS
CSB-CF-97	C-F	1	E-P	10"	.500	P2		F	CB&I-64		7								INSIDE.TORUS

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PIPE	CAT	CNT	CFIG	SIZE	S/T	MAT	CAL	WELD	DWG ISO	VT	PT	MT	UT0	UT45	UT60	INT	PER	RR	REMARKS
CSB-CF-9B	C-F	1	P-E	18"	.500	P2		F	CB&I-64	7									INSIDE.TORUS
TDA-CF-1	C-F	1	P-PC	8"	1.5	P2		F	CB&I-64	7	6		6						SEE.ALSO.MFC.78-16.X-213A
TDA-CF-2	C-F	1	P-F	8"	.500	SA333Gr		BW	CB&I-64	7									
TDB-CF-1	C-F	1	P-PC	8"	1.5	P2		F	CB&I-64	7	6		6						SEE.ALSO.MFC.78-16.X-213B
TDB-CF-2	C-F	1	P-F	8"	.500	SA333Gr		BW	CB&I-64	7									
RAW-CF-53A	C-F	1	P-PC	6"	1.25	P2		F	CB&I-65	7	6		6			2	1		X-211A
RAW-CF-53B	C-F	1	P-E	6"	.432	P2			CB&I-65	7						2	1		INSIDE.TORUS
RAW-CF-53C	C-F	1	E-P	6"	.280	P2			CB&I-65	7						2	1		INSIDE.TORUS
RAW-CF-53D	C-F	1	P-T	6"	.280	P2			CB&I-65	7						2	1		INSIDE.TORUS
RAW-CF-53E	C-F	1	T-R	6"	.280				CB&I-65							2	1		INSIDE.TORUS
RAW-CF-53F	C-F	1	T-R	6"	.280				CB&I-65	7						2	1		INSIDE.TORUS
RBW-CF-59A	C-F	1	P-PC	6"	1.25	P2		F	CB&I-65	7	6		6						X-211B
RBW-CF-59B	C-F	1	P-E	6"	.432	P2			CB&I-65	7									INSIDE.TORUS
RBW-CF-59C	C-F	1	E-P	6"	.280	P2			CB&I-65										INSIDE.TORUS
RBW-CF-59D	C-F	1	P-T	6"	.280	P2			CB&I-65	7									INSIDE.TORUS
RBW-CF-59E	C-F	1	T-R	6"	.280				CB&I-65	7									INSIDE.TORUS
RBW-CF-59F	C-F	1	T-R	6"	.280				CB&I-65	7									INSIDE.TORUS
CSA-CF-1A	C-F	1	P-PC	16	.844	P2			CB&I-69	7	6		6						X-227A
CSA-CF-1B	C-F	1	P-T	16"	.375	P2			CB&I-69	7									
CSA-CF-1C	C-F	1	T-F	16"	.375	F23			CB&I-69	7									
CSA-CF-1D	C-F	1	T-F	16"	.375	F23			CB&I-69	7									
CSB-CF-1A	C-F	1	P-PC	16"	.844	P2			CB&I-69	7	6		6						X-227B
CSB-CF-1B	C-F	1	P-T	16"	.375	P2			CB&I-69										
CSB-CF-1C	C-F	1	T-F	16"	.375	F23			CB&I-69	7									
CSB-CF-1D	C-F	1	T-F	16"	.375	F23			CB&I-69										
HPIS-CF-1A	C-F	1	P-PC	16"	.844	P2			CB&I-69	7	6		6						X-226
HPIS-CF-1B	C-F	1	P-T	16"	.375	P2			CB&I-69	7									
HPIS-CF-1C	C-F	1	T-F	16"	.375	F23			CB&I-69	7									
HPIS-CF-1D	C-F	1	T-F	16"	.375	F23			CB&I-69	7									
RAW-CF-65A	C-F	1	P-PC	18"	1.75"	P2		F	CB&I-69										X-218A
RAW-CF-65B	C-F	1	P-P	18"	.938	P1		F	CB&I-69	7	6		6						INSIDE.TORUS
RAW-CF-65C	C-F	1	P-R	18"	.5	P2			CB&I-69	7									INSIDE.TORUS
RAW-CF-65F	C-F	1	P-E	18"	.5	P1			CB&I-69	7									INSIDE.TORUS
RBW-CF-71A	C-F	1	P-PC	18"	1.75	P2		F	CB&I-69										X-218A
RBW-CF-71B	C-F	1	P-P	18"	.938	P1		F	CB&I-69	7	6		6						INSIDE.TORUS
RBW-CF-71C	C-F	1	P-R	18"	.5	P2			CB&I-69	7									INSIDE.TORUS
RBW-CF-71D	C-F	1	R-P	18"	.5	P1			CB&I-69										INSIDE.TORUS
RBW-CF-71F	C-F	1	P-E	18"	.5	P1			CB&I-69	7									INSIDE.TORUS
RCW-CF-11B	C-F	1	P-PC	20"	1.7/16	P2		F	CB&I-69	7	6		6						X-205
RPA-CF-1A	C-F	1	P-PC	20"	1.7/16	P2		F	CB&I-69	7	6		6						X-225A
RPA-CF-1B	C-F	1	P-T	20"	.375	P2		F	CB&I-69	7									INSIDE.TORUS
RPA-CF-1C	C-F	1	T-F	20"	.375	F-23		F	CB&I-69	7									INSIDE.TORUS
RPA-CF-1D	C-F	1	T-F	20"	.375	F-23		F	CB&I-69	7									INSIDE.TORUS
RPB-CF-1A	C-F	1	P-PC	20"	1.7/16	P2		F	CB&I-69	7	6		6						X-225A
RPB-CF-1B	C-F	1	P-T	20"	.375	P2		F	CB&I-69	7									INSIDE.TORUS
RPB-CF-1C	C-F	1	T-F	20"	.375	F-23		F	CB&I-69	7									INSIDE.TORUS
RPB-CF-1D	C-F	1	T-F	20"	.375	F-23		F	CB&I-69	7									INSIDE.TORUS
RPC-CF-1A	C-F	1	P-PC	20"	1.7/16"	P2		F	CB&I-69	7	6		6						X-225A

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PIPE.....	CAT..	CNT.	CFIG...	SIZE	S/T....	MAT.....	CAL.....	WRI.CAL.	WELD...	DWG	ISO.....	VT...	PT	MT	UT#	UT45	UT60	INT	PER	RR...	REMARKS.....
RPC-CF-1B	C-F	1	P-T	28"	.375	P2			F		CB&I-69										INSI..TORUS
RPC-CF-1C	C-F	1	T-F	28"	.375	F-23			F		CB&I-69	7									INSIDE.TORUS
RPC-CF-1D	C-F	1	T-F	28"	.375	F-23			F		CB&I-69	7									INSIDE.TORUS
RPD-CF-1A	C-F	1	P-PC	28"	1.7/16"	P2			F		CB&I-69	7		6		6					X-225A
RPD-CF-1B	C-F	1	P-T	28"	.375	P2			F		CB&I-69	7									INSIDE.TORUS
RPD-CF-1C	C-F	1	T-F	28"	.375	F-23			F		CB&I-69	7									INSIDE.TORUS
RPD-CF-1D	C-F	1	T-F	28"	.375	F-23			F		CB&I-69	7									INSIDE.TORUS
RWA-CF-10	C-F	1	T-F	6"	.432	F-23			J-9S		CB&I-69	7									INSIDE.TORUS
RWA-CF-11	C-F	1	T-F	6"	.432	F-23			J-9S		CB&I-69	7									INSIDE.TORUS
RWA-CF-12	C-F	1	P-T	6"	.432	P2			J-9S		CB&I-69	7									INSIDE.TORUS
RWA-CF-13	C-F	1	P-PC	6"	1.25	P2			J-9F		CB&I-69	7		6		6					X-224
RHE-CF-18	C-F	1	P-E	12"	1.000	P2			F		CB&I-73							2	2		INSIDE.DRYWELL
RHE-CF-19	C-F	1	E-P	12"	1.000	P2			S		CB&I-73	7		6		6		2	2		INSIDE.DRYWELL MAY NEED RR
RHE-CF-20	C-F	1	P-E	12"	1.000	P2			S		CB&I-73	7		6		6		2	3		INSIDE.DRYWELL MAY NEED RR
RHE-CF-21	C-F	1	E-T	12"	1.000	F22			S		CB&I-73	7		6		6			23		INS..DE.DRYWELL MAY NEED RR
RHG-CF-29	C-F	1	P-P	12"	1.312	P2			F		CB&I-73	7		6		6					RI-02 INSIDE.DRYWELL
RHG-CF-30	C-F	1	P-E	12"	1.312	P2			S		CB&I-73	7		6		6		2	1		INSIDE.DRYWELL MAY NEED RR
RHG-CF-31	C-F	1	E-P	12"	1.312	P2			S		CB&I-73	7		6		6		2	1		INSIDE.DRYWELL MAY NEED RR
RHG-CF-32	C-F	1	P-T	12"	1.312	P2			F		CB&I-73										INSIDE.DRYWELL MAY NEED RR
RAW-CF-55	C-F	1	P-VA	18"	STD.	P1	19		J-9F	42	GE.E-232-239	7									
RWA-CF-1	C-F	1	P-CAP	8"	100	P1	3		J-9	42	GE.E-232-239	7		6		6		2	3		
HPEI-CF-62	C-F	1	P-P	24"	.500	P1					KE-101-02										
HPEI-CF-62A	C-F	1	P-PC	24"	2.25	P1			F		KE-101-02	7		6		6					X-214
HPEI-CF-63	C-F	1	P-E	24"	.500	P1					KE-101-02	7									
HPEI-CF-64	C-F	1	E-E	24"	.500	P1					KE-101-02	7									
HPEI-CF-65	C-F	1	E-P	24"	.500	P1					KE-101-02	7									
HPEI-CF-66	C-F	1	P-E	24"	.500	P1					KE-101-02	7									
HPEI-CF-67	C-F	1	E-E	24"	.500	P1					KE-101-02	7									
HPEI-CF-68	C-F	1	E-P	24"	.500	P1					KE-101-02	7									
RSA-CF-25	C-F	1	P-E	12"	.500	P1			J-9F		KE-101-03										INSIDE.TORUS
RSA-CF-37	C-F	1	P-E	12"	.500	P1					KE-101-03	7									INSIDE.TORUS
PNC-CS-1	C-F	1	E-PC	16"	STD.	F1	19		J-4	40	RCD-755-1	7						2	1		
PNC-CS-1B	C-F	1	E-F	24"	STD.	F1	19		J-4	40	RCD-755-1	7									
PNC-CS-2	C-F	1	E-R	16"	STD.	F1	19		J-4	40	RCD-755-1	7									
PNC-CS-3	C-F	1	E-R	24"	STD.	F1	19		J-4	40	RCD-755-1	7						2	2		
PNC-CS-4	C-F	1	E-F	24"	STD.	F1	19		J-4	40	RCD-755-1	7						2	3		
PNC-CS-5	C-F	1	P-F	24"	STD.	P1	19		J-4	40	RCD-755-1	7						2	1		
PNC-CS-6	C-F	1	P-F	24"	STD.	P1	19		J-4	40	RCD-755-1	7									
PNC-CS-7	C-F	1	R-PC	28"	STD.	F1	19		J-4	40	RCD-755-1	7									
PNC-CS-9	C-F	1	E-F	24"	STD.	F1	19		J-4	40	RCD-755-1	7									
PNC-CS-9B	C-F	1	R-F	24"	STD.	F1	19		J-4	40	RCD-755-2	7									
PNC-CS-11	C-F	1	P-R	28"	STD.	P1	19		J-4	40	RCD-755-2	7									
PNC-CS-11A	C-F	1	P-PC	28"	STD.	P1	19		J-4	40	RCD-755-2	7						2	2		
PNC-CS-12	C-F	1	E-R	24"	STD.	F1	19		J-4	40	RCD-755-2	7									

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PIPE	CAT	CNT	CF16	SIZE	S/T	MAT	CAL	WBI.CAL	WELD	DWG ISO	VT	PT	MT	UT0	UT45	UT60	INT	PER	RR	REMARKS
PNC-CB-15	C-F	1	P-T	20"	STD.	P1	19		J-4	40 RCD-755-2	7									
PNC-CB-16	C-F	1	P-E	20"	STD.	P1	19		J-4	40 RCD-755-2	7						2	1		
PNC-CB-17	C-F	1	P-E	20"	STD.	P1	19		J-4	40 RCD-755-2	7									
PNC-CB-18	C-F	1	P-T	20"	STD.	P1	19		J-4	40 RCD-755-2	7									
PNC-CB-19	C-F	1	T-F	20"	STD.	F1	19		J-4	40 RCD-755-2	7									
PNC-CB-20	C-F	1	P-F	20"	STD.	P1	19		J-7	40 RCD-755-2	7						2	2		
PNC-CB-21	C-F	1	P-F	20"	STD.	P1	19		J-7	40 RCD-755-2	7									
PNC-CB-22	C-F	1	T-F	20"	STD.	F1	19		J-4	40 RCD-755-2	7									
PNC-CB-23	C-F	1	P-F	20"	STD.	P1	19		J-7	40 RCD-755-2	7									
PNC-CB-24	C-F	1	P-F	20"	STD.	P1	19		J-7	40 RCD-755-2	7									
PNC-CB-25	C-F	1	P-T	24"	STD.	P1	19		J-4	40 RCD-755-2	7									
PNC-CB-26	C-F	1	P-F	24"	STD.	P1	19		J-4	40 RCD-755-2	7						2	3		
PNC-CB-27	C-F	1	P-F	24"	STD.	P1	19		J-4	40 RCD-755-2	7									
PNC-CB-28	C-F	1	P-F	24"	STD.	P1	19		J-4	40 RCD-755-2	7									
PNC-CB-29	C-F	1	E-PC	20"	STD.	F1	19		J-4	40 RCD-755-3	7									
PNC-CB-30	C-F	1	P-E	20"	STD.	P1	19		J-4	40 RCD-755-3	7									
PNC-CB-31	C-F	1	P-R	20"	STD.	P1	19		J-4	40 RCD-755-3	7									
PNC-CB-32	C-F	1	E-R	24"	STD.	F1	19		J-4	40 RCD-755-3	7									
PNC-CB-33	C-F	1	E-E	24"	STD.	F1	19		J-4	40 RCD-755-3	7									
PNC-CB-34	C-F	1	E-F	24"	STD.	F1	19		J-4	40 RCD-755-3	7									
PNC-CB-35	C-F	1	P-F	24"	STD.	P1	19		J-4	40 RCD-755-3	7									
PNC-CB-36	C-F	1	P-F	24"	STD.	P1	19		J-4	40 RCD-755-3	7									
PSR-CF-4	C-F	1	E-F	24	STD	F1			J-4	S&W-13895.19-EP	7						2	1		
SDN-CF-1	C-F	1	CAP-P	8"	B0	P1	42		J-9	43 S&W-13895.19-EP	7	6		c						
SDN-CF-10	C-F	1	P-P	8"	B0	P1	42		J-9	43 S&W-13895.19-EP	7	6		6						
SDN-CF-11	C-F	1	P-P	8"	B0	P1	42		J-9	43 S&W-13895.19-EP	7	6		6						
SDN-CF-12	C-F	1	P-P	8"	B0	P1	42		J-9	43 S&W-13895.19-EP	7	6		6						
SDN-CF-13	C-F	1	P-P	8"	B0		43		J-9	43 S&W-13895.19-EP	7	6		6						
SDN-CF-14	C-F	1	P-T	8"	B0		N/A		J-9	43 S&W-13895.19-EP	7						2	1		
SDN-CF-15	C-F	1	T-E	8"	B0				J-9	43 S&W-13895.19-EP	7						2	1		FB6-NOT ACCESSIBLE-HANGER
SDN-CF-16	C-F	1	E-P	8"	B0		N/A		J-9	43 S&W-13895.19-EP	7						2	1		
SDN-CF-17	C-F	1	P-CAP	8"	B0				J-9	43 S&W-13895.19-EP	7						2	1		FB6-NOT ACCESSIBLE-HANGER
SDN-CF-2	C-F	1	P-P	8"	B0	P1	N/A		J-9	43 S&W-13895.19-EP	7						2	1		
SDN-CF-3	C-F	1	P-P	8"	B0	P1			J-9	43 S&W-13895.19-EP	7						2	1		FB6-NOT ACCESSIBLE-HANGER
SDN-CF-4	C-F	1	P-T	8"	B0	P1	42		J-9	43 S&W-13895.19-EP	7	6		6						
SDN-CF-5	C-F	1	T-CAP	8"	B0	P1	42		J-9	43 S&W-13895.19-EP	7	6		6						
SDN-CF-6	C-F	1	T-P	8"	B0	P1	42		J-9	43 S&W-13895.19-EP	7	6		6						
SDN-CF-7	C-F	1	T-F	8"	B0	P1	N/A		J-9	43 S&W-13895.19-EP	7	6		6						
SDN-CF-8	C-F	1	P-T	8"	B0		43		J-9	43 S&W-13895.19-EP	7	6		6						
SDN-CF-9	C-F	1	CAP-P	8"	B0	P1	42		J-9	43 S&W-13895.19-EP	7	6		6						
SDS-CF-1	C-F	1	CAP-P	8"	B0	P1	42		J-9	44 S&W-13895.19-EP	7	6		6						
SDS-CF-10	C-F	1	P-T	8"	B0	P1	42		J-9	44 S&W-13895.19-EP	7	6		6						
SDS-CF-11	C-F	1	T-P	8"	B0		43		J-9	44 S&W-13895.19-EP	7	6		6						
SDS-CF-11A	C-F	1	P-P	8"	B0		43		J-9	44 S&W-13895.19-EP	7	6		6						
SDS-CF-12	C-F	1	P-E	8"	B0		43		J-9	44 S&W-13895.19-EP	7	6		6						
SDS-CF-13	C-F	1	E-P	8"	B0		N/A		J-9	44 S&W-13895.19-EP	7						2	1		
SDS-CF-14	C-F	1	P-E	8"	B0		N/A		J-9	44 S&W-13895.19-EP	7						2	1		

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PIPE.....	CAT..	CNT.	CFIG...	SIZE	S/T....	mat.....	CAL.....	WB1.CAL..	WELD...	DWG ISO.....	VT...	PT	MT	UT0.....	UT45....	UT60....	INT	PER....	RR...	REMARKS.....
SDS-CF-15	C-F	1	E-P	8"	80		N/A		J-9	44 S&W-13095.19-EP	?						2	1		
SDS-CF-15A	C-F	1	P-P	8"	80		43		J-9	44 S&W-13095.19-EP	7	6		6						
SDS-CF-16	C-F	1	P-E	8"	80		43		J-9	44 S&W-13095.19-EP	7	6		6						
SDS-CF-17	C-F	1	E-F	0"	80		43		J-9	44 S&W-13095.19-EP	7	6		6						
SDS-CF-17A	C-F	1	P-P	8"	80		43		J-9	44 S&W-13095.19-EP	7	6		6						
SDS-CF-18	C-F	1	P-E	8"	80		43		J-9	44 S&W-13095.19-EP	7	6		6						
SDS-CF-19	C-F	1	E-P	8"	80		43		J-9	44 S&W-13095.19-EP	7	6		6						
SDS-CF-2	C-F	1	P-P	8"	80	P1	42		J-9	44 S&W-13095.19-EP	7	6		6						
SDS-CF-20	C-F	1	P-CAP	8"	80		43		J-9	44 S&W-13095.19-EP	7	6		6						
SDS-CF-3	C-F	1	P-P	8"	80	P1	42		J-9	44 S&W-13095.19-EP	7	6		6						
SDS-CF-4	C-F	1	P-E	8"	80	P1	42		J-9	44 S&W-13095.19-EP	7	6		6						
SDS-CF-5	C-F	1	E-P	8"	80	P1	42		J-9	44 S&W-13095.19-EP	7	6		6						
SDS-CF-6	C-F	1	P-T	8"	80	P1	42		J-9	44 S&W-13095.19-EP	7	6		6						
SDS-CF-7	C-F	1	CAP-P	8"	80	P1	42		J-9	44 S&W-13095.19-EP	7	6		6						
SDS-CF-8	C-F	1	P-P	8"	80	P1	42		J-9	44 S&W-13095.19-EP	7	6		6						
SDS-CF-9	C-F	1	P-P	8"	80	P1	42		J-9	44 S&W-13095.19-EP	7	6		6						
	***	1132																		
***		1132																		

ASME CAT. F-A

COOPER NUCLEAR STATION
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HANGER....	CAT.	CL	DWG	ISOMETRIC.NO.....	MSK.....	BLDG.	ELEV	BS..	ABS.	IAS	STYPE	SI	SFUNCT	HOTSET	COLDSET	SS...	APRC.....	VT....	INT	PER..	REMARKS...
CRD-55N	F-A	1	43	CP-089	SK158N	CONT	916	CC	WB	W	BF						NA	1@	2	BJ,CF	
CRD-EEN	F-A	1	43	CP-089	SK153N	CONT	916	SS	W	W	BF						NA	1@	2	BJ,CF	
CRD-EES	F-A	1	44	CP-089	SK154N	CONT	916	SS	W	W	BF						NA	1@	2	BJ,CF	
CRD-FFN	F-A	1	43	CP-089	SK155N	CONT	916	SS	W	W	BF						NA	1@	2	BJ,CF	
CRD-FFS	F-A	1	44	CP-089	SK156N	CONT	916	SS	W	W	BF						NA	1@	2	BJ,CF	
CSH-17A	F-A	2		2602-2	SK625A	CONT	871	CW	WB	W	SF		INS				WPI	1@	2	BJ,CF	
					SK625B																
CSH-18A	F-A	2		2602-2	1ED855	CONT	882	CF	W	W	BF						WPI	1@	2	BJ,CF	
					2ED855																
					3ED855																
CSH-19A	F-A	2		2602-2	SK629A	CONT	903	CW	WB	W	BF		INS				WPI	1@	2	BJ,CF	
CSH-3	F-A	2		2603-2	1ED855	CONT	861	CF	WB	W	BF	VS	VS				NA	1@	2	BJ,CF	
CSH-6	F-A	2		2603-1	1ED855	CONT	860	CW	WB	W	BF						NA	1@	2	BJ,CF	
CSH-7A	F-A	2		2602-1	1ED855	CONT	885	CW	W	W	BF						WPI	1@	2	BJ,CF	
CSH-9A	F-A	2		2602-1	SK610A	CONT	895	CW	W	W	BF		INS				WPI	1@	2	BJ,CF	
					SK610B																
CSS-12	F-A	2		2603-1	1ED855	CONT	861	CF	B	W	BF						NA	1@	2	BJ,CF	
CSS-16	F-A	2		2602-2	SK615	CONT	922	CW	WB	W	BF		INS				WPI	1@	2	BJ,CF	
MSH-101A	F-A	1		2629-1	SK366A	CONT	897	SS	W	W	BF		INS				WPI	1@	2	BJ,CF	
					SK366B																
MSH-149A	F-A	1		2506-2	SK4628A	CONT	915	CC	WB	W	BF		INS				WPI	1@	2	BJ,CF	
					SK4628B																
MSH-154A	F-A	2		2614-3	SK4634A	CONT	880	CF	WB	W	BF		VS				WPI	1@	2	BJ,CF	
					SK4634B																
					SK4644C																
PSR-1	F-A	1		EP-1A-2-1B-2	BZ-1C-3	CONT	915	CW	WB	W	BF						NA	1@	2	BJ,CF	
PSR-2	F-A	1		EP-1A-2-1B-2	BZ-1B-3	CONT	915	CW	WB	W	BF						NA	1@	2	BJ,CF	
PSR-3	F-A	1		EP-1A-2-1B-2	BZ-1E-4	CONT	912	CW	WB		BF						NA	1@	2	BJ,CF	
PSR-4	F-A	1		EP-1A-2-1B-2	BZ-1F-3	CONT	916	CWF	WB	W	BF						NA	1@	2	BJ,CF	
PSR-5	F-A	1		EP-1A-2-1B-2	BZ-1G-4	CONT	911	CW	WB		BF						NA	1@	2	BJ,CF	
PSR-6	F-A	1		EP-1A-2-1B-2	BZ-1H-1	CONT	905	CWF	WB		BF						NA	1@	2	BJ,CF	
RCH-2A	F-A	2		2621-1	1ED855	CONT	860	CW	B	W	BF						NA	1@	2	BJ,CF	
RCH-3A	F-A	2		2621-1	SK402A	CONT	860	CF	WB		BF		INS				WPI	1@	2	BJ,CF	
RFH-45A	F-A	2		2623-2	SK777A	CONT	881	CW	WB	W	BF		INS				WPI	1@	2	BJ,CF	
					777C																
RFH-7A	F-A	1		2849-4	SK712A	TURB	895	CWC	WB	W	BF		INS				WPI	1@	2	1	
					SK712B																
RFS-33	F-A	2		2849-5	SKS735	TURB	883	CF	WB	W	BF		INS				WPI	1@	2	BJ,CF	
RHH-132	F-A	1		2624-6	SK5154	CONT	959	CF	WB	W	BF		INS				WPI	1@	2	BJ,CF	
					SK5159A																
RHH-133	F-A	1		2624-6	SK516@	CONT	959	CF	WB	W	BF		INS				WPI	1@	2	BJ,CF	
					SK5160A																
RHH-135	F-A	1		2624-6	SK5162	CONT	958	CF	WB	W	SF		INS				WPI	1@	2	BJ,CF	
RHH-137	F-A	1		2624-6	SK5164	CONT	924	CF	WB	W	BF		INS				WBPI	1@	2	BJ,CF	
					SK5165																

HANGER....	CAT.	CL	DWG	ISOMETRIC.NO.....	MSK.....	BLDG.	ELEV	RS..	ABS.	IAS	STYPE	SD	SFUNCT	HOTSET	COLDSET	SS...	AFRC.....	VT....	INT	PER..	REMARKS...
RHR-15	F-A	2		2626-2	1E0855	CONT	861	CF	WB	W	BF						NA	1R	2	RJ,CF	
RHR-16A	F-A	2		2626-2	1E0855	CONT	861	CF	WB	W	BF						NA	1R	2	RJ,CF	
RHR-22A	F-A	2		2624-1	SK125A	CONT	879	CW	WB	W	BF		INS				WPI	1R	2	RJ,CF	
					SK125B																
RHR-25A	F-A	2		2624-1	SK126B	CONT	903	CF	B		BF	VS	INS				WPI	1R	2	RJ,CF	
RHR-3A	F-A	2		2626-1	1E0855	CONT	861	CF	WB	W	BF						NA	1R	2	RJ,CF	
					2E0855																
RHR-41A	F-A	2		2624-3C	SK153	CONT	871	CW	WB		BF		INS				WPI	1R	2	RJ,CF	
					SK153A																
RHR-44A	F-A	1		2624-3B	SK159A	CONT	943	CW	WB	W	BF		INS				WPI	1R	2	RJ,CF	
					SK159B																
					SK159C																
RHR-46	F-A	1		2624-3B	SK163	CONT	927	CC	WB	W	BF		INS				WPI	1R	2	1	
					SK165																
RHR-46A	F-A	1		2624-3B	SK163A	CONT	912	CW	WB	W	BF		INS				WPI	1R	2	1	
					SK163B																
RHR-47A	F-A	2		2624-3B	SK166A	CONT	913	CW	WB	W	BF		INS				WPI	1R	2	RJ,CF	
					SK166B																
					SK166C																
RHR-5A	F-A	2		2626-1	1E0855	CONT	861	CWC	WB	W	BF						NA	1R	2	RJ,CF	
RHR-61	F-A	1		2624-3A	SK183	CONT	927	CWC	WB	W	BF		INS				WPI	1R	2	RJ,CF	
					SK183A																
					SK184																
RHR-94A	F-A	2		2624-2	SK5118A	CONT	921	CF	WB	W	BF		INS				WPI	1V	2	RJ,CF	
					SK384N																
RHS-58	F-A	1		2624-1	SK5151	CONT	943	CW	WB	W	BF		INS				WPI	1R	2	RJ,CF	
RHS-63	F-A	1		2625-2	SK516R	CONT	883	CF	WB	W	BF		INS				WPI	1R	2	RJ,CF	
RHS-64	F-A	1		2624-4	1E0855	CONT	882	CW	WB	W	BF						NA	1R	2	RJ,CF	
					2E0855																
SSH-107	F-A	1	43	CF-009	CRD-FFN	CONT	916	SS	W	W	BF						NA	1V	2	RJ,CF	
					SK-155N																

ASME CAT. F-B

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HANGER....	CAT.	CL	DWG	ISOMETRIC.NO.....	HSK.....	BLDG.	ELEV	BS..	ABS.	IAS	STYPE	SB	SFUNCT	HOTSET	COLDSET	SS...	APPR.....	VT....	INT	PER..	REMARKS...
BSH-91	F-B	2		2601-1	SK954	CONT	873	CC	WB	W	RB			441	446		WBPI	1#	2	BJ,CF	
BSS-7#	F-B	1	36	2601-4	SK954C 1E0855	CONT	877	CW	WB	W	RB						WBPI	1#	2	BJ,CF	
CRD-1N	F-B	1	43	CP-##9	2E0855 SK168N	CONT	916	CW	B		RB						BPI	1#	2	BJ,CF	
CRD-1S	F-B	1	44	CP-##9	SK169N	CONT	916	CC	WB		RB						BPI	1#	2	BJ,CF	
CRD-2S	F-B	1	44	CP-##9	SK170N	CONT	916	CC	WB		RB						BPI	1#	2	BJ,CF	
CRD-3N	F-B	1	43	CP-##9	SK161N	CONT	916	CC	WB		RB						BPI	1#	2	BJ,CF	
CRD-3S	F-B	1	44	CP-##9	SK171N	CONT	916	CC	WB		RB						BPI	1#	2	BJ,CF	
CRD-4N	F-B	1	43	CP-##9	SK163N	CONT	916	CC	WB		RB						BPI	1#	2	BJ,CF	
CRD-4S	F-B	1	44	CP-##9	SK172N	CONT	916	CC	WB		RB						BPI	1#	2	BJ,CF	
CRD-5N	F-B	1	43	CP-##9	SK164N	CONT	916	CC	WB		RB						BPI	1#	2	BJ,CF	
CRD-5S	F-B	1	44	CP-##9	SK173N		916	CC	WB	W	RB						BPI	1#	2	BJ,CF	
CRD-6N	F-B	1	43	CP-##9	SK165N	CONT	916	CW	B		RB						BPI	1#	2	BJ,CF	
CRD-6S	F-B	1	44	CP-##9	SK174N		916	CC	WB	W	RB						BPI	1#	2	BJ,CF	
CRD-7N	F-B	1	43	CP-##9	SK166N	CONT	916	CC	WB		RB						BPI	1#	2	BJ,CF	
CRD-7S	F-B	1	44	CP-##9	SK175N		916	CC	WB	W	RB						BPI	1#	2	BJ,CF	
CRD-8N	F-B	1	43	CP-##9	SK167N	CONT	916	CW	B		RB						BPI	1#	2	BJ,CF	
CRD-8S	F-B	1	44	CP-##9	CRD-83		916	CC	WB	W	RB						BPI	1#	2	BJ,CF	
CRD-9N	F-B	1	43	CP-##9	SK168N	CONT	916	CW	B	W	RB						BPI	1#	2	BJ,CF	
CRD-9S	F-B	1	44	CP-##9	SK176N		916	CC	WB	W	RB						BPI	1#	2	BJ,CF	
CRD-88S	F-B	1	44	CP-##9	SK148N	CONT	916	CW	B	B	RB						BPI	1#	2	BJ,CF	
CRD-CC-1N	F-B	1		CP-##9	SK149N	CONT	916	SS	W		RB						BPI	1#	2	BJ,CF	
CRD-CC-1S	F-B	1	44	CP-##9	SK151N	CONT	916	SS	W		RB						BPI	1#	2	BJ,CF	
CRD-CC-3N	F-B	1	43	CP-##9	SK150N	CONT	916	SS	W		RB						BPI	1#	2	BJ,CF	
CRD-CC-3S	F-B	1	44	CP-##9	SK152N	CONT	916	SS	W		RB						BPI	1#	2	BJ,CF	
CRD-HHS	F-B	1	44	CP-##9	SK157N		916	SS	W	B	RB						BPI	1#	2	BJ,CF	

HANGER....	CAT.	CL	DWG	ISOMETRIC.NO.....	HGR.....	BLDG.	ELEV	RS..	ABS.	IAG	STYPE	SI	SFUNCT	HOTSET	COLDSET	SS...	AFRC.....	VT....	INT	PER..	REMARKS...
CRD-4N	F-B	1	43	CP-889	SK159N	CONT	916	CW	WE		RB						BPI	10	2	BJ,CF	
CS-VE1	F-B	2		2603-4	1ED855	CONT	896	CW	WB	W	SWB						NA	10	2	BJ,CF	
CSA-W4-1	F-B	2		2603-4	KE-110.01	CONT	877	TRS	W	W	RB						WPI	10	2	BJ,CF	
CSB-W4-1	F-B	2		2603-3	KE-110-01	CONT	877	TRS	W	W	RB						WPI	10	2	BJ,CF	
CSH-11	F-B	2		2602-1	SK613	CONT	927	CB	WB	W	RB						WBPI	10	2	BJ,CF	
					SK613A																
CSH-11A	F-B	2		2602-1	1ED855	CONT	924	CW	WB		RB						BPI	10	2	BJ,CF	
CSH-13	F-B	2		2602-1	SK617	CONT	946	CW	WB	W	RB						BPI	10	2	BJ,CF	
					SK619																
CSH-13A	F-B	2		2602-1	SK618	CONT	946	CW	WB	W	SWB						BPI	10	2	BJ,CF	
					SK618A																
CSH-17	F-B	2		2602-2	1ED855	CONT	871	FC	WB		SWB						BPI	10	2	BJ,CF	
CSH-1A	F-B	2		2603-2	1ED855	CONT	861	CF	WB		SWB						BPI	10	2	BJ,CF	
CSH-20	F-B	2		2602-2	SK631	CONT	919	CC	WB		RB						BPI	10	2	BJ,CF	
CSH-20A	F-B	2		2602-2	1ED855	CONT	884	CW	WB		SWB						BPI	10	2	BJ,CF	
					2ED855																
CSH-21	F-B	2		2602-2	SK633	CONT	919	CC	WB		RB						BPI	10	2	BJ,CF	
					SK633C																
					SK633B																
CSH-21A	F-B	2		2602-2	SK633A	CONT	919	CW	WB		RB						BPI	10	2	BJ,CF	
					SK633B																
CSH-28	F-B	2		2603-3	1ED855	CONT	894	CW	WB		SWB						BPI	10	2	BJ,CF	
CSH-29A	F-B	2		2603-3	1ED855	CONT	880	CW	WB		RB						BPI	10	2	BJ,CF	
					2ED855																
CSH-2A	F-B	2		2603-2	SK601A	CONT	861	SS	B	B	RB		INS				WPI	10	2	BJ,CF	
					SK601B																
CSH-33	F-B	2		2-03-4	1ED855	CONT	897	CW	WB	W	RB	VS	VS				BPI	10	2	BJ,CF	
CSH-34	F-B	2		2603-4	1ED855	CONT	898	CW	WB		RB	VS	VS				NA	10	2	BJ,CF	
CSH-35A	F-B	2		2603-4	1ED855	CONT	879	SS	W	W	SWB						BPI	10	2	BJ,CF	
					2ED855																
					ED855.2																
CSH-5	F-B	2		2603-1	1ED855	CONT	862	CF	W		SWB						BPI	10	2	BJ,CF	
					2ED855																
CSH-6A	F-B	2		2603-1	SK605A	CONT	868	CF	B		RB		SS				WPI	10	2	BJ,CF	
CSG-13	F-B	2		2603-1	1ED855	CONT	962	CWF	W	W	SB						WPI	10	2	BJ,CF	
					2ED855																
CSG-14A	F-B	2		2603-2	1ED855	CONT	861	CF	W	W	RB						WPI	10	2	BJ,CF	
CSG-15	F-B	2		2602-2	SK614	CONT	919	CW	WB		SWB						BPI	10	2	BJ,CF	
CSG-17	F-B	2		2603-4	1ED855	CONT	897	CW	WB	W	SWB						WBPI	10	2	BJ,CF	
					2ED855																
CJH-92	F-B	2		2605-4	SK2316	CONT	948	CW	WB		SWB						WBPI	10	2	BJ,CF	
					SK2327																
HPH-10	F-B	2		2611.6	1ED855	CONT	861	CF	WB	W	CR						WPI	10	2	BJ,CF	

HANGER....	CAT.	CL	DWG	ISOMETRIC.NO.....	HSK.....	BLDG.	ELEV	SS..	ABS.	IAS	STYPE	SD	SFUNCT	HOTSET	COLDSET	SS...	APRC.....	VT....	INT	PER..	REMARKS...
HPH-10A	F-B	2		2611.0	SK512A	CONT	861	CF	WB	W	RB						WPI	10	2	BJ,CF	
					SK512B																
HPH-11	F-B	2		2611.6	1E0855	CONT	861	CF	B	W	RB						WPI	10	2	BJ,CF	
HPH-6	F-B	2		2689-1	SK506	CONT	865	CF	WB	W	RB						WPI	10	2	BJ,CF	
					SK506A																
					SK506B																
HPH-6A	F-B	2		2689-1	SK507	CONT	877	CW	WB	B	RB						BPI	10	2	BJ,CF	
HPH-6B	F-B	2		2689-1	SK507A	CONT	877	CC	WB	B	RB						BPI	10	2	BJ,CF	
					SK507B																
HPH-7A	F-B	2		2689-1	SK508C	CONT	872	CC	WB	B	RB						BPI	10	2	BJ,CF	
					SK1824																
HPH-8	F-B	2		2611-6	1E0855	CONT	861	CF	WB	B	RB						WPI	10	2	BJ,CF	
HPH-9	F-B	2		2611-6	1E0855	CONT	861	CF	WB	B	RB						WPI	10	2	BJ,CF	
HPS-17	F-B	2		2685-1	SK517			CW	WB	B	SWB						BPI	10	2	BJ,CF	
MSH-101	F-B	1		2629-1	SK366	CONT	894	SS	W		SWB						BPI	10	2	BJ,CF	
MSH-103	F-B	1		2629-1	SK369	CONT	923	CC	WB	B	SWB						BPI	10	2	BJ,CF	
					SK379A																
MSH-103A	F-B	1		2629-1	SK369A	CONT	923	CW	WB	B	SWB						WBPI	10	2	BJ,CF	
					SK369B																
					SK369C																
MSH-107	F-B	1		2629-1	SK37o	CONT	897	SS	W		RB						BPI	10	2	BJ,CF	
MSH-107A	F-B	1		2629-1	SK376A	CONT	897	SS	W		SWB						BPI	10	2	BJ,CF	
MSH-111	F-B	1		2629-1	SK378	CONT	923	CC	WB		SWB						BPI	10	2	BJ,CF	
					SK380																
MSH-117	F-B	1		2629-1	SK387	CONT	881	CW	WB		RB						BPI	10	2	BJ,CF	
MSH-138	F-B	1		2614-2	SK4613	CONT	934	CW	WB		RB						BPI	10	2	BJ,CF	
					SK4614																
MSH-139	F-B	1		2614-2	SK4616	CONT	946	CW	WB		RB						WBPI	10	2	BJ,CF	
					SK4616A																
					SK4615																
MSH-156	F-B	2		2614-3	1E0855	CONT	938	CC	WB	W	RB						BPI	10	2	BJ,CF	
MSH-157	F-B	2		2614-3	SK4640	CONT	888	CW	WB		RB						BPI	10	2	BJ,CF	
					SK4641																
MSH-157A	F-B	2		2614-3	1E0855	CONT	888	CW	WB	W	RB						BPI	10	2	BJ,CF	
MSS-62	F-B	1		2586-2	SK5261	CONT	920	CW	WB	W	SWB						BPI	10	2	BJ,CF	
PSA-1	F-B	1		EP-1A-2-1-2	SS-17-1	CONT	906	CWF	WB	W	RB						WBPI	10	2	BJ,CF	
PSRH-1	F-B	1		EP-1A-2-18-2	B2-1K-1	CONT	916	CC	W		RB						BPI	10	2	BJ,CF	
PVH-107	F-B	1		RCD-755-2	1E0855	CONT	897	SS	W		RBT						BPI	10	2	BJ,CF	
PVH-108	F-B	1		RCD-755-2	1E0855	CONT	897	SS	W	W	RB						WBPI	10	2	BJ,CF	
PVH-109	F-B	1		RCD-755-2	1E0855	CONT	897	SS	W	W	RB						WBPI	10	2	BJ,CF	
					2E0855																
PVH-110	F-B	1		RCD-755-2	1E0855	CONT	897	SS	W	W	RBT						WBPI	10	2	BJ,CF	
					2E0855																
PVS-186A	F-B	1		RCD-755-2	SK512RSBH	CONT	897	SS	W	WB	SWB						BPI	10	2	BJ,CF	
					SK512RSBHA																
PVS-256A	F-B	1		RCD755.2	1E0855	CONT	897	CW	WB	WB	SWB						WPI	10	2	BJ,CF	
RCH-2	F-B	2		2621-1	1E0855	CONT	868	CW	WB		SWB						BPI	10	2	BJ,CF	
RCH-3	F-B	2		2621-1	1E0855	CONT	868	CW	WB		SWB						BPI	10	2	BJ,CF	
RCH-32	F-B	2		2621-2	SK437	CONT	893	SS	W		RB						BPI	10	2	BJ,CF	
RCH-32A	F-B	2		2621-2	SK364A	CONT	893	CW	WB		RB						BPI	10	2	BJ,CF	

HANGER....	CAT.	CL	DWG	ISOMETRIC NO.....	HSK.....	BLDG.	ELEV	BS..	ABS.	IAS	STYPE	SD	SFUNCT	HOTSET	COLDSET	SS...	APRC.....	VT....	INT	FER..	REMARKS...
RCH-33	F-B	2		2621-2	1ED855	CONT	893	CW	B	W	RB						WBPI	10	2	BJ,CF	
					2ED855																
RCH-34	F-B	2		2621-2	1ED855	CONT	893	CC	B		SWB						BPI	10	2	BJ,CF	
RCH-4	F-B	2		2621-1	1ED855	CONT	860	CF	WB	W	SWB						BPI	10	2	BJ,CF	
RCH-5	F-B	2		2621-1	1ED855	CONT	860	CF	WB		RB		DWS				WPI	10	2	BJ,CF	
RCH-5A	F-B	2		2621-1	SK4048	CONT	867	CW	WB		SWB						BPI	10	2	BJ,CF	
RCH-6A	F-B	2		2621-1	SK4068	CONT	874	CW	WB		SWB						BPI	10	2	BJ,CF	
RCH-7	F-B	2		2621-1	SK408	CONT	877	CC	B		RB						BPI	10	2	BJ,CF	
RFH-12	F-B	1		2849-4	SK722	TURB	895	CW	WB	W	RB		INS				WPI	10	2	1	
					SK723																
RFH-12A	F-B	1		2849-4	SK722A	TURB	895	CW	CB	W	RB		INS				WPI	10	2	1	
					SK722B																
RFH-41	F-B	2		2623-2	SK771	CONT	862	CF	WB	W	RB						WPI	10	2	BJ,CF	
					SK771A																
					SK771B																
					SK771C																
					SK771D																
					SK3074																
RFH-61	F-B	1		2589-2	SK796	DW	921	SS	W		SWB						BPI	10	2	BJ,CF	
RFH-68	F-B	1		2569-1	SK5683	DW	921	SS	W		SWB						BPI	10	2	1	
RFH-69	F-B	1		2589-1	SK5684	DW	920	SS	W	W	RB		DW				WBPI	10	2	1	
					SK5684A																
RFH-7	F-B	1		2849-4	SK712	DW	895	CF	WB		RB		DWS				WPI	10	2	1	
RFH-8	F-B	1		2849-4	SK714	TURB	895	CC	WB		RB						BPI	10	2	1	
RFH-9	F-B	1		2849-4	SK716	TURB	895	CC	WB		RB						BPI	10	2	1	
RHH-112	F-B	1		2626-3	1ED855	CONT	884	CW	WB		SWB						BPI	10	2	BJ,CF	
RHH-113	F-B	1		2626-3	1ED855	CONT	891	CW	WB		SWB						BPI	10	2	BJ,CF	
RHH-119A	F-B	1		2624-3A	SK5143	CONT	913	CW	WB	W	RB						BPI	10	2	BJ,CF	
					SK5144																
RHH-17A	F-B	1		2623-4	1ED855	CONT	873	CW	WB		SWB						BPI	10	2	BJ,CF	
					2ED855																
RHH-18	F-B	2		2626-2	1ED855	CONT	86	CF	WB		RB		DWS				WPI	10	2	BJ,CF	
RHH-18A	F-B	2		2626-2	1ED855	CONT	861	CWF	WB	W	RB						WBPI	10	2	BJ,CF	
					2ED855																
					3ED855																
RHH-19	F-B	2		2626-2	1ED855	CONT	861	CF	WB		RB		DWS				WBPI	13	2	BJ,CF	
RHH-1A	F-B	2		2625-2	1ED855	CONT	861	CWF	WB	W	RB						BPI	10	2	BJ,CF	
RHH-2	F-B	2		2626-1	SK102	CONT	861	CF	WB	W	RB						WPI	10	2	BJ,CF	
					SK102A																
					SK5136A																
RHH-24A	F-B	2		2624-1	SK127A	CONT	897	CW	WB		RB						WPI	10	2	BJ,CF	
					SK127B																
					SK127C																
					SK127D																
					SK127E																
RHH-27B	F-B	1		2624-1	SK1319	CONT	944	CW	WB		RB						BPI	10	2	BJ,CF	
					SK1310																
RHH-2A	F-B	2		2626-1	1ED857	CONT	861	CF	WB		RB						NA	10	2	BJ,CF	
RHH-4	F-B	2		2625-1	1ED857	CONT	861	CWF	WB		SWB						BPI	10	2	BJ,CF	

HANGER....	CAT.	CL	DWG	ISOMETRIC.NO.....	MSK.....	BLDG.	ELEV	BS..	ABS.	IAS	STYPE	SD	SFUNCT	HOTSET	COLDSET	SG...	APRC.....	VT....	INT	PER..	REMARKS...
					2ED8S5																
RHH-41	F-B	2	2624-3C		SK152	CONT	897	CW	WB		RB						WPI	1#	2	BJ,CF	
					SK152A																
					SK152B																
RHH-43A	F-B	1	2624-3B		SK157A	CONT	940	CW	WB		SWB	HS					BPI	1#	2	BJ,CF	
RHH-44	F-B	1	2625-1		1ED8S5	CONT	867	CW	WB		SWB						BPI	1#	2	BJ,CF	
RHH-48	F-B	1	2625-1		1ED8S5	CONT	887	CW	WB	WB	RB						BPI	1#	2	BJ,CF	
RHH-5	F-B	2	2626-1		SK1#5	CONT	861	CF	WB		RB						WPI	1#	2	BJ,CF	
					8K321N																
RHH-52A	F-B	1	2624-3B		SK173A	CONT	895	CW	WB	W	RB	HS					BPI	1#	2	BJ,CF	
					SK173B																
RHH-52B	F-B	1	2624-3B		SK173C	CONT	895	CW	WB		SWB	HS					BPI	1#	2	BJ,CF	
					SK173D																
RHH-53A	F-B	1	2625-1		SK164A	CONT	899	CW	WB		SWB						BPI	1#	2	BJ,CF	
					SK164B																
RHH-54	F-B	1	2624-3A		SK175	CONT	892	CC	WB		RB	VS					WBPI	1#	2	BJ,CF	
					SK175A																
RHH-56A	F-B	1	2624-3A		SK177A	CONT	894	CW	WB		SWB	HS					BPI	1#	2	BJ,CF	
					SK177B																
RHH-56B	F-B	1	2624-3A		SK177B	CONT	894	CW	WB		SWB	HS					BPI	1#	2	BJ,CF	
					SK177C																
RHH-6	F-B	2	2626-1		1ED8S5	CONT	861	CF	WB	W	RB	DWS					WPI	1#	2	BJ,CF	
RHH-64	F-B	2	2624-5		1ED8S5	CONT	895	CWF	WB	W	RB						WBPI	1#	2	BJ,CF	
					2ED8S5																
					3ED8S5																
					4ED8S5																
					5ED8S5																
RHH-64A	F-B	1	2624-5		1ED8S5	CONT	883	CW	WB	W	RB	HS					BPI	1#	2	BJ,CF	
					2ED8S5																
RHH-64B	F-B	1	2624-4		1ED8S5	CONT	884	CW	WB	W	RB						BPI	1#	2	BJ,CF	
RHH-85	F-B	1	2624-4		1ED8S5	CONT	884	CW	WB	W	RB						BPI	1#	2	BJ,CF	
RHH-86	F-B	1	2624-4		1ED8S5	CONT	891	CW	WB	W	SWB						BPI	1#	2	BJ,CF	
RHH-93	F-B	2	2624-2		1ED8S5	CONT	903	CF	WB	W	RB						WBPI	1#	2	BJ,CF	
					2ED8S5																
					3ED8S5																
					4ED8S5																
					5ED8S5																
RHH-93A	F-B	2	2624-2		1ED8S5	CONT	895	CW	WB		SWB						WBPI	1#	2	BJ,CF	
					2ED8S5																
					3ED8S5																
RHH-95A	F-B	1	2624-2		1ED8S5	CONT	865	CW	WB	W	RB	HS					BPI	1#	2	BJ,CF	
					2ED8S5																
RHH-96A	F-B	2	2624-2		1ED8S5	CONT	907	CWF	WB		SWB						BPI	1#	2	BJ,CF	
					2ED8S5																
RHH-98	F-B	1	2625-1		1ED8S5	CONT	893	CW	WB		SWB						BPI	1#	2	BJ,CF	
RHS-58RSP	F-B	1	2624-3		SKS1S1B1	CONT	891	CW	WB		RB						BPI	1#	2	BJ,CF	
RHS-60	F-B	1	2625-2		1ED8S5	CONT	885	CF	WB		SWB						BPI	1#	2	BJ,CF	
					2ED8S5																
RHS-61	F-B	1	2625-2		SK5166	CONT	883	CF	WB		RB						WPI	1#	2	BJ,CF	
RHS-74	F-B	1	2625-1		SKS164	CONT	867	CF	WB		SWB					6	BPI	1#	2	BJ,CF	PSA-1#

HANGER....	CAT.	CL	DWG	ISOMETRIC NO.....	HSK.....	BLDG.	ELEV	BS..	ABS.	IAS	STYPE	SD	SFUNCT	HOTSET	COLDSET	SE...	APRC.....	VT....	INT	PER..	REMARKS...
RHS-75	F-B	1		2b25-4	SKS185	CONT	897	CW	WB		SWB						BPI	1R	2	R7,CF	
RHS-81	F-B	1		2b25-1	SKS192	CONT	883	CW	WB		SWB						WPI	1R	2	R7,CF	
RR-SB1-A	F-B	1			RR-SB1-A																IMPELL HSK
RR-SB1-B	F-B	1			RR-SB1-B																IMPELL HSK
SDH-105	F-B	1	43	CP-009	CRD-3N SK-162N	CONT		CC	WB		RB						BPI	1R	2	R7,CF	
SDH-112	F-B	1	43	CP-009	CRD-7N SK-166N	CONT	916	CC	WB		RB						BPI	1R	2	R7,CF	

ASME CAT. F-C

COOPER NUCLEAR STATION

INSERVICE INSPECTION PROGRAM-REV. 3

17 MAY 1987

HANGER....	CAT.	CL	DWG	ISOMETRIC NO.....	HSK.....	BLDG.	ELEV	BS..	ABS.	IAG	STYPE	SD	SFUNCT	HOTSET	COLDSET	SS...	APRC.....	VT....	INT	PER..	REMARKS...
BSH-107	F-C	1	38	2A01-4	SK975	CONT	877	CW	WB		VS			162	175		NA	1@	2	BJ,CF	
					SK976																
BSH-108	F-C	1	36	2A01-4	SK-977	CONT	877	SS	W		VS			52@	534		BPI	1@	2	BJ,CF	
BSH-109	F-C	1	38	2A01-4	SK978	CONT	877	CW	WB	W	VS			52@	534		BPI	1@	2	BJ,CF	
BSH-92	F-C	2		2A01-1	SK956	CONT	877	CW	WB	W	VS		INS	2584	2529		WPI	1@	2	BJ,CF	
BSS-100A	F-C	2		2A01-1	E0855.1	CONT	87@	CW	WB		HS					6	BPI	1@,11	2	BJ,CF	
CS-H39	F-C	1			CS-H39																IMPELL HSK
CS-H41	F-C	1			CS-H41																IMPELL HSK
CS-H42	F-C	1			CS-H42																IMPELL HSK
CS-H44	F-C	1			CS-H44																IMPELL HSK
CSH-1	F-C	2		2A01-2	SK6@@	CONT	861	CF	B		VS	VS	VS	2258	223@		WBPI	1@	2	BJ,CF	
					SK6@@A																
CSH-1@	F-C	2		2A02-1	SK612	CONT	92@	CR	WB	WB	VST	VS	VS.INS	3638	3728		BPI	1@	2	BJ,CF	
CSH-14	F-C	2		2A02-1	SK62@	CONT	946	CW	WB	B	CS						BPI	1@	2	BJ,CF	
CSH-16	F-C	2		2A02-2	1E0855	CONT	86[	CF	B		VS	VS	VS	3196	3271		BPI	1@	2	BJ,CF	
CSH-18	F-C	2		2A02-2	SK627	CONT	897	CC	B		VS						BPI	1@	2	BJ,CF	
					SK626																
CSH-19	F-C	2		2A02-2	SK629	CONT	919	CC	WB		VS	VS	VS	3138	3188		BPI	1@	2	BJ,CF	
CSH-2	F-C	2		2A03-2	SK6@1	CONT	861	CF	B		VS	VS	VS	2217	2273		WPI	1@	2	BJ,CF	
CSH-22	F-C	2		2A02-2	SK634	CONT	919	CW	WB	W	VS	VS	VS	1762	1826		BPI	1@	2	BJ,CF	
					SK635																
CSH-23	F-C	2		2A02-2	SK636	CONT	946	CR	B		CS						BPI	1@	[	BJ,CF	
CSH-24	F-C	2		2A02-2	SK638	CONT	946	CC	B		CS						BPI	1@	2	BJ,CF	
CSH-26	F-C	2		2A03-3	SK642	CONT	894	CC	B		VS			2988	2996		WBPI	1@	2	BJ,CF	
					SK642A																
CSH-27	F-C	2		2A03-3	1E0855	CONT	894	CC	B		VS			1581	1564		BPI	1@	2	BJ,CF	
CSH-29	F-C	2		2A04-3	SK648	CONT	877	SS	W		VS			1567	161@		BPI	1@	2	BJ,CF	
CSH-31	F-C	2		2A03-4	1E0835	CONT	897	CC	WB		VS	VS	VS	2485	2483		BPI	1@	2	BJ,CF	
CSH-35	F-C	2		2A03-4	SK65@	CONT	877	SS	W		VS	VS	VS	1554	1592		BPI	1@	2	BJ,CF	
CSH-4	F-C	2		2A03-1	SK6@@A	CONT	862	CF	B	W	VS	VS	VS	2@1@	2735		WPI	1@	2	BJ,CF	
					SK6@3																
CSH-43	F-C	1		2502-1	SK67[	CONT	946	CR	W	B	CS						BPI	1@	2	BJ,CF	
					SK674																
CSH-45	F-C	1		2502-1	SK672	CONT	946	CC	WB		CS						BPI	1@	2	BJ,CF	
					SK178A																
CSH-7	F-C	2		2A02-1	1E0855	CONT	862	CF	WB		VS			2913	285[		WPI	1@	2	BJ,CF	

HANGER....	CAT.	CL	DWG	ISOMETRIC NO.....	HGR.....	BLDG.	ELEV	BS..	ABS.	IAG	STYPE	SD	SFUNCT	HOTSET	COLDSET	SS...	APRC.....	VT....	INT	PER..	REMARKS...
CSH-8	F-C	2	2602-1		1E0855	CONT	895	CW	W	W	VS			3966	4588		BPI	10	2	BJ,CF	
CSS-1	F-C	2	2602-1		SK604	CONT	918	CW	WB	W	HS					6	BPI	10,11	2	BJ,CF	
					1E0855																
CSS-10	F-C	2	2602-2		SK607	CONT	946	CW	W	W	HS					5	BPI	10,11	2	BJ,CF	
					SK6094																
CSS-11	F-C	2	2602-2		SK610	CONT	946	CW	W	W	HS					5	BPI	10,11	2	BJ,CF	
CSS-2	F-C	2	2602-1		SK601	CONT	929	CC	WB	WB	HS					5	BPI	10,11	2	BJ,CF	
CSS-3	F-C	2	2602-1		SK602	CONT	946	CW	WB	B	HS					5	BPI	10,11	2	BJ,CF	
CSS-6	F-C	2	2603-3		1E0855	CONT	894	CW	WB	WB	HS						BPI	10,11	2	BJ,CF	
					2E0855																
CSS-7	F-C	2	2603-3		1E0855	CONT	894	CB	WB	B	HS						BPI	10,11	2	BJ,CF	
CSVE-4	F-C	2	2623-3		SKSVE-4	CONT	894	CW	WB	W	VE					56	WHGR	10	2	BJ,CF	
CSVE-7	F-C	2	2603-3		1E0855	CONT	894	CW	WB	B	HS						BPI	10,11	2	BJ,CF	
CU-S3AX	F-C	1			CU-S3AX														2	2	IMPELL HGR
CU-S3AZ	F-C	1			CU-S3AZ														2	2	IMPELL HGR
CUH-48	F-C	1	2503-1		SK485S	DW	919	SS	W		VS		(NS	467	454		WPI	10	2	1	
					1E0855																
CUH-49	F-C	1	2503-1		SK485A	DW	939	DW	W		VS			1293	1348		WBPI	10	2	1	
					SK485AA																
					SK485T																
					1E0855																
					2E0855																
CUH-5R	F-C	1	2503-1		SK485B	CONT	945	CW	WB	B	CST						WPC	10	2	BJ,CF	
					SK485R																
					SK485RA																
CUH-91	F-C	2	2605-4		SK2314	CONT	945	CC	WB	B	VST	VS	VS	670	717		WPI	10	2	BJ,CF	
					SK2315																
CUH-93	F-C	2	2605-4		SK2318	CONT	948	SS	W	W	VS			283	287		WPI	10	2	BJ,CF	
					SK2315																
CWB-BK1-6	F-C	1	2509-1		SK5610													10	2	BJ,CF	
HA-1	F-C	1	GE731E611		SK102	DW		SS	W		CST						WBPI	10	2	BJ,CF	
					SK102A																
HA-2	F-C	1	GE731E611		SK110	DW		SS	W		VS						NA	10	2	1	
					SK104																
					SK104A																
HA-3	F-C	1	GE731E611		SK107A	DW		SS	W	W	VS						NA	10	2	1	
					SK107																
					SK108																
HB-1	F-C	1	GE731E611		SK103	DW		SS	W		CST						WBPI	10	2	1	
HB-2	F-C	1			SK105	DW		SS	W		VS						NA	10	2	BJ,CF	
					SK105A																
					SK110																
HB-3	F-C	1	GE731E611		SK106			SS	W		VS						NA	10	2	1	
					SK106A																
					SK110																
HC-1	F-C	1			SK103	DW		SS	W		CST						WBPI	10	2	BJ,CF	
HC-2	F-C	1	GE731E611		SK105	DW		SS	W		VS						NA	10	2	BJ,CF	
					SK105A																
HC-3	F-C	1	GE731E611		SK106	DW		SS	W		VS						NA	10	2	1	

HANGER....	CAT.	CL	DWG	ISOMETRIC NO.....	HSK.....	BLDG.	ELEV	BS..	ABS.	IAS	STYPE	SD	SFUNCT	HOTSET	COLDSET	SS...	APRC.....	VT....	INT	PER..	REMARKS..
					3K186A																
HD-1	F-C	1		GE731E611	SK102	DW		SS	W		CS						WBPI	10	2	BJ,CF	
					SK102A																
HD-2	F-C	1		GE731E611	SK110	DW		SS	W		VS						WPI	10	2	1	
					3K104																
					SK1044																
HPCI.S-001	F-C	2		2601-1	1E0855	CONT	873	CW	WB		MS					6	BPI	10,11	2	BJ,CF	10KIP
HPCI.S001	F-C	2		2601-1														10	2	BJ,CF	
HPEI-IH.1	F-C	2		KAISER.101														10	2	BJ,CF	
HPEI-IH.2	F-C	2																10	2	BJ,CF	
MAN-274	F-C	1																10	2	BJ,CF	
MSA-BK1-28	F-C	1		GE731E611				SS	W	W	VS			3672	4672		NA	10	2	BJ,CF	
MSC-BK1-6	F-C	1		GE731E611				SS	W		CST						WBPI	10	2	BJ,CF	
MSH-100	F-C	1		2629-1	3K365	CONT	894	SS	WB	W	VS			1783	2008		BPI	10	2	BJ,CF	
					SK3658																
MSH-102	F-C	1		2629-1	SK3674	CONT	923	CW	WB	W	VS			1652	1503		BPI	10	2	BJ,CF	
					3K367																
MSH-104	F-C	1		2629-1	SK371	CONT	910	CWF	WB	WB	CS						BPI	10	2	BJ,CF	
					SK372																
MSH-105	F-C	1		2629-1	SK373	CONT	888	SS	WB	B	CS						BPI	10	2	BJ,CF	
					SK374																
MSH-106	F-C	1		2629-1	SK375	CONT	817	SS	W	B	CST		INS				WBPI	10	2	BJ,CF	
					SK375A																
					SK375B																
					SK375C																
MSH-108	F-C	1		2629-1	SK377	CONT	897	SS	W		VS			868	792		BPI	10	2	BJ,CF	
					SK377A																
					SK377B																
MSH-109	F-C	1		2629-1	SK378	CONT	906	CF	WB		VS			1815	1839		WPI	10	2	BJ,CF	
					SK378A																
MSH-110	F-C	1		2629-1	SK379	CONT	923	CW	WB	W	VS			1659	1511		BPI	10	2	BJ,CF	
					SK379A																
MSH-112	F-C	1		2629-1	SK381	CONT	874	CC	WB		VS			1070	1135		WBPI	10	2	BJ,CF	
MSH-113	F-C	1		2629-1	SK382	CONT	910	CW	WB		VS		INS	1164	1136		WBPI	10	2	BJ,CF	
					SK382A																
MSH-114	F-C	1		2629-1	SK383	CONT	894	CW	WB	W	CS						WBPI	10	2	BJ,CF	
					SK384																
MSH-115	F-C	1		2629-1	SK385	CONT	881	CW	WB	W	CS						BPI	10	2	BJ,CF	
					SK3854																
MSH-116	F-C	1		2629-1	SK384	CONT	831	CW	WB		CS						BPI	10	2	BJ,CF	
					SK386																
MSH-118	F-C	2		2614-3	SK368	CONT	864	CF	B		VS			2636	2612		WPI	10	2	BJ,CF	
MSH-120	F-C	2		2614-1	SK390	CONT	873	CC	WB		VS			145	150		BPI	10	2	BJ,CF	
					SK390A																
MSH-121	F-C	2		2614-1	SK391	CONT	875	CW	WB		VST			398	432		WBPI	10	2	BJ,CF	
					SK3918																
					SK3484																
MSH-122	F-C	2		2614-1	SK392	CONT	892	CC	WB		VS			468	537		BPI	10	2	BJ,CF	

HANGER....	CAT.	CL	DWG	ISOMETRIC.NO.....	MSK.....	BLDG.	ELEV	SS..	AXS.	IAS	STYPE	SD	SFUNCT	HOTSET	COLDSET	SS...	AFRC.....	VT....	INT	PER..	REMARKS...
MSH-123	F-C	1		2614-1	SK393 SK393A SK369N	CONT	877	CC	WB		VS			1840	1804		BPI	10	2	BJ,CF	
MSH-132	F-C	1		2586-1	SK4685A 46858	DW	926	SS	W	W	VS			1810	1979		BPI	10	2	BJ,CF	
MSH-133	F-C	1		2586-1	SK4686 SK4686A SK46869	DW	926	SS	W	W	CS						BPI	10	2	BJ,CF	
MSH-134	F-C	1		2586-1	SK4687 SK4687A SK4687B SK4687D	DW	989	SS	W	W	CS						WBPI	10	2	BJ,CF	
MSH-134A	F-C	1		2586-1	SK4687B SK4687C	CONT	986	CF	B	B	VS			6341	6429		WPI	10	2	BJ,CF	
MSH-140	F-C	1		2614-2	SK4617 SK4617A	CONT	934	CW	WB		VS			960	991		BPI	10	2	BJ,CF	
MSH-141	F-C	1		2614-2	SK4618 SK4618A	CONT	946	CW	WB		VS			2966	3041		WBPI	10	2	BJ,CF	
MSH-145	F-C	1		2586-2	SK4623 SK4623A	DW	925	SS	W	W	VS			272	284		BPI	10	2	BJ,CF	
MSH-146	F-C	1		2586-2	SK4624	DW	920	SS	W		VS			607	614		BPI	10	2	BJ,CF	
MSH-147	F-C	1		2586-2	SK4625 SK4626	CONT	920	CC	WB	B	VS			1546	1618		BPI	10	2	BJ,CF	
MSH-148	F-C	1		2586-2	SK4627	CONT	920	CC	WB	B	VS			220	230		BPI	10	2	BJ,CF	
MSH-149	F-C	1		2586-2	SK4628	CONT	920	CC	WB	B	VS			287	330		BPI	10	2	BJ,CF	
MSH-150	F-C	1		2586-2	SK4629 SK4629A	CONT	985	CF	WB		VS						WPI	10	2	BJ,CF	
MSH-152	F-C	1		2586-3	SK4630A SK4631	CONT	984	CF	B		VS			1913	2054		WPI	10	2	BJ,CF	
MSH-153	F-C	1		2586-3	SK4632 SK4633	DW	984	SS	WB		VS			519	547		BPI	10	2	BJ,CF	
MSH-154	F-C	2		2614-3	SK4634 SK4635	CONT	868	CC	WB	W	VS			2015	2123		WPI	10	2	BJ,CF	
MSH-155	F-C	2		2614-3	SK4636 SK4637	CONT	868	CW.C	WB	W	VS			1730	1794		BPI	10	2	BJ,CF	
MSH-155A	F-C	2		2614-3	1E0855 2E0855	CONT	868	CW	WB	W	CS						WPI	10	2	BJ,CF	
MSH-156A	F-C	2		2614-3	1E0805	CONT	868	CW	WB		VS						BPI	10	2	BJ,CF	
MSH-158	F-C	2		2614-3	1E0855	CONT	868	CC	WB		VS		1331	1396			BPI	10	2	BJ,CF	
MSH-159	F-C	2		2614-3	SK4644 SK4645	CONT	874											10	2	BJ,CF	
MSH-160	F-C	2		2614-3	SK4646 SK187N	CONT	874	CC	WB	W	VS			1632	1725		BPI	10	2	BJ,CF	
MSH-167	F-C	1		GE791E611	SK4653 SK4653A	CONT	988	CF	WB		VS			18895	19518		WPI	10	2	1	
MSH-168	F-C	1		GE791E611	SK4654	CONT	988	CF	WB		VS			18409	18634		WPI	10	2	BJ,CF	
MSH-169	F-C	1		GE791E611	SK4655	CONT	986	CF	WB		VS			18020	18634		WPI	10	2	1	

HANGER....	CAT.	CL	DWG	ISOMETRIC NO.....	RSK.....	BLDG.	ELEV	RG..	ABS.	IAS	STYPE	SD	SFUNCT	HOTSET	COLDSET	SS...	APRC.....	VT....	INT	PER..	REMARKS...
MSH-17W	F-C	1		GE731E611	SK4656	CONT	988	CF	WB		VS			18896	19222		WPI	1#	2	1	
MSH-94	F-C	1		2629-1	SK356	CONT	874	CC	WB		VS			4225	4525		BPI	1#	2	RJ,CF	
MSH-95	F-C	1		2629-1	SK357	CONT	874	CC	WB		VS			2042	2155		BPI	1#	2	RJ,CF	
					SK366N																
MSH-95A	F-C	1		2629-1	SK357A	CONT	874	CW	WB				INS				WPI	1#	2	RJ,CF	
MSH-96	F-C	1		2629-1	SK358	CONT	974	CW	WB		VS						BPI	1#	2	RJ,CF	
					SK359																
MSH-97	F-C	1		2629.1	SK3e#	CONT	885	CW	WB	W	VS		INS	1789	1944		WPI	1#	2	RJ,CF	
					SK361																
MSH-98	F-C	1		2629.1	SK3A2	CONT	885	CW	WB	W	VS			1296	1545		BPI	1#	2	RJ,CF	
					SK363																
MSH-99	F-C	1		2629.1	SK3e4	CONT	881	CW	WB	W	CS						WPI	1#	2	RJ,CF	
					SK432A																
MSS-1#	F-C	1		2629-1	SK5209	CONT	894	CW	WB	W	MS					5	BPI	1#,11	2	RJ,CF	
MSS-11	F-C	1		2529-1	SK521#	CONT	897	CW	WB	W	MS					5	BPI	1#,11	2	RJ,CF	
					SK521#A																
MSS-12	F-C	1		2629-1	SK5211	CONT	888	CW	WB	W	MS					5	BPI	1#,11	2	RJ,CF	
MSS-13	F-C	1		2629-1	SK5212	CONT	904	CF	WB	W	MS					5	BPI	1#,11	2	RJ,CF	
MSS-14	F-C	1		2629-1	SK5213	CONT	923	CC	WB	W	MS					5	BPI	1#,11	2	RJ,CF	
MSS-1e	F-C	1		2629-1	SK5215	CONT	879	CW	WB	W	MS					5	BPI	1#,11	2	RJ,CF	
MSS-17	F-C	1		2629-1	SK5216	CONT	905	CF	WB	W	MS					5	BPI	1#,11	2	RJ,CF	
MSS-18	F-C	1		2629-1	SK5217	CONT	904	CF	WB	W	MS					5	BPI	1#,11	2	RJ,CF	
MSS-19	F-C	1		2629-1	SK5218	CONT	923	CC	WB	W	MS					5	BPI	1#,11	2	RJ,CF	
MSS-2	F-C	2		2614-3	1E0B55	CONT	97#	CW	WB	W	MS						WPI	1#,11	2	RJ,CF	
					20B055																
MSS-21	F-C	1		2586-1	SK520#	DW	919	SS	W	W	MS					5	BPI	1#,11	2	RJ,CF	PSA-3
					SK5229A																
MSS-22	F-C	1		2586-1	SK5221	DW	919	SS	W		MS					6	BPI	1#,11	2	RJ,CF	PSA-1#
					SK3221A																
MSS-3	F-C	2		2614-3	SK5202	CONT	88#	CC	WB	W	MS					5	BPI	1#,11	2	RJ,CF	
MSS-4	F-C	2		2614-3	SK5203	CONT	873	CC	WB	W	MS					5	BPI	1#,11	2	RJ,CF	
					SK5244A																
MSS-6	F-C	2		2624-1	1E0B55	CONT	885	CW	WB	W	CS						WPI	1#	2	RJ,CF	
MSS-7	F-C	1		2629-1	SK520#	CONT	874	CC	WB	W	MS					5	WPI	1#,11	2	RJ,CF	
					SK520#A																
					SK520#B																
MSS-75	F-C	1		2629-1	SK113A	CONT	932	CW	WB	W	MS					5	BPI	1#,11	2	RJ,CF	
MSS-76	F-C	1		2629-1	SK142A	CONT	932	CW	WB	W	MS					5	BPI	1#,11	2	RJ,CF	
					SK5275																
MSS-8	F-C	1		2629-1	5520T	CONT	885	CW	WB	W	MS					5	BPI	1#,11	2	RJ,CF	
MSS-9	F-C	1		2629-1	55208	CONT	894	CF	WB	W	MS					6	WPI	1#,11	2	RJ,CF	
PVM-1#A	F-C	1		RCD-755-1	1E0B55	CONT	895											1#	2	RJ,CF	
PVM-14C	F-C	1		RCD-755-1	SK7554-2	CONT	895	SS	W		VS			5292	53e#		WBPI	1#	2	RJ,CF	
PVM-1#6	F-C	1		RCD-755-1-2	1E0B55	CONT	897	SS	W		VS			3584	3688		BPI	1#	2	RJ,CF	
RBW-TH-1	F-C	2		CBLI-69														1#	2	RJ,CF	
RBW-CC-8A	F-C	2		2625-4														1#	2	RJ,CF	
RBW-TH-1	F-C	2		CBLI-69														1#	2	RJ,CF	
RCH-1	F-C	2		2621-1	SK489	CONT	86#	CW	WB		VS			544	537		BPI	1#	2	RJ,CF	
					SK489A																

HANGER....	CAT.	CL	DWG	ISOMETRIC NO.	HSK.....	BLDG.	ELEV	RS..	ABS.	IAS	STYPE	SU	SFUNCT	HOTSET	COLDSET	SS...	APRC.....	VT....	INT	PER..	REMARKS...
RCH-6	F-C	2	2621-1		SK486	CONT	877	CC	B		VS		B16	866			WBPI	10	2	BJ,CF	
					SK486A																
					SK487																
					SK487A																
RCS-15	F-C	2	2621-2		1ED655	CONT	893	CW	WB	W	CS						WPI	10	2	BJ,CF	
RFH-1	F-C	1	2849-4		SK7#8	TURB	918	CC	WB		VS			5219	5557		BPI	10	2	1	
RFH-10	F-C	1	2849-4		SK718	TURB	895	CC	WB		VST	IND		3947	4107		WBPI	10	2	1	
					SK718A																
RFH-13	F-C	1	2849-4		SK724	TURB	895	CW	B		VS			6162	6537		BPI	10	2	1	
					SK724A																
RFH-15	F-C	1	2849-4		SK728	TURB	918	CC	WB		VS			6312	6593		WBPI	10	2	1	
RFH-16	F-C	1	2849-4		SK729	TURB	918	CC	B		VS			6312	6593		WBPI	10	2	1	
RFH-2	F-C	1	2849-4		SK782	TURB	918	CC	B		VS			7357	8272		WBPI	10	2	1	
RFH-3	F-C	1	2849-4		SK784	TURB	918	CC	B		VS			5695	6010		BPI	10	2	1	
					SK785																
RFH-4	F-C	1	2849-4		SK786	TURB	918	CC	B		VS			7668	8418		WBPI	10	2	1	
RFH-42	F-C	2	2623-2		SK772	CONT	871	CW	WB		VS			3577	3717		BPI	10	2	BJ,CF	
					SK773																
RFH-43	F-C	2	2623-2		SK774	CONT	874	CW	WB		VS			5084	5274		BPI	10	2	BJ,CF	
					SK775																
RFH-44	F-C	2	2623-2		SK776	CONT	895	SS	W		VS			5516	4856		BPI	10	2	BJ,CF	
RFH-45	F-C	2	2623-2		SK777	CONT	892	SS	W		VS			4438	4385		BPI	10	2	BJ,CF	
RFH-5	F-C	1	2849-4		SK788	TURB	903	CC	WB		VS			5365	5368		WBPI	10	2	1	
					SK789																
RFH-6	F-C	1	2849-4		SK710	CONT	993	CC	WB		VS			5353	5556		WBPI	10	2	1	
RFH-62	F-C	1	2589-2		SK797	D4	920	SS	W	W	CS						BPI	10	2	BJ,CF	
					SK797B																
RFH-62A	F-C	1	2589-2		SK385N	CONT	913	CC	WB		VST			9383	9383		WCF	10	2	BJ,CF	CONTAINMEN T PENETRATIO N
					SK357N																
RFH-63	F-C	1	2589-2		SK798	D4	923	SS	W	W	CS						BPI	10	2	BJ,CF	
RFH-63A	F-C	1	2589-2		SK798A	D4	923	SS	W	W	CS						BPI	10	2	BJ,CF	
					SK798B																
					SK798C																
RFH-64	F-C	1	2589-2		SK799	D4	923	SS	W	W	CS						BPI	10	2	BJ,CF	
					SK799A																
RFH-64A	F-C	1	2589-2		SK799AA	D4	923	SS	W	W	CS						BPI	10	2	BJ,CF	
					SK799AA																
RFH-65	F-C	1	2589-2		SK560#	D4	937	SS	W	W	CST						WBPI	10	2	BJ,CF	
					SK560#A																
					SK560#B																
					SK560#C																
RFH-66	F-C	1	2589-2		SK560I	D4	936	SS	W	W	CST						WBPI	10	2	BJ,CF	
					SK560IA																
					SK398N																
RFH-68A	F-C	1	2589-1		SK5#03A	CONT	913	CC	WB		VST			8548	8634		WPC	10	2	1	WELDED TO CONTAINMEN T

HANGER....	CAT.	CL	DWG	ISOMETRIC NO.....	HGR.....	BLDG.	ELEV	SS..	ARR.	IAS	STYPE	SG	SFUNCT	NOTSET	COLDSET	SS...	APRC.....	VT....	INT	PER..	REMARKS...
					SKS6#3B																PENETRATIO N
					SKS6#3C																
					SKJE7A																
RFW-69A	F-C	1	2589-1															1#	2	BJ,CF	
RFW-70	F-C	1	2589-1		1E0855	DW	923	SS	W	W	CS						BPI	1#	2	1	
					PE0855																
RFW-70A	F-C	1	2589-1		SKS6#5	DW	923	SS	W	W	CS						BPI	1#	2	1	
					SKS6#5A																
					SKS6#5AA																
RFW-71	F-C	1	2589-1		SKS6#7	DW	923	SS	W	W	CS						BPI	1#	2	1	
RFW-71A	F-C	1	2589-1		SKS6#7A	DW	923	SS	W	W	CS						BPI	1#	2	1	
					SKS6#7B																
RFW-72	F-C	1	2589-1		SKS6#8	DW	938	SS	W	W	CST						WBPI	1#	2	1	
					SKS6#8B																
					SKS6#8C																
RFW-73	F-C	1	2589-1		SKS6#9	DW	937	SS	W	W	CST						WBPI	1#	2	1	
					SKS6#9D																
RFW-74	F-C	1	2589-1		SKS61#	CONT	904	CF	WB		VS		493	465			WPI	1#	2	1	
RFS-10	F-C	1	2589-2		SKS7#9	DW	938	SS	W	W	MS					6	WBPI	1#,11	2	BJ,CF	PSA-1#
					SKS7#9B																
RFS-11	F-C	1	2589-2		SKS711	DW	923	SS	W	W	MS					6	WBPI	1#,11	2	BJ,CF	PSA-1#
					SKS711A																
RFS-12	F-C	1	2589-2		SKS712	DW	923	SS	W	W	MS					6	WBPI	1#,11	2	BJ,CF	PSA-1#
					SKS712A																
RFS-13	F-C	1	2589-2		SKS713	DW	929	SS	W	W	MS					6	WBPI	1#,11	2	BJ,CF	PSA-1#
					SKS713A																
RFS-14	F-C	1	2589-1		SKS715	DW	957											1#	2	BJ,CF	
					SKS715A																
					SKS715B																
					SKS721																
RFS-15	F-C	1	2589-1		SKS721	DW	925	SS	W		MS					6	WBPI	1#,11	2	1	PSA-1#
					SKS71#																
					SKS716A																
					SKS716B																
RFS-16	F-C	1	2589-1		SKS717	DW	923	SS	W		MS					6	WBPI	1#,11	2	1	PSA-1#
					SKS717A																
RFS-17	F-C	1	2589-1		SKS718	DW	928	SS	W		MS					6	WBPI	1#,11	2	1	PSA-1#
					SKS719A																
RFS-18	F-C	1	2589-1		SKS719	DW	923	SS	W		MS					6	WBPI	1#,11	2	1	PSA-1#
					SKS719A																
RFS-19	F-C	1	2589-1		SKS720	DW	923	SS	W		MS					6	WBPI	1#,11	2	1	PSA-1#
					SKS720A																
RFS-4	F-C	2	2623-2		SKS703	CONT	895	CW	WB		MS					5	WPI	1#,11	2	BJ,CF	
					SKS703A																
RFS-5	F-C	2	2623-2		SKS704	CONT	895	SS	W		MS					5	WPI	1#,11	2	BJ,CF	
					SKS704A																
					SKS704C																
RFS-8	F-C	1	2589-2		SKS707	DW	923	SS	W		MS					6	WBPI	1#,11	2	BJ,CF	PSA-1#

HANGER....	CAT.	CL	DWG	ISOMETRIC NO.....	HSK.....	BLDG.	ELEV	RS..	ABS.	IAS	STYPE	SD	SFUNCT	NOTSET	COLDSET	SS...	APRC.....	VT....	INT	PER..	REMARKS...
					SK17#74																
					SK17#79																
					SK5714																
RFS-9	F-C	1		2589-2	SK7#8A	DW	923	SS	W	W	MS					5	WBPI	1#,11	2	RJ,CF	PSA-1
RHR-BX1-3#	F-C	1		2518-1	SK143	DW	923	SS	W		VS			65??	8692		WBPI	1#	2	RJ,CF	
					SK143A																
RHR-BX1-9	F-C	1		2518-4	SK5187	DW	916	SS	W		MS					6	WBPI	1#,11	2	RJ,CF	PSA-1#
					SK51#7B																
RHC-BX1-12	F-C	1		2518-3	SK-S-113	DW	933	SS	W		MS					6	WPI	1#,11	2	RJ,CF	PSA-1#
					SK-S-113A																
RHR-1	F-C	2		2625-2	SK168	CONT	961	CF	G	B	VS			3328	3483		WPI	1#	2	RJ,CF	
					SK115A																
RHR-1#	F-C	1		2625-1	SK111	CONT	894	SS	W		VS			6#59	6424		BPI	1#	2	RJ,CF	
RHR-1##	F-C	2		2624-2	SK5124	CONT	934	CW	WB		Vs			1171	1327		BPI	1#	2	RJ,CF	
					SK311N																
RHR-11	F-C	1		2625-4	SK112	CONT	898	SS	W		VS			5914	6182		BPI	1#	2	RJ,CF	
RHR-114	F-C	1		2625-2	1E1055	CONT	891	SS	W		VS			6#4	617		#PI	1#	2	RJ,CF	
RHR-117A	F-C	1		2624-3#	SK5141	CONT	925	CC	WB		VS			6983	9548		WBPI	1#	2	RJ,CF	
					SK5141A																
					SK5141B																
RHR-118A	F-C	2		2624-3B	SK5142	CONT	9#6	CF	WB		VS		INS	2091	2144		WPI	1#	2	RJ,CF	
RHR-11A	F-C	1		2625-3	1E1055	CONT	883	CW	WB		VS			5#54	5517		BPI	1#	2	RJ,CF	
RHR-12	F-C	2		2625-4	1E1055	CONT	884	CF	WB		VS			7513	8674		WPI	1#	2	RJ,CF	
RHR-12#	F-C	1		2518-4	SK5145	DW	912	SS	W		VS			1#3#6	1#181		BPI	1#	2	RJ,CF	
RHR-128A	F-C	1		2518-4	SK5145A	CONT	912	CC	WB		VST			8986	9156		WPC	1#	2	RJ,CF	
					SK5145C																
RHR-121	F-C	1		2518-4	SK5146	DW	923	SS	W	W	MS			11994	11329		BPI	1#	2	RJ,CF	
RHR-122	F-C	1		2518-4	SK5147	DW	923	SS	W	W				13649	12#18		BPI	1#	2	RJ,CF	
RHR-123	F-C	1		2518-4	SK5148	DW	914	SS	W		CST		INS				WBPI	1#	2	RJ,CF	
					SK5148A																
RHR-13	F-C	1		2625-4	1E0855	CONT	883	CW	WB	W	VS			8887	9#12		BPI	1#	2	RJ,CF	
					2E0855																
RHR-134	F-C	1		2624-6	SK5161	CONT	958	CF	B		VS		INS	312	316		WPI	1#	2	RJ,CF	
RHR-136	F-C	1		2624-6	SK5163	CONT	926	CC	WB		VST		VS	1686	1#43		WBPI	1#	2	RJ,CF	
					SK5163B																
RHR-139	F-C	1		2#6-6	SK5167	CONT	921	CC	WB		VS		VS	2#4	224		WBPI	1#	2	RJ,CF	
					SK5167A																
RHR-14	F-C	2		2625-2	1E0855	CONT	861	CF	WB		VS		VS	2481	2556		WPI	1#	2	RJ,CF	
RHR-144	F-C	2		7584-7	SK5168	CONT	986	CF	WB		VS		VS	1285	1229		WPI	1#	2	RJ,CF	
					SK5169																
					SK5170																
RHR-141	F-C	2		2624-7	SK5171	CONT	916	CC	WB	B	VS		VS	1296	1379		BPI	1#	2	RJ,CF	
RHR-142	F-C	2		2624-7	SK5173	CONT	916	CC	WB		VS		VS	3385	3795		BPI	1#	2	RJ,CF	
RHR-144	F-C	1		2518-2	SK5176	CONT	967	CWC	WB	W	CST						WPC	1#	2	RJ,CF	
					SK5176A																
RHR-16	F-C	2		2626-8	SK117	CONT	861	CF	WB		VS			1712	1755		NA	1#	2	RJ,CF	
RHR-17	F-C	2		2625-4	1E0855	CONT	861	CF	WB		VS			3296	3396		WPI	1#	2	RJ,CF	
RHR-2#	F-C			2625-1	SK121	CONT	897	SS	W		VS			89?1	2144		BPI	1#	2	RJ,CF	

NUMBER....	CAT.	CL	DWG	ISOMETRIC NO.....	WDR.....	BLDG.	ELEV	RS..	ARR.	IAG	SYSTEM	SD	SFUNCT	HOTSET	COLDSET	SY...	APRC.....	VT....	INT	PER..	REMARKS...
					SK121A																
					SK121B																
RHR-21	F-C	2	2624-1		SK122	CONT	861	CF	W0		VS			6323	6511		WPI	10	2	RJ,CF	
					SK123																
RHR-22	F-C	2	2624-1		SK124	CONT	873	CC	W0		VS			1964	1945		BPI	10	2	RJ,CF	
					SK125																
RHR-23	F-C	2	2624-1		SK126	CONT	861	CF	W0		VS			6968	7145		WPI	10	2	RJ,CF	
RHR-24	F-C	2	2624-1		SK127	CONT	879	CC	W0		VST			1182	1145		WBPI	10	2	RJ,CF	
					SK127A																
					SK385A																
RHR-26	F-C	2	2624-1		SK130	CONT	906	CF	W0	W	VS			2166	8194		WPI	10	2	RJ,CF	
RHR-27	F-C	1	2624-1		SK1254	CONT	924	CW	W0	W	VST			4903	5388		WBPI	10	2	RJ,CF	
					SK131																
					SK132																
RHR-28	F-C	1	2624-1		SK133	CONT	951	CW	W0		VS			5546	5827		WBPI	10	2	RJ,CF	
					SK127A																
RHR-29	F-C	1	2624-1		SK135	CONT	951	CC	W0		VS			1988	2117		BPI	10	2	RJ,CF	
RHR-30	F-C	1	2624-1		SK129	CONT	951	CW	W0		VS			3472	3872		WBPI	10	2	RJ,CF	
					SK137																
RHR-31	F-C	2	2624-1		SK138	CONT	918	CW	W0		VS			4349	4249		*PI	10	2	RJ,CF	
					SK139																
RHR-32	F-C	2	2624-1		SK140	CONT	922	CC	W0		VS	VS		4819	5166		BPI	10	2	RJ,CF	
RHR-32A	F-C	1	2518-1		SK1480	IW	987	SS	W		VS			6641	6725		WA	10	2	RJ,CF	
					SK148B																
					SK148C																
					SK149B																
					SK149E																
RHR-33	F-C	1	2518-1		SK141	IW	916	SS	W		VST			8385	8495		WBPI	10	2	RJ,CF	
					SK141A																
RHR-34	F-C	1	2518-1		SK143	IW	923	SS	W		VS			6599	6693		WBPI	10	2	RJ,CF	
					SK143A																
RHR-35	F-C	1	2518-1		SK144	IW	914	BS	W		VS			6457	6302		BPI	10	2	RJ,CF	
RCIC-36	F-C	1	2518-1		SK145	IW	914	SS	W		VS			8035	7847		BPI	10	2	RJ,CF	
HPCI-37	F-C	1	2511-1		1SD855													10	2	S	
					2SD855																
RHR-38	F-C	2	2624-3C		SK149	CONT	861	CF	W0	B	VS			8043	8299		WPI	10	2	RJ,CF	
					SK185A																
RHR-39	F-C	2	2624-3C		SK150	CONT	861	CF	W0	B	VS			8595	8758		WPI	10	2	RJ,CF	
					SK185																
RHR-40	F-C	2	2624-3C		SK151	CONT	878	CC	W0	W	VS			2335	2223		WBPI	10	2	RJ,CF	
					SK151A																
RHR-42	F-C	1	2624-39		SK156	CONT	933	CW	W0		VS			18453	18928		WBPI	10	2	RJ,CF	
					SK174A																
RHR-42A	F-C	1	2624-39		SK156A													10	2	RJ,CF	
					SK317A																
					SK157B																
RHR-43	F-C	1	2624-38		SK157	CONT	951	CW	W0	W	VS		VS	6344	7275		WBPI	10	2	RJ,CF	
RHR-44	F-C	1	2624-38		SK159	CONT	951	CW	W0		VS		VS	4849	5117		BPI	10	2	RJ,CF	
RHR-45	F-C	1	2624-38		SK161	CONT	957	CC	W0		VS			4871	4736		WBPI	10	2	RJ,CF	

COOPER NUCLEAR STATION
INSERVICE INSPECTION PROGRAM-REV. 3
17 MAY 1987

HANGER....	CAT.	CL	DWG	ISOMETRIC,NO.....	HSK.....	BLDG.	ELEV	BS..	ABS	IAS	STYPE	SD	SFUNCT	HOTSET	COLDSET	SS...	APRC.....	VT....	INT	PER..	REMARKS...
RHR-47	F-C	2		2624-3B	SK160	CONT	905	CW	WB	W	VST		HS	3034	3109		WBPI	10	2	BJ,CF	
					SK166																
					SK167																
RHR-48	F-C	2		2624-3B	SK168	CONT	922	CW	WB	W	VS			4861	5199		WBPI	10	2	BJ,CF	
					SK169																
RHR-49	F-C	2		2624-3B	SK169A	CONT	910	CW	WB	W	VS			5980	6170		BPI	10	2	BJ,CF	
					SK170																
RHR-50	F-C	1		2624-3B	SK171	CONT	909	CWC	WB		VS			5595	5461		WBPI	10	2	BJ,CF	
					SK171A																
RHR-50A	F-C	2		2624-3C	SK171A	CONT	873	CC	B		VS			1705	1666		BPI	10	2	BJ,CF	
					SK171B																
RHR-51	F-C	1		2625-4	SK160	CONT	897	SS	W		VS			5220	5298		BPI	10	2	BJ,CF	
RHR-52	F-C	1		2624-3B	SK173	CONT	892	SS	W		VS			6379	6051		BPI	10	2	BJ,CF	
RHR-53	F-C	1		2625-3	SK164	CONT	907	CF	B		VS			14368	14811		WPI	10	2	BJ,CF	
					SK164C																
RHR-55	F-C	1		2624-3A	SK176	CONT	892	SS	WB		VS			6546	6265		BPI	10	2	BJ,CF	
RHR-56	F-C	1		2624-3A	SK177	CONT	892	SS	WB		VS			6446	5798		BPI	10	2	BJ,CF	
RHR-57	F-C	1		2624-3A	SK178	CONT	898	SS	W		VST		INS	5037	5172		WBPI	10	2	BJ,CF	
RHR-59	F-C	1		2624-3A	SK180	CONT	925	CC	WB		VS		VS	4434	4334		BPI	10	2	BJ,CF	
					SK181																
RHR-60	F-C	1		2624-3A	SK182	CONT	919	CW	WB		VS		INS	2590	2530		WPI	10	2	BJ,CF	
					SK182A																
RHR-62	F-C	1		2625-1	SK172	CONT	898	SS	W		VST		INS	1455	1315		WBPI	10	2	BJ,CF	
RHR-63	F-C	1		2624-3B	SK174	CONT	892	SS	W		VS						WBPI	10	2	BJ,CF	
					SK187																
RHR-64A	F-C	2		2626-4														10	2	BJ,CF	
RHR-66	F-C	2		2624-5	SK190	CONT	892	SS	W		VS			7163	7257		BPI	10	2	BJ,CF	
RHR-67	F-C	2		2624-5	SK191	CONT	892	SS	W		VS			6160	6348		BPI	10	2	BJ,CF	
RHR-68	F-C	2		2624-5	SK192	CONT	896	SS	W		VS			3056	3131		WBPI	10	2	BJ,CF	
					SK192A																
					SK192B																
RHR-69	F-C	2		2624-5	SK193	CONT	908	CC	WB		VST			9770	10020		WBPI	10	2	BJ,CF	
					SK193A																
					SK193B																
RHR-7	F-C	1		2625-1	1E0855	CONT	884	CF	B		VS			6822	7825		WPI	10	2	BJ,CF	
RHR-70	F-C	1		2510-3	SK194	DW	912	SS	W	W	VS			10877	10861		WPI	16	2	BJ,CF	
					SK194A																
RHR-70A	F-C	1		2510-3	SK194AA	CONT	912	CWC	WB	W	VS			7806	7994		WPC	10	2	BJ,CF	
					SK194B																
					SK194D																
RHR-71	F-C	1		2510-3	SK195	DW	923	SS	W	W	VS			8602	8103		BPI	10	2	BJ,CF	
					SK195A																
RHR-72	F-C	1		2510-3	SK196	DW	923	SS	W	W	VS			8606	7918		BPI	10	2	BJ,CF	
RHR-73	F-C	1		2510-3	SK197	DW	914	SS	W		VS			6214	5745		BPI	10	2	BJ,CF	
RHR-74	F-C	1		2510-3	SK198	DW	914	SS	W		CST						BPI	10	2	BJ,CF	
RHR-8	F-C	1		2625-1	1E0855	CONT	882	CW	WB	W	VS			5878	6410		BPI	10	2	BJ,CF	
					2E0855																
RHR-84	F-C	1		2626-4	SK108	CONT	883	CW	WB	W	VS			4366	4269		BPI	10	2	BJ,CF	
					SK108A																

HANGER....	CAT.	CL	DWG ISOMETRIC.NO.....	HSK.....	BLDG.	ELEV	BS..	ABS.	IAS	STYPE	SD	SFUNCT	HOTSET	COLDSET	SS...	APRC.....	VT....	INT	PER..	REMARKS...
RHR-87	F-C	1	2626-4	SKS111	CONT	891	SS	W		VST		INS	406	419		WPI	10	2	BJ,CF	
RHR-88	F-C	2	2624-2	SKS112	CONT	898	SS	W		VST		INS	2402	2430		WPI	10	2	BJ,CF	
RHR-89	F-C	2	2624-2	SKS113	CONT	898	SS	WB		VS			8333	8583		WBPI	10	2	BJ,CF	
				SKS113A																
				SKS113B																
RHR-9	F-C	1	2625-1	1E0855	CONT	690	SS	WB		VS			4372	4982		BPI	10	2	BJ,CF	
RHR-90	F-C	2	2624-2	SKS114	CONT	898	SS	WB		VS			7124	7499		WBPI	10	2	BJ,CF	
				SKS114A																
RHR-91	F-C	2	2624-2	SKS115	CONT	898	SS	W		VST			9345	9595		WPI	10	2	BJ,CF	
				SKS115A																
				SKS115B																
RHR-94	F-C	2	2624-2	SKS118	CONT	925	CC	WB		VS			3255	3555		BPI	10	2	BJ,CF	
RHR-95	F-C	1	2626-3	1E0855	CONT	883	CF	WB	B	VS			5965	5290		WBPI	10	2	BJ,CF	
RHR-96	F-C	2	2624-2	SKS120	CONT	922	CW	WB		VST		INS	1350	1445		WBPI	10	2	BJ,CF	
				SKS120A																
RHR-97	F-C	2	2624-2	SKS121	CONT	927	CC	WB		VST		INS	706	772		WBPI	10	2	BJ,CF	
				SKS121A																
RHR-98	F-C	2	2624-2	SKS122	CONT	927	CC	WB		VST			1193	1373		BPI	10	2	BJ,CF	
RHR-99	F-C	2	2624-2	SKS123	CONT	934	CW	B		VS			2145	2483		WBPI	10	2	BJ,CF	
				SKS123A																
RHR93*	F-C	2	2624-2														10	2	BJ,CF	
RHS-10	F-C	1	2510-4	SKS109	DW	914	SS	W		MS					6	BPI	10,11	2	BJ,CF	PSA-10
				SKS109B																
RHS-11	F-C	1	2510-4	SKS110	DW	914	SS	W		MS					6	BPI	10,11	2	BJ,CF	PSA-10
RHS-13	F-C	1	2510-3	SKS112	DW	923	SS	W		MS					6	BPI	10,11	2	BJ,CF	PSA-10
RHS-14	F-C	1	2510-3	SKS113	DW	933	SS	W		MS					6	BPI	10,11	2	BJ,CF	PSA-10
				SKS113A																
RHS-15	F-C	1	2510-3	SKS114	DW	923	SS	W		MS					6	WBPI	10,11	2	BJ,CF	PSA-10
				SKS114																
				SKS114C																
RHS-16	F-C	1	2510-3	SKS115	DW	914	SS	W		MS					6	BPI	10,11	2	BJ,CF	PSA-35
				SKS115A																
RHS-17	F-C	1	2510-3	SKS116	DW	914	SS	W		MS					6	BPI	10,11	2	BJ,CF	PSA-10
				SKS116A																
RHS-18	F-C	1	2510-3	SKS117	DW		SS	W		MS					6	WBPI	10,11	2	BJ,CF	PSA-10
				SKS117A																
				SKS117B																
RHS-19	F-C	1	2510-3	SKS118	DW	914	SS	W		MS					6	WBPI	10,11	2	BJ,CF	PSA-10
				SKS118A																
				SKS117																
RHS-20	F-C	2	2624-2	SKS119	CONT	912	CW	WB		HS					5	WPI	10,11	2	BJ,CF	
				SKS119A																
				SKS120																
RHS-21	F-C	2	2624-2	SKS121	CONT	906	CC	WB		HS					5	WPI	10,11	2	BJ,CF	
				SKS122																
RHS-22	F-C	2	2624-2	SKS123	CONT	895	SS	W		HS						WPI	10,11	2	BJ,CF	
				SKS124																
RHS-23	F-C	2	2624-2	SKS125	CONT	892	CW	WB		HS						WBPI	10,11	2	BJ,CF	
RHS-24	F-C	2	2624-2	SKS126	CONT	892	SS	W		HS						WPI	10,11	2	BJ,CF	
				SKS126A																

HANGER....	CAT.	CL	DWG	ISOMETRIC.NO.....	HSK.....	BLDG.	ELEV	BS..	ABS.	IAS	STYPE	SD	SPUNCT	HOTSET	COLDSET	SS...	APRC.....	VT....	INT	PER..	REMARKS...
RHS-25	F-C	2		2624-2	SKS127	CONT	927	CW	WB		HS						BPI	1Ø,11	2	BJ,CF	
RHS-26	F-C	2		2624-2	SKS128	CONT	927	CC	WB		HS						BPI	1Ø,11	2	BJ,CF	
RHS-29	F-C	2		2624-5	SKS130	CONT	904	CF	WB		HS						BPI	1Ø,11	2	BJ,CF	
RHS-3Ø	F-C	2		2624-5	SKS131	CONT	897	SS	W		HS					5	WBPI	1Ø,11	2	BJ,CF	
					SKS131A																
					SKS131B																
RHS-32	F-C	2		2624-5	SKS133	CONT	892	SS	W		HS					5	WBPI	1Ø,11	2	BJ,CF	
					SKS133A																
RHS-34	F-C	2		2624-7	SKS135	CONT	916	CW	WB		HS					5	WBPI	1Ø,11	2	BJ,CF	
RHS-35	F-C	2		2624-7	SKS136	CONT	914	CW	WB		HS					5	WBPI	1Ø,11	2	BJ,CF	
RHS-36	F-C	1		2624-3A	SKS137	CONT	914	CW	WB		HS					5	WBPI	1Ø,11	2	BJ,CF	
RHS-37	F-C	1		2624-3B	SKS138	CONT	916	CW	WE		HS					5	WBPI	1Ø,11	2	BJ,CF	
RHS-38	F-C	1		2624-3B	SKS139	CONT	927	CW	WB		HS					5	WBPI	1Ø,11	2	BJ,CF	
RHS-39	F-C	1		2624-3B	SKS140	CONT	927	CW	WB		HS					5	WPI	1Ø,11	2	BJ,CF	
					SKS140A																
RHS-4Ø	F-C	1		2624-3B	SKS141	CONT	915	CW	WB		HS					5	BPI	1Ø,11	2	BJ,CF	
RHS-41	F-C	2		2624-3C	SKS142	CONT	873	CW	WB		HS					5	BPI	1Ø,11	2	BJ,CF	
RHS-42	F-C	2		2624-3C	SKS143	CONT	878	CW	WB		HS					5	WBPI	1Ø,11	2	BJ,CF	
					SKS143A																
RHS-43	F-C	1		2624-3B	SKS144	CONT	892	SS	WB		HS					5	BPI	1Ø,11	2	BJ,CF	
RHS-44	F-C	1		2626-4	1E0855	CONT	883	CW	WB		HS					5	BPI	1Ø,11	2	BJ,CF	
					2E0855																
RHS-45	F-C	1		2623-4	1E0855	CONT	883	CF	WB		MS					5	BPI	1Ø,11	2	BJ,CF	PSA-3
					2E0855																
RHS-48	F-C	1		2626-3	1E0855		883	CF	WB	W	HS					5	BPI	1Ø,11	2	BJ,CF	
					2E0855																
RHS-49	F-C	1		2626-3	1E0855		883	CF	WB		MS					6	BPI	1Ø,11	2	BJ,CF	PSA-1Ø
					2E0855																
RHS-5	F-C	1		2510-4	SKS104	DW	923	SS	W		MS					6	BPI	1Ø,11	2	BJ,CF	PSA-35
RHS-51	F-C	1		2624-1	SKS152	CONT	914	CW	WB	W	HS					5	BPI	1Ø,11	2	BJ,CF	
RHS-52	F-C	1		2624-1	SKS153	CONT	915	CW	WB	W	HS					5	BPI	1Ø,11	2	BJ,CF	
RHS-54	F-C	2		2624-1	SKS156	CONT	873	CWC	WB	W	HS					5	BPI	1Ø,11	2	BJ,CF	
					SKS156A																
RHS-55	F-C	2		2624-1	SKS157A	CONT	873	CW	WB	W	HS					5	BPI	1Ø,11	2	BJ,CF	
					SKS158																
RHS-56	F-C	1		2624-3A	SKS159	CONT	927	CW	WB		HS					5	BPI	1Ø,11	2	BJ,CF	
RHS-57	F-C	1		2624-3A	SKS160	CONT	927	CC	WB	W	HS		ING			5	WPI	1Ø,11	2	BJ,CF	
					SKS161																
RHS-58	F-C	1		2624-3A	SKS162	CONT	922	CW	WB		MS						WPI	1Ø,11	2	BJ,CF	PSA-1Ø
RHS-59	F-C	1		2624-3A	SKS163	CONT	892	SS	W		HS					5	BPI	1Ø,11	2	BJ,CF	
RHS-6	F-C	1		2510-4	SKS105	DW	923	SS	W		MS					6	WBPI	1Ø,11	2	BJ,CF	
					SKS105A																
					SKS105C																
					SKS105B																
RHS-65	F-C	1		2625-4	1E0855	CONT	889	CW	WB		MS					6	BPI	1Ø,11	2	BJ,CF	
					2E0855																
RHS-66	F-C	1		2510-1	SKS173	CONT	907	CF	WB	W	HS					5	WPC	1Ø,11	2	BJ,CF	
					SKS174																
RHS-67	F-C	1		2510-1	SKS175	DW	918	SS	W	W	MS					6	BPI	1Ø,11	2	BJ,CF	PSA-1Ø
					SKS175A																

HANGER....	CAT.	CL	DWG	ISOMETRIC.NO.....	HSK.....	BLDG.	ELEV	BS..	ABS.	IAS	STYPE	SD	SFUNCT	HOTSET	COLDSET	SS...	APRC.....	VT....	INT	PER..	REMARKS...
RHS-68	F-C	1		2518-1	SKS176A	DW	917	SS	W	W	MS					6	RPI	1Ø,11	2	BJ,CF	PSA-1Ø
					SKS176																
RHS-69	F-C	1		2518-1	SKS178	DW	915	SS	W	W	MS					6	WBPI	1Ø,11	2	BJ,CF	PSA-1Ø
					SKS177																
					SKS177C																
					SKS179																
RHS-7	F-C	1		2518-4	SKS186A	DW	923	SS	W	W	MS					6	BPI	1Ø,11	2	BJ,CF	PSA-1Ø
					SKS186																
RHS-70	F-C	1		2518-1	SKS18Ø	DW	914	SS	W	W	MS					6	BPI	1Ø,11	2	BJ,CF	PSA-1Ø
					SKS18ØA																
RHS-71	F-C	1		2518-1	SKS181	DW	914	SS	W	W	MS					6	BPI	1Ø,11	2	BJ,CF	PSA-1Ø
					SKS181A																
					SKS181B																
RHS-72	F-C	1		2518-1	SKS182A	DW	914	SS	W	W	MS					6	BPI	1Ø,11	2	BJ,CF	PSA-1Ø
					SKS182																
					SKS181B																
RHS-73	F-C	1		2518-1	SKS183	DW	914	SS	W	W	MS					6	BPI	1Ø,11	2	BJ,CF	PSA-1Ø
RHS-76	F-C	1		2625-1	SKS186	CONT	894	SS	W		MS					5	WBPI	1Ø,11	2	BJ,CF	
					SKS187A																
RHS-77	F-C	1		2625-1	SKS187	CONT	898	CW	WB		MS					5	BPI	1Ø,11	2	BJ,CF	
RHS-78	F-C	1		2625-1	SKS188	CONT	894	SS	W		MS					5	WBPI	1Ø,11	2	BJ,CF	
					SKS188A																
RHS-8	F-C	1		2518-4	SKS187	DW	916	SS	W		MS					6	WBPI	1Ø,11	2	BJ,CF	PSA-1Ø
					SKS187B																
RHS-80	F-C	1		2625-1	SKS19Ø	CONT	889	CW	WB	W	MS					5	WPI	1Ø,11	2	BJ,CF	
					SKS19ØA																
					SKS191																
RHS-9	F-C	1		2518-4	SKS188	DW	914	SS	W		MS					6	BPI	1Ø,11	2	BJ,CF	PSA-1Ø
					SKS188A																
RHS-96A	F-C	2		2624-2	SK127N	CONT	922	CW	WB	W	MS					5		1Ø,11	2	BJ,CF	Ø4
RR-H1	F-C	1			RR-H1																IMPELL HSK
RR-H13A-A	F-C	1			RR-H13A-A																IMPELL HSK
RR-H13A-B	F-C	1			RR-H13A-B																IMPELL HSK
RR-H14A-A	F-C	1			RR-H14A-A																IMPELL HSK
RR-H14A-B	F-C	1			RR-H14A-B																IMPELL HSK
RR-H2	F-C	1			RR-H2																IMPELL HSK
RR-H4-A	F-C	1			RR-H4-A																IMPELL HSK
RR-H4-B	F-C	1			RR-H4-B																IMPELL HSK
RR-H5-A	F-C	1			RR-H5-A																IMPELL HSK
RR-H5-B	F-C	1			RR-H5-B																IMPELL HSK
RR-H6-A	F-C	1			RR-H6-A																IMPELL HSK
RR-H6-B	F-C	1			RR-H6-B																IMPELL HSK
RR-H7-A	F-C	1			RR-H7-A																IMPELL HSK
RR-H7-B	F-C	1			RR-H8-B																IMPELL HSK
RR-H8-A	F-C	1			RR-H8-A																IMPELL HSK
RR-H8-B	F-C	1			RR-H8-B																IMPELL HSK
RR-H9-A	F-C	1			RR-H9-A																IMPELL HSK
RR-H9-B	F-C	1			RR-H9-B																IMPELL HSK
RR-SS1-A	F-C	1			RR-SS1-A																IMPELL HSK
RR-SS1-B	F-C	1			RR-SS1-B																IMPELL HSK

HANGER....	CAT.	CL	DWG	ISOMETRIC.NO.....	HSK.....	BLDG.	ELEV	BS..	ABS.	IAS	STYPE	SD	SFUNCT	HOTSET	COLDSET	SS...	APRC.....	VT....	INT	PER..	REMARKS...
RR-SS2-A	F-C	1			RR-SS2-A																IMPELL HSK
RR-SS2-B	F-C	1			RR-SS2-B																IMPELL HSK
RR-SS3-A	F-C	1			RR-SS3-A																IMPELL HSK
RR-SS3-B	F-C	1			RR-SS3-B																IMPELL HSK
RR-SS4-A	F-C	1			RR-SS4-A																IMPELL HSK
RR-SS4-B	F-C	1			RR-SS4-B																IMPELL HSK
RR-SS5-A	F-C	1			RR-SS5-A																IMPELL HSK
RR-SS5-B	F-C	1			RR-SS5-B																IMPELL HSK
SDH-116	F-C	1																10	2	BJ,CF	
SDS-115	F-C	1																10	2	BJ,CF	
SDS-119	F-C	1																10	2	BJ,CF	
SSA-2	F-C	1		GE731E671	SK300 SK300A	DW	923	SS	W		MS					6	BPI	10,11	2	BJ,CF	PSA-10
SSA-3	F-C	1		GE731E671	SK301 SK301A	DW	923	SS	W		MS					6	WPI	10,11	2	BJ,CF	PSA-10
SSB-2	F-C	1		GE731E671	SK302 SK302A	DW	923	SS	W		MS					6	BPI	10,11	2	BJ,CF	PSA-10
SSB-3	F-C	1		GE731E671	SK303 SK303A	DW	923	SS	W		MS					6	WPI	10,11	2	BJ,CF	PSA-10
SSC-2	F-C	1		GE731E671	SK302 SK302A	DW	923	SS	W		MS					6	BPI	10,11	2	BJ,CF	PSA-10
SSC-3	F-C	1		GE731E671	SK-303 SK-303A	DW	923	SS	W		MS					6	WPI	10,11	2	BJ,CF	PSA-10
SSD-2	F-C	1		GE731E671	SK300 SK300A	DW	923	SS	W		MS					6	BPI	10,11	2	BJ,CF	PSA-10
SSD-3	F-C	1		GE731E671	SK301 SK301A	DW	923	SS	W		MS					6	WPI	10,11	2	BJ,CF	PSA-10
VE-5	F-C	1																10	2	BJ,CF	

AUGMENTED INSERVICE INSPECTIONS

AUGMENTED INSERVICE INSPECTIONS

Augmented Inservice Inspections (AISI) are not ASME Section XI Code Requirements but are 1) additional examination areas, or 2) increased inspection frequency or combinations of both which are requested by the Nuclear Regulatory Commission.

When examination components fall into the scheduled testing of ISI and are also AISI requirements, then credit for both requirements are taken (no double testing).

There are presently 4 types of Augmented Inservice Inspection required at Cooper Nuclear Station.

TAB	TYPE	DESCRIPTION	
1	1	All ring girder bolting and ring girder anchor bolting is to be volumetrically inspected each ten year interval. The Anchor Bolting adjacent to the Inboard MSIV is to be visually inspected each ten year interval. (Reference NRC DRO Bulletin #74-3)	
2	2	Ultrasonic examination of the feedwater nozzle safe ends, bores, and inside blend radii, liquid penetrant examination of the feedwater nozzles, and visual inspection of the feedwater spargers as required per Table 2 and Section 4.3.2.4 of NUREG-0619.	
3	3	Visual inspection of the Core Spray Spargers and the Core Spray Piping inside the RPV shall be inspected each refueling outage. (Reference IE Bulletin No. 80-13).	
4	4	Ultrasonic Examinations, utilizing G.E. Procedure TP508.0654, Rev. D, or equivalent, are conducted to assess the integrity of the jet pump hold down beams at the mid-length ligament areas bounding the beam bolt. These examinations shall be performed once during the second Ten Year Interval. These examinations may be deferred to the end of the internals.	May 87

AUGMENTED ISI - TAB 2

COOPER NUCLEAR STATION
INSERVICE INSPECTION PROGRAM-REV. 3
30 MAY 1987

PIPE.....	AISI.	CFIG...	SIZE	S/T....	MAT.....	CAL.....	DWG ISO.....	VT...	PT	UT0.....	UT45....	INT	PER....	REMARKS.....
FW-SPARGERS	2											2	A2	
FWA-BJ-111	2	N-SE	12"	1.5	P2	6	5 2509-1		7	6	6	2	A2	
FWB-BJ-111	2	N-SE	12"	1.5	P2	6	5 2509-1		7	6	6	2	A2	
FWC-BJ-111	2	N-SE	12"	1.5	P2	6	6 2509-2		7	6	6	2	A2	
FWD-BJ-111	2	N-SE	12"	1.5	P2	6	6 2509-2		7	6	6	2	A2	
NB-N4A	2	NB	12						8*	CA		2	A2	
NB-N4B	2	NB	12					B	7	CA		2	A2	
NB-N4C	2	NB	12					B	7	CA		2	A2	
NB-N4D	2	NB	12					B	8*	CA		2	A2	
NVIR-BD-N4A	2	NIR	14"	---	RPV-1		27 27					2	A2	CA - COMPOUND ANGLE
NVIR-BD-N4B	2	NIR	14"	---	RPV 1	22,27	27 27					2	A2	CA - COMPOUND ANGLE
NVIR-BD-N4C	2	NIR	14"	---	RPV 1	22,27	27 27					2	A2	CA - COMPOUND ANGLE
NVIR-BD-N4D	2	NIR	14"	---	RPV 1	22,27	27 27					2	A2	CA - COMPOUND ANGLE

AUGMENTED ISI - TAB 4

COOPER NUCLEAR STATION
INSERVICE INSPECTION PROGRAM-REV. 3
30 MAY 1987

PIPE.....	AISI.	UT45.....	INT	PER....	REMARKS.....
JPB-01	4	TPS08.0654(55DEG)	2	A4	DEFER TO END OF INTERVAL
JPB-02	4	TPS08.0654(55DEG)	2	A4	DEFER TO END OF INTERVAL
JPB-03	4	TPS08.0654(55DEG)	2	A4	DEFER TO END OF INTERVAL
JPB-04	4	TPS08.0654(55DEG)	2	A4	DEFER TO END OF INTERVAL
JPB-05	4	TPS08.0654(55DEG)	2	A4	DEFER TO END OF INTERVAL
JPB-06	4	TPS08.0654(55DEG)	2	A4	DEFER TO END OF INTERVAL
JPB-07	4	TPS08.0654(55DEG)	2	A4	DEFER TO END OF INTERVAL
JPB-08	4	TPS08.0654(55DEG)	2	A4	DEFER TO END OF INTERVAL
JPB-09	4	TPS08.0654(55DEG)	2	A4	DEFER TO END OF INTERVAL
JPB-10	4	TPS08.0654(55DEG)	2	A4	DEFER TO END OF INTERVAL
JPB-11	4	TPS08.0654(55DEG)	2	A4	DEFER TO END OF INTERVAL
JPB-12	4	TPS08.0654(55DEG)	2	A4	DEFER TO END OF INTERVAL
JPB-13	4	TPS08.0654(55DEG)	2	A4	DEFER TO END OF INTERVAL
JPB-14	4	TPS08.0654(55DEG)	2	A4	DEFER TO END OF INTERVAL
JPB-15	4	TPS08.0654(55DEG)	2	A4	DEFER TO END OF INTERVAL
JPB-16	4	TPS08.0654(55DEG)	2	A4	DEFER TO END OF INTERVAL
JPB-17	4	TPS08.0654(55DEG)	2	A4	DEFER TO END OF INTERVAL
JPB-18	4	TPS08.0654(55DEG)	2	A4	DEFER TO END OF INTERVAL
JPB-19	4	TPS08.0654(55DEG)	2	A4	DEFER TO END OF INTERVAL
JPB-20	4	TPS08.0654(55DEG)	2	A4	DEFER TO END OF INTERVAL

WFLD TYPE DRAWINGS

WELD TYPES

MAY 1987

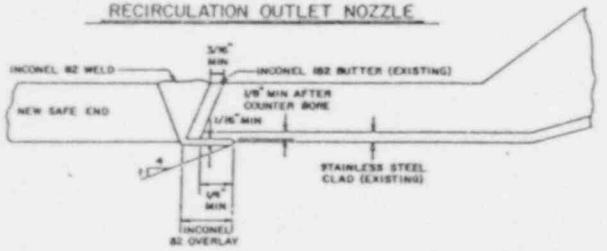
TAB	WELD TYPE	APPLICATION	REFERENCE DRAWING NO.
1	V1	Lower Vessel Shell Assembly	GE-232-233-10
2	V2	Bottom Vessel Head	232-232-6
3	V3	Support Skirt to Vessel	232-235-5
4	V4	Bottom Head Circumferential	232-232-6
5	V5	Bottom Head Meridional	232-232-6
6	V6	Bottom Head Meridional	232-232-6
7	V7	Bottom Head Meridional	232-232-6
8	V8	Top Vessel Head	232-245
9	V9	Top Vessel Head	232-245
10	V10	Top Vessel Head	232-245
11	V11	Lower Vessel Shell Assembly	232-232-10
12	V12	Recirculation Outlet Nozzle (N-RPV)	232-241
	V12A	Recirculation Outlet Nozzle (N-SE)	232-241/CNS-NB-1
13	V13	Recirculation Inlet Nozzle (N-RPV)	232-241
	V13A	Recirculation Inlet Nozzle (N-SE)	232-241/CNS-NB-1
14	V14	Steam Outlet Nozzle (N-RPV)	232-243
	V14A	Steam Outlet Nozzle (N-SE)	232-243
15	V15	Feedwater Nozzle (N-RPV)	232-243
	V15A	Feedwater Nozzle (N-SE)	232-243
16	V16	Core Spray Nozzle (N-RPV)	232-243
	V16A	Core Spray Nozzle (N-SE)	232-243/CNS-NB-1
17	V17	TOP Head Instrument Nozzle	232-244
18	V18	Head Vent Spray Nozzle	232-244
19	V19	Jet Pump Instrumentation Nozzle (N-RPV)	232-241
	V19A	Jet Pump Instrumentation Nozzle (N-SE)	232-241/CNS-NB-1
20	V20	CRD Return Nozzle (N-RPV)	232-242-7
	V20A	CRD Return Nozzle (N-Cap)	232-242-7
21	J-9GE	GE Circumferential Weld Configuration	107CE305
22	J-9	Shop Circumferential Weld Configuration	107CE305
23	J-9F	Field Circumferential Weld Configuration	107CE305
24	J-9S	Longitudinal Seam Weld Configuration	107CE305
25	J-4	Butt Welding Ends	USAS B 16.25
26	RHx-1	RHR Hx N_3 Nozzle-Shell	SWECO-M82704
27	RHx-2	RHR Hx Head-Shell	SWECO-M82704
28	RHx-3	RHR Hx Shell-Distributor Ring	SWECO-M82704
29	RHx-4	RHR Hx N_4 Nozzle-Weld	SWECO-M82704
30	J-7	Flange Attachment Weld Configurations	USAS B31.1
31	V-21	RR, CS, RWCU 3/8" to 2 1/4"	
32	V-22	RR, CS, RWCU 2 1/4" and Over	
33	V-23	Weld RAS-BJ-8	
34	V-23	Weld RBS-BJ-8	

WELD TYPE DRAWINGS - TAB 12

INFORMATION ONLY

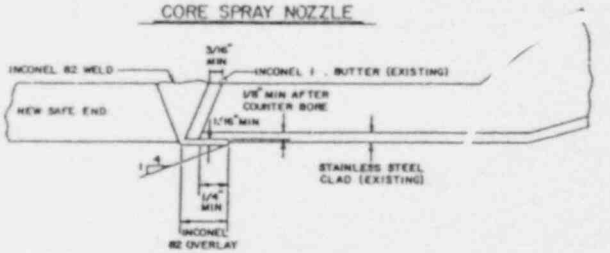
MAY 4 '87

RECIRCULATION OUTLET NOZZLE



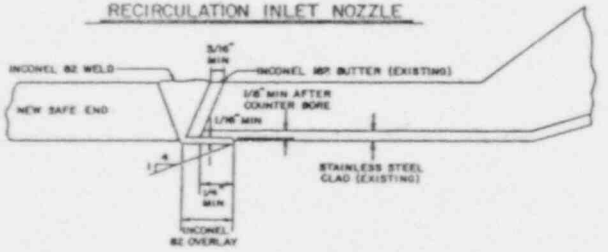
NOTES:
1. FOR RECIRCULATION OUTLET NOZZLE DETAILS SEE COMBUSTION ENGINEERING DWG. NO. 232-241-5.
2. FOR RECIRCULATION OUTLET NOZZLE SAFE END DETAILS, SEE SUMITOMO DRAWING NO. EW-994.
3. CBI TO REPAIR INCONEL 182 BUTTER AS NEEDED USING THE APPROPRIATE APPROVED CBI PROCEDURES.
4. APPLY INCONEL 82 OVERLAY PER CBI PROCEDURE WPS-ER82 (CRC).
5. INCONEL 82 WELD TO BE PERFORMED PER APPROVED CBI PROCEDURES.
6. SAFE END MATERIAL IS TYPE 316L MODIFIED CHEMISTRY PER CONTRACT 83-41.
7. AS BUILT DETAILS TO BE PROVIDED BY CBI PER CONTRACT 84-2.

CORE SPRAY NOZZLE



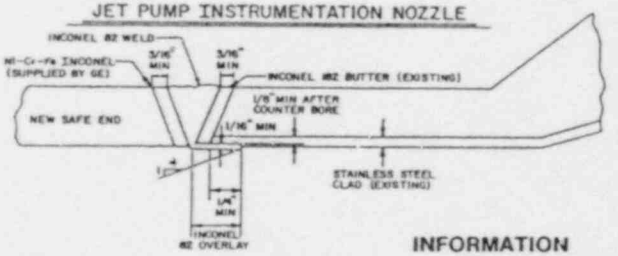
NOTES:
1. FOR CORE SPRAY NOZZLE DETAILS SEE COMBUSTION ENGINEERING DWG. NO. 232-243-7.
2. FOR CORE SPRAY NOZZLE SAFE END DETAILS, SEE SUMITOMO DRAWING NO. EW-996.
3. CBI TO REPAIR INCONEL 182 BUTTER AS NEEDED USING THE APPROPRIATE APPROVED CBI PROCEDURES.
4. APPLY INCONEL 82 OVERLAY PER CBI PROCEDURE WPS-ER82 (CRC).
5. INCONEL 82 WELD TO BE PERFORMED PER APPROVED CBI PROCEDURES.
6. SAFE END MATERIAL IS TYPE 316L MODIFIED CHEMISTRY PER CONTRACT 83-41.
7. AS BUILT DETAILS TO BE PROVIDED BY CBI PER CONTRACT 84-2.

RECIRCULATION INLET NOZZLE



NOTES:
1. FOR RECIRCULATION INLET NOZZLE DETAILS SEE COMBUSTION ENGINEERING DWG. NO. 232-241-5.
2. FOR RECIRCULATION INLET NOZZLE SAFE END DETAILS, SEE SUMITOMO DRAWING NO. EW-995.
3. CBI TO REPAIR INCONEL 182 BUTTER AS NEEDED USING THE APPROPRIATE APPROVED CBI PROCEDURES.
4. APPLY INCONEL 82 OVERLAY PER CBI PROCEDURE WPS-ER82 (CRC).
5. INCONEL 82 WELD TO BE PERFORMED PER APPROVED CBI PROCEDURES.
6. SAFE END MATERIAL IS TYPE 316L MODIFIED CHEMISTRY PER CONTRACT 83-41.
7. AS BUILT DETAILS TO BE PROVIDED BY CBI PER CONTRACT 84-2.

JET PUMP INSTRUMENTATION NOZZLE



INFORMATION ONLY

NOTES:
1. FOR JET PUMP INSTRUMENTATION NOZZLE DETAILS SEE COMBUSTION ENGINEERING DWG. NO. 232-241-5.
2. FOR JET PUMP INSTRUMENTATION SAFE END DETAILS, GENERAL ELECTRIC DRAWING NO. 1120537).
3. CBI TO REPAIR INCONEL 182 BUTTER AS NEEDED USING THE APPROPRIATE APPROVED CBI PROCEDURES.
4. APPLY INCONEL 82 OVERLAY PER CBI PROCEDURE WPS-ER82 (CRC).
5. INCONEL 82 WELD TO BE PERFORMED PER APPROVED CBI PROCEDURES.
6. SAFE END MATERIAL IS TYPE 316NG PER P.O. 223206.
7. AS BUILT DETAILS TO BE PROVIDED BY CBI PER CONTRACT 84-2.

452208708

REVISIONS

ZONE	1	2	3	4	5	6

SAFE END TO NOZZLE WELD DETAILS

DESIGN	M. B.	1/22/85
CHECKED	K.D.P.	4/3/85
APPROVED	[illegible]	4/11/85

Nebraska Public Power District

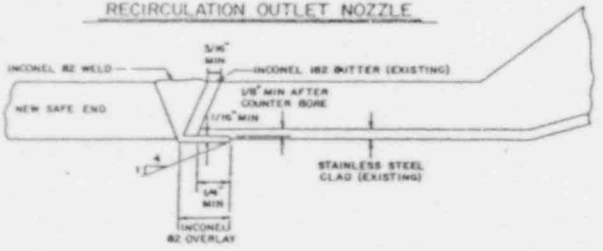
CNS-NB-I

REVISION A

WELD TYPE DRAWINGS - TAB 13

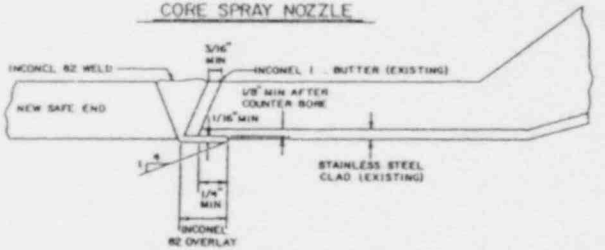
INFORMATION ONLY

RECIRCULATION OUTLET NOZZLE



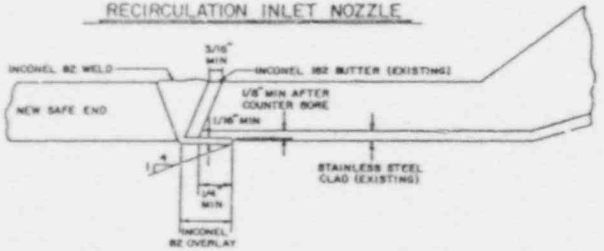
NOTES:
1. FOR RECIRCULATION OUTLET NOZZLE DETAILS SEE COMBUSTION ENGINEERING DWG. NO. 232-241-5.
2. FOR RECIRCULATION OUTLET NOZZLE SAFE END DETAILS, SEE SUMITOMO DRAWING NO. EW-994.
3. CBI TO REPAIR INCONEL 182 BUTTER AS NEEDED USING THE APPROPRIATE APPROVED CBI PROCEDURES.
4. APPLY INCONEL 82 OVERLAY PER CBI PROCEDURE WPS-ER82 (CRC).
5. INCONEL 82 WELD TO BE PERFORMED PER APPROVED CBI PROCEDURES.
6. SAFE END MATERIAL IS TYPE 316L MODIFIED CHEMISTRY PER CONTRACT 83-41.
7. AS BUILT DETAILS TO BE PROVIDED BY CBI PER CONTRACT 84-2.

CORE SPRAY NOZZLE



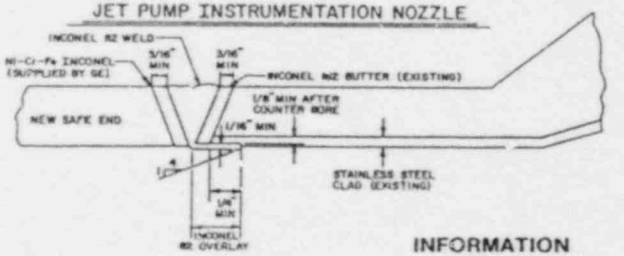
NOTES:
1. FOR CORE SPRAY NOZZLE DETAILS SEE COMBUSTION ENGINEERING DWG. NO. 232-245-7.
2. FOR CORE SPRAY NOZZLE SAFE END DETAILS, SEE SUMITOMO DRAWING NO. EW-996.
3. CBI TO REPAIR INCONEL 182 BUTTER AS NEEDED USING THE APPROPRIATE APPROVED CBI PROCEDURES.
4. APPLY INCONEL 82 OVERLAY PER CBI PROCEDURE WPS-ER82 (CRC).
5. INCONEL 82 WELD TO BE PERFORMED PER APPROVED CBI PROCEDURES.
6. SAFE END MATERIAL IS TYPE 316L MODIFIED CHEMISTRY PER CONTRACT 83-41.
7. AS BUILT DETAILS TO BE PROVIDED BY CBI PER CONTRACT 84-2.

RECIRCULATION INLET NOZZLE



NOTES:
1. FOR RECIRCULATION INLET NOZZLE DETAILS SEE COMBUSTION ENGINEERING DWG. NO. 232-241-5.
2. FOR RECIRCULATION INLET NOZZLE SAFE END DETAILS, SEE SUMITOMO DRAWING NO. EW-995.
3. CBI TO REPAIR INCONEL 182 BUTTER AS NEEDED USING THE APPROPRIATE APPROVED CBI PROCEDURES.
4. APPLY INCONEL 82 OVERLAY PER CBI PROCEDURE WPS-ER82 (CRC).
5. INCONEL 82 WELD TO BE PERFORMED PER APPROVED CBI PROCEDURES.
6. SAFE END MATERIAL IS TYPE 316L MODIFIED CHEMISTRY PER CONTRACT 83-41.
7. AS BUILT DETAILS TO BE PROVIDED BY CBI PER CONTRACT 84-2.

JET PUMP INSTRUMENTATION NOZZLE



INFORMATION ONLY

NOTES:
1. FOR JET PUMP INSTRUMENTATION NOZZLE DETAILS SEE COMBUSTION ENGINEERING DWG. NO. 232-241-5.
2. FOR JET PUMP INSTRUMENTATION SAFE END DETAILS, GENERAL ELE..RIC DRAWING NO. 11233571.
3. CBI TO REPAIR INCONEL 182 BUTTER AS NEEDED USING THE APPROPRIATE APPROVED CBI PROCEDURES.
4. APPLY INCONEL 82 OVERLAY PER CBI PROCEDURE WPS-ER82 (CRC).
5. INCONEL 82 WELD TO BE PERFORMED PER APPROVED CBI PROCEDURES.
6. SAFE END MATERIAL IS TYPE 316NG PER P.O. 225206.
7. AS BUILT DETAILS TO BE PROVIDED BY CBI PER CONTRACT 84-2.

452208708

MAY 4 '87

SAFE END TO NOZZLE WELD DETAILS

DRAWN	M. B.	1/22/85
CHECKED	K.D.K.	4/1/85
APPROVED	[illegible]	4/1/85

Nebraska Public Power District

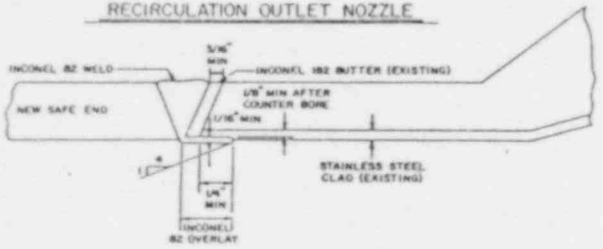
CNS-NB-I | A

WELD TYPE DRAWINGS - TAB 16

INFORMATION ONLY

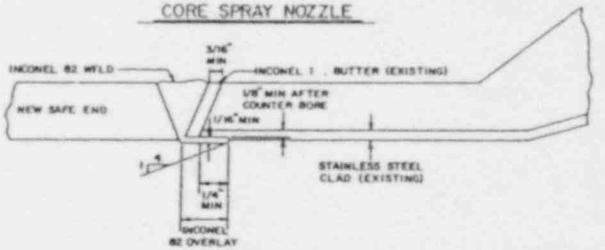
MAY 4 '87

RECIRCULATION OUTLET NOZZLE



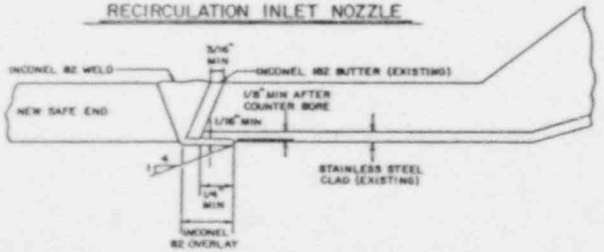
NOTES:
1. FOR RECIRCULATION OUTLET NOZZLE DETAILS SEE COMBUSTION ENGINEERING DWG. NO. 232-241-5.
2. FOR RECIRCULATION OUTLET NOZZLE SAFE END DETAILS, SEE SUMITOMO DRAWING NO. EW-994.
3. CBI TO REPAIR INCONEL 182 BUTTER AS NEEDED USING THE APPROPRIATE APPROVED CBI PROCEDURES.
4. APPLY INCONEL 82 OVERLAY PER CBI PROCEDURE WPS-ER82 (CRC).
5. INCONEL 82 WELD TO BE PERFORMED PER APPROVED CBI PROCEDURES.
6. SAFE END MATERIAL IS TYPE 316L MODIFIED CHEMISTRY PER CONTRACT 83-41.
7. AS BUILT DETAILS TO BE PROVIDED BY CBI PER CONTRACT 84-2.

CORE SPRAY NOZZLE



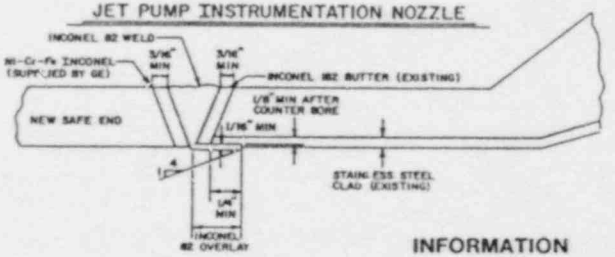
NOTES:
1. FOR CORE SPRAY NOZZLE DETAILS SEE COMBUSTION ENGINEERING DWG. NO. 232-243-7.
2. FOR CORE SPRAY NOZZLE SAFE END DETAILS, SEE SUMITOMO DRAWING NO. EW-996.
3. CBI TO REPAIR INCONEL 182 BUTTER AS NEEDED USING THE APPROPRIATE APPROVED CBI PROCEDURES.
4. APPLY INCONEL 82 OVERLAY PER CBI PROCEDURE WPS-ER82 (CRC).
5. INCONEL 82 WELD TO BE PERFORMED PER APPROVED CBI PROCEDURES.
6. SAFE END MATERIAL IS TYPE 316L MODIFIED CHEMISTRY PER CONTRACT 83-41.
7. AS BUILT DETAILS TO BE PROVIDED BY CBI PER CONTRACT 84-2.

RECIRCULATION INLET NOZZLE



NOTES:
1. FOR RECIRCULATION INLET NOZZLE DETAILS SEE COMBUSTION ENGINEERING DWG. NO. 232-241-5.
2. FOR RECIRCULATION INLET NOZZLE SAFE END DETAILS, SEE SUMITOMO DRAWING NO. EW-995.
3. CBI TO REPAIR INCONEL 182 BUTTER AS NEEDED USING THE APPROPRIATE APPROVED CBI PROCEDURES.
4. APPLY INCONEL 82 OVERLAY PER CBI PROCEDURE WPS-ER82 (CRC).
5. INCONEL 82 WELD TO BE PERFORMED PER APPROVED CBI PROCEDURES.
6. SAFE END MATERIAL IS TYPE 316L MODIFIED CHEMISTRY PER CONTRACT 83-41.
7. AS BUILT DETAILS TO BE PROVIDED BY CBI PER CONTRACT 84-2.

JET PUMP INSTRUMENTATION NOZZLE



INFORMATION ONLY

NOTES:
1. FOR JET PUMP INSTRUMENTATION NOZZLE DETAILS SEE COMBUSTION ENGINEERING DWG. NO. 232-241-5.
2. FOR JET PUMP INSTRUMENTATION SAFE END DETAILS, GENERAL ELECTRIC DRAWING NO. 1120337.
3. CBI TO REPAIR INCONEL 182 BUTTER AS NEEDED USING THE APPROPRIATE APPROVED CBI PROCEDURES.
4. APPLY INCONEL 82 OVERLAY PER CBI PROCEDURE WPS-ER82 (CRC).
5. INCONEL 82 WELD TO BE PERFORMED PER APPROVED CBI PROCEDURES.
6. SAFE END MATERIAL IS TYPE 316NG PER P.O. 223206.
7. AS BUILT DETAILS TO BE PROVIDED BY CBI PER CONTRACT 84-2.

452208708

REVISIONS

SAFE END TO NOZZLE WELD DETAILS

DRAWN	M. B.	1/22/85
CHECKED	R.D.M.	4/3/85
APPROVED	[illegible]	4/11/85

Nebraska Public Power District

CNS-NB-I

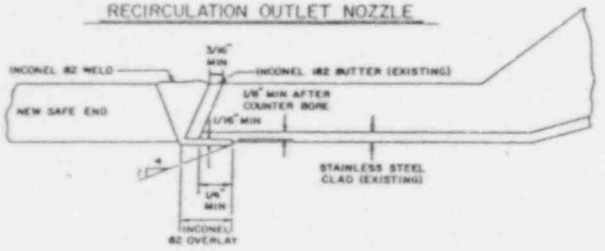
A

WELD TYPE DRAWINGS - TAB 19

INFORMATION ONLY

MAY 4 '87

RECIRCULATION OUTLET NOZZLE



NOTES:
1. FOR RECIRCULATION OUTLET NOZZLE DETAILS SEE COMBUSTION ENGINEERING DWG. NO. 232-241-5.
2. FOR RECIRCULATION OUTLET NOZZLE SAFE END DETAILS, SEE SUMITOMO DRAWING NO. EW-994.
3. CBI TO REPAIR INCONEL 182 BUTTER AS NEEDED USING THE APPROPRIATE APPROVED CBI PROCEDURES.
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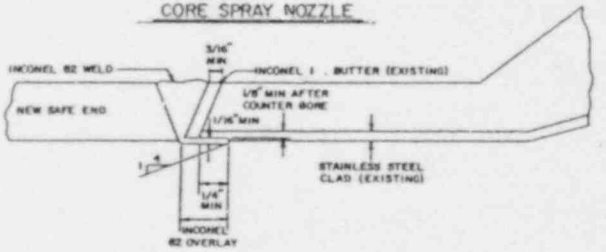
6. SAFE END MATERIAL IS TYPE 316L MODIFIED CHEMISTRY PER CONTRACT 83-41.
7. AS BUILT DETAILS TO BE PROVIDED BY CBI PER CONTRACT 84-2.

CORE SPRAY NOZZLE



NOTES:
1. FOR CORE SPRAY NOZZLE DETAILS SEE COMBUSTION ENGINEERING DWG. NO. 232-243-7.
2. FOR CORE SPRAY NOZZLE SAFE END DETAILS, SEE SUMITOMO DRAWING NO. EW-996.
3. CBI TO REPAIR INCONEL 182 BUTTER AS NEEDED USING THE APPROPRIATE APPROVED CBI PROCEDURES.
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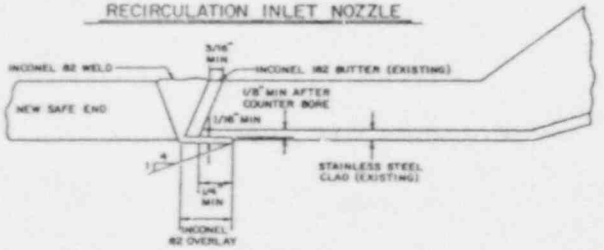
7. AS BUILT DETAILS TO BE PROVIDED BY CBI PER CONTRACT 84-2.

RECIRCULATION INLET NOZZLE



NOTES:
1. FOR RECIRCULATION INLET NOZZLE DETAILS SEE COMBUSTION ENGINEERING DWG. NO. 232-241-5.
2. FOR RECIRCULATION INLET NOZZLE SAFE END DETAILS, SEE SUMITOMO DRAWING NO. EW-995.
3. CBI TO REPAIR INCONEL 182 BUTTER AS NEEDED USING THE APPROPRIATE APPROVED CBI PROCEDURES.
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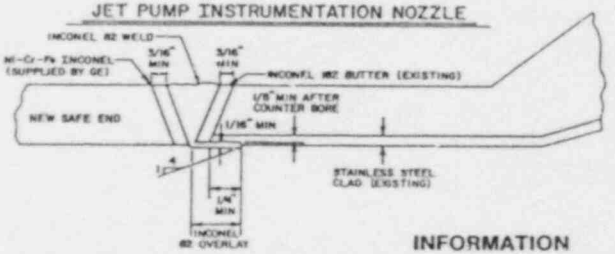
7. AS BUILT DETAILS TO BE PROVIDED BY CBI PER CONTRACT 84-2.

JET PUMP INSTRUMENTATION NOZZLE



INFORMATION ONLY

NOTES:
1. FOR JET PUMP INSTRUMENTATION NOZZLE DETAILS SEE COMBUSTION ENGINEERING DWG. NO. 232-241-5.
2. FOR JET PUMP INSTRUMENTATION SAFE END DETAILS, GENERAL ELECTRIC DRAWING NO. 1120337J.
3. CBI TO REPAIR INCONEL 182 BUTTER AS NEEDED USING THE APPROPRIATE APPROVED CBI PROCEDURES.
4. APPLY INCONEL 82 OVERLAY PER CBI PROCEDURE WPS-ER82 (CRC).
5. INCONEL 82 WELD TO BE PERFORMED PER APPROVED CBI PROCEDURES.
6. SAFE END MATERIAL IS TYPE 316NG PER P.O. 223206.
7. AS BUILT DETAILS TO BE PROVIDED BY CBI PER CONTRACT 84-2.

452208708

SAFE END TO NOZZLE WELD DETAILS

DRAWN	M.B.	1/22/85
CHECKED	R.D.M.	4/1/85
APPROVED	[illegible]	4/1/85

Nebraska Public Power District

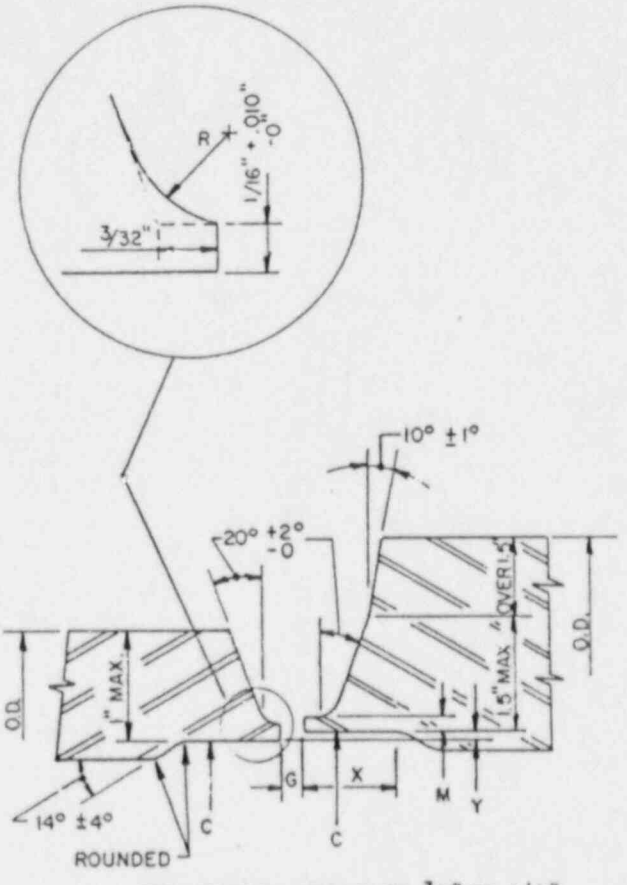
CNS-NB-I

REVISION A

WELD TYPE DRAWINGS - TAB 31

INFORMATION ONLY

MAY 4 '87



FOR NOMINAL WALLS OF 3/8" TO 2 1/4"

DIMENSIONAL JOINT & FIT-UP TOLERANCES

LEGEND	WITH INSERT (1/8" x 5/32" K-STYLE INSERT)
G	1/8" +1/32" -0
Y	0 TO 1/32" MAX.
R	3/16" ± 1/16"
M	1/16" +.010 -0
X	2T (WHERE T = WALL THICKNESS)

FOR CONSTRUCTION

450207683

NO	REVISION
1	ADD SHEET NO. RK 12-10-84
2	Add Tolerances, 12/13/84, MB

PIPING WELD JOINT DETAIL

(RR, CS, RWCU)

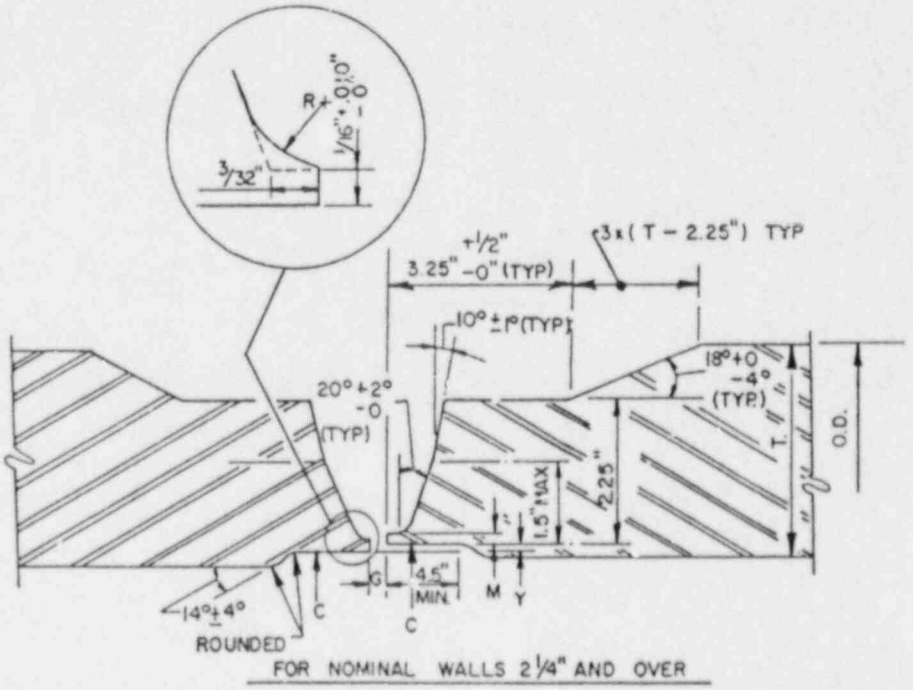
DRAWN SGH	DATE 12-5-83	Nebraska Public Power District
CHECKED TAC	DATE 12/18/84	
APPROVED KSD	DATE 11/7/84	
FILMED	CNS-PPG-1 SHEET 1 OF 2	REVISION 2

STANDARD BLUE, OMAHA 68007

WELD TYPE DRAWINGS - TAB 32

INFORMATION ONLY

MAY 4 '87



FOR NOMINAL WALLS 2 1/4" AND OVER

DIMENSIONAL JOINT & FIT-UP TOLERANCES

LEGEND	WITH INSERT (1/8" x 5/32" K-STYLE INSERT)
G	1/8" +1/32" -0
Y	0 TO 1/32" MAX.
R	3/16" ± 1/16"
M	1/16" +.010" -0

FOR CONSTRUCTION

450207782

NO.	REVISION	
1	Add Tolerances, 12/13/84, MB	CHECKED MAH 12/14/84 APPROVED KSO 12/13/84

PIPING WELD JOINT DETAIL

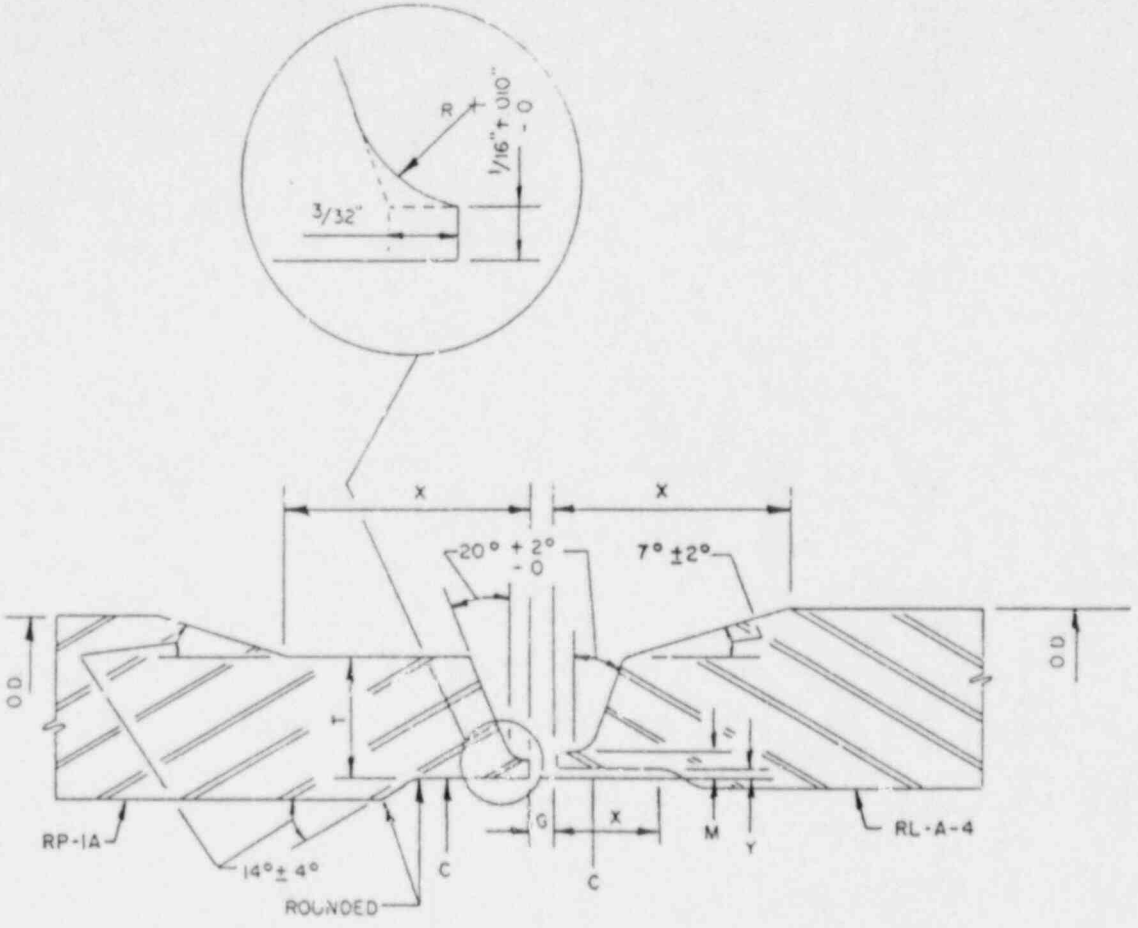
(RR, CS, RWCU)

DRAWN RK	DATE 12-10-84	Nebraska Public Power District
CHECKED MAH	DATE 12-11-84	
APPROVED KSO	DATE 12/13/84	
CLOSED	CNS-PPG-1 SHEET 2 OF 2	REVISION 1

STANDARD BLUE, OMAHA 68107

WELD TYPE DRAWINGS - TAB 33

450208155



	DIMENSIONAL JOINT & FIT-UP TOLERANCES
LEGEND	WITH INSERT (1/8" x 5/32" K-STYLE INSERT)
G	1/8" +1/32 -0
Y	0 TO 1/32" MAX.
R	3/16" ± 1/16"
M	1/16" +.010 -0
X	1 T MINIMUM
T	1.5" MAXIMUM, 1.094" MINIMUM (WALL THICKNESS)
C	TO BE DETERMINED BY FIELD USING ACTUAL OUT OF ROUNDNESS OF PIPE

84-2

NO	REVISION

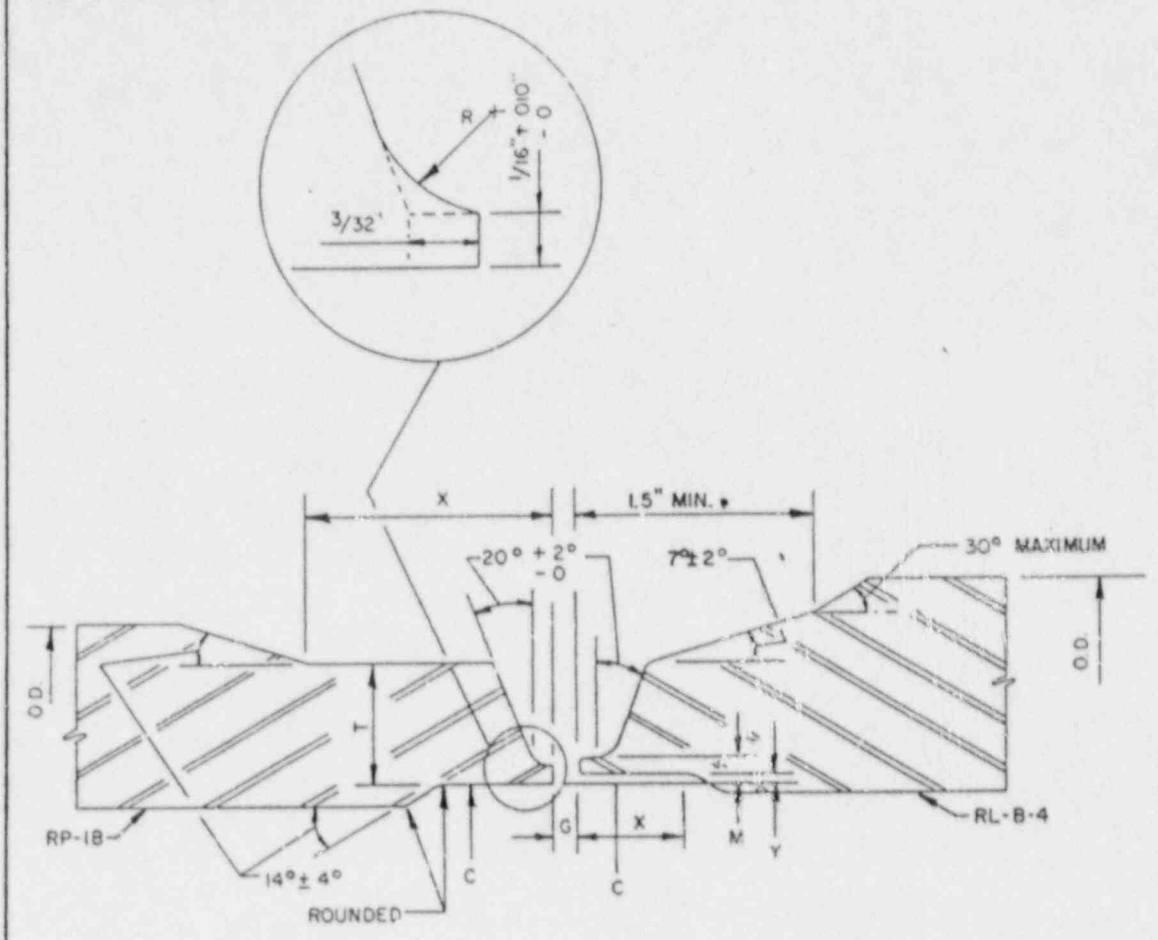
PIPING WELD JOINT DETAIL
(RR)
FOR JOINT S1A (SPOOL PIECE RL-A-4 TO PUMP RP-1A SUCTION)

DRAWN RK	DATE 1-31-85	Nebraska Public Power District
CHECKED MAH	DATE 1-31-85	
APPROVED KJO	DATE 1-31-85	
SCALE	CNS-RR-25	REVISION 0

STANDARD BLUE, OMAHA 68107

WELD TYPE DRAWINGS - TAB 34

450208156



	DIMENSIONAL JOINT & FIT-UP TOLERANCES
LEGEND	WITH INSERT (1/8" x 5/32" K-STYLE INSERT)
G	1/8" +1/32 -0
Y	0 TO 1/32" MAX.
R	3/16" ± 1/16"
M	1/16" +.010 -0
X	1 T MINIMUM
T	.5" MAXIMUM, 1.094" MINIMUM (WALL THICKNESS)
C	TO BE DETERMINED BY FIELD USING ACTUAL OUT OF ROUNDNESS OF PIPE

84-2

NO. REVISION

PIPING WELD JOINT DETAIL
(RR)
FOR JOINT S1B (SPOOL PIECE RL-B-4 TO PUMP RP-1B SUCTION)

DRAWN	RK	1-31-85
CHECKED	MAH	1-31-85
APPROVED	JK30	1-31-85

Nebraska Public Power District

CNS-RR-26

REVISION 0

STANDARD BLUE, OMAHA 68107

ISI DRAWINGS

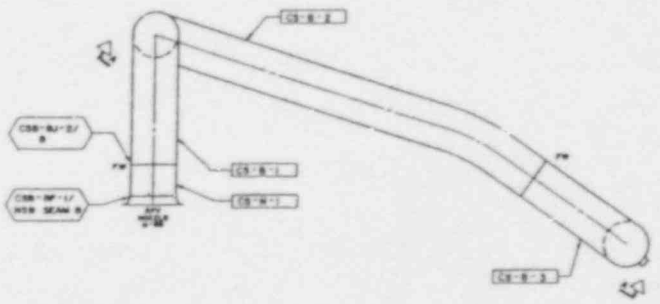
ISI DRAWINGS (REF. ISI PROGRAM, REV. 2
(For Information Only)

TAB	DRAWING NUMBER	DESCRIPTION
1	CNS-CS-3	Core Spray Loop A
2	CNS-CS-4	Core Spray Loop B
3	CNS-RWCU-3	Clean Up
4	4	RWCU Return
5	5	Feedwater Loop A, Nozzles N4A and N4B
6	6	Feedwater Loop B, Nozzles N4C and N4D
7	7	Feedwater Loop A and B
8	CB&I 10	Jet Pump Instrumentation
9	9	Main Steam Loop "A"
10	10	Main Steam Loop "B"
11	11	Main Steam Loop "C"
12	12	Main Steam Loop "D"
13	13	HPCI Steam
14	14	HPCI Water
15	15	Deleted
16	16	RHR 20" Supply
17	17	RHR Loop A
18	18	RHR Loop B
19	19	Deleted
20	CNS-RR-37	Recirculation Loop A
21	21	Deleted
22	CNS-RR-38	Recirculation Loop B
23	23	Deleted

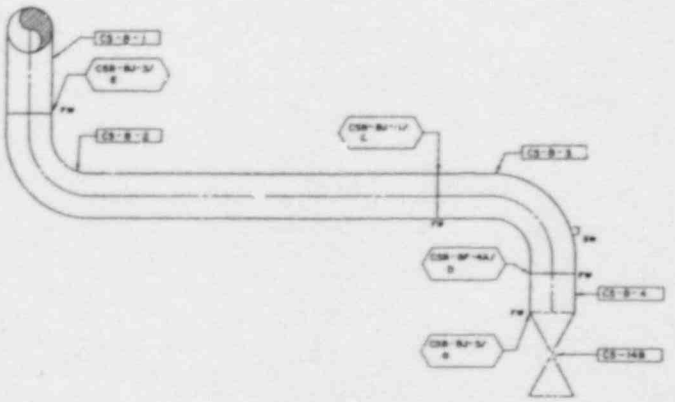
ASME CLASS 1

ISI DRAWINGS - TAB 1

INFORMATION ONLY



PLAN - CS ROUTING LOOP B



ELEVATION A-A

GENERAL NOTES

LEGEND

SW - SHOP WELD

FW - FIELD WELD

CS-B-N - SPOOL PIECE NUMBER

INFORMATION ONLY

453208391

CORE SPRAY
LOOP "B"
WELD JOINT NUMBER IDENTIFICATION

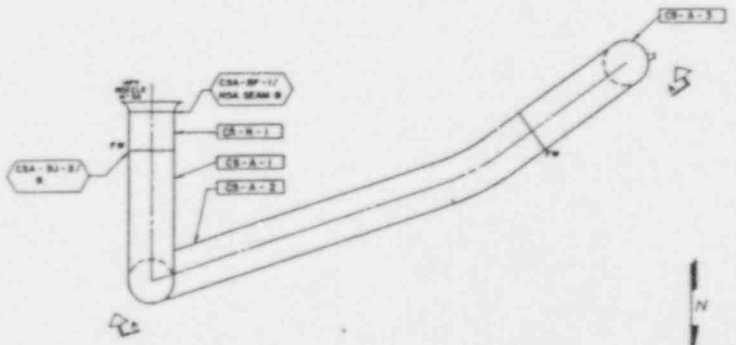
CNS-CS-3

MAY

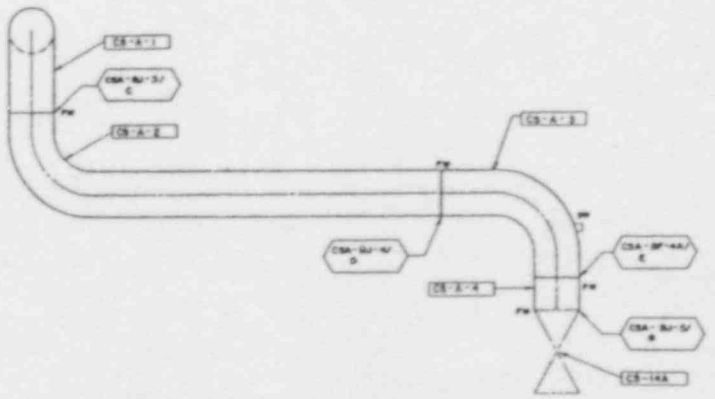
FEB. 20 1986 N.P.P.D.

ISI DRAWINGS - TAB 2

INFORMATION ONLY



PLAN - CS ROUTING LOOP A



ELEVATION A-A

GENERAL NOTES

LEGEND

SW - SHOP WELD

FW - FIELD WELD

CS-A-N - SPOOL PIECE NUMBER

INFORMATION ONLY

453208390

CORE SPRAY
LOOP "A"
WELD JOINT NUMBER IDENTIFICATION

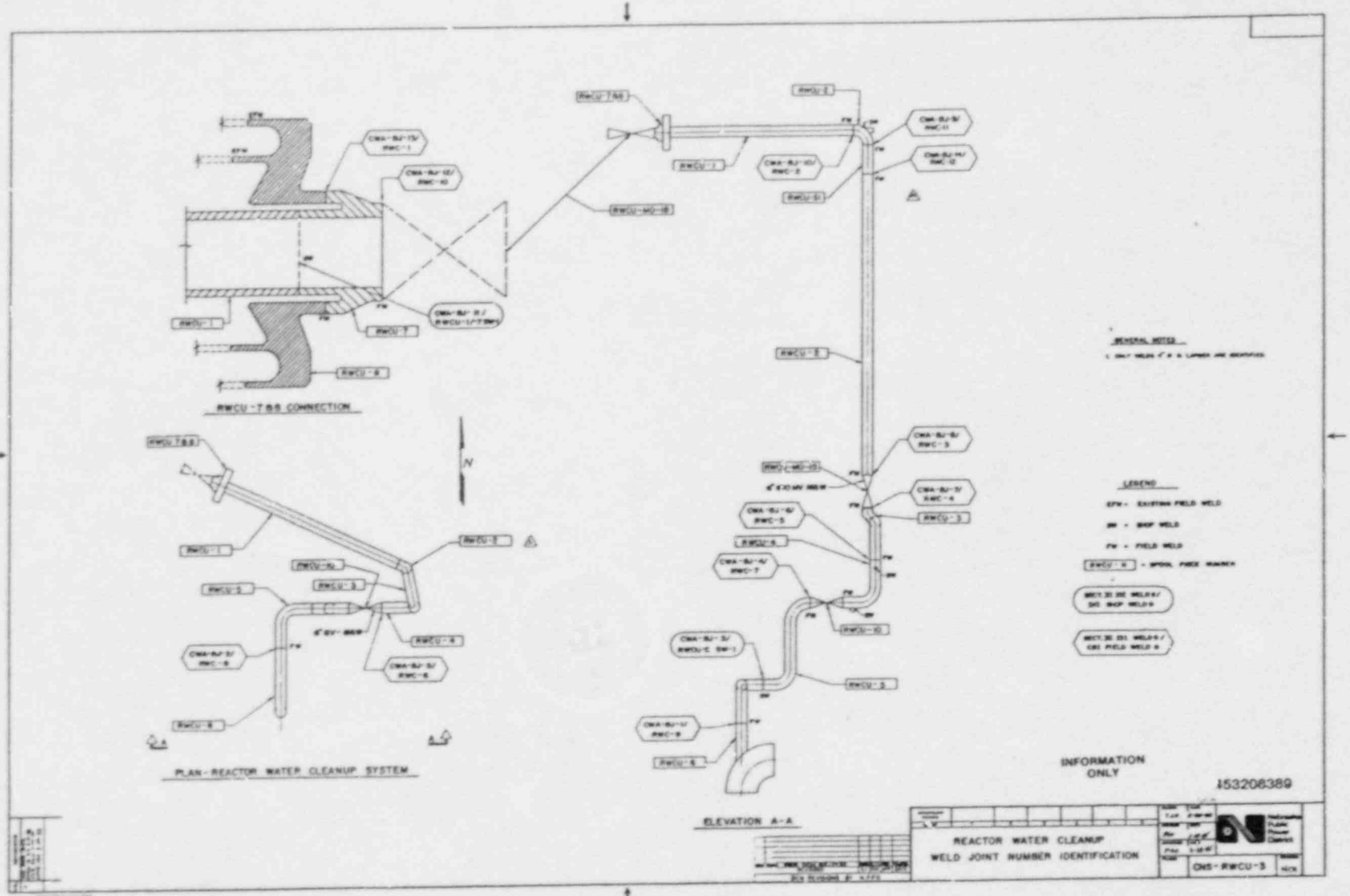
CNS-CS-4

MAY 5 '87

FEB. 20 1986 N.P.P.D.

ISI DRAWINGS - TAB 3

INFORMATION ONLY



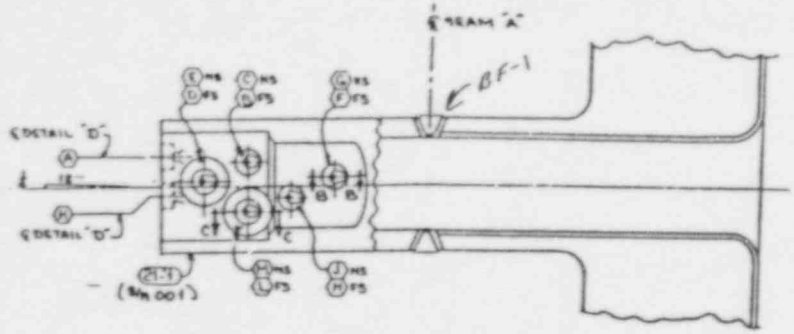
MAY 5 '87

FEB 20 1986 N.P.P.D.

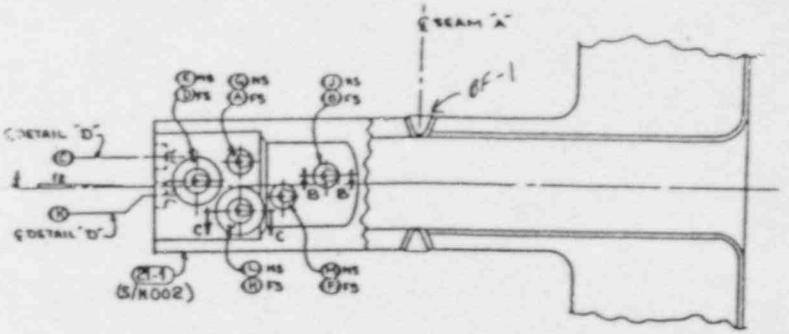
ISI DRAWINGS - TAB 8

MAY 4 '87

INFORMATION ONLY

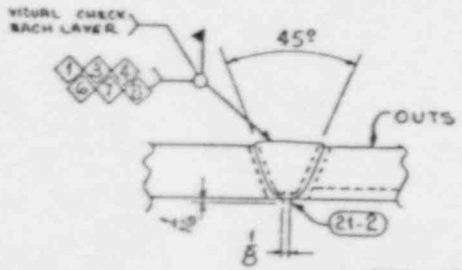


JET PUMP INSTRUMENTATION NOZZLE MK N8A W/ NEW SAFE-END



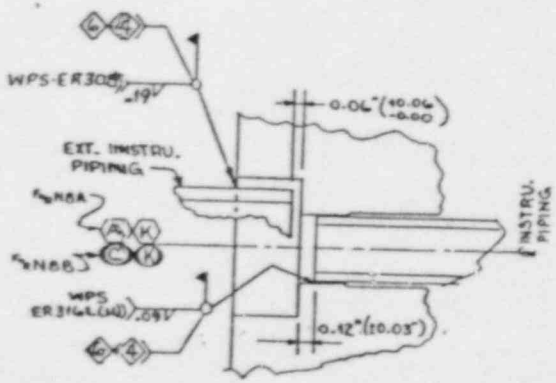
JET PUMP INSTRUMENTATION NOZZLE MK N8B W/ NEW SAFE-END

(CROSS-OUT THE EXISTING HOLE MARKS AND REMARK AS SHOWN ABOVE.)



SEAM "A" (MAX ALLOWABLE OFFSET = 1/32")

(WELD WITH ER-NI (Cr-3) PER WPS-ER 82(A))



DETAIL "D"

(TYP TWO(2) LOCATIONS PER EACH NOZZLE)

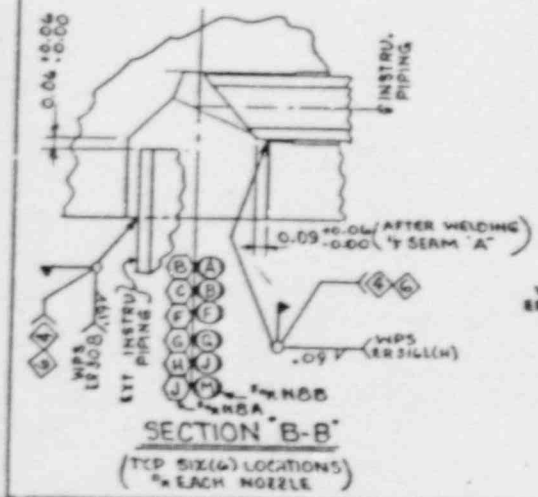
AS BUILT

NOTES

1. SEE DWG.# 19 FOR REMOVAL OF EXISTING SAFE-END.
2. SEE DWG.# 21 FOR PL. DETAILS.
3. SEE DWG.# 4 FOR IN-SERVICE INSPECTION REQUIREMENTS.
4. SEE DWG.# 71 THRU 74 FOR EXT. INSTRU. PIPING.
5. ALL DIMS ARE AS-BUILT UNLESS NOTED OTHERWISE.

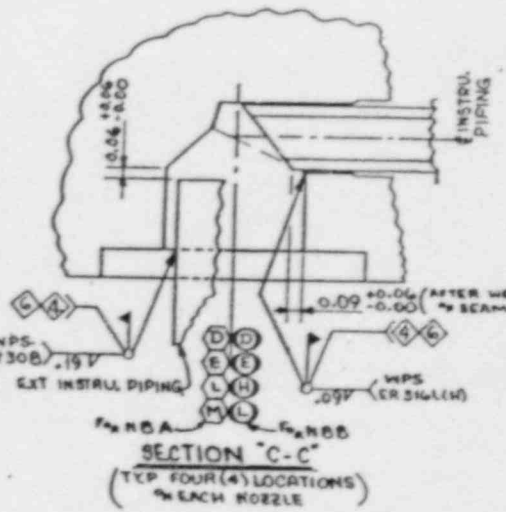
CBI VERIFIED AS-BUILT AUG 18 1986

451206561



SECTION "B-B"

(TYP SIX(6) LOCATIONS PER EACH NOZZLE)



SECTION "C-C"

(TYP FOUR(4) LOCATIONS PER EACH NOZZLE)

NDE SCHEDULE

REP NO	TYPE OF NDE	LOCATION	PROCEDURE
1	PT	ROOT PASS	PT-1-X
2	VT	ROOT PASS	VT-1-X
3	PT	COMPLETED WELD	PT-1-X
4	VT	COMPLETED WELD	VT-1-X
5	UT	ROOT PASS	UT-1-N
6	UT	COMPLETED WELD	UT-2-N

▶ INDICATES CHANGE FROM PREVIOUS ISSUE

AS-BUILT AND P.E. STAMP

NEBRASKA PUBLIC POWER DISTRICT
COOPER NUCLEAR STATION
BROWNVILLE NEBRASKA
NPPD CONTRACT 84-2

Chicago Bridge & Iron Company (CBI)

JET PUMP INSTRUMENTATION NOZZLE WITH NEW SAFE-END

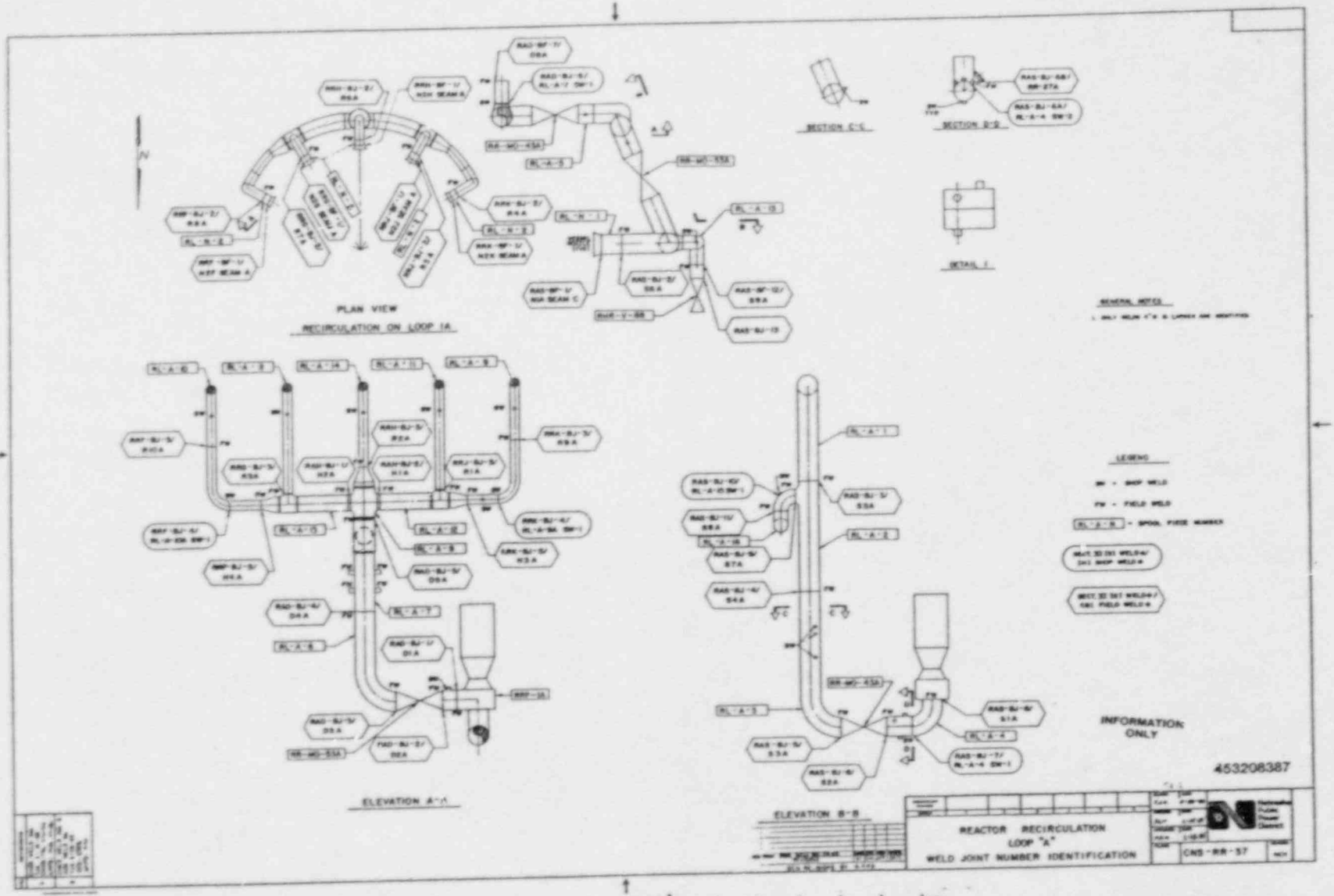
DRAWN 2-1-84

43701

20 10

ISI DRAWINGS - TAB 20

INFORMATION ONLY

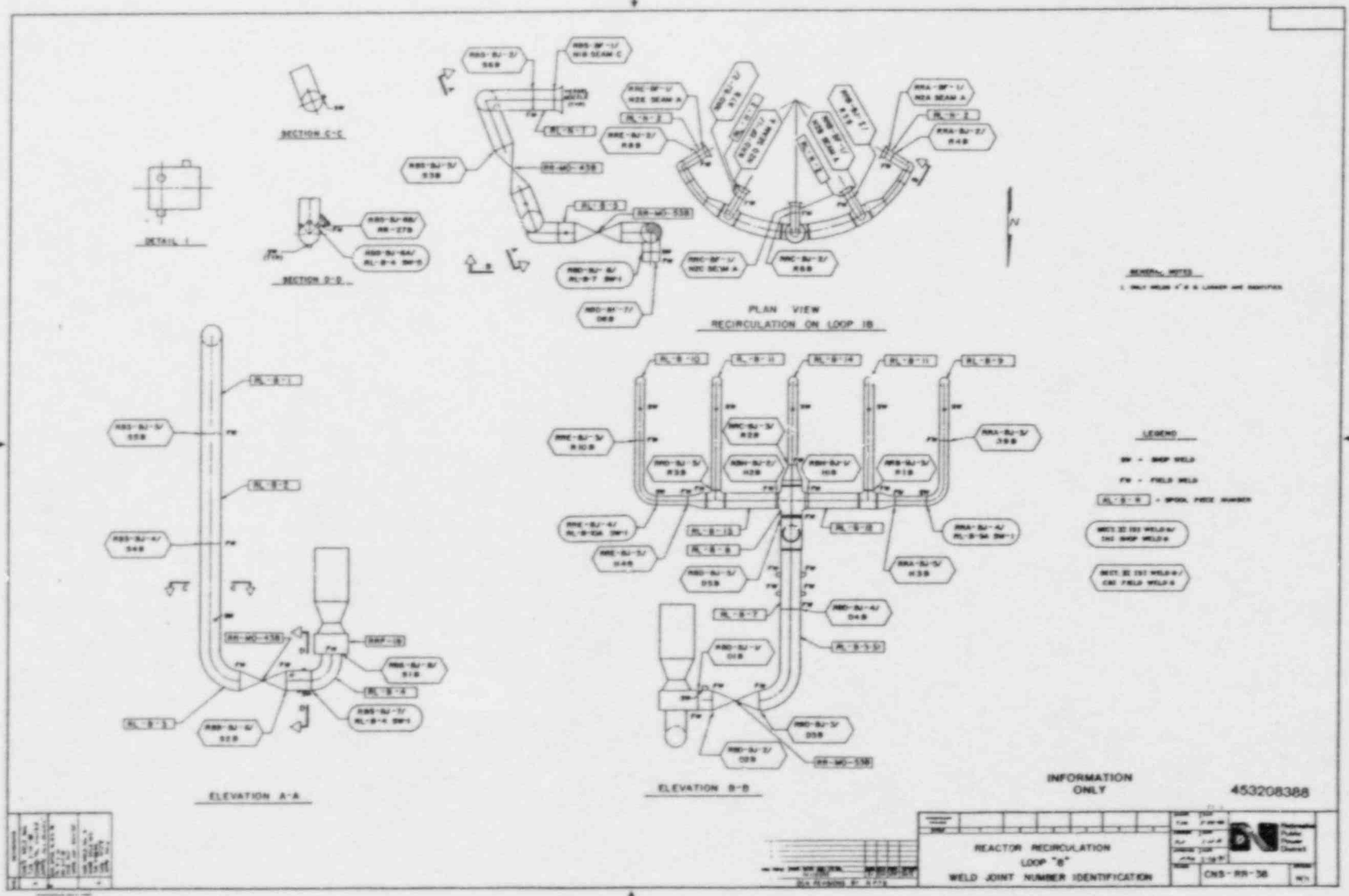


MAY 5 '87

FEB 20 1986 N.P.P.D.

ISI DRAWINGS - TAB 22

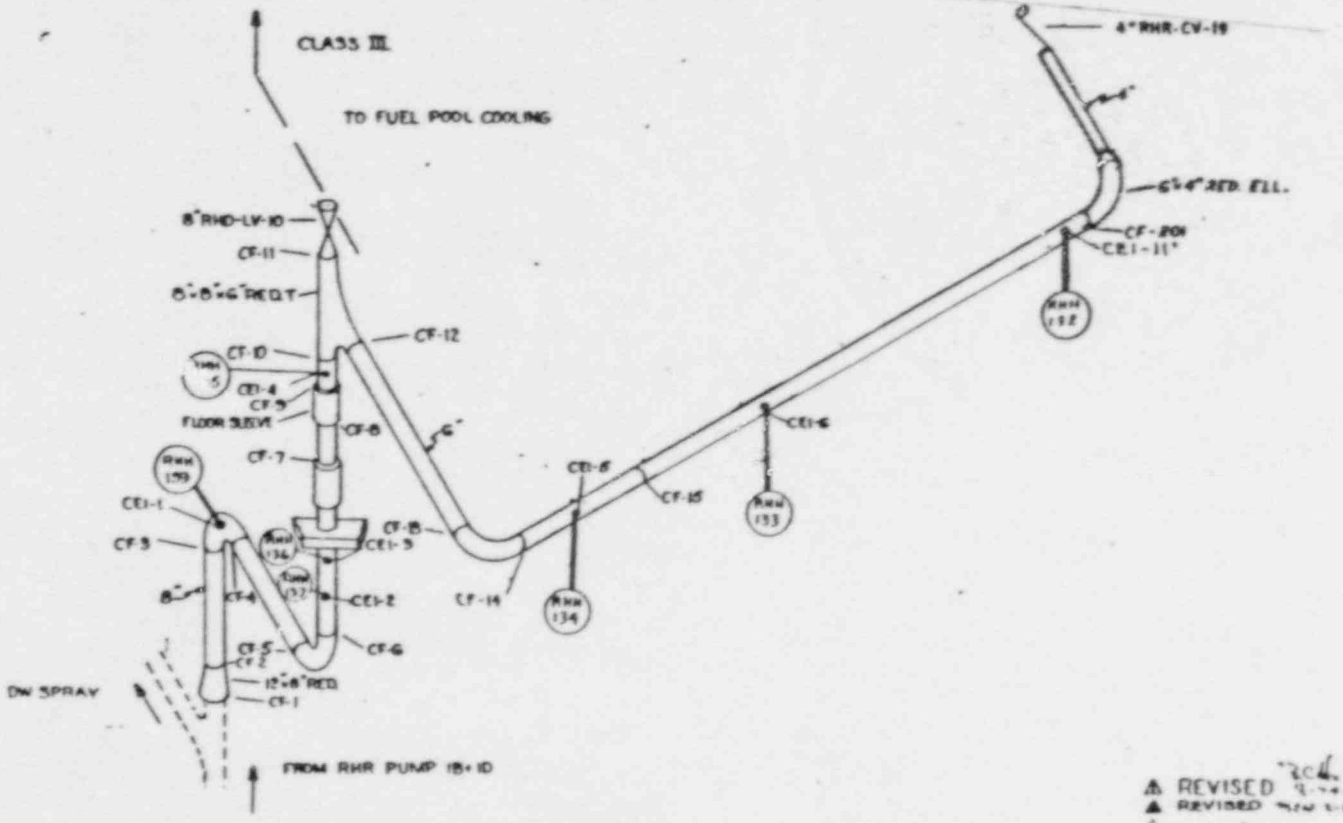
INFORMATION ONLY



MAY 5

FEB. 20 1986 N.P.P.D.

ISI DRAWINGS - TAB 39



: Weld

: Circumferential Weld

: Long Seam Weld

: Hanger Location and Number (CE2 Category)

: Seismic Restraint and Number (CE2 category)

- - - - - - [Exempt Piping

All welds prefixed RHD-.

⚠ REVISED [illegible]

⚠ REVISED [illegible]

⚠ Revised SSF 5-30-87

GENERAL ELECTRIC

SCALE NONE		DRAWN BY R. P
DATE 8-2-79		SHEET 1

TITLE 6" R. Hd. SPRAY VENT
COOPER NUCLEAR STATION

REFERENCE JELCO ISO. 2GE4-6

35

W81 RELIEF REQUESTS

W81 RELIEF REQUESTS

TAB	RELIEF REQUEST NO.	DESCRIPTION
1	1	ASME Category B-J, Inaccessible welds, primary containment
2		Deleted. MAY 1987
3	3	ASME Category B-D, RPV Top Head Nozzle inner radii
4	4	ASME Category C-F, Inaccessible welds in floor penetrations
5	5	ASME Category C-A, Inaccessible welds on the RHR Heat Exchanger
6	6	ASME Category B-A, Inaccessible RPV welds

2ND INTERVAL NIS-1 FORMS

NIS-1 FORM
OWNER'S DATA REPORT FOR INSERVICE INSPECTIONS

As required by the Provisions of the ASME Code Rules

1. OWNER: Nebraska Public Power District, P. O. Box 499, Columbus, NE 68601

2. PLANT: Cooper Nuclear Station #1, P. O. Box 98, Brownville, NE 68321

3. PLANT UNIT: #1 4. OWNER CERTIFICATE OF AUTHORIZATION (if required): N/A

5. COMMERCIAL SERVICE DATE: 07/74 6. NATIONAL BOARD NUMBER FOR UNIT: #20762

7. COMPONENTS INSPECTED: See Attached Exam Component ID Index

8. EXAMINATION DATES: 10-10-86 to 01-02-87 9. INSPECTION INTERVAL: From 1985 To 1995

10. ABSTRACT OF EXAMINATIONS: Include a list of examinations and a statement concerning status of work required for current interval: For a list of examinations see attached Exam Component ID Index. Current status of work required for current interval is 25% complete this date.

11. ABSTRACT OF CONDITIONS NOTED: See Attached Summary Report

12. ABSTRACT OF CORRECTIVE MEASURES RECOMMENDED AND TAKEN: See Attached Report Summa

We certify that the statements made in this report are correct and the examination and corrective measures taken conform to the rules of the ASME Code, Section XI.

Date 1-2 1987 Signed [signature] By Division Manager

Certificate of Authorization No. (if applicable) _____ Expiration Date ____

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of Nebraska and employed by Hartford Steam Boiler of Hartford, CT have inspected the components described in this Owner's Data Report during the period 10-1-86 to 1-2-87, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Data Report in accordance with the requirements of the ASME Code, Section XI.

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

Date JAN. 2 1987.

Keith D. Jorgensen Commissions NB 9421
Inspector's Signature National Board, State, Province and No

SUMMARY REPORT

1.0 Introduction

Nondestructive examinations were performed under the direction of the Nuclear Energy Business Operations of the General Electric Company under contract by Nebraska Public Power District from October 10, 1986, to January 2, 1987 at Cooper Nuclear Station. A total of 305 components were examined during this period.

2.0 Summary of Components Inspected

The following table lists the number of components examined by ASME Category and describes recordable indications, other than geometric, if any.

Number of Components	Description	ASME Category	Conditions Noted
3	RPV Welds	B-A	Spot indications were noted in the base metal of welds No. VCB-BC6-1 and HME-BB-2. These indications were determined to be acceptable to ASME Section XI criteria. See EDS #217. No other recordable indications.
11	RPV Nozzle Inner Radius.	B-D	No recordable indications.
8	RPV Nozzle to Vessel Welds.	B-D	Numerous indications found in base material Weld No. N1A, N2F, N2H, N4B, N4D, N3A See E.D.S. #166, 178, 190. These indications were determined to be acceptable to ASME Section XI criteria. No other recordable indication.
16	Pressure Retaining partial penetration welds vessel.	B-E	CRD-26-31 had less than one drop per sec. Ref. E.D.S. #319. CRD-42-27 had less than one drop per sec. Ref. E.D.S. 319. CRD-18-39 had more than one drop per sec. Ref. E.D.S. #319. No other recordable indications were noted.
8	Class 1 dissimilar metal welds.	B-F	Linear Indication was deteeted in N2-H. See E.D.S. #A-050. The indication was determined to be acceptable to ASME Section XI criteria. I.D. Clad seperation was noted in CSA-BF-1/N5A. See E.D.S. No. 120 and A-039. These indications are acceptable to ASME Section XI criteria. No other recordable indications.

Number Components	Description	ASME Category	Conditions Noted
34	Class I Pressure Retaining Bolting 2" or greater in diameter.	B-G-1	No recordables.
16	Class I Pressure Retaining Bolting less than 2" in diameter.	B-G-2	Light rust was noted on CS-MO-12B. See E.D.S. 072. No corrective action was required. Heavy corrosion was noted on RHR-MO-25A See E.D.S. 072. No corrective action was required. Two (2) flange bolts thread engagement are flush on MS-RV-71G. No corrective action was required. No other recordable indications.
1	Internal attachments for vessels.	B-H	No recordables.
50	Class I pressure retaining welds in piping.	B-J	Weld No. FW-BJ-50 had a rejectable PT indication. See E.D.S. #017. Was repaired. Ref. E.D.S. #228, 290, 291. Weld No. CWA-BJ-7 has an acceptable linear indication. See E.D.S. #305. No other recordable indications.
10	Interior of RPV.	B-N-1	No recordables.
2	Internally welded core support structures and interior attachments to RPV.	B-N-2	No recordables.
2	Pressure retaining components.	B-P	MS-SV70C had (2) two drops per. sec. Ref. E.D.S. #319. RCIC-MO15 was noted to have 3 drops per. sec. RHR-V-81B had less than one drop per second. MS-AOV-AO80D had less than one drop per second. RHR-V-88 had more than one drop per second. MS-AOV-AO 80B had steady stream less than a pencil diameter. MS-AOV-AO80C had less than one drop per second. RR-V-32 had less than one drop per second. RR-F.I.S.-26B had less than one drop per second. RR-R.I.S.-21B had less than one drop per second. RR-MOV-MO43A had less than one drop per second. RWCU-MOV-MO15 had more than one drop per second. RHR-MOV-MO25A had more than one drop per second. HPIC-140 on rack 25-50 had

			less than one per second. HPIC-140 (HPIC-PS-68A) rack
		B-P	25-50 had 5 drops per second. RF-V-13 had (2) two drops per second. RHR-V-88 had less than one drop per second. RHR-MO-25A had a steady stream greater than a pencial diameter. NBI-DPT-62 had less than one drop per second. MSIV-86A had less than one drop per second. RWCU-V-37 had less than one drop per second. MS-V-16 had less than one drop per second. MS-MOV-MO78 had a steady stream less than a pencil diameter. RHR-V-178 had less than one drop per second RR-FS-21B had less than onedrop per second. RWCU-MOV-MO68 had more than one drop per second. RWCU-V-121 had more than one drop per second. Ref. E.D.S. #319. No other recordable indications were noted.
78	Pressure retaining welds in piping.	C-F	IGSCC was detected in weld No. CWA-CF-40. See E.D.S. 280. This indication was repaired. Ref. E.D.S. 281, 295, 296, and 298. Linear indication noted with PT in Weld No. HPCI-CF-14. See E.D.S. 243. This indication was repaired - Ref. E.D.S. 310. A 1/8" rounded acceptable indication was also noted for this weld. No other recordable indications.
3	Plate and shell supports.	F-A	Rigid hanger RFH-7 loose anchor bolts and evidence of physical displacement. See E.D.S. 116 and 117. This support was repaired per WI-86-4903 Ref. E.D.S. 311. No other recordable indications.
7	Linear supports.	F-B	Support RFH-68, gross misalignment. Loose pipe clamp bolt and pipe clamp bolt flush with threads - See E.D.S. 109 and 110. This support was repaired. Ref. E.D.S. 311. Rigid hanger RFH-12 has the lower plate separated .3" from wall. See EDS 116 and 117. No corrective action was required. Rigid hanger RFH-12A top and bottom downstream lugs show signs of wear. No corrective action

			was required. See EDS 116 & 117. No other recordable indications. Spring can hanger RFH-1 has one ceiling anchor bolt not flush. See E.D.S. 109 and 110. No corrective action was required.
37	Component standard supports.	F-C	Support RFH-2, had loose lock nut, cotter pin not secure. See E.D.S. 116 and 117. Repaired to WI 86-4903. Ref. E.D.S. 311. Support RFH-3, had spring can turn buckel lock nut loose. See E.D.S. 109 and 110. Repaired per WI 86-4904. Ref. E.D.S. 311. Support RFH-4, had lock nut loose. See E.D.S. 116 and 117. Repaired per W.I. 86-4901. Ref. E.D.S. 311. Support RFH-5 - had cable strung from ceiling bracket. See E.D.S. 116 and 117. Repaired per WI 86-4902. Ref. E.D.S. 311. Support RFH-6 - had loose turn buckle lock nut. See E.D.S. 116 and 117. Repaired per WI 86-4901. Ref. E.D.S. 311. Support RFH-71A had a cotter pin broken. See E.D.S. 107 and 108. Repaired per WI 86-4782. Ref. E.D.S. 311. Support MSH-170 - had metal shavings in spring canister. See E.D.S. 107 and 108. Repaired per WI 86-4777. Ref. E.D.S. 311. Both double variable spring hangers CUH-48 and CUH-49 have incorect settings. See E.D.S. 107 and 108. Repaired WI-86-4914. REF. E.D.S. 314. Both CUS-3 upstream and CUS-3 downstream have .9" bracket spacing. Ref. E.D.S. 111 and 112. Repaired WI-86-4532. Ref. E.D.S. 313. Support RFS-17 had a 1.2" bracket spacing and threaded engagement flush at pipe clamp. Ref. E.D.S. 111 and 112. Repaired per WI-86-4538. Ref. CDS 313. Support RFS-18 had 1.2" bracket spacing and thread engagement flush at pipe clamp. Ref. E.D.S.111 and 112. Repaired per WI-86-4538. Support RFS-19 had 1.2 bracket spacing.

	Thread engagement .4" from flush at pipe clamp. Repaired per WI-86-4538. Ref. E.D.S. 313. Support RFS-15 had a 1.1" bracket spacing. REF. E.D.S. 111 and 112. Repaired per WI-86-4538. Support RFS-16 had 1.2" clamp and bracket spacing. Snubber was against insulation on adjacent piping REF. E.D.S. 111 and 112. Repaired per WI-86-4538.
F-C	Support RFH-74 is pressing against conduit obstruction. No corrective action was required.
	Support RHH-37 had a loose locknut at top eye bolt. REF. E.D.S. 185 and 186. Repaired per WI-86-5021. REF. E.D.S. 313. Support RFS-15 had a loose nut at the top of the eye bolt. Ref. E.D.S. 317. Repaired per W.I. 86-4538. Ref. E.D.S. 318. No other recordable indications.

Number of Components	Description	ASME Category	Conditions Noted
1	Containment Welds	M-C	No recordables.
4	Safety and Relief Valves	C	No recordables.
4	Moisture Seperators	N/A	Gross erosion - See E.D.S. 118.
1	Vessel Containment Wall	N/A	No recordables.
3	Calibration Blocks	N/A	No recordables.

Of the 305 components examined, 252 were ASME Section XI credit examinations. The remaining 31 components were only partially completed to ASME Section XI or were examined for Cooper Nuclear Station information purposes.

EXAM COMPONENT INDEXES

EXAM COMPONENT I.D. INDEX
COOPER NUCLEAR STATION
FALL 1986

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National Board #20762

Page Revision No.

Size	Exam Component I.D. Number	Comp. Fig.	Drawing	ASME CAT.	Procedure Number	Rev	Exam Type	EDS #	CDS #	LDS #	CNS CAL. STD NO.	ANII Init. Date
218"	HMB-BB-1	R.P.V.	26	B-A	MIUV-W812 FRR-1	1	UT-0	217	216	215	15	12-05-86
					MIUV-W812 FRR-1	1	UT-45	265	264	263	15	12-05-86
					MIUV-W812 FRR-1	1	UT-60	268	267	266	15	12-05-86
218"	HMB-BB-2	R.P.V.	26	B-A	MIUV-W812 FRR-1	1	UT-0	217	216	215	15	12-05-86
					MIUV-W812 FRR-1	1	UT-45	265	264	263	15	12-05-86
					MIUV-W812 FRR-1	1	UT-60	268	267	266	15	12-05-86
218"	VCB-BC6-1	R.P.V.	26	B-A	MIUV-W812 FRR-1	1	UT-0	217	216	215	15	12-05-86
					MIUV-W812 FRR-1	1	UT-45	265	264	263	15	12-05-86
					MIUV-W812 FRR-1	1	UT-0	268	267	266	15	12-05-86

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24"	NVE-BD-N3A	R.P.V.	26	B-D	MIUV-W812 FRR-1	1	UT-0	172	171	170	16	11-21-86
					MIUV-W812 FRR-1	1	UT-45	175	174	173	16	11-21-86
					MIUV-W812 FRR-1	1	UT-60	178	177	176	16	12-05-86
12"	NVE-BD-N4B	R.P.V.	27	B-D	MIUV-W812 FRR-1	1	UT-0	166	165	164	16	12-15-86
					MIUV-W812 FRR-1	1	UT-45	169	168	167	16	11-21-86
					MIUV-W812 FRR-1	1	UT-60	163	162	161	16	11-21-86
12"	NVE-BD-N4D	R.P.V.	27	B-D	MIUV-W812 FRR-1	1	UT-0	166	165	164	16	12-15-86
					MIUV-W812 FRR-1	1	UT-45	169	168	167	16	11-21-86
					MIUV-W812 FRR-1	1	UT-60	163	162	161	16	11-21-86
6"	NVIR-BD-N7	R.P.V.	26	B-D	IP-W812	1	PT	231	N/A	N/A	N/A	12-05-86
28"	NVIR-BD-N1A	R.P.V.	27	B-D	NIRZ3-W812 FRR-1	1	UT-45	209	208	207	24	12-05-86
					NIRZ1-W812 FRR-1	0	CW-CCW	211	210	210	22	12-05-86
					MIUR-W812 FRR-1	1	CW-CCW	213, 214	212	021	16	12-05-86

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12"	NVIR-BD-N2C	R.P.V.	27	B-D	NIRZ3-W812 FRR-1	1	UT-45°	193	192	191	25	12-05-86
					NIRZ2-W812 FRR-1	0	CS-CCW	198	197	197	22	12-05-86
					NIRZ1-W812 FRR-1	0	CW-CCW	203	202	202	22	12-05-86
6"	NVE-BD-N7	R.P.V.	26	B-D	MIUV-W812 FRR-1	1	UT-0	252	251	250	15	12-05-86
					MIUV-W812 FRR-1	1	UT-45	255	254	253	15	12-05-86
					MIUV-W812 FRR-1	1	UT-60	258	257	256	15	12-05-86
28"	NVE-BD-N1A	R.P.V.	27	B-D	MIUV-W812 FRR-1	1	UT-0	190	189	188	16	12-12-86
					MIUV-W812 FRR-1	1	UT-45	134	133	134	16	11-21-86
					MIUV-W812 FRR-1	1	UT-60	132	131	132	16	11-21-86
12"	NVE-BD-N2F	R.P.V.	27	B-D	MIUV-W812 FRR-1	1	UT-0	190	189	188	16	12-12-86
					MIUV-W812 FRR-1	1	UT-45	134	133	134	16	11-21-86
					MIUV-W812 FRR-1	1	UT-60	132	131	132	16	11-21-86

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12"	NVE-BD-N2G	R.P.V.	27	B-D	MIUV-W812 FRR-1	1	UT-0	190	189	188	16	12-12-86
					MIUV-W812 FRR-1	1	UT-45	134	133	134	16	11-21-86
					MIUV-W812 FRR-1	1	UT-60	132	131	132	16	11-21-86
12"	NVE-BD-N2H	R.P.V.	27	B-D	MIUV-W812 FRR-1	1	UT-0	190	189	188	16	12-12-86
					MIUV-W812 FRR-1	1	UT-45	134	133	134	16	11-21-86
					MIUV-W812 FRR-1	1	UT-60	132	131	132	16	11-21-86
12"	NVIR-BD-N2F	R.P.V.	27	B-D	NIRZ3-W812 FRR-1	1	UT-45°	194	192	191	25	12-05-86
					NIRZ2-W812 FRR-1	0	CW-CCW	199	197	197	22	12-05-86
					NIRZ2-W812 FRR-1	0	CW-CCW	204	202	202	22	12-05-86
12"	NVIR-BD-N2G	R.P.V.	27	B-D	NIRZ3-W812 FRR-1	1	UT-45°	195	192	191	25	12-05-86
					NIRZ2-W812 FRR-1	0	CW-CCW	200	197	197	22	12-05-86
					NIR21-W812 FRR-1	0	CW-CCW	205	202	202	22	12-05-86

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Size	Exam Component I.D. Number	Comp. Fig.	Drawing	ASME CAT.	Procedure Number	Rev	Exam Type	EDS #	CDS #	LDS #	CNS CAL. STD NO.	ANII Init. Date
24"	NVIR-BD-N3A	R.P.V.	27	B-D	NIRZ3-W812 FRR-1	1	UT-45°	137	135	136	26	11-21-86
					NIRZ2-W812 FRR-1	0	CW-CCW	139	138	138	22	11-21-86
					NIRZ1-W812 FRR-1	0	CW-CCW	141	140	140	22	11-21-86
24"	NVIR-BD-N4A	R.P.V.	27	B-D	NIRZ3-W812 FRR-1	1	UT-45°	144	142	143	27	11-21-86
					NIRZ2-W812 FRR-1	0	CW-CCW	149	148	148	22	11-21-86
					NIRZ1-W812 FRR-1	0	CW-CCW	154	153	153	22	11-21-86
14"	NVIR-BD-N4B	R.P.V.	27	B-D	NIRZ3-W812 FRR-1	1	UT-45°	145	142	143	27	11-21-86
					NIRZ2-W812 FRR-1	0	CW-CCW	150	148	148	22	11-21-86
					NIRZ1-W812 FRR-1	0	CW-CCW	155	153	153	22	11-21-86
14"	NVIR-BD-N4D	R.P.V.	27	B-D	NIRZ3-W812 FRR-1	1	UT-45°	147	142	143	27	11-21-86
					NIRZ2-W812 FRR-1	0	CW-CCW	152	148	148	22	11-21-86
					NIRZ3-W812 FRR-1	0	CW-CCW	157	153	153	22	11-21-86

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Size	Exam Component I.D. Number	Comp. Fig.	Drawing	ASME CAT.	Procedure Number	Rev	Exam Type	EDS #	CDS #	LDS #	CNS CAL. STD NO.	ANII Init. Date
12"	NVIR-BD-N2H	R.P.V.	43 GE-E 232-239	B-D	NIRZ3-W812 FRR-1	1	UT-45°	196	192	191	25	12-05-86
					NIRZ2-W812 FRR-1	0	CW-CCW	201	197	197	22	12-05-86
					NIRZ1-W812 FRR-1	0	CW-CCW	206	202	202	22	12-05-86
	NVIR-BD-N4C	R.P.V.	27	B-D	NIRZ3-W812 FRR-1	1	UT-45°	146	142	143	27	11-21-86
					NIRZ1-W812 FRR-1	0	CW-CCW	151	148	148	22	11-21-86
					NIRZ1-W812 FRR-1	0	CW-CCW	156	153	153	22	11-21-86

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Size	Exam Component I.D. Number	Comp. Fig.	Drawing	ASME CAT.	Procedure Number	Rev	Exam Type	EDS #	CDS #	LDS #	CNS CAL. STD NO.	ANII Init. Date
6"	INCORE-04-29	309SS	28	B-E	7.0.8 *2.1.14	2 16	VT-2	319	N/A	N/A	N/A	01-02-87
N/A	INCORE-36-09	N/A	28	B-E	7.0.8 *2.1.14	2 16	VT-2	319	N/A	N/A	N/A	01-02-87
N/A	NVE-BE-DRAIN	N/A	26	B-E	7.0.8 *2.1.14	2 16	VT-2	319	N/A	N/A	N/A	01-02-87
N/A	CRD-02-19	N/A	28	B-E	7.0.8 *2.1.14	2 16	VT-2	319	N/A	N/A	N/A	01-02-87
N/A	CRD-02-27	N/A	28	B-E	7.0.8 *2.1.14	2 16	VT-2	319	N/A	N/A	N/A	01-02-87
N/A	CRD-06-11	N/A	28	B-E	7.0.8 *2.1.14	2 16	VT-2	319	N/A	N/A	N/A	01-02-87
N/A	CRD-06-23	N/A	28	B-E	7.0.8 *2.1.14	2 16	VT-2	319	N/A	N/A	N/A	01-02-87
N/A	CRD-06-31	N/A	28	B-E	7.0.8 *2.1.14	2 16	VT-2	319	N/A	N/A	N/A	01-02-87
N/A	CRD-06-43	N/A	28	B-E	7.0.8 *2.1.14	2 16	VT-2	319	N/A	N/A	N/A	01-02-87
N/A	CRD-10-15	N/A	28	B-E	7.0.8 *2.1.14	2 16	VT-2	319	N/A	N/A	N/A	01-02-87
N/A	CRD-10-39	N/A	28	B-E	7.0.8 *2.1.14	2 16	VT-2	319	N/A	N/A	N/A	01-02-87
N/A	CRD-14-27	N/A	28	B-E	7.0.8 *2.1.14	2 16	VT-2	319	N/A	N/A	N/A	01-02-87
N/A	CRD-14-39	N/A	28	B-E	7.0.8 *2.1.14	2 16	VT-2	319	N/A	N/A	N/A	01-02-87
N/A	CRD-18-07	N/A	28	B-E	7.0.8 *2.1.14	2 16	VT-2	319	N/A	N/A	N/A	01-02-87
N/A	CRD-18-19	N/A	28	B-E	7.0.8 *2.1.14	2 16	VT-2	319	N/A	N/A	N/A	01-02-87
6"	INCORE-04-21	309SS	28	B-E	7.0.8 *2.1.14	2 16	VT-2	319	N/A	N/A	N/A	01-02-87

* With a Temporary Procedure Change

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14	RRE-BF-1	SE-N	CNS-RR-38	B-F	IP-W812	1	PT	034	N/A	N/A	N/A	11-19-86
					MIUP-W812	0	UT-0	038	036	001	60	11-19-86
					MIUP-W812	0	UT-0	038	037	001	52	11-19-86
					UT-43	8 FAR-1	UT-45	A-023	A-022	A-001	52	12-11-86
					Scan Par. Disk & Tape 007	"	"	A-024	A-022	A-001	52	12-11-86
					UT-51	1 FAR-1	UT-45RL	A-026	A-025	A-001	50	12-11-86
					Scan Para. Disk-008 Tape-007	"	"	A-027	A-025	A-001	60	12-11-86
					UT-51	1 FAR-1	UT-60RL	A-029	A-028	A-001	60	12-11-86
					Scan Para. Disk-009 Tape-007	"	"	A-030	A-028	A-001	60	12-11-86
14"	RRH-BF-1	SE-N	CNS-RR-37	B-F	IR-W812	1	PT	043	N/A	N/A	N/A	11-19-86
					MIUP-W812	0	UT-0	138	136	001	60	11-20-86
					MIUP-W812	0	UT-0	038	037	001	52	11-19-86

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14"	RRH-BF-1	SE-N	CNS-RR-39	B-F	UT-51 (11-17)	1 FAR-1	60RL	A-047	A-046	A-001	GE-61 Tri-Met. and 60	12-16-86
					Scan Para.	"	50RL	A-048	A-046	A-001		12-16-86
					Disk - 17 Tape - 11							
					UT-51 (11-18)	1 FAR-1	60RL	A-047	A-046	A-001	G.E.61 Tri-Met. and 60	12-16-86
					Scan Para.	"	60RL	A-048	A-046	A-001		12-16-86
					Disk - 17 Tape - 11							
					UT-43	8 FAR-1	45	A-050	A-49	A-001	52	12-16-86
					Scan Para.	"	45	A-051	A-49	A-001	52	12-16-86
					Disk - 19 Tape - 11							
					51	1 GAR-1	45RL	A-053	A-052	A-001	G.E. 61 Tri-Mat. and 60	12-16-86
					Scan Para.	"	45RL	A-054	A-052	A-001		12-16-86

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14"	RRC-BF-1	SE-N	CNS-RR-37	B-F	IP-W812	1	PT	031	N/A	N/A	N/A	11-19-86
					MIUP-W812	0	UT-0	038	036	001	60	11-19-86
					MIUP-W812	0	UT-0	038	037	001	52	11-19-86
					UT-43	8 FAR-1	UT-45	A-038	A-037	A-001	52	12-16-86
					Scan Para. Disk - 12 Tape - 8	"	UT-45	A-039	A-037	A-001	52	12-16-86
					UT-51	1 FAR-1	UT-45RL	A-034	A-035	A-001	60	12-16-86
					Scan Para. Disk - 11 Tape - 8	"	UT-45RL	A-036	A-035	A-001	60	12-16-86
					UT-51	1 FAR-1	UT-60RL	A-031	A-032	A-001	60	12-16-86
					Scan Para. Disk - 10 Tape - 8	"	UT-60RL	A-033	A-032	A-001	60	12-16-86

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13.4"	CSB-BF-1	SE-N	CNS-CS-3	B-F	IP-W812	1	PT	103	N/A	N/A	N/A	11-20-86
					MIUP-W812	0	UT-0	120	119	021	61	12-15-86
					MIUP-W812	0	UT-45	125	126	003	61	12-15-86
					MIUP-W812	0	UT-0	122	121	021	51	11-20-86
					MIUP-W812	0	UT-45	128	127	003	51	11-20-86
					UT-51	1	UT-	A-044	A-043	A-001	61	12-11-86
						FAR-1	45RL					
					Scan. Par.	"	"	A-045	A-043	A-001	61	12-11-86
					Disk-16							
					Tape-010							
10"	CSB-BF-4A	P-E	CNS-CS-3	B-F	IP-W812	1	PT	071	N/A	N/A	N/A	11-19-86
					MIUP-W812	0	UT-45	074	073	021	49	11-19-86
					MIUP-W812	0	UT-0	076	075	001	49	11-19-86
					MIUP-W812	0	UT-45	102	101	021	4	11-20-86
20"	RAS-BF-12	P-P	CNS-RR-37	B-F	IP-W812	1	PT	045	N/A	N/A	N/A	11-19-86
					MIUP-W812	0	UT-0	047	046	003	53	11-19-86
					MIUP-W812	0	UT-45	055	054	021	7	11-19-86
					MIUP-W812	0	UT-45	057	056	001	53	11-19-86

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13.4"	CSA-BF-1	SE-N	CNS-CS-4	B-F	IP-W812	1	PT	103	N/A	N/A	N/A	11-20-86
					MIUP-W812	C	UT-0	120	119	021	61	12-15-86
					MIUP-W812	0	UT-45	125	126	003	61	12-15-86
					MIUP-W812	0	UT-0	122	121	021	51	11-20-86
					MIUP-W812	0	UT-45	128	127	003	51	11-20-86
					UT-51	1 FAR-1	45RL	A-038-A	A-037-A	A-001	61	12-16-86
					Scan Para. (11-7-86) Disk - 13 Tape - 09	"	45 RL	A-039-A	A-037-A	A-001	61	12-16-86
					UT-51 (11-8-86)	1 FAR-1	45 RL	A-038-A	A-037-A	A-001	61	12-16-86
					Scan Para. Disk - 13 Disk - 14 Tape - 09	"	45 RL	A-039-A	A-037-A	A-001	61	12-16-86
					UT-51	1 FAR-1	60 RL	A-041	A-040	A-001	61	12-16-86
					Scan Para. Disk - 13 Tape - 09	"	60 RL	A-042	A-040	A-001	61	12-16-86

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29"	RAS-BF-1	SE-N	CNS-RR-37	B-F	IP-W812	1	PT	035	N/A	N/A	N/A	11-19-86
					MIUP-W812	0	UT-0	078	076A	021	59	11-19-86
					MIUP-W812	0	UT-0	078	077	021	57	11-19-86
					UT-43	8 FAR-1	UT-45	A-008	A-007-A	A-001	57	12-16-86
					Scan Para. Disk - 003 Tape - 003	"	UT-45	A-009	A-007-A	A-001	57	12-16-86
					UT-51	1 FAR-1	UT-45RL	A-011	A-010	A-001	INC-BUT-002	12-16-86
					Scan Para. Disk - 004 Tape - 004	"	UT-45RL		A-012	A-010	A-001	12-16-86
					UT-51	1 FAR-1	UT-60RL	A-014	A-013	A-001	INC-BUT-002	12-16-86
					Scan Para. Disk - 005 Tape-005	"	UT-60RL	A-015	A-013	A-001	INC-BUT-002	12-16-86
					UT-51	1 FAR-1	UT-45RL	A-017	A-016	A-001	57	12-16-86
					Scan Para. Disk-005B Tape-005		UT-45RL	A-018	A-016	A-001	57	12-16-86

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N/A	PRC-BG1-1	WA	42	B-G-1	IV1-W812 FRR-1	1	VT-1	106	N/A	N/A	N/A	11-20-86
N/A	PRC-BG1-2	WA	42	B-G-1	IV1-W812 FRR-1	1	VT-1	106	N/A	N/A	N/A	11-20-86
N/A	PRC-BG1-3	WA	42	B-G-1	IV1-W812 FRR-1	1	VT-1	106	N/A	N/A	N/A	11-20-86
N/A	PRC-BG1-4	WA	42	B-G-1	IV1-W812 FRR-1	1	VT-1	106	N/A	N/A	N/A	11-20-86
N/A	PRC-BG1-5	WA	42	B-G-1	IV1-W812 FRR-1	1	VT-1	106	N/A	N/A	N/A	11-20-86
N/A	PRC-BG1-6	WA	42	B-G-1	IV1-W812 FRR-1	1	VT-1	106	N/A	N/A	N/A	11-20-86
N/A	PRC-BG1-7	WA	42	B-G-1	IV1-W812 FRR-1	1	VT-1	106	N/A	N/A	N/A	11-20-86
N/A	PRC-BG1-8	WA	42	B-G-1	IV1-W812 FRR-1	1	VT-1	106	N/A	N/A	N/A	11-20-86
N/A	PRC-BG1-9	WA	42	B-G-1	IV1-W812 FRR-1	1	VT-1	106	N/A	N/A	N/A	11-20-86
8x7	PRB-BG-1	NUT	42	B-G-1	IV1-W812 FRR-1	1	VT-1	218	N/A	N/A	N/A	12-05-86
8x7	PRB-BG-2	NUT	42	B-G-1	IV1-W812 FRR-1	1	VT-1	218	N/A	N/A	N/A	12-05-86

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8x7	PRB-BG-3	NUT	42	B-G-1	IV1-W812 FRR-1	1	VT-1	218	N/A	N/A	N/A	12-05-86
8x7	PRB-BG-4	NUT	42	B-G-1	IV1-W812 FRR-1	1	VT-1	218	N/A	N/A	N/A	12-05-86
8x7	PRB-BG-5	NUT	42	B-G-1	IV1-W812 FRR-1	1	VT-1	218	N/A	N/A	N/A	12-05-86
8x7	PRB-BG-6	NUT	42	B-G-1	IV1-W812 FRR-1	1	VT-1	218	N/A	N/A	N/A	12-05-86
8x7	PRB-B6-7	NUT	42	B-G-1	IV1-W812 FRR-1	1	VT-1	218	N/A	N/A	N/A	12-05-86
8x7	PRB-BG-8	NUT	42	B-G-1	IV1-W812 FRR-1	1	VT-1	218	N/A	N/A	N/A	12-05-86
8x7	PRB-BG-9	NUT	42	B-G-1	IV1-W812 FRR-1	1	VT-1	218	N/A	N/A	N/A	12-05-86
8x7	PRB-BG-10	NUT	42	B-G-1	IV1-W812 FRR-1	1	VT-1	218	N/A	N/A	N/A	12-05-86
8x7	PRB-BG-11	NUT	42	B-G-1	IV1-W812 FRR-1	1	VT-1	218	N/A	N/A	N/A	12-05-86
8x7	PRB-BG-12	NUT	42	B-G-1	IV1-W812 FRR-1	1	VT-1	218	N/A	N/A	N/A	12-05-86
8x7	PRB-BG-13	NUT	42	B-G-1	IV1-W812 FRR-1	1	VT-1	218	N/A	N/A	N/A	12-05-86

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8x7	PRB-BG-14	NUT	42	B-G-1	IV1-W812 FRR-1	1	VT-1	218	N/A	N/A	N/A	12-05-86
8x7	PRB-BG-15	NUT	42	B-G-1	IV1-W812 FRR-1	1	VT-1	218	N/A	N/A	N/A	12-05-86
8x7	PRB-BG-16	NUT	42	B-G-1	IV1-W812 FRR-1	1	VT-1	218	N/A	N/A	N/A	12-05-86
8x7	PRB-BG-17	NUT	42	B-G-1	IV1-W812 FRR-1	1	VT-1	218	N/A	N/A	N/A	12-05-86

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N/A	PRC-BG1-10	WA	42	B-G-1	IV1-W812 FRR-1	1	VT-1	106	N/A	N/A	N/A	11-20-86
N/A	PRC-BG1-11	WA	42	B-G-1	IV1-W812 FRR-1	1	VT-1	106	N/A	N/A	N/A	11-20-86
N/A	PRC-BG1-12	WA	42	B-G-1	IV1-W812 FRR-1	1	VT-1	106	N/A	N/A	N/A	11-20-86
N/A	PRC-BG1-13	WA	42	B-G-1	IV1-W812 FRR-1	1	VT-1	106	N/A	N/A	N/A	11-20-86
N/A	PRC-BG1-14	WA	42	B-G-1	IV1-W812 FRR-1	1	VT-1	106	N/A	N/A	N/A	11-20-86
N/A	PRC-BG1-15	WA	42	B-G-1	IV1-W812 FRR-1	1	VT-1	106	N/A	N/A	N/A	11-20-86
N/A	PRC-BG1-16	WA	42	B-G-1	IV1-W812 FRR-1	1	VT-1	106	N/A	N/A	N/A	11-20-86
N/A	PRC-BG1-17	WA	42	B-G-1	IV1-W812 FRR-1	1	VT-1	106	N/A	N/A	N/A	11-20-86

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N/A	CS-MO-12A	BLT	1	B-G-2	IV1-W812 FRR-1	1	VT-1	068	N/A	N/A	N/A	11-29-86
N/A	CS-MO-12B	BLT	2	B-G-2	IV1-W812 FRR-1	1	VT-1	072	N/A	N/A	N/A	12-30-86
N/A	RWCU-10	BLT	3	B-G-2	IV1-W812 FRR-1	1	VT-1	068	N/A	N/A	N/A	11-19-86
N/A	RWCU-MO-15	BLT	3	B-G-2	IV1-W812 FRR-1	1	VT-1	068	N/A	N/A	N/A	11-19-86
N/A	HPCI-MO-15	BLT	13	B-G-2	IV1-W812 FRR-1	1	VT-1	068	N/A	N/A	N/A	11-19-86
N/A	RCIC-MO-15	BLT	24	B-G-2	IV1-W812 FRR-1	1	VT-1	068	N/A	N/A	N/A	11-19-86
N/A	RF-13	BLT	6	B-G-2	IV1-W812 FRR-1	1	VT-1	068	N/A	N/A	N/A	11-19-86
N/A	RHR-MO-17	BLT	16	B-G-2	IV1-W812 FRR-1	1	VT-1	068	N/A	N/A	N/A	11-19-86
N/A	RHR-MO-25A	BLT	17	B-G-2	IV1-W812 FRR-1	1	VT-1	072	N/A	N/A	N/A	12-30-86
N/A	MS-AO-80A	BLT	9	B-G-2	IV1-W812 FRR-1	1	VT-1	068	N/A	N/A	N/A	11-19-86
N/A	MS-AO-80B	BLT	10	B-G-2	IV1-W812 FRR-1	1	VT-1	068	N/A	N/A	N/A	11-19-86

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N/A	MS-AO-80C	BLT	11	B-G-2	IV1-W812 FRR-1	1	VT-1	068	N/A	N/A	N/A	11-19-86
N/A	MS-AO-80D	BLT	12	B-G-2	IV1-W812 FRR-1	1	VT-1	068	N/A	N/A	N/A	11-19-86
N/A	MS-RV-70A	BLT	9	B-G-2	IV1-W812 FRR-1	1	VT-1	316	N/A	N/A	N/A	12-31-86
N/A	MS-RV-71E	BLT	11	B-G-2	IV1-W812 FRR-1	1	VT-1	316	N/A	N/A	N/A	12-31-86
N/A	MS-RV-71G	BLT	12	B-G-2	IV1-W812 FRR-1	1	VT-1	068	N/A	N/A	N/A	11-19-86
N/A	MS-RV-71D	BLT	10	B-G-2	IV1-W812 FRR-1	1	VT-1	316	N/A	N/A	N/A	12-31-86
N/A	MS-RV-71C	BLT	10	B-G-2	IV1-W812 FRR-1	1	VT-1	316	N/A	N/A	N/A	12-31-86

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218"	HNC-C1-1	Vessel to Skirt	26	B-H	MIUSK-W812 FRR-1	0	UT-0	234	233	232	16	12-05-86
					MIUSK-W812 FRR-1	0	UT-45	237	236	235	16	12-05-86
					MIUSK-W812 FRR-1	0	UT-60	240	239	238	16	12-05-86

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6"	CWA-BJ-7*	P-E	CNS-RWCU-3	B-J	IP-W812	1	PT	044	N/A	N/A	N/A	11-19-86
					MIUP-W812	0	UT-0	051	050	021	48	11-19-86
					MIUP-W812	0	UT-45	061	060	003	48	11-19-86
6"	CWA-BJ-8*	E-P	CNS-RWCU-3	B-J	IP-W812	1	PT	044	N/A	N/A	N/A	11-19-86
					MIUP-W812	0	UT-0	051	050	021	48	11-19-86
					MIUP-W812	0	UT-45	061	060	003	48	11-19-86
6"	CWA-BJ-7*	P-V	CNS-RWCU-3	B-J	IP-W812	1	PT	305	N/A	N/A	N/A	12-05-86
					MIUP-W812	0	UT-0	307	306	003	48	12-05-86
					MIUP-W812	0	UT-45	309	308	021	48	12-05-86
6"	CWA-BJ-8*	V-P	CNS-KWCU-3	B-J	IP-W812	1	PT	305	N/A	N/A	N/A	12-05-86
					MIUP-W812	0	UT-0	307	306	003	48	12-05-86
					MIUP-W812	0	UT-45	309	308	021	48	12-05-86
12"	FWB-BJ-111	N-SE	5	B-J	IP-W812	1		179A	N/A	N/A	N/A	12-12-86
					MIUP-W812	0	UT-0	180	179	021	6	11-21-86
					MIUP-W812	0	UT-45	182	181	002	6	11-21-86
18"	FWA-BJ-50	P-E	7	B-J	IP-W812	1	PT	017	N/A	Rej.	N/A	12-04-86
					IP-W812	1	PT	228	N/A	Grindout	N/A	12-05-86
					IP-W812	1	PT	-291	N/A	Repair Area Only	N/A	12-12-86
					MIUP-W812	0	UT-0	288	287	003	100	12-12-86
					MIUP-W812	0	UT-45	290	289	021	100	12-12-86
					MIUP-W812	0	UT-0	248	247	021	Step Wedge	12-05-86
24"	MSD-BJ-39B	OA	12	B-J	IP-W812	1	PT	005	N/A	N/A	N/A	11-18-86

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12"	FWC-BJ-111	N-SE	6	B-J	IP-W812	1	PT	179A	N/A	N/A	N/A	12-12-86
					MIUP-W812	0	UT-0	180	179	021	6	11-21-86
					MIUP-W812	0	UT-45	182	181	002	6	11-21-86
12"	FWD-BJ-111	N/SE	6	B-J	IP-W812	1	PT	179A	N/A	N/A	N/A	12-12-86
					MIUP-W812	0	UT-0	180	179	021	6	11-21-86
					MIUP-W812	0	UT-45	182	181	002	6	11-21-86
18"	FWA-BJ-52	P-E	7	B-J	IP-W812	1	PT	013	N/A	N/A	N/A	11-18-86
					MIUP-W812	0	UT-0	284	283	003	100	12-15-86
					MIUP-W812	0	UT-45	292	293	021	100	12-12-86
18"	FWA-BJ-53	E-P	7	B-J	IP-W812	1	PT	013	N/A	N/A	N/A	11-18-86
					MIUP-W812	0	UT-0	284	283	003	100	12-15-86
					MIUP-W812	0	UT-45	292	293	021	100	12-12-86
18"	FWA-BJ-54	P-E	7	B-J	IP-W812	1	PT	013	N/A	N/A	N/A	11-18-86
					MIUP-W812	0	UT-0	284	283	003	100	12-15-86
					MIUP-W812	0	UT-45	292	293	021	100	12-12-86
18"	FWA-BJ-60	P-Red	7	B-J	IP-W812	1	PT	008	N/A	N/A	N/A	11-18-86
					MIUP-W812	0	UT-0	284	283	003	100	12-15-86
					MIUP-W812	0	UT-45	292	293	021	100	12-12-86
18"	FWD-BJ-43	E-P	7	B-J	IP-W812	1	PT	282	N/A	N/A	N/A	12-15-86
					MIUP-W812	0	UT-0	286	285	003	100	12-15-86
					MIUP-W812	0	UT-45	292	294	021	100	12-12-86
18"	FWA-BJ-691	P-E	7	B-J	IP-W812	1	PT	011	N/A	N/A	N/A	11-18-86
					MIUP-W812	0	UT-0	284	283	003	100	12-15-86
					MIUP-W812	0	UT-45	292	293	021	100	12-12-86

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18"	FWA-BJ-692	P-E	7	B-J	IP-W812	1	PT	274	N/A	N/A	N/A	12-15-86
					MIUP-W812	0	UT-0	284	283	003	100	12-15-86
					MIUP-W812	0	UT-45	292	293	021	100	12-12-86
18"	FWA-BJ-693	P-WE	7	B-J	IP-W812	1	PT	009	N/A	N/A	N/A	11-18-86
					MIUP-W812	0	UT-0	300	299	003	97	12-12-86
					MIUP-W812	0	UT-45	301	302	021	97	12-12-86
8"	FWA-BJ-695	P-E	7	B-J	IP-W812	1	PT	010	N/A	N/A	N/A	11-18-86
8"	FWD-BJ-593A	P-P	7	B-J	IP-W812	1	PT	010	N/A	N/A	N/A	11-18-86
8"	FWD-BJ-593	P-E	7	B-J	IP-W812	1	PT	007	N/A	N/A	N/A	11-18-86
					IP-W812	1	PT	015	N/A	N/A	N/A	11-18-86
10"	CSB-BJ-2	P-SE	CNS-CS-3	B-J	IP-W812	1	PT	104	N/A	N/A	N/A	11-20-86
					MIUP-W812	0	UT-0	124	123	021	49	11-20-86
					MIUP-W812	0	UT-45	130	129	003	49	11-21-86
10"	CSB-BJ-3	P-P	CNS-CS-3	B-J	IP-W812	1	PT	071	N/A	N/A	N/A	11-19-86
					MIUP-W812	0	UT-0	076	075	001	49	11-19-86
					MIUP-W812	0	UT-45	074	073	021	49	11-19-86
10"	CSB-BJ-4	E-P	CNS-CS-3	B-J	IP-W812	1	PT	071	N/A	N/A	N/A	11-19-86
					MIUP-W812	0	UT-0	076	075	001	49	11-19-86
					MIUP-W812	0	UT-45	074	073	021	49	11-19-86
28"	RAD-BJ-1	PU-P	CNS-RR-37	B-J	IP-W812	1	PT	096	N/A	N/A	N/A	11-20-86
					MIUP-W812	0	UT-0	098	097	021	56	11-20-86
					MIUP-W812	0	UT-45	100	099	003	56	11-20-86

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28"	RAD-BJ-2	P-VA	CNS-RR-37	B-J	IP-W812	1	PT	089	N/A	N/A	N/A	11-20-86
					MIUP-W812	0	UT-0	093	092	021	56	11-20-86
					MIUP-W812	0	UT-45	095	094	003	56	11-20-86
28"	RAD-BJ-3	VA-P	CNS-RR-37	B-J	IP-W812	1	PT	089	N/A	N/A	N/A	11-20-86
					MIUP-W812	0	UT-0	093	092	021	56	11-20-86
					MIUP-W812	0	UT-45	095	094	003	56	11-20-86
28"	RAD-BJ-4	P-P	CNS-RR-37 FAR-1	B-J	IP-W812	1	PT	012	N/A	N/A	N/A	11-18-86
					MIUP-W812	0	UT-0	023	022	001	56	11-18-86
					UT-43 Scan Par. A-004 Disk & Tape 001	8	UT-45	A-003	A-002	A-001	56	12-08-86
28"	RAS-BJ-2	SE-P	CNS-RR-37	B-J	IP-W812	1	PT	035	N/A	N/A	N/A	11-19-86
					MIUP-W812	0	UT-0	042	041	003	56	11-19-86
					UT-43	8 FAR-1	UT-45 Scan Par. A-007 Disk & Tape 002	A-006	A-005	A-001	56	12-09-86
12"	RRH-BJ-2	P-SE	CNS-RR-37	B-J	IP-W812	1	PT	030	N/A	N/A	N/A	11-19-86
					MIUP-W812	0	UT-0	033	032	021	50	11-19-86

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12"	RRH-BJ-3	R-P	CNS-RR-37	B-J	IP-W812	1	PT	020	N/A	N/A	N/A	11-18-86
					MIUP-W812	0	UT-0	029	028	001	50	11-19-86
					MIUP-W812	0	UT-45	027	026	003	50	11-19-86
20"	RAS-BJ-11	E-E	CNS-RR-37	B-J	IP-W812	1	PT	014	N/A	N/A	N/A	11-18-86
					MIUP-W812	0	UT-0	047	046	003	53	11-19-86
					MIUP-W812	0	UT-45	057	056	001	53	11-19-86
20"	RAS-BJ-13	P-V	CNS-RR-37	B-J	IP-W812	1	PT	045	N/A	N/A	N/A	11-19-86
					MIUP-W812	0	UT-0	049	048	003	7	11-19-86
					MIUP-W812	0	UT-45	055	054	021	7	11-19-86
12"	RRE-BJ-2	P-SE	CNS-RR-38	B-J	IP-W812	1	PT	034	N/A	N/A	N/A	11-19-86
					MIUP-W812	0	UT-0	040	039	003	50	11-19-86
					UT-43	8 FAR-1	UT-45 Scan. Par. A-021 Disk & Tape 006	A-020	A-019	A-001	50	12-08-86
12"	RRE-BJ-4	P-E	CNS-RR-38	B-J	IP-W812	1	PT	018	N/A	N/A	N/A	11-18-86
					MIUP-W812	0	UT-0	025	024	001	50	11-18-86
					MIUP-W812	0	UT-45	027	026	003	50	11-29-86
12"	RRE-BJ-5	R-P	CNS-RR-38	B-J	IP-W812	1	PT	018	N/A	N/A	N/A	11-18-86
					MIUP-W812	0	UT-0	025	024	001	50	11-18-86
					MIUP-W812	0	UT-45	027	026	003	50	11-19-86

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6"	CWA-BJ-2	P-P	CNS-RWCU-3	B-J	IP-W812	1	PT	044	N/A	N/A	N/A	11-19-86
					MIUP-W812	0	UT-0	051	050	021	48	11-19-86
					MIUP-W812	0	UT-45	061	060	003	48	11-19-86
6"	CWA-BJ-10	E-P	CNS-RWCU-3	B-J	IP-W812	1	PT	062	N/A	N/A	N/A	11-19-86
					MIUP-W812	0	UT-0	064	063	021	48	11-19-86
					MIUP-W812	0	UT-45	066	065	001	48	11-19-86
6"	CWA-BJ-12	P-VA	CNS-RWCU-3	B-J	IP-W812	1	PT	230	N/A	N/A	N/A	12-05-86
					MIUP-W812	0	UT-0	224	223	003	48	12-05-86
					MIUP-W812	0	UT-45	066	065	001	48	11-19-86
					MIUP-W812	0	UT-45	226	225	021	48	12-05-86
6"	CWA-BJ-14	P-P	CNS-RWCU-3	B-J	IP-W812	1	PT	052	N/A	N/A	N/A	11-19-86
					MIUP-W812	0	UT-0	059	058	021	48	11-19-86
					MIUP-W812	0	UT-45	066	065	001	48	11-19-86
24"	MSC-BJ-32	P-E	11	B-J	IP-W812	1	PT	016	N/A	N/A	N/A	11-18-86
24"	MSA-BJ-35*	P-E	9	B-J	IP-W812	1	PT	006	N/A	N/A	N/A	11-18-86
24"	MSA-BJ-36*	E-P	8	B-J	IP-W812	1	PT	006	N/A	N/A	N/A	11-18-86
24"	MSB-BJ-28*	P-E	10	B-J	IP-W812	1	PT	004	N/A	N/A	N/A	11-18-86
24"	MSB-BJ-29*	E-E	10	B-J	IP-W812	1	PT	004	N/A	N/A	N/A	11-18-86
24"	MSC-BJ-35*	E-P	11	B-J	IP-W812	1	PT	006	N/A	N/A	N/A	11-18-86
24"	MSD-BJ-39*	P-E	12	B-J	IP-W812	1	PT	005	N/A	N/A	N/A	11-18-86

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24"	MSD-BJ-39A	IA	12	B-J	IP-W812	1	PT	005	N/A	N/A	N/A	11-18-86
24"	MSD-BJ-40*	E-P	12	B-J	IP-W812	1	PT	005	N/A	N/A	N/A	11-18-86
N/A	FWA-BK1-53	N/A	9	BK1	IP-W812	1	PT	013	N/A	N/A	N/A	11-18-86
18"	FWA-BJ-51	E-P	7	B-J	IP-W812	1	PT	019	N/A	N/A	N/A	11-18-86
					MIUP-W812	0	UT-0	286	285	003	100	12-15-86
					MIUP-W812	0	UT-45	292	294	021	100	12-12-86
12"	FWA-BJ-111	N-SE	5	B-J	IP-W812	1	PT	179A	N/A	N/A	N/A	12-12-86
					MIUP-W812	0	UT-0	180	179	021	6	11-21-86
					MIUP-W812	0	UT-45	182	181	002	6	11-21-86
20"	RAS-BJ-12	P-P	CNS-RR-37	B-J	IP-W812	1	PT	045	N/A	N/A	N/A	11-19-86
					MIUP-W812	0	UT-0	047	046	003	53	11-19-86
					MIUP-W812	0	UT-45	055	054	021	7	11-19-86
					MIUP-W812	0	UT-45	057	056	001	53	11-19-86

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N/A	DRYER BN-1	N/A	N/A	B-N-1	FRR-1 IV3-W812	1	VT-3	082	N/A	N/A	N/A	11-20-86
N/A	CS LINES BN-1	N/A	42	B-N-1	IV3-W812 FRR-1	1	VT-3	087	N/A	N/A	N/A	12-05-86
N/A	F.W. SPARG BN-1	N/A	N/A	B-N-1	IV3-W812 FRR-1	1	VT-3	081	N/A	N/A	N/A	12-05-86
N/A	Jet Pumps BN-1	N/A	N/A	B-N-1	IV3-W812 FRR-1	1	VT-3	080	N/A	N/A	N/A	11-20-86
N/A	Seperator BN-1	N/A	N/A	B-N-1	IV3-W812 FRR-1	1	VT-3	082	N/A	N/A	N/A	11-20-86
N/A	Top Guide BN-1	N/A	N/A	B-N-1	IV3-W812	1	VT-3	083	N/A	N/A	N/A	11-20-86
N/A	Plate Bolts BN-1	N/A	N/A	B-N-1	IV3-W812 FRR-1	1	VT-3	084	N/A	N/A	N/A	11-20-86
N/A	Surv. Sample BN-1	N/A	N/A	B-N-1	IV3-W812 FRR-1	1	VT-3	084	N/A	N/A	N/A	11-20-86
N/A	Surv. Samples BN-1	N/A	N/A	B-N-1	IV3-W812 FRR-1	1	VT-3	084	N/A	N/A	N/A	11-20-86
N/A	Shroud He Ass. BN-1	N/A	N/A	B-N-1	IV3-W812 FRR-1	1	VT-3	315	N/A	N/A	N/A	12-31-86

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N/A	Reactor Coolant B-P-1	N/A	N/A	B-P	7.0.8 *2.1.14	2 16	VT-2	319	N/A	N/A	N/A	01-02-87
N/A	Reactor Feed Water B-P-1	N/A	N/A	B-P	7.0.8 *2.1.14	2 16	VT-2	319	N/A	N/A	N/A	01-02-87

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N/A	F.W. Blend Radius Aug.	N/A	N/A	B-N-1	IVI-W812 FRR-1	1	VT-1	085	N/A	N/A	N/A	11-20-86
N/A	Dry Tubes	N/A	N/A	B-N-1	IVI-WG12 FRR-1	1	VT-1	086	N/A	N/A	N/A	11-20-86

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6"	CWA-CF-30	V-P	2605-4	C-F	IP-W812	1	PT	158	N/A	N/A	48	11-21-86
					MIUP-W812	0	UT-0	224	223	003	48	12-05-86
					MIUP-W812	0	UT-45	226	225	021	48	12-05-86
6"	CWA-CF-30A	P-P	2605-4	C-F	IP-W812	1	PT	272	N/A	N/A	N/A	12-05-86
					MIUP-W812	0	UT-0	224	223	003	48	12-05-86
					MIUP-W812	0	UT-45	226	225	021	48	12-05-86
6"	CWA-CF-31	P-E	2605-4	C-F	IP-W812	1	PT	158	N/A	N/A	N/A	11-21-86
					MIGSCC-W812	0 FRR-1	UT-45	278	277	021	11	12-15-86
6"	CWA-CF-33	E-P	2605-4	C-F	IP-W812	1	PT	312	N/A	N/A	N/A	12-31-86
					MIGSCC-W812	0 FRR-1	UT-45	278	277	021	11	12-15-86
6"	CWA-CF-33A	P-P	2605-4	C-F	IP-W812	1	PT	272	N/A	N/A	N/A	12-05-86
					MIGSCC-W812	0	UT-45	278	277	021	11	12-15-86
					IP-W812	FRR-1	PT	281	N/A	N/A	N/A	12-15-86
6"	CWA-CF-33B	P-P	2605-4	C-F	IP-W812	1	PT	272	N/A	N/A	N/A	12-05-86
					MIGSCC-W812	0 FRR-1	UT-45	278	277	021	11	12-15-86
					IP-W812 Ground Area Only	1	PT	281	N/A	N/A	N/A	12-15-86
6"	CWA-CF-34	P-T	2605-4	C-F	IP-W812	1	PT	275	N/A	N/A	N/A	12-15-86
					MIGSCC-W812	0 FRR-1	UT-45	280	279	021	11	12-15-86

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6"	CWA-CF-38	E-P	2605-4	C-F	IP-W812	1	PT	275	N/A	N/A	N/A	12-15-86
					MIGSCC-W812	0 FRR-1	UT-45	280	279	021	N/A	12-15-86
6"	CWA-CF-37	T-E	2605-4	C-F	IP-W812	1	PT	275	N/A	N/A	N/A	12-15-86
					MIGSCC-W812	0 FRR-1	UT-45	280	279	021	11	12-15-86
6"	CWA-CF-40	P-E	2605-4	C-F	IP-W812	1	PT	276	N/A	N/A	N/A	12-15-86
					MIGSCC-W812	0 FRR-1	UT-45	280	279	021	11	12-15-86
					IP-W812	1	PT	281	N/A	N/A	N/A	12-15-86
					IP-W812	1	PT	295	N/A	N/A	N/A	12-12-86
					IP-W812	1	PT	296	N/A	N/A	N/A	12-12-86
					MIGSCC-W812	0 FRR-1	UT-45	298	297	021	11	12-12-86
6"	CWA-CF-42	E-T	2605-4	C-F	IP-W812	1	PT	276	N/A	N/A	N/A	12-15-86
					MIGSCC-W812	0 FRR-1	UT-45	280	279	021	11	12-15-86
6"	CWA-CF-43	T-R	2605-4	C-F	IP-W812	1	PT	276	N/A	N/A	N/A	12-15-86
					MIGSCC-W812	0 FRR-1	UT-45	280	279	021	11	12-15-86
6"	CWA-CF-44	T-R	2605-4	C-F	IP-W812	1	PT	276	N/A	N/A	N/A	12-15-86
					MIGSCC-W812	0 FRR-1	UT-45	280	279	021	11	12-15-86
18"	RBW-CF-64	P-E	36	C-F	IP-W812	1	PT	105	N/A	N/A	N/A	11-20-86
20"	PNC-CG-16	P-E	40	C-F	IP-W812	1	PT	105	N/A	N/A	N/A	11-20-86

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8"	SDN-CF-2	P-P	43	C-F	IP-W812	1	PT	067	N/A	N/A	N/A	11-19-86
8"	SDN-CF-7	P-P	43	C-F	IP-W812	1	PT	067	N/A	N/A	N/A	11-19-86
8"	SDN-CF-4	P-P	43	C-F	IP-W812	1	PT	067	N/A	N/A	N/A	11-19-86
8"	SDN-CF-14	P-T	43	C-F	IP-W812	1	PT	067	N/A	N/A	N/A	11-19-86
8"	SDN-CF-8	P-T	43	C-F	IP-W812	1	PT	067	N/A	N/A	N/A	11-19-86
8"	SDN-CF-16	T-E	43	C-F	IP-W812	1	PT	067	N/A	N/A	N/A	11-19-86
16"	CSA-CF-1	PC-E	2603-1	C-F	IP-W812	1	PT	070	N/A	N/A	N/A	11-19-86
16"	CSA-CF-2	E-F	2603-1	C-F	IP-W812	1	PT	070	N/A	N/A	N/A	11-19-86
16"	CSA-CF-3	E-P	2603-1	C-F	IP-W812	1	PT	070	N/A	N/A	N/A	11-19-86
10"	HPID-CF-1	PU-R	2609-1	C-F	IP-W812	1	PT	241	N/A	N/A	N/A	12-05-86
14"	HPID-CF-2	R-E	2609-1	C-F	IP-W812	1	PT	241	N/A	N/A	N/A	12-05-86
14"	HPID-CF-3	E-P	2609-1	C-F	IP-W812	1	PT	241	N/A	N/A	N/A	12-05-86
14"	HPID-CF-12	F-P	2609-1	C-F	IP-W812	1	PT	241	N/A	N/A	N/A	12-05-86
14"	HPID-CF-10A	P-F	2609-1	C-F	IP-W812	1	PT	241	N/A	N/A	N/A	12-05-86
16"	HPIS-CF-12	P-E	2611-6	C-F	IP-W812	1	PT	242	N/A	N/A	N/A	12-05-86
16"	HPIS-CF-13	E-P	2611-6	C-F	IP-W812	1	PT	242	N/A	N/A	N/A	12-05-86

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16"	HPIS-CF-14	P-V	2611-6	C-F	IP-W812	1	PT	243	N/A	N/A	N/A	12-30-86
16"	HPIS-CF-14	P-V	2611-6	C-F	IP-W812	1	PT	310	N/A	N/A	N/A	12-15-86
16"	HPIS-CF-15	V-E	2611-6	C-F	IP-W812	1	PT	242	N/A	N/A	N/A	12-05-86
16"	HPIS-CF-16	E-V	2611-6	C-F	IP-W812	1	PT	242	N/A	N/A	N/A	12-05-86
8"	RSA-CF-2	P-E	2614-1	C-F	IP-W812	1	PT	245	N/A	N/A	N/A	12-05-86
8"	RSA-CP-27	P-E	2614-1	C-F	IP-W812	1	PT	244	N/A	N/A	N/A	12-05-86
8"	RSA-CF-28	E-P	2614-1	C-F	IP-W812	1	PT	244	N/A	N/A	N/A	12-05-86
20"	RAS-CF-1	T-N	29	C-F	IP-W812	1	PT	091	N/A	N/A	N/A	11-20-86
20"	RBS-CF-1	T-N	30	C-F	IP-W812	1	PT	090	N/A	N/A	N/A	11-20-86
20"	RBS-CF-2	T-R	30	C-F	IP-W812	1	PT	090	N/A	N/A	N/A	11-20-86
18"	RBS-CF-3	E-R	30	C-F	IP-W812	1	PT	090	N/A	N/A	N/A	11-20-86
18"	RBS-CF-4	P-E	30	C-F	IP-W812	1	PT	090	N/A	N/A	N/A	11-20-86
18"	RBS-CF-5	P-E	30	C-F	IP-W812	1	PT	090	N/A	N/A	N/A	11-20-86
8"	RAS-CF-10	R-R	29	C-F	IP-W812	1	PT	091	N/A	N/A	N/A	11-20-86
8"	RBS-CF-10	R-R	30	C-F	IP-W812	1	PT	090	N/A	N/A	N/A	11-20-86
6"	RWA-CF-42	T-P	2621-1	C-F	IP-W812	1	PT	062	N/A	N/A	N/A	11-19-86

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6"	RWA-CF-43	P-V	2621-1	C-F	IP-W812	1	PT	062	N/A	N/A	N/A	11-19-86
6"	RWA-CF-44	E-P	2621-1	C-F	IP-W812	1	PT	062	N/A	N/A	N/A	11-19-86
6"	RWA-CF-45	P-F	2621-1	C-F	IP-W812	1	PT	062	N/A	N/A	N/A	11-19-86
6"	TWA-CF-42A	P-V	2621-1	C-F	IP-W812	1	PT	062	N/A	N/A	N/A	11-19-86
16"	RHB-CF-1	P-T	29	C-F	IP-W812	1	PT	091	N/A	N/A	N/A	11-20-86
20"	RHB-CF-19	T-E	2624-1	C-F	IP-W812	1	PT	114	N/A	N/A	N/A	11-20-86
20"	RHB-CF-20	E-P	2624-1	C-F	IP-W812	1	PT	114	N/A	N/A	N/A	11-20-86
20"	RHB-CF-21	P-P	2624-1	C-F	IP-W812	1	PT	114	N/A	N/A	N/A	11-20-86
20"	RHB-CF-23	P-P	2624-1	C-F	IP-W812	1	PT	114	N/A	N/A	N/A	11-20-86
20"	RHB-CF-24	P-E	2624-1	C-F	IP-W812	1	PT	114	N/A	N/A	N/A	11-20-86
16"	RPA-CF-15	E-P	2624-1	C-F	IP-W812	1	PT	220	N/A	N/A	N/A	12-05-86
16"	RPA-CF-16	P-E	2624-1	C-F	IP-W812	1	PT	220	N/A	N/A	N/A	12-05-86
20"	RCT-CF-15	P-E	37	C-F	IP-W812	1	PT	219	N/A	N/A	N/A	12-05-86
18"	RBW-CF-48	P-E	36	C-F	IP-W812	1	PT	219	N/A	N/A	N/A	12-05-86
10"	RHE-CF-4	E-P	2624-7	C-F	IP-W812	1	PT	221	N/A	N/A	N/A	12-05-86
10"	RHE-CF-5	P-E	2624-7	C-F	IP-W812	1	PT	221	N/A	N/A	N/A	12-05-86

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10"	RHE-CF-6	E-P	2624-7	C-F	IP-W812	1	PT	221	N/A	N/A	N/A	12-05-86
20"	RPA-CF-1	N-P	2626-1	C-F	IP-W812	1	PT	079	N/A	N/A	N/A	11-20-86
20"	RPA-CF-2	P-E	2626-1	C-F	IP-W812	1	PT	079	N/A	N/A	N/A	11-20-86
20"	RPA-CF-3	E-P	2626-1	C-F	IP-W812	1	PT	079	N/A	N/A	N/A	11-20-86
20"	RPA-CF-4	P-E	2626-1	C-F	IP-W812	1	PT	079	N/A	N/A	N/A	11-20-86
20"	RPA-CF-5	E-P	2626-1	C-F	IP-W812	1	PT	079	N/A	N/A	N/A	11-20-86
20"	RPA-CF-7	P-P	2626-1	C-F	IP-W812	1	PT	079	N/A	N/A	N/A	11-20-86
6"	RAW-CF-50	P-E	35	C-F	IP-W812	1	PT	105	N/A	N/A	N/A	11-20-86
16"	RBW-CF-64	P-E	36	C-F	IP-W812	1	PT	105	N/A	N/A	N/A	11-20-86
8"	SDS-CF-13	E-P	44	C-F	IP-W812	1	PT	053	N/A	N/A	N/A	11-19-86
8"	SDS-CF-14	P-E	44	C-F	IP-W812	1	PT	053	N/A	N/A	N/A	11-19-86
8"	SDS-CF-15	E-P	44	C-F	IP-W812	1	PT	053	N/A	N/A	N/A	11-19-86
N/A	PT Comparator Block	N/A	N/A	N/A	IP-W812	1	PT	222	N/A	N/A	N/A	11-19-86
8"	RCC-CF-2	P-PC	2848-8	C-F	IP-W812	1	PT	187	N/A	N/A	N/A	11-21-86
16"	PNC-CG-1	E-PC	40	C-F	IP-W812	1	PT	105	N/A	N/A	N/A	11-20-86
24"	PNC-CG-5	P-F	40	C-F	IP-W812	1	PT	113	N/A	N/A	N/A	11-20-86

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16"	PNC-CG-1	E-PC	40	C-F	IP-W812	1	PT	105	N/A	N/A	N/A	11-20-86
24"	PNC-CG-5	P-F	40	C-F	IP-W812	1	PT	113	N/A	N/A	N/A	11-20-86

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N/A	RHH-46	Hanger	2624-3B	F-A	IV3-W812 FRR-1	1	VT-3	159	N/A	N/A	N/A	11-21-86
					IV4-W812 FRR-1	1	VT-4	160	N/A	N/A	N/A	11-21-86
N/A	RHH-46A	Hanger	2624-3B	F-A	IV3-W812 FRR-1	1	VT-3	159	N/A	N/A	N/A	11-21-86
					IV4-W812 FRR-1	1	VT-4	160	N/A	N/A	N/A	11-21-86
N/A	RFH-7A	Hanger	7	F-A	IV3-W812 FRR-1	1	VT-3	116	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	117	N/A	N/A	N/A	12-30-86
					IV3-W812 FRR-1	1	VT-3	311	N/A	N/A	N/A	12-30-86

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N/A	RFH-68	Hanger	5	F-B	IV3-W812 FRR-1	1	VT-3	109	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	110	N/A	N/A	N/A	12-30-86
					IV3-W812 FRR-1	1	VT-3	311	N/A	N/A	N/A	12-30-86
N/A	RFH-69	Hanger	2509-1	F-B	IV3-W812 FRR-1	1	VT-3	109	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	110	N/A	N/A	N/A	12-30-86
N/A	RFH-7	Hanger	2849-4	F-B	IV3-W812 FRR-1	1	VT-3	116	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	117	N/A	N/A	N/A	12-30-86
N/A	RFH-8	Hanger	2849-4	F-B	IV3-W812 FRR-1	1	VT-3	116	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	117	N/A	N/A	N/A	12-30-86
N/A	RFH-9	Hanger	2849-4	F-B	IV3-W812 FRR-1	1	VT-3	116	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	117	N/A	N/A	N/A	12-30-86
N/A	RFH-12	Hanger	2849-4	F-B	IV3-W812 FRR-1	1	VT-3	116	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	117	N/A	N/A	N/A	12-30-86

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N/A	RFH-12A	Hanger	2849-4	F-B	IV3-W812 FRR-1	1	VT-3	116	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	117	N/A	N/A	N/A	12-30-86

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N/A	RFS-18	Snubber	2509-1	F-C	IV3-W812 FRR-1	1	VT-3	111	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	112	N/A	N/A	N/A	12-30-86
					IV3-W812 FRR-1	1	VT-3	313	N/A	N/A	N/A	12-31-86
N/A	RFS-19	Snubber	2509-1	F-C	IV3-W812 FRR-1	1	VT-3	111	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	112	N/A	N/A	N/A	12-30-86
					IV3-W812 FRR-3	1	VT-3	313	N/A	N/A	N/A	12-31-86
N/A	RFH-68A	Hanger	2509-1	F-C	IV3-W812 FRR-1	1	VT-3	109	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	110	N/A	N/A	N/A	12-30-86
N/A	RFH-70A	Hanger	2509-1	F-C	IV3-W812 FRR-1	1	VT-3	109	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	110	N/A	N/A	N/A	12-30-86
N/A	RFH-71A	Hanger	5	F-C	IV3-W812 FRR-1	1	VT-3	107	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	108	N/A	N/A	N/A	12-30-86
					IV3-W812 FRR-1	1	VT-3	311	N/A	N/A	N/A	12-31-86

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N/A	RFH-6	Hanger	7	F-C	IV3-W812 FRR-1	1	VT-3	116	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	117	N/A	N/A	N/A	12-30-86
					IV3-W812 FRR-1	1	VT-3	311	N/A	N/A	N/A	12-30-86
N/A	RFH-10	Hanger	2849-4	F-C	IV3-W812 FRR-1	1	VT-3	116	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	117	N/A	N/A	N/A	12-30-86
N/A	MSH-169	Hanger	2506-4	F-C	IV3-W812 FRR-1	1	VT-3	107	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	108	N/A	N/A	N/A	12-30-86
N/A	MSH-170	Hanger	2506-4	F-C	IV3-W812 FRR-1	1	VT-3	107	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	108	N/A	N/A	N/A	12-30-86
					IV3-W812	1	VT-3	311	N/A	N/A	N/A	12-30-86
N/A	CUS-3 Upstream	Snubber	2503-1	F-C	IV3-W812 FRR-1	1	VT-3	111	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	112	N/A	N/A	N/A	12-30-86

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N/A	CUH-48	Hanger	2503-1	F-C	IV3-W812 FRR-1	1	VT-3	107	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	108	N/A	N/A	N/A	12-30-86
					IV3-W812 FRR-1	1	VT-3	314	N/A	N/A	N/A	12-31-86
N/A	CUH-49	Hanger	2503-1	F-C	IV3-W812 FRR-1	1	VT-3	107	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	108	N/A	N/A	N/A	12-30-86
					IV3-W812 FRR-1	1	VT-3	314	N/A	N/A	N/A	12-31-86
N/A	RFH-70	Hanger	2509-1	F-C	IV3-W812 FRR-1	1	VT-3	107	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	108	N/A	N/A	N/A	12-30-86
N/A	RFH-71	Hanger	2509-1	F-C	IV3-W812 FRR-1	1	VT-3	107	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	108	N/A	N/A	N/A	12-30-86
N/A	RFH-72	Hanger	2509-1	F-C	IV3-W812 FRR-1	1	VT-3	107	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	108	N/A	N/A	N/A	12-30-86

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N/A	RFH-1	Hanger	2849-4	F-C	IV3-W812 FRR-1	1	VT-3	109	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	110	N/A	N/A	N/A	12-30-86
N/A	RFH-2	Hanger	7	F-C	IV3-W812 FRR-1	1	VT-3	116	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	117	N/A	N/A	N/A	12-30-86
					IV3-W812	1	VT-3	311	N/A	N/A	N/A	12-30-86
N/A	RFH-3	Hanger	7	F-C	IV3-W812 FRR-1	1	VT-3	109	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	110	N/A	N/A	N/A	12-30-86
					IV3-W812 FRR-1	1	VT-3	311	N/A	N/A	N/A	12-30-86
N/A	RFH-4	Hanger	7	F-C	IV3-W812 FRR-1	1	VT-3	116	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	117	N/A	N/A	N/A	12-30-86
					IV3-W812 FRR-1	1	VT-3	311	N/A	N/A	N/A	12-30-86
N/A	RFH-5	Hanger	7	F-C	IV3-W812 FRR-1	1	VT-3	116	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	117	N/A	N/A	N/A	12-30-86
					IV3-W812 FRR-1	1	VT-3	311	N/A	N/A	N/A	12-30-86

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N/A	RFH-73	Hanger	2509-1	F-C	IV3-W812 FRR-1	1	VT-3	107	N/A	N/A	N/A	12-31-86
					IV4-W812 FRR-1	1	VT-4	108	N/A	N/A	N/A	12-31-86
N/A	RFH-74	Hanger	2509-1	F-C	IV3-W812 FRR-1	1	VT-3	183	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	184	N/A	N/A	N/A	12-30-86
N/A	RFS-15	Snubber	2509-1	P-C	IV3-W812 FRR-1	1	VT-3	111	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	112	N/A	N/A	N/A	12-30-86
					IV3-W812 FRR-1	1	VT-3	317	N/A	N/A	N/A	01-02-87
					IV3-W812 FRR-1	1	VT-3	318	N/A	N/A	N/A	01-02-87
N/A	RFS-16	Snubber	2509-1	F-C	IV3-W812 FRR-1	1	VT-3	111	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	112	N/A	N/A	N/A	12-30-86
					IV3-W812 FRR-1	1	VT-3	317	N/A	N/A	N/A	01-02-87
N/A	RFS-17	Snubber	2509-1	F-C	IV3-W812 FRR-1	1	VT-3	111	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	112	N/A	N/A	N/A	12-30-86
					IV3-W812 FRR-1	1	VT-3	313	N/A	N/A	N/A	12-31-86

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Size	Exam Component I.D. Number	Comp. Fig.	Drawing	ASME CAT.	Procedure Number	Rev	Exam Type	EDS #	CDS #	LDS #	CNS CAL. STD NO.	ANII Init. Date
N/A	CUS-3 Downstream	Snubber	2503-1	F-C	IV3-W812 FRR-1	1	VT-3	111	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	112	N/A	N/A	N/A	12-30-86
					IV3-W812 FRR-1	1	VT-3	313	N/A	N/A	N/A	12-31-86
N/A	CUS-3 Upstream	Snubber	2503-1	F-C	IV3-W812 FRR-1	1	VT-3	111	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	112	N/A	N/A	N/A	12-30-86
					IV3-W812 FRR-1	1	VT-3	313	N/A	N/A	N/A	12-31-86
N/A	RFH-13	Hanger	2849-4	F-C	IV3-W812 FRR-1	1	VT-3	116	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	117	N/A	N/A	N/A	12-30-86
N/A	RFH-15	Hanger	2849-4	F-C	IV3-W812 FRR-1	1	VT-3	109	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	110	N/A	N/A	N/A	12-30-86
N/A	RFH-16	Hanger	2749-4	F-C	IV3-W812 FRR-1	1	VT-3	109	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	110	N/A	N/A	N/A	12-30-86

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N/A	HA-2	Hanger	9	F-C	IV3-W812 FRR-1	1	VT-3	183	N/A	N/A	N/A	12-31-86
					IV4-W812 FRR-1	1	VT-4	184	N/A	N/A	N/A	12-31-86
N/A	HA-3	Hanger	9	F-C	IV3-W812 FRR-1	1	VT-3	185	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	186	N/A	N/A	N/A	12-30-86
N/A	HB-1	Hanger	10	F-C	IV3-W812 FRR-1	1	VT-3	183	N/A	N/A	N/A	12-31-86
					IV4-W812 FRR-1	1	VT-4	184	N/A	N/A	N/A	12-31-86
N/A	HB-3	Hanger	10	F-C	IV3-W812 FRR-1	1	VT-3	183	N/A	N/A	N/A	12-31-86
					IV4-W812 FRR-1	1	VT-4	184	N/A	N/A	N/A	12-31-86
N/A	HC-3	Hanger	11	F-C	IV3-W812 FRR-1	1	VT-3	183	N/A	N/A	N/A	12-31-86
					IV4-W812 FRR-1	1	VT-4	184	N/A	N/A	N/A	12-31-86
N/A	HD-2	Hanger	12	F-C	IV3-W812 FRR-1	1	VT-3	183	N/A	N/A	N/A	12-31-86
					IV4-W812 FRR-1	1	VT-4	184	N/A	N/A	N/A	12-31-86

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N/A	MSH-167	Hanger	9	F-C	IV3-W812 FRR-1	1	VT-3	107	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	108	N/A	N/A	N/A	12-30-86

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N/A	FHH-37	Hanger	2511-1	F-C	IV3-W812 FRR-1	1	VT-3	185	N/A	N/A	N/A	12-30-86
					IV4-W812 FRR-1	1	VT-4	186	N/A	N/A	N/A	12-30-86
					IV3-W812 FRR-1	1	VT-3	313	N/A	N/A	N/A	12-31-86

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12"	CWA-MC-13	FH-P	CNS-RWCU-3	MC	IP-W812	1	PT	229	N/A	N/A	N/A	12-05-86
					MIUP-W812	0	UT-0	260	259	001	51	12-05-86
					MIUP-W812	0	UT-45	262	261	003	51	12-05-86

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Size	Exam Component I.D. Number	Comp. Fig.	Drawing	ASME CAT.	Procedure Number	Rev	Exam Type	EDS #	CDS #	LDS #	CNS CAL. STD NO.	ANII Init. Date
N/A	RF-15-CV	Valve	5	C	IV1-W812 FRR-1	1	VT-1	227	N/A	N/A	N/A	12-05-86
N/A	RF-13-CV	Valve	6	C	IV1-W812 FRR-1	1	VT-1	249	N/A	N/A	N/A	12-05-86
N/A	RF-14-CV	Valve	6	C	IV1-W812 FRR-1	1	VT-1	273	N/A	N/A	N/A	12-05-86
N/A	RF-16-CV	Valve	5	C	IV1-W812 FRR-1	1	VT-1	273	N/A	N/A	N/A	12-05-86

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Size	Exam Component I.D. Number	Comp. Fig.	Drawing	ASME CAT.	Procedure Number	Rev	Exam Type	EDS #	CDS #	LDS #	CNS CAL. STD NO.	ANII Init. Date
N/A	Moisture Separator-A	N/A	N/A	N/A	IV1-W812 FRR-1	1	VT-1	118	N/A	N/A	N/A	11-20-86
N/A	Moisture Separator-B	N/A	N/A	N/A	IV1-W812 FRR-1	1	VT-1	118	N/A	N/A	N/A	11-20-86
N/A	Moisture Separator-C	N/A	N/A	N/A	IV1-W812 FRR-1	1	VT-1	118	N/A	N/A	N/A	11-20-86
N/A	Moisture Separator-D	N/A	N/A	N/A	IV1-W812 FRR-1	1	VT-1	118	N/A	N/A	N/A	11-20-86

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Size	Exam Component I.D. Number	Comp. Fig.	Drawing	ASME CAT.	Procedure Number	Rev	Exam Type	EDS #	CDS #	LDS #	CNS CAL. STD NO.	ANII Init. Date
N/A	(4) Thickness Measurements of the containment wall.	Plate	N/A	N/A	MIUP-W812	1	UT-0	304	303	003	Step-block	12-12-86

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Size	Exam Component I.D. Number	Comp. Fig.	Drawing	ASME CAT.	Procedure Number	Rev	Exam Type	EDS #	CDS #	LDS #	CNS CAL. STD NO.	ANII Init. Date
N/A	Cal, Block # CNS-100-18-120-CS	CAL-BLOCK	CP-1087	N/A	IP-W812	0	N/A	269	N/A	N/A	N/A	12-05-86
N/A	Cal, Block # CNS-97-18-160-CS	CAL-BLOCK	CP-1087	N/A	IP-W812	0	N/A	270	N/A	N/A	N/A	12-05-86
N/A	Cal. Block # CNS-106-24-80-CS	CAL-BLOCK	CP-1087	N/A	IP-W812	0	N/A	271	N/A	N/A	N/A	12-05-86

CORRESPONDENCE

CORRESPONDENCE

TAB	DESCRIPTION
1	Regulatory Guide 1.26
2	E. M. Mace, NPPD letter to R.C. Hooper, GE dated 12/20/84 regarding Pipe Size Exclusions
3	J. M. Klopotic, GE letter to G. Smith, NPPD dated 1/17/85 regarding Augmented Inspections
4	R. C. Hooper, GE letter to S. S. Freborg, NPPD dated 1/21/85 regarding Class 3 Systems
5	K. K. Cherian, GE letter to R. C. Hooper, GE dated 2/23/85 regarding Class Integral Attachments.
6	R. C. Hooper, GE letter to S.S. Freborg, CNS dated 10/30/85; Addenda #1
7	R. C. Hooper, GE letter to S.S. Freborg, CNS dated 2/14/86; Addenda #2
8	SER for CNS second 10-Year Inspection Program
9	S. S. Freborg, NPPD letter to J. R. Flaherty, dated 6/1/87, Addenda #3 (May, 1987 Addenda).
10	F. J. Schaaf, NPPD note to S. S. Freborg, dated 4/2/87, 316 NG Material Specification.

CORRESPONDENCE - TAB 8

cc: NPG Distribution (Letter only)

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

cc: G. R. Horn (2)
R. E. Wilbur (2)
G .A. Trevors (2)
G. R. Smith
J. D. Weaver

GRH--Please insure ISI program is revised to include Section XI inspection of RHR Drywell Spray System for which relief was not granted.

Docket No.: 50-298

JAN 27 1986

Mr. J. M. Pilant, Technical
Staff Manager
Nuclear Power Group
Nebraska Public Power District
Post Office Box 499
Columbus, Nebraska 68601

Dear Mr. Pilant:

SUBJECT: SECOND 10-YEAR INSPECTION PROGRAM

Re: Cooper Nuclear Station

By letters dated March 1, 1984 and March 15, 1985, you submitted the Inservice Inspection (ISI) Plan and additional information for the second ten-year inspection interval at Cooper Nuclear Station. In these letters you also requested relief from ASME Code requirements for certain items.

We have completed our review of your submittals and we have concluded that your ISI program and relief requests are appropriate except as indicated by the enclosed Safety Evaluation and Technical Evaluation Report. In reaching this conclusion, we have determined that the inspection and testing requirements are impractical for the items for which relief is being granted and pursuant to 10 CFR 50.55a (g)(6)(i), that the granting of relief is authorized by law, will not endanger life or property or the common defense and security, and is otherwise in the public interest. In making this determination, we have given due consideration to the burden that could result if those requirements were imposed on your facility.

Therefore, subject to the provisions in the Safety Evaluation, all of your pending relief requests relative to the ISI program are hereby granted except for that associated with Residual Heat Removal Drywell Spray Inside Drywell (Items C5.10 and C5.20).

Sincerely,

Daniel R. Muller, Director
BWR Project Directorate #2
Division of BWR Licensing

Enclosures:
As stated

ccw/enclosures
See next page

Mr. J. M. Pilant
Nebraska Public Power District

Cooper Nuclear Station

cc:
Mr. G. D. Watson, General Counsel
Nebraska Public Power District
P. O. Box 4999
Columbus, Nebraska 68601

Mr. Arthur C. Gehr, Attorney
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Cooper Nuclear Station
ATTN: Mr. Paul Thomason, Division
Manager of Nuclear Operations
P. O. Box 98
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Director
Nebraska Department of Environmental
Control
P. O. Box 94877
State House Station
Lincoln, Nebraska 68509

Mr. William Siebert, Commissioner
Nemaha County Board of Commissioners
Nemaha County Courthouse
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Resident Inspector
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Department of Health
301 Centennial Mall, South
P. O. Box 95007
Lincoln, Nebraska 68509

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO REQUESTS FOR RELIEF FROM INSERVICE INSPECTION REQUIREMENTS

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

DOCKET NO. 50-298

1.0 INTRODUCTION

Technical Specification 4.6G for the Cooper Nuclear Station states that inservice examination of ASME Code Class 1, 2, and 3 components shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10 CFR 50.55a(g) except where specific written relief has been granted by the Commission. Certain requirements of later editions and addenda of Section XI are impractical to perform on older plants because of the plants' design, component geometry, and materials of construction. Thus, 10 CFR 50.55a(g)(6)(i) authorizes the Commission to grant relief from those requirements upon making the necessary findings.

By letters dated March 1, 1984, and March 15, 1985, Nebraska Public Power District submitted its inservice inspection program, revisions, or additional information related to requests for relief from certain Code requirements determined to be impractical to perform on the Cooper Nuclear Station 1 during the inspection interval. The program is based on the requirements of the 1980 Edition through Winter 1981 Addenda of Sections IX of the ASME Code, and remains in effect until July 1, 1994 unless the program is modified or changed prior to the interval end date.

2.0 EVALUATION

Requests for relief from the requirements of Section XI have been reviewed by the Staff's contractor, Science Applications International Corporation. The contractor's evaluations of the licensee's requests for relief and his recommendations are presented in the Technical Evaluation Report (TER) attached. The staff has reviewed the TER and concurs with the evaluations and recommendations. A summary of the determinations made by the staff is presented in the following tables:

TABLE 1

CLASS 1 COMPONENTS

IWB-2500-1 ITEM NO.	IWB-2500-1 EXAM. CAT.	SYSTEM OR COMPONENT	AREA TO BE EXAMINED	REQUIRED METHOD	LICENSEE PROPOSED ALTERNATIVE EXAMINATION	RELIEF REQUEST STATUS
B1.11, B1.12, B1.21, & B1.22	B-A	Reactor Vessel	Shell Welds and Head Welds (See Attachment I to Table 1)	Volumetric	Visual During System Hydrostatic Test	Granted Provided Volumetric is Performed to Extent Practical, Volumetric of Additional Shell Welds to Achieve Total Code-Required Weld Length, and Visual of Beltline Region Weld Areas From Vessel Interior (No Relief Required for Welds HMD-BB-1, VCB-BB-1 and -3, and VCL-BB-1,-2, and -3)

TABLE 1

CLASS 1 COMPONENTS (continued)

IWB-2500-1 ITEM NO.	IWB-2500-1 EXAM. CAT.	SYSTEM OR COMPONENT	AREA TO BE EXAMINED	REQUIRED METHOD	LICENSEE PROPOSED ALTERNATIVE EXAMINATION	RELIEF REQUEST STATUS
C3.100	B-D	Reactor Vessel	Nozzle Inside Radius Section (Nozzles: Head Spray Nozzle N6A, Instrumentation Nozzle N6B, and Head Vent Nozzle N7)	Volumetric	Surface	Granted
B9.11	B-J	Containment Penetration Assembly	Pipe Size $\geq$ 4 in., Circumferential Welds (See Attachment II to Table 1)	Surface and Volumetric	Visual for Leakage During System Hydrostatic Test	Granted Provided Surface and Volumetric of First Accessible Pressure Boundary Weld Either Upstream or Downstream of Inaccessible Weld Over 100% of Its Length, if Practical.

TABLE 1

ATTACHMENT I

WELD	WELD TYPE	IWB-2500-1 ITEM NO.	COMMENTS
HMB-BB-1	Bottom Head Meridional	B1.22	
HMB-BB-2	Bottom Head Meridional	B1.22	
HMB-BB-3	Bottom Head Meridional	B1.22	
HMB-BB-4	Bottom Head Meridional	B1.22	
HMB-BB-5	Bottom Head Meridional	B1.22	
HMB-BB-6	Bottom Head Meridional	B1.22	
HMD-BB-1	Bottom Head Circumferential	B1.21	
VCB-BA-2	Circumferential Shell	B1.11	Beltline
VCB-BB-1	Circumferential Shell	B1.11	
VCB-BB-3	Circumferential Shell	B1.11	
VLA-BA-1	Longitudinal Shell	B1.12	Beltline
VLA-BA-2	Longitudinal Shell	B1.12	Beltline
VLA-BA-3	Longitudinal Shell	B1.12	Beltline
VLB-BA-1	Longitudinal Shell	B1.12	Beltline
VLB-BA-2	Longitudinal Shell	B1.12	Beltline
VLB-BA-3	Longitudinal Shell	B1.12	Beltline
VLC-BB-1	Longitudinal Shell	B1.12	
VLC-BB-2	Longitudinal Shell	B1.12	
VLC-BB-3	Longitudinal Shell	B1.12	

TABLE 1

ATTACHMENT II

DESCRIPTION	INACCESSIBLE WELD
Core Spray Loop A	CSA-BJ-25
Core Spray Loop B	CSB-BJ-25
Reactor Water Cleanup	CWA-BJ-27A
Feedwater Loop A	FWA-BJ-35
Feedwater Loop B	FWD-BJ-34
Main Steam Loop A	MSA-BJ-43
Main Steam Loop B	MSB-BJ-39
Main Steam Loop C	MSC-BJ-43
Main Steam Loop D	MSD-BJ-47
HPCI Steam	PSA-BJ-22
RHR 20-In Supply	RHA-BJ-30A
RHR Loop A	RHB-BJ-28A
RHR Loop B	RHC-BJ-24
RHR 6-Inch Head Spray	RHD-BJ-31
RCIC Steam	RSA-BJ-13A

TABLE 2

CLASS 2 COMPONENTS

IWC-2500-1 ITEM NO.	IWC-2500-1 EXAM. CAT.	SYSTEM OR COMPONENT	AREA TO BE EXAMINED	REQUIRED METHOD	LICENSEE PROPOSED ALTERNATIVE EXAMINATION	RELIEF REQUEST STATUS
C1.30	C-A	Residual Heat Removal Heat Exchanger	Tubesheet-to-Shell Weld (Welds RHR-CA-5A and RHR-CA-5B)	Volumetric	Visual During System Leakage Test	Granted
C5.10 & C5.20	C-F	Residual Heat Removal Drywell Spray System	C5.10: Pipe Welds < 1/2 in. Wall Thickness C5.20: Pipe Welds > 1/2 in. Wall Thickness	C5.10: Surface C5.20: Surface and Volumetric	Visual During System Pneumatic Test	Not Granted
C5.11	C-F	Floor Penetration	Pipe Welds < 1/2 in. Wall Thickness, Circumferential Weld (Weld RHD-CF-9)	Surface	Visual During System Hydrostatic Test	Granted

TABLE 3

CLASS 3 COMPONENTS

NO RELIEF REQUESTS

TABLE 4

COMPONENT SUPPORTS

NO RELIEF REQUESTS

TABLE 5

PRESSURE TESTS

NO RELIEF REQUESTS

3.0 CONCLUSION

Based on the review summarized above, the staff concludes that the relief granted from the examination and testing requirements and alternate methods imposed through this document give reasonable assurance of the piping and component pressure boundary and support structural integrity, that granting relief where the Code requirements are impractical is authorized by 10 CFR 50.55a(g)(6)(i) and will not endanger life or property, or the common defense and security, and is otherwise in the public interest considering the burden that could result if they were imposed on the facility. The relief not granted, for surface and volumetric examination of drywell spray piping welds is denied on the basis that the licensee has not shown the requirements to be impractical. Relief is therefore not authorized by 10 CFR 50.55a(g)(6)(i).

Attachment: "Technical Evaluation Report, Second Interval Inservice Inspection Program, Cooper Nuclear Station" Report No. SAIC - 84/1660, September 1985.

Principal Contributor: G. Johnson/S. Lee

Dated: January 27, 1986

Report No. SAIC-84/1660

TECHNICAL EVALUATION REPORT
SECOND INTERVAL INSERVICE INSPECTION PROGRAM

COOPER NUCLEAR STATION

Submitted to

U.S. Nuclear Regulatory Commission
Contract No. NRC-03-83-096

Submitted by

Science Applications International Corporation
Idaho Falls, Idaho

September 1985

CONTENTS

TECHNICAL EVALUATION REPORT

SECOND INTERVAL INSERVICE INSPECTION PROGRAM

COOPER NUCLEAR STATION

INTRODUCTION

This report evaluates requests for relief from Section XI of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code* by the licensee, Nebraska Public Power District (NPPD), for the Cooper Nuclear Station, Unit 1 (CNS-1). The relief requests cover the second 120-month inspection interval starting July 1, 1984. The requests are based upon the 1980 Edition of Section XI, with addenda through the Winter of 1981, as specified in the applicable revision of 10 CFR 50.55a.

The rest of this introduction summarizes (a) the scope of this report, (b) the previous review of relief requests by Science Applications International Corporation (SAIC),[1] and (c) the history of CNS-1 since the earlier review.

The current revision to 10 CFR 50.55a requires that Inservice Inspection (ISI) programs be updated each 120 months to meet the requirements of newer editions of Section XI. Specifically, each program is to meet the requirements (to the extent practical) of the edition and addenda of the Code incorporated in the regulation by reference in paragraph (b) 12 months prior to the start of the current 120-month interval.

The regulation recognizes that the requirements of the later editions and addenda of the Code might not be practical to implement at facilities because of limitations of design, geometry, and materials of construction of components and systems. It, therefore, permits exceptions to impractical examination or testing requirements to be evaluated. Relief from these requirements can be granted provided the health and safety of the public are not endangered, giving due consideration to the burden placed on the licensee if the requirements were imposed. This report only evaluates requests for relief dealing with inservice examinations of components and with system pressure tests. Inservice test programs for pumps and valves (IST programs) are being evaluated separately.

Finally, Section XI of the Code provides for certain components and systems to be exempted from its requirements. In some instances, these exemptions are not acceptable to the Nuclear Regulation Commission (NRC)

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*Hereinafter referred to as Section XI or Code.

or are only acceptable with restrictions. As appropriate, these instances are also discussed in this report.

In its previous report dated July 13, 1982, SAIC[1] evaluated relief requests for CNS-1 covering the last 80 months of the first 120-month interval that ended July 1, 1984. These requests were based on the 1974 Edition of the Code with addenda through Summer 1975. The applicable Code and interval were in accordance with the revision of 10 CFR 50.55a in effect at that time. On May 19, 1983, the NRC issued its formal Safety Evaluation Report,[2] which included SAIC's report as an appendix.

On March 1, 1984, NPPD submitted a new ISI program for the second 120-month interval.[3] The five relief requests contained in this program submittal were based upon the 1980 Edition of Section XI of the Code with addenda through the Winter of 1981. The Code edition and inspection intervals were in accordance with the revision of 10 CFR 50.55a applicable at the time. Two revisions of the ISI program for the second 120-month interval were submitted.[4,5]

NRC requested additional information, required to evaluate the revised NPPD ISI plan, on July 31, 1984.[6] The licensee responded to the request by submitting additional information[7,8] and a revised second-interval ISI program.[9] During this exchange, three of the original relief requests were withdrawn and four new ones were added. The six pending relief requests contained in Reference 9 are evaluated in this report.

I. CLASS 1 COMPONENTS

A. Reactor Vessel

1. Relief Request RI-06, Inaccessible Reactor Pressure Vessel Welds, Category B-A, Items B1.11, B1.12, B1.21, and B1.22

Code Requirement

Items B1.11 and B1.12:

One circumferential and one longitudinal pressure retaining weld in the beltline region of the reactor pressure vessel must be volumetrically examined in accordance with Figures IWB-2500-1 and -2 over essentially 100% of the weld length in the second and successive inspection intervals. Examinations may be performed at or near the end of the interval.

Items B1.21 and B1.22:

The accessible length of one circumferential and one meridional pressure retaining weld in the reactor pressure vessel head must be volumetrically examined in accordance with Figure IWB-2500-3 in the second and successive inspection intervals. The bottom head welds may be examined at or near the end of the interval.

Code Relief Request

Relief is requested from volumetric examination over 100% of the length of the following welds:

Weld	Type	Item	Comments
HMB-BB-1	Bottom Head Meridional	B1.22	
HMB-BB-2	Bottom Head Meridional	B1.22	
HMB-BB-3	Bottom Head Meridional	B1.22	
HMB-BB-4	Bottom Head Meridional	B1.22	
HMB-BB-5	Bottom Head Meridional	B1.22	
HMB-BB-6	Bottom Head Meridional	B1.22	
HMD-BB-1	Bottom Head Circumferential	B1.21	
VCB-BA-2	Circumferential Shell	B1.11	Beltline
VCB-BB-1	Circumferential Shell	B1.11	
VCB-BB-3	Circumferential Shell	B1.11	

Weld	Type	Item	Comments
VLA-BA-1	Longitudinal Shell	B1.12	Beltline
VLA-BA-2	Longitudinal Shell	B1.12	Beltline
VLA-BA-3	Longitudinal Shell	B1.12	Beltline
VLB-BA-1	Longitudinal Shell	B1.12	Beltline
VLB-BA-2	Longitudinal Shell	B1.12	Beltline
VLB-BA-3	Longitudinal Shell	B1.12	Beltline
VLC-BB-1	Longitudinal Shell	B1.12	
VLC-BB-2	Longitudinal Shell	B1.12	
VLC-BB-3	Longitudinal Shell	B1.12	

Proposed Alternative Examination

Visual inspection of all welds during the system hydrostatic test will be conducted.

Licensee's Basis for Requesting Relief

The CNS-1 construction permit was issued before the effective date of implementation for ASME Section XI and thus the plant was not designed to meet the requirements of inservice inspection; therefore, 100% compliance is not feasible or practical.

Access to the reactor vessel beltline region is not possible. The reactor vessel is insulated with permanent reflective insulation and surrounded by a concrete biological shield. The annular space between the inside diameter of the insulation and outside diameter of the reactor vessel is a nominal 2 inches. There is no working space to remove the insulation panels from the vessel, which precludes both direct and remote examination of the outside surface. The interior surface is clad and the vessel internals, shroud, and jet pumps make an internal volumetric examination of these welds impractical for a meaningful examination.

Parts of longitudinal seams VLA-BA-1, -2, and -3 however, appear to be accessible from openings around the recirculation riser nozzles N2A, N2E, and N2H, respectively. Again, these seams are not 100% accessible. Scanning surface area would require a minimum of 17 inches from weld. This surface area is only available for a few inches--closest to nozzle. When the nozzle-to-vessel welds (Category B-D) are examined, a best effort examination of these longitudinal seams shall be performed.

Evaluation

The licensee has requested relief from volumetric examination of 19 pressure retaining welds in the reactor vessel. Seven of the welds are circumferential and meridional welds in the bottom head under Items B1.21 and B1.22. The remaining 12 welds are circumferential and longitudinal welds in the reactor vessel shell under Items B1.11 and B1.12. Seven of the 12 shell welds for which relief is requested are in the beltline region.

Welds HMB-BB-1 through -6 are bottom head meridional welds which are partially inaccessible. The reactor vessel support skirt limits access to the total length of these welds. The licensee has stated that the accessible portion of these welds (approximately 6 inches of weld length) will be examined on a best effort basis in conjunction with the examination of the support skirt weld HNC-C1-1, -2, and -3. Examination of portions of the six meridional head welds will result in examination of a total of 36 inches length of meridional head weld. This total weld length should be a significant fraction of 100% of the length of one meridional head weld. The Code requires that the accessible length (essentially 100% of the weld length) of one meridional head weld be examined in the second and successive inspection intervals (B1.22). The examination of 36 inches of total weld length from six separate welds is an acceptable alternate examination.

Relief is requested from volumetric examination of circumferential weld HMD-BB-1 in the bottom head since it is rendered inaccessible by the vessel support skirt. Item B1.21 requires that the accessible length of one circumferential head weld be examined in the second and successive inspection intervals. Since weld HMC-BB-1, which is also a circumferential weld in the bottom head, is scheduled to be examined in the second interval, the Code requirement is fulfilled and no relief is required for weld HMD-BB-1.

Relief is requested from volumetric examination of 12 longitudinal and circumferential shell welds under Items B1.11 and B1.12. Items B1.11 and B1.12 require volumetric examination of one circumferential and one longitudinal, weld respectively, in the beltline region during the second and successive inspection intervals. Since circumferential shell welds VCB-BB-1 and -3 and longitudinal shell welds VLC-BB-1, -2, and -3 are not in the beltline region, no examination, and hence no relief, is required.

Access to the reactor beltline region to inspect circumferential weld VCB-BA-2 and longitudinal welds VLA-BA-1, -2, and -3 and VLB-BA-1, -2, and -3 appears to be impractical. The reactor vessel is insulated with permanent reflective insulation and surrounded by a concrete biological shield. The annular space between the inside diameter of the insulation and the outside diameter of the reactor vessel is a nominal 2 inches. There is no working space to remove the insulation panels from the vessel, which

precludes both direct and remote examination of the outside surface. The interior surface is clad and the vessel internals, shroud, and jet pumps make an internal volumetric examination of these welds impractical for a meaningful examination.

Parts of the longitudinal seams VLA-BA-1, -2, and -3 appear to be accessible from openings around the recirculation riser nozzles N2A, N2E, and N2H, respectively. These welds are only accessible for examination for a few inches adjacent to the nozzles. When the nozzle welds (Category B-D) are examined, the accessible portion of these longitudinal welds will be scanned to the extent possible.

The reactor vessel is monitored for radiation damage in the beltline region. This program (References NEDO-10115 and APED-5490, 67A PE2 May 1967, Class I and Station Surveillance Procedure 7.4.9) meets the intent of 10 CFR Part 50, Appendix H. This program will provide data to monitor radiation damage to the vessel beltline materials throughout the vessel's service life. The vessel was designed and fabricated in accordance with the rules of Section III, 1965 Edition of the ASME Boiler and Pressure Vessel Code.

The areas of all beltline welds should be inspected visually from the reactor vessel inside surface to the extent practical using a remote television camera during the inspection required for Categories B-N-1 and B-N-2.

To maintain the extent of examination, an alternative inservice inspection program of both volumetric and visual examination is needed. Certain longitudinal and circumferential welds, not in the beltline region, are partially or wholly accessible for inservice inspection. The volumetric examination of accessible circumferential and longitudinal shell welds could be increased to achieve (1) an examination sample whose total weld length is equal to that required for the Category B-A welds for which relief was requested or (2) 100% of the length of each accessible RPV shell weld, whichever is less. In addition, visual examination for gross leakage should be performed during each system pressure test in accordance with IWA-5240. Such examinations should furnish sufficient information to evaluate the structural reliability of the welds since they indicate cracks through the metal.

The CNS-1 ISI program indicates that both aspects of the proposed alternative inspections will be carried out. Shell circumferential weld VCB-BB-4 and longitudinal welds VLD-BB-1, -2, and -3 will be volumetrically examined over 100% of their length. Longitudinal welds VLC-BB-1, -2, and -3 will be partially examined on a best effort basis. All these shell welds are above the beltline region. In addition, the licensee has proposed visual examination during the system hydrostatic test for all the reactor pressure vessel welds.

Conclusions and Recommendations

Based on the above evaluation, it is concluded that for the lower head circumferential weld (HMD-BB-1), for the circumferential shell welds out of the beltline region (VCB-BB-1 and -3), and for the longitudinal shell welds out of the beltline region (VLC-BB-1, -2, and -3) no relief is required and no relief should be granted.

Also based on the above evaluation, it is concluded that for the lower head meridional welds and for the circumferential and longitudinal shell welds in the beltline region, the Code requirements are impractical. It is further concluded that the alternative examination discussed above will provide the necessary added assurance of structural reliability. Therefore, it is recommended that relief be granted from volumetric examination of the identified welds for the 10-year inspection interval with the following provisions:

(a) Partial volumetric examination of the longitudinal shell welds in the beltline region through the recirculation riser nozzle ports and partial volumetric examination of the six meridional welds in the bottom head should be conducted on a best effort basis.

(b) Examination of the accessible shell welds out of the beltline region should be increased to achieve (1) an examination sample whose total weld length is equal to that required for the Item B1.11 and B1.12 welds for which relief was requested or (2) 100% of the length of each accessible shell weld, whichever is less.

(c) the beltline region weld areas should be visually examined from the vessel interior during the examinations required under Categories B-N-1 and B-N-2.

(d) General visual examinations per IWA-5240 should be made during each system pressure test for evidence of leakage in the areas of the lower head and the shield annulus below the vessel.

References

References 1, 8, and 9.

2. Relief Request RI-03, Reactor Pressure Vessel Top Head Nozzle Inner Radii, Category B-D, Item B3.100

Code Requirement

The extent of the volumetric examination of each nozzle shall cover 100% of the volume to be inspected as shown in Figure IWB-2500-7(a) through (d), which includes the primary nozzle-to-vessel welds and inside radiused sections. All nozzles shall be examined during each inspection interval. At least 25% but not more than 50% (credited) of the nozzles shall be examined by the end of the first inspection period and the remainder by the end of the inspection interval.

Code Relief Request

Relief is requested from the volumetric examination of the nozzle inner radius (NIR) for the following nozzles on the reactor pressure vessel (RPV) closure head:

N6A	NIR	Head Spray Nozzle
N6B	NIR	Instrumentation Nozzle
N7	NIR	Head Vent Nozzle

Proposed Alternative Examination

Surface examination of the inner radius of the three identified nozzles will be performed.

Licensee's Basis for Requesting Relief

During refueling activities, the RPV closure head is removed allowing access to RPV closure head NIR. A surface examination is more sensitive in detecting surface defects at the NIR than the volumetric examination performed from the outside surface.

Evaluation

Volumetric examination of the nozzle-to-vessel weld is required and would be performed ultrasonically, independently of the NIR examination. Because of the geometry of the joint, ultrasonic examination of the NIR sections is not feasible. If the entire joint were radiographed, an extra set of exposures would

be required for the NIR sections. The proposed surface examination, however, would be more sensitive than a volumetric examination in detecting surface defects at the NIR since the surface is not clad. In addition, surface examination of the NIR at the three nozzles as proposed for the alternative examination would result in less radiation exposure to personnel than the volumetric examination.

Conclusions and Recommendations

Based on the above evaluation, it is concluded that for the areas discussed above, the Code requirements are impractical. It is further concluded that the alternative examination discussed above will provide the necessary added assurance of structural reliability. Therefore, the following is recommended:

Relief should be granted from the volumetric examination of the nozzle inner radius of the three identified nozzles during the inspection interval provided that the proposed alternative surface examination is carried out.

References

References 1, 6, 7, and 9.

B. Pressurizer

Does not apply to BWRs.

C. Heat Exchangers and Steam Generators

No relief requests.

D. Piping Pressure Boundary

1. Relief Request RI-01, Circumferential Weld in Containment Penetration Assembly, Category B-J, Item B9.11

Code Requirement

For circumferential welds with nominal pipe size 4 inches and greater, surface plus volumetric examinations in accordance with Figure IWB-2500-8 shall be performed during each inspection interval on essentially 100% of the weld. The examination shall include the following:

(a) All terminal ends in each pipe or branch run connected to vessels.

(b) All terminal ends and joints in each pipe or branch run connected to other components where the stress levels exceed the following limits under loads associated with specific seismic events and operational conditions:

(1) primary plus secondary stress intensity range of $2.4S_m$ for ferritic steel and austenitic steel, and

(2) cumulative usage factor U of 0.4.

(c) All dissimilar metal welds between combinations of

(1) carbon or low alloy steels to high alloy steels,

(2) carbon or low alloy steels to high nickel alloys, and

(3) high alloy steels to high nickel alloys.

(d) Additional piping welds so that the total equals 25% of the circumferential joints in the reactor coolant piping system. This total does not include welds excluded by IWB-1220. These additional welds may be located in one loop (one loop is currently defined for both PWR and BWR plants in the 1980 Edition).

For welds in carbon or low alloy steels, only those welds showing reportable preservice transverse indications need be examined for transverse reflectors.

Code Relief Request

Relief is requested from volumetric and surface examination of one pressure-retaining piping weld in each of 15 primary containment penetration assemblies as follows:

Description	Inaccessible Weld
Core Spray Loop A	CSA-BJ-25
Core Spray Loop B	CSB-BJ-25
Reactor Water Cleanup	CWA-BJ-27A
Feedwater Loop A	FWA-BJ-35
Feedwater Loop B	FWD-BJ-34
Main Steam Loop A	MSA-BJ-43
Main Steam Loop B	MSB-BJ-39
Main Steam Loop C	MSC-BJ-43
Main Steam Loop D	MSD-BJ-47
HPCI Steam	PSA-BJ-22
RHR 20-Inch Supply	RHA-BJ-30A
RHR Loop A	RHB-BJ-28A
RHR Loop B	RHC-BJ-24
RHR 6-Inch Head Spray	RHD-BJ-31
RCIC Steam	RSA-BJ-13A

Proposed Alternative Examination

A visual inspection for evidence of leakage will be conducted during the system hydrostatic pressure test of IWB-5000.

Licensee's Basis for Requesting Relief

Due to its design, the primary containment penetration assembly leaves one pressure-retaining piping weld inaccessible for examination by either surface or volumetric methods.

Evaluation

The identified welds are completely inaccessible for volumetric or surface examination because the welds are located inside a containment penetration. Each primary containment penetration assembly, due to its design, leaves one pressure-retaining piping weld inaccessible for examination by either surface or volumetric means. The welds can only be examined by inspecting for evidence of leakage during system hydrostatic pressure tests.

The initial design of the assemblies did not provide for accessibility for inservice examinations. If, however, the workmanship and quality assurance of the welding as well as the preservice examinations are assumed adequate, then an examination of the first pressure boundary weld either upstream or downstream of the inaccessible weld should reflect service-induced failures for that particular piping section. Thus, the first pressure boundary weld adjacent to the inaccessible weld on each of these process pipes should be volumetrically examined, where practical, over 100% of its length during each inspection interval. Such an examination would maintain sample size. The licensee should also conduct visual examinations at these penetrations, as proposed, which would indicate any cracks through the metal.

Conclusions and Recommendations

Based on the above evaluation, it is concluded that for the welds discussed above, the Code requirements are impractical. It is further concluded that the alternative examination discussed above will provide necessary added assurance of structural reliability. Therefore, it is recommended that relief be granted from the volumetric examination of the identified welds, with the following provisions:

(a) The first accessible pressure boundary weld either upstream or downstream of the inaccessible weld on each of these process pipes should be examined by volumetric and surface methods, where practical, over 100% of its length during each inspection interval.

(b) The proposed visual examinations should be performed on the containment penetration assemblies when leakage and hydrostatic tests are conducted in accordance with IWA-5000.

References

References 1, 6, 7, and 8.

E. Pump Pressure Boundary

No relief Requests.

F. Valve Pressure Boundary

No relief requests.

II. CLASS 2 COMPONENTS

A. Pressure Vessels and Heat Exchangers

1. Relief Request RI-05, Inaccessible Welds on the Residual Heat Removal Heat Exchanger, Category C-A, Item C1.30

Code Requirement

Pressure retaining tubesheet-to-shell welds must be volumetrically examined over essentially 100% of the weld length in accordance with Figure IWC-2500-2 each inspection interval.

Code Relief Request

Relief is requested from volumetric examination of the tubesheet-to-shell welds (RHR-CA-5A and RHR-CA-5B) on the RHR heat exchanger.

Proposed Alternative Examination

A visual examination of the welds will be conducted during the system leakage test.

Licensee's Basis for Requesting Relief

The weld joint configuration is not accessible for volumetric examination. Limited access also precludes a surface examination, therefore, a visual inspection of the area during a system leakage test will be performed each inspection interval.

Evaluation

The tubesheet-to-shell weld on the RHR heat exchanger is a complex configuration involving two partial penetration welds and a fillet weld. Access to the weld is extremely limited as a result of the configuration. Both volumetric and surface examination are essentially prohibited by the limited access. Visual examination of the weld during system pressure tests should provide adequate assurance of structural reliability since it would provide initial evidence of seepage from a through-wall perforation.

Conclusions and Recommendations

Based on the above evaluation, it is concluded that for the welds discussed above, the Code requirements are impractical. It is further concluded that the alternative examination discussed above will provide necessary added assurance of structural reliability. Therefore, the following is recommended:

Relief should be granted from performing volumetric examination of identified welds provided that visual examination of the welds for leakage is performed during periodic hydrostatic testing in accordance with IWC-5000.

References

Reference 9.

B. Piping

1. Relief Request RI-02, Residual Heat Removal Drywell Spray Inside Drywell, Category C-F, Items C5.10 and C5.20 (Items C2.1 and C2.2 in 1974 S75)

Code Requirement

74S75, Category C-F, Items C2.1 and C2.2:

The following pressure-retaining weld areas in piping, pumps, and valves in systems circulating reactor coolant shall be volumetrically examined over 100% of their lengths:

(a) circumferential butt welds at structural discontinuities

(b) circumferential butt welds in piping within 3 pipe diameters of the centerline of rigid pipe anchors, or anchors at the penetration of the primary reactor containment, or at rigidly anchored components

(c) longitudinal weld joints in pipe fittings (i.e., in tees, elbows, reducers)

(d) pump casing and valve body weld joints.

This includes the weld metal and base metal for one wall thickness beyond the edge of the weld.

80W81, Category C-F:

For circumferential and longitudinal welds with a nominal wall thickness less than or equal to 1/2 inch, a surface examination in accordance with Figure IWC-2500-7 is required over 100% of the weld length each interval (C5.10). For longitudinal welds in the same thickness piping, 2.5t at the interesecting circumferential weld shall be examined by surface methods each interval.

For circumferential and longitudinal welds with a nominal wall thickness greater than 1/2 inch, a volumetric and surface examination in accordance with IWC-2500-7 is required over 100% of the weld length each interval (C5.20). For longitudinal welds in the same thickness piping, 2.5t at the intersecting circumferential weld shall be examined by volumetric and surface methods each interval.

Code Relief Request

Relief from surface and volumetric examination of the RHR drywell spray welds inside the drywell is requested.

Proposed Alternative Examination

A visual examination shall be performed during a system pneumatic test in accordance with CNS Technical Specifications

Licensee's Basis for Requesting Relief

These welds are located inside the drywell and do not normally contain water; they are empty. They see the inerted environment during operation. The welds receive minimum inservice stress, and a surface or volumetric examination would not significantly increase quality or safety. To impose the Code requirements would result in an overall increase in man-rem exposure without commensurate increase in safety.

Evaluation

10 CFR 50.55a(b)(2)(iv)(A), as adopted in 44 FR 57912, states the following:

(iv) Pressure-retaining welds in ASME Code Class 2, piping (applies to Tables IWC-2520 or IWC-2520-1, Category C-F).
(A) Appropriate Code Class 2 piping welds in Residual Heat Removal Systems, Emergency Core Cooling Systems, and Containment Heat Removal Systems shall be examined. The extent of examination for these systems shall be determined by the requirements of paragraph IWC-1220, Table IWC-2520, Categories C-F and C-G, and paragraph IWC-2411 in the 1974 Edition, Summer 1975 Addenda, of Section XI of the ASME Code.

Clearly, the intent of the Regulation is that a representative sample of welds in these systems be examined and relief should not be granted from examining the welds in the RHR drywell spray system piping.

The basis for relief provided by the licensee does not firmly establish that implementation of the subject weld examinations is impractical. The drywell radiation level has not been stated nor has the cumulative dose to personnel been estimated. The proposed alternative examination, "visual examination during a system pneumatic test" may in fact, be impractical.

Conclusions and Recommendations

Based on the above evaluation, it is concluded that for the welds discussed above, adherence to the Code requirements is not impractical. It is further concluded that the alternate test proposed may be impractical. Therefore, relief should not be granted.

References

Reference 9.

2. Relief Request RI-04, Inaccessible Weld in Floor Penetration, Category C-F, Item C5.11 (Item C2.1 in 1974 S75)

Code Requirement

74S75, Category C-F, Item C2.1:

The following pressure-retaining weld areas in piping, pumps, and valves in systems circulating reactor coolant shall be volumetrically examined over 100% of their lengths:

(a) circumferential butt welds at structural discontinuities

(b) circumferential butt welds in piping within 3 pipe diameters of the centerline of rigid pipe anchors, or anchors at the penetration of the primary reactor containment, or at rigidly anchored components

(c) pump casing and valve body weld joints.

This includes the weld metal and base metal for one wall thickness beyond the edge of the weld.

80W81, Category C-F:

For circumferential welds with a nominal wall thickness less than or equal to 1/2 inch, surface examination in accordance with Figure IWC-2500-7 is required over 100% of the weld length each interval.

Code Relief Request

Relief from surface examination of weld RHD-CF-9 is requested.

Proposed Alternative Examination

A visual inspection for evidence of leakage will be conducted during the system hydrotest of IWC-5000.

Licensee's Basis for Requesting Relief

The location of this weld inside the floor penetration makes it inaccessible for volumetric or surface examination.

Evaluation

The weld for which relief is requested is located in the 6-inch RHR Head Spray Vent System. There are at least seven other Class 2 Category C-F welds in this system scheduled for examination during the second inspection interval.

Because of its inaccessible location, the weld cannot be examined by volumetric or surface methods. Visual examination could, however, be performed during system leakage and hydrostatic tests, which would provide initial evidence of seepage from a through-wall perforation.

Conclusions and Recommendations

Based on the above evaluation, it is concluded that for the weld discussed above, the Code requirements are impractical. It is further concluded that the alternative examination discussed above will provide necessary added assurance of structural reliability. Therefore, the following is recommended:

Code relief from the volumetric examination of the identified weld should be granted provided that visual examinations are performed during system hydrostatic pressure tests in accordance with IWC-5000.

References

References 1 and 9.

C. Pumps

No relief requests.

D. Valves

No relief requests.

III. CLASS 3 COMPONENTS

No relief requests.

IV. PRESSURE TESTS

No relief requests.

V. GENERAL

No relief requests.

REFERENCES

1. Science Applications, Inc., Cooper Nuclear Station, Inservice Inspection Program, Technical Evaluation Report, SAI Report No. 186-028-04, July 13, 1982.

2. D. B. Vassallo (NRC) to J. M. Pilant (NPPD), Safety Evaluation Report, May 19, 1983.

3. J. M. Pilant (NPPD) to D. B. Vassallo (NRC), Cooper Nuclear Station Second Ten-Year Inservice Inspection Plan, March 1, 1984.

4. J. D. Weaver (NPPD) to E. D. Sylvester (NRC), Cooper Nuclear Station Second 10-Year In-Service Inspection (ISI) Program, June 15, 1984.

5. J. D. Weaver (NPPD) to E. D. Sylvester (NRC), Cooper Nuclear Station Second 10-Year In-service Inspection (ISI) Program, July 25, 1984.

6. Request for Additional Information, July 31, 1984.

7. J. D. Weaver (NPPD) to E. D. Sylvester (NRC), Cooper Nuclear Station Second 10-Year In-Service Inspection (ISI) Program; Additional Information, September 19, 1984.

8. J. D. Weaver (NPPD) to E. D. Sylvester (NRC), Cooper Nuclear Station Second 10-Year In-Service Inspection (ISI) Program, December 18, 1984.

9. J. M. Pilant (NPPD) to D. B. Vassallo (NRC), Cooper Nuclear Station Second 10-Year In-Service Inspection (ISI) Program, March 15, 1985.

CORRESPONDENCE - TAB 9

E1-0681

NEBRASKA PUBLIC POWER DISTRICT

CNSS877281

Date June 1, 1987

J. R. Flaherty

FOR INTER-DISTRICT BUSINESS ONLY

From S. S. Freborg

Subject May 1987 ISI Addenda

This memo is to inform you that the subject addenda is being transmitted to the owners of record of the ISI Program Documents by copy of this memo. The owners of record are as follows:

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Set 004	NL and S Manager
Set 005	NRC Copy

I will take care of updating the vault copy. Additionally, the attached addenda should be returned to me, after your review, so that I can use it to update my copy. Two copies will be sent to Greg Smith for Sets 004 and 005.

Please advise if you have any questions regarding this matter.

Scott S. Freborg

S. S. Freborg
Assistant Plant Engineering Supervisor

SSF:ss

Attachments

cc: G. E. Smith, w/Attachments
G. R. Smith, w/Attachments (2)

CORRESPONDENCE - TAB 10

This is just a note

Date: April 2, 1987

To: Scott Freeboug

From: F. J. Schaaf

Subject: 316 NG Material Specification

Please find attached the specification for 316 NG piping material. As you can see it's not something you can pick up at the corner hardware store. If you need some help trying to make heads or tails of this give me a call. I'm working on CNS-GEN-7 which will be used to procure this pipe.

Frank

SECTION G
ENGINEERING SPECIFICATIONS
PART II - SPECIAL REQUIREMENTS

A. Specification for Seamless and Welded Austenitic Stainless Steel Pipe.

A.1 This specification covers seamless and straight seam-welded austenitic steel pipe intended for high-temperature and general corrosive service.

A.2 Applicable Documents

A.2.1 ASME Standards
SA-312 Specification for Seamless and Welded Austenitic Stainless Steel Pipe
SA-370 Methods and Definitions for Mechanical Testing of Steel Products
SA-530 Specification for General Requirements for Specialized Carbon and Alloy Steel Pipe
SA-655 Specification for Special Requirements for Pipe and Tubing for Nuclear and Other Special Applications
SE-165 Recommended Practice for Liquid Penetrant Inspection Method

A.2.2 ASTM Standards
A-262 Recommended Practices for Detecting Susceptibility to Intergranular Attack in Stainless Steels
A-380 Recommended Practice for Cleaning and Descaling Stainless Steel Parts, Equipment and Systems
D-779 Test for Water Resistance of Paper, Paperboard, and Other Sheet Materials for the Dry Indicator Method
E-21 Recommended Practice for Elevated Temperature Tension Tests of Metallic Materials
E-45 Recommended Practice for Determining the Inclusion Content of Steel
E-112 Estimating the Average Grain Size of Metals
E-213 Standard Method for Ultrasonic Examination of Pipe and Tubing for Longitudinal Discontinuities
E-353 Chemical Analysis of Stainless, Heat-Resisting, Maraging, and Other Similar Chromium-Nickel-Iron Alloys
E-381 Macrotech Testing, Inspection and Rating Steel Products, Comprising Bars, Billets, Blooms, and Forging.

A.2.3 ASNT Standards
SNT-TC-1A Recommended Practice for Nondestructive Testing Personnel Qualification and Certification

A.2.4 ASME Boiler and Pressure Vessel Code
1983 Edition
Section III Rules for Construction of Nuclear Power Plants Division 1 Parts NCA and NB
Section V Nondestructive Examination

A.2.5 ANSI Standards
ANSI B46.1 Surface Textures

A.3 Materials Ordering

1.3.1 Orders for material to this specification shall include the following to describe the desired material adequately:

Quantity in feet or number of lengths
The material is Austenitic Steel Pipe SA-312
The manufacturing process will be either seamless or welded to be determined by the DISTRICT
The grade is SA-312, Type 316 Modified Chemistry
Size in outside diameter and schedule, minimum wall thickness and "C" dimension for weld joint
Length, specific or random
End finish
Supplemental requirements
Test reports required

A.4 Materials

A.4.1 Melting sources must be approved by the DISTRICT and melting processes are limited to argon oxygen decarburation (AOD), vacuum oxygen decarburation (VOD), vacuum arc remelt (VAR), or electroslag remelt (ESR). The CONTRACTOR shall indicate on the test report the type of melting used to produce the material.

A sufficient discard shall be made from each ingot to secure freedom from injurious piping and undue segregation.

.4.2 The pipe shall be made by the seamless or an automatic welding process, with no addition of filler metal in the welding operation.

A.4.3 All pipe shall be furnished in the heat-treated condition. The pipe shall be solution heat-treated at 1900°F to 2000°F for not less than 15 minutes and not more than 30 minutes. Flame impingement is not allowed and the furnace atmosphere shall not carburize the surface. The pipe shall be immediately quenched in circulating water, agitated water, or water spray, with forced flow thru the inside diameter of the pipe, so that the temperature is below 800°F within three (3) minutes to avoid carbide precipitation. The water used for each quenching shall have an initial pH between 6.0 and 9.0 and the halogen content shall be less than 10ppm.

A.4.4 The thermomechanical treatment, including the control of the sensitization due to the chromium carbide precipitation, shall be approved by the DISTRICT prior to use.

A.5 Chemical Requirements

A.5.1 The steel shall conform to the following chemical composition:

Carbon	.020% maximum
Manganese	1.50-2.00%
Phosphorus	.030% maximum
Sulfur	.030% maximum
Silicon	0.75% maximum
Nickel	11.0 - 14.0 %

Nitrogen	.06 - .12%
Vanadium	.05% maximum *
Titanium	.02% maximum
Niobium and Tantalum	.02% maximum
Cobalt	.15% maximum
Copper	.3% maximum

A.5.2 The chemical composition shall limit the delta ferrite content a maximum of 10FN in accordance with Figure NB-2433.1 and the ASME Code, Section III.

A.5.3 An analysis of each heat of steel shall be made by the material manufacturer to determine the percentages of the elements specified. If secondary melting processes are employed, the heat analysis shall be obtained from one remelted ingot of the product and one remelted ingot of each primary melt. The chemical composition shall be reported to the DISTRICT and shall conform to the requirements of this specification.

A.5.4 An analysis of two pipes from each lot shall be made. A "lot" of pipe shall be defined as the following number of lengths of the same size and wall thickness from a heat of steel:

- 10 lengths or 10% of the number of lengths per heat of steel, whichever number is smaller, for all pipe under NPS3.
- 10 lengths or fraction thereof, for all pipe NPS3 and larger.

A.5.5 If the analysis does not conform to the requirements in Sections A.5.1 and A.5.2, an analysis of each billet or pipe from the same heat or lot may be made, and all billets or pipe conforming to the requirements shall be acceptable.

A.5.6 Mechanical Properties

A.6.1 The tensile properties of the heat treated and finished pipe shall be as follows:

At room temperature (standard round specimen)

Tensile strength	75 ksi minimum
Yield strength (0.2% offset or 0.5% total extension)	30 ksi minimum
Elongation	
Longitudinal	28% minimum
Transverse	20% minimum

At 550°F (standard round specimen)

Tensile strength	64 ksi minimum
Yield strength (0.2% offset)	19.4 ksi minimum

The verification of the chemical composition and the mechanical properties, at room temperature and at 550°F, is mandatory for this stainless steel 316 NG. The verification results are considered a confirmation that the delivered products have the strength properties above the lower bound (ASTM/SA minimum values) for Grade 316 or Grade 316 LN (ASME, B&PV Code Table I.2-2 and I.3-2).

~~The specified tensile strength at 550°F of 71.8 ksi corresponds to the limit indicated for Grade 316.~~ *

A minimum tensile strength of S_u=64 ksi, corresponding to Grade 316 LN at 550°F is required due the imposed chemical composition limits. *

A.6.2 One transverse tension test shall be made for lots of not more than 100 pipes. For this application, a "lot" is defined as pipes of the same diameter and wall thickness which are produced from the same heat of steel and subjected to the same heat and finishing treatment.

A.6.3 The hardness of the finished pipe shall be as follows:

- less than Rockwell B92 across the pipe wall thickness.
- less than 75 Superficial Rockwell 30T at the inside surface.

A.6.4 The Carpy V-notch toughness shall be determined at room temperature in accordance with the provisions of ASTM A-370. The test shall be made on six (6) specimens. Three (3) specimens shall be tested without any preparation. The other three (3) specimens shall be exposed to the intergranular attack of Practice E, ASTM A-262, and afterwards tested. The impact test results shall include the absorbed energy and the lateral expansion of each specimen. The results shall be reported to provide information regarding the material fracture toughness before and after the exposure to the intergranular attack.

A.6.5 Flattening tests shall be made in accordance with SA-312 paragraph 10.2.

A.7 Finish

A.7.1 The pipe shall be pickled free from scale in accordance with ASTM A-380 Codes B and F (Nitric Hydroflouric acid descaling and Nitric acid cleaning-passivation). An immediate rinse with deionized water (1.0 micromho-cm maximum conductivity) is required after any pickling operations. The practices of ASTM A-380 shall be followed. *

A.7.2 Surface defects shall be removed by machining or grinding with clean aluminum oxide wheels, or by filing with clean rotary carbide files. The defects shall be blended into adjacent metal surfaces and care shall be taken not to reduce the wall thickness below minimum wall thickness. Care must be taken not to overheat the material during metal removal. Heat discoloration is evidence of overheating. Any violation of minimum wall thickness or overheating will be reported to the DISTRICT for disposition. Grinding is not permitted after solution heat treatment.

A.7.3 All visible burrs, balled and raised metal scrapes, seams, tears, sharp grooves, scabs, slivers, laps, cracks, arc strikes, weld spatters, and slag shall be removed from all piping ID and OD surfaces. Scars and scrapes and other damage which have a width greater than three (3) times the depth, which are not sharp, and which are not more than 1/16" deep, will not require removal.

A.7.4 All pits on the inside diameter whose depth is more than one-third (1/3 rd) of their width at the narrowest point shall be removed.

A.7.5 All loosely adhering scale and oxide shall be removed by clean aluminum oxide blasting and pickling. Visible oxides or discolorations shall not be permitted and shall be removed by stainless steel wire brushing or grinding in accordance with paragraph A.7.2.

A.7.6 The finished pipe inside roughness, obtained using a procedure which does not affect the surface structure, shall not exceed 125 RMS (ANSI B46.1). The finished pipe outside surface finish shall not exceed 250 RMS. The finishing procedure shall be approved by the DISTRICT prior to use. *

A.7.7 No repair welds are permitted without prior written approval of the DISTRICT. This specifically includes the selection of filler material and shielding medium. Repairs, when authorized, shall be made in accordance with SA-655 paragraph 8 and this specification. Welding is not permitted after solution heat treatment.

A.8 Forming Tolerances

A.8.1 The difference in inches between the maximum and minimum diameters at any cross section shall not exceed the smaller of (D+50) /200 and D/100, where D is the nominal inside diameter, at the cross section under consideration.

A.8.2 The ovality of piping after bending shall not exceed 8% as determined by Section III NB-4223.2. This ovality does not apply to the ends of the pipe.

A.8.3 Straightening after heat treatment is permitted provided that the amount is less than 0.2%. Details of straightening shall be furnished to the DISTRICT and shall show the before and after dimensions for each application of cold working.

A.9 Examination

The CONTRACTOR is responsible for the performance of the following tests:

A.9.1 Wrought seamless and welded (without filler metal) pipe and tubing shall be examined and evaluated in accordance with the requirements for Class 1 seamless and welded (without filler metal) pipe and tubing of SA-655, Special Requirements for Pipe and Tubing for Nuclear and Other Special Applications.

A.9.2 The average grain size for pipe shall be ASTM No. 4 or finer for material 1/2" thick or less, ASTM No. 3 or finer for material 3/4" thick or less but more than 1/2" thick, and ASTM No. 2 or finer for material 2" thick or less but more than 3/4" thick.

A.9.3 Inclusions shall be controlled so that not more than 10% of the sampled area has an Inclusion Rating Number higher than three (3) for Type A, B, C or D. ASTM E-45, Method A shall be used.

A.9.4 The susceptibility to intergranular attack shall be determined in accordance with Practices A and E of ASTM A-262.

A.9.4.1 A rapid screening test with the procedure of Practice A (oxalic acid electroetching) shall be performed on the inner and outer surface of:

a. each pipe with NPS equal or larger than 10"

b. one per ten pipes of the same lot of pipes smaller than NPS 10". The rapid screening test result is acceptable when the etch structure is without ditch structures (Fig. 3, ASTM A-262).

A.9.4.2 The specimen with ditch structures must be tested with Practice E of ASTM A-262. The bent specimen shall be examined under a magnification of 250

The appearance of fissures or cracks is unacceptable (Figure 13 of ASTM A-262), disregarding the following:

a. specimen edge cracks,

b. deformation lines, wrinkles and "orange peel" without accompanying cracks or fissures.

A.9.5 Delta ferrite determinations of the pipe material shall be made using a magnetic measuring instrument. Calibration of magnetic instruments shall conform to AWS-A4.2. A minimum of two ferrite readings shall be taken after shop fabrication is completed. The maximum acceptable delta ferrite shall be 10FN. The results of the delta ferrite determination shall be included in the Certified Material Test Report.

A.9.6 Qualification and certification of nondestructive examination personnel shall be in accordance with Section III NB-5500 and SNT-TC-1A.

A.9.7 Ultrasonic examination of each pipe shall be performed in accordance with SA-655 section 17. Pipe larger than 6 3/4" O.D. shall have two direction ultrasonic testing, that is, two opposite circumferential directions. Pipe between 2 1/2" O.D. and 6 3/4" O.D. shall have four direction ultrasonic testing, that is, two opposite circumferential directions plus two opposite axial directions.

A.9.8 Weld edge preparation surfaces shall be examined in accordance with Section III NB-5130 using the liquid penetrant method of SE-165.

A.9.9 A shop hydrotest will be performed for each pipe piece at 1.25 times design pressure. *

Design Pressure:

Recirculation Loops	= 1275 psig
Core Spray	= 1250 psig
Reactor Water Clean-up	= 1300 psig

Design Temperature:

Recirculation Loops	= 562°F
Core Spray	= 575°F
Reactor Water Clean-up	= 575°F

A.10 Preparation for Delivery

A.10.1 All marking of the pipe will be on the outside diameter. The pipe will be marked in accordance with SA-530 and shall include the manufacturer's private identifying mark and whether the pipe was seamless or welded. The pipe may be vibroetched, or low stress stamped.

A.10.2 The Materials Manufacturer and Materials Supplier must use methods that prevent contamination. The practices of ASTM A-380 shall be followed. A cleanliness control procedure shall be submitted for approval within (8) weeks of the receipt of the purchase order. Carbon and iron impingement shall be removed before shipment.

A.11 Witness points by the DISTRICT or authorized representatives shall include heat treatments and repairs. The inspector has the right to visually examine the surface prior to and after heat treatment.

A.12 The DISTRICT shall be notified of any process change or deviation that may affect mechanical properties, chemistry, corrosion resistance, or dimensions.

A.13 Test Results.

The piping manufacturer or supplier shall furnish the results of the following tests:

A.13.1 Chemical analysis of the heat and the product
A.13.2 Mechanical properties and the test source
A.13.3 Grain size
A.13.4 Inclusion Content
A.13.5 Delta ferrite content
A.13.6 Intergranular attack examination results
A.13.7 Nondestructive examination results including radiographic film.
A.13.8 Sensitizaton Control (carbide precipitation)
A.13.9 Thermomechanical treatment information
A.13.10 Retest results (if appplicable)
A.13.11 Identification information: Purchase Order Number, SA-655 Class 1, material size and quantity, heat number, heat treatment lot identification, ASME designation, manufacturer and specific marking.
A.13.12 Hydrotest results

A.14 The Materials Manufacturer or Materials Supplier, as appropriate, shall certify that the material was manufactured and tested in accordance with this specification. Three (3) sets of the report of the test results shall be furnished at the time of shipment.