

DEFINITIONS OF TERMS USED IN THE DATASHEETS

COLUMN #	ITEMS	DESCRIPTIONS
A	System Identification	System description (System Code)
B	Group Identification	Group # - Group description (Group Code)
C	Part Identification	System Code - Group Code
D	Part Number	Sequential unique number within Group
E	Part Description	Description of the part
F	Part Size	Diameter or width in inches
G	Part Thickness	Pipe or component thickness in inches
H	Material A	A-side of an weld or component material specification (form)
I	Material W	Weld material specification(if available)
J	Material B	B-side of an weld material specification (form)
K	Weld Type	Shop or field weld
L	Operating Temperature	Full power temperature in degree F
M	Operating Pressure	Full power pressure in psi
N	Operating Flow	Full power flow in gpm, or other units (note: lb/hr x .002 = GPM)
O	Design Temperature	Design temperature in degree F
P	Design Pressure	Design pressure in psi
Q	Design Flow	Design flow in gpm, or other units (note: lb/hr x .002 = GPM)
R	Inside Environment	Flowing liquid, steam or air
S	Outside Environment	Building or surrounding environment
T	Residual Stress	Estimated residual stress due to welding in ksi (Sy for thicker pipes and 1.3 Sy for thinner pipes)
U	Normal Stress	Actual or estimated (allowable = 1.5 Sm or 1.2 Sy) normal operating stress in ksi
V	Faulted Stress	Actual or estimated (allowable = 3 Sm or 2.4 Sy) faulted condition stress in ksi
W	CUF	40-year cumulative usage factor due to plant transients and cyclic loadings
X	Stress Comments	Comments regarding stress values (in columns T, U, V, and W)
Y	Operating Experience	Industry events associated with this part or similar part(s) in other PWR plants
Z	General Comments	Comments on the data included in columns A through Y

ACRONYMS

RCS	Reactor Coolant System	RCIC	Reactor Core Injection Cooling
ECCS	Emergency Core Cooling System	HX	Heat Exchanger
BWR	Boiling Water Reactors	RCR	Reactor Coolant Recirculation
RHR	Residual Heat Removal	RWCU	Reactor Water Cleanup
CS	Core Spray	SRV	Safety Relief Valve
MS	Main Steam	COND	Condensate
FW	Feedwater	NPS	Nominal Pipe Size
HPCS	High Pressure Core Spray	CS	Carbon steel
SW	Service Water	SS	Stainless steel in Columns H, I, J
LPCS	Low Pressure Core Spray	SMLS	Seemless
RPV	Reactor Pressure Vessel	psi	Pounds per square inch
RVI	Reactor Vessel Internals	ksi	Kilopounds per square inch
RCP	Reactor Coolant Pump	GPM	Gallons per minute
LPCI	Low Pressure Core Injection	M#/HR	Million pound per hour
BSEP	Brunswick Steam Electric Plant	KGPM	Kilogram per minute
BFN	Browns Ferry Nuclear	SP	Suppression Pool
ESF	Engineered Safety Features	Sy	Material allowable yield stress value at given temperature (column X) used for ASME Class 2 or 3 components
AS	Auxiliary Systems	Sm	Material allowable design stress-intensity value at given temperature (column X) used for ASME Class 1 components
SS	Support Systems in Columns A and C	LRD	License Renewal Documentation (BWR/4)
GALL	Generic Aging Lesson Learned	LRA	License Renewal Application (submitted by an individual plant)
D&QC	Dresden and Quad Cities	PB	Peach Bottom
UFSAR	Updated Final Safety Analysis Report	LAS	Low Alloy Steel

PILOT PLANT FSAR - REACTOR COOLANT PRESSURE BOUNDARY MATERIALS

Reactor Vessel	Rolled Plate	Low Alloy Steel SA-533 Grade B
Heads, Shells	Forgings	SA-508 Cl.2
	Welds	Low Alloy Steel SFA-5.5
Closure Flange	Forged Ring	Low Alloy Steel SA-508 Cl.2
	Welds	Low Alloy Steel SFA-5.5
Nozzles	Forged Shapes	Low Alloy Steel SA-508 Cl.2
	Welds	Low Alloy Steel SFA-5.5
Cladding	Weld Overlay	Austenitic Stainless Steel SFA-5.9 or SFA-5.4 TP 309 with carbon content on final surface limit to 0.08% maximum
Control Rod Drive Housings	Pipe	Austenitic Stainless Steel SA-312 Type 304
Incore Housings	Welds	Stainless Steel SFA-5.9 or SFA-5.4 TP 308
	Pipe	Austenitic SA-213 Type 304
Housings		Stainless Steel
	Welds	Stainless Steel SFA-5.9 or 5.4 TP 308L

Additional RCPB component materials and specifications to be used are specified below.

Depending on whether impact tests are required and, depending on the lowest service metal temperature when impact tests are required, the following ferritic materials and specifications are to be used:

Pipe - SA-106 Grade B - Normalized; SA-333 Grade 6

Valves - SA-105 Grade II, Normalized; SA-216 Grade WCB, Normalized; SA-350 Grade LF2; SA-352 Grade LCB

Fittings - SA-105 Grade II - Normalized; SA-350 Grade LF-2, Normalized; SA-234, Grade WPB, Normalized; SA-420 Grade WPL6 (or WPL1)

Bolting - SA-193 Grade B7; SA-194 Grade 7 and 2H, SA-540 Grades B22, B23, and B24.

Welding Material - Welding materials conform to the applicable SFA specifications listed in ASME Boiler and Pressure Vessel Code Section IIc. Individual selection of filler metals are reviewed for conformity to the base materials being welded by the Consulting Engineers' review of welding procedures.

For those systems or portions of systems, such as the reactor recirculation system, which require austenitic stainless steel, the following materials and specifications are to be used:

Pipe SA-376 Type 304; SA-312 Type 304; SA-358 Type 304

Valves SA-182 Grade F-304; SA-351 Grades CF-8 and CF-8M

Pump SA-182 Grade F-304; SA-351 Grades CF-8 and CF-8M

Flanges SA-182 Grade F-316

Bolting SA-193 Grade B8A and SA-194 Grades 8 and 2H; SA-540 Grades B22, B23 and B24

Welding Material SFA-5.4 (E308-15, E308L-15, E316-15); SFA-5.9 (ER-308, ER-308L, ER-316)

PILOT PLANT FSAR - REACTOR MATERIALS

Control Rod System Structural Material Specifications

The following material listing applies to the control rod drive mechanism supplied for this application. The position indicator and minor nonstructural items are omitted

a. Cylinder, Tube and Flange Assembly

Flange ASME SA 182 Grade F304
Plugs ASME SA 182 Grade F304
Cylinder ASTM A269 Grade TP 304
Outer Tube ASTM A269 Grade TP 304
Tube ASTM A351 Grade CF-3
Spacer ASTM A351 Grade CF-3

b. Piston Tube Assembly

Piston Tube ASTM A479 Grade XM-19
Stud ASTM A276 Type 304
Head ASME SA 182 Grade F304
Ind. Tube ASME SA 312 Type 316
Cap ASME SA 182 Grade F304.

c. Drive Assembly

Coupling Spud Inconel X-750
Index Tube ASTM A479 Grade XM-19
Piston Head Armco17-4 PH
Coupling ASME SA 312 Grade TP 304 or ASTM A511 Grade MT 304
Magnet Housing ASME SA 312 Grade TP 304 or ASTM A511 Grade MT 304.

d. Collet Assembly

Collet Piston ASTM A269 Grade TP 304 or ASME SA 312 Grade TP 304
Finger Inconel X-750
Retainer ASTM A260 Grade TP 304 or ASTM A511 Grade MT 304
Guide Cap ASTM A269 Grade TP 304.

e. Miscellaneous Parts

Stop Piston ASTM A276 Type 304
Connector ASTM A276 Type 304
O-Ring Spacer ASME SA 240 Type 304
Nut ASME SA 193 Grade B8
Barrel ASTM A269 Grade TP 304 or ASME SA 312 Grade TP 304 or ASME SA 240 Type 304
Collet Spring Inconel X-750
Ring Flange ASME SA 182 Grade F304.

PILOT PLANT FSAR - REACTOR VESSEL INTERNALS COMPONENTS

Material Specifications

Materials used for steam dryer and core structure are as follows:

Plate, Sheet and Strip ASTM A240 Type 304
Bolts ASTM A193 Grade B8
Nuts ASTM A194 Grade 8
Forgings ASTM A182 Grade F304
Bar ASTM A276 Type 304
Bar ASTM A479 Type 304
Pipe ASTM A312 Grade TP 304
Tube ASTM A269, A249, or A213 Grade TP 304
Pipe Fittings ASTM A403 Grade WPW 304 or WP 304
Pipe Fittings (cast) ASTM A351 Grade CF8

The following materials are employed in other reactor internal structures:

a. Steam Separator. All materials are Type 304, 304L, or 316L stainless steel

Plate, Sheet and Strip ASTM A240, Type 304
Forgings ASTM A182, Grade F304
Bars ASTM A479 Type 304
Pipe ASTM A312 Grade TP 304
Tube ASTM A269 Grade TP 304
Bolting Material ASTM A193 Grade B8
Nuts ASTM A194 Grade 8
Castings ASTM A351 Grade CF8

b. Jet Pump Assemblies. The components in the jet pump assemblies are a riser, inlet, mixer, diffuser, adaptor, and brackets. All these components are fabricated with Type 304 stainless steel to the following specifications:

Castings ASTM A351 Grade CF8
Bars ASTM A276 Type 304
Bolts ASTM A193 Grade B8 or B8M
Sheet and Plate ASTM A240 Type 304
Tubing ASTM A269 Grade TP 304
Pipe ASTM A358 Type 304 and ASTM A312 Grade TP304
Weld Coupling ASTM A403 Grade WP304
Forgings ASTM A182 Grade F304
Auxiliary Wedges The frames are fabricated from Type 304, 304L, 316, or 316L stainless steel.
The sliding components are fabricated from XM-19 or Alloy X-750.
Slip Joint Clamps The clamp frames are fabricated per ASTM A-182 Grade F XM-19.
The sub-components are fabricated per ASTM B-637 UNS N07750 Type 3.

LICENSE RENEWAL DOCUMENT (FOR A BWR/4 PLANT) - RVI Materials

Unless otherwise specified on the specification control drawings, all equipment shall be fabricated from solution heat-treated, descaled, unstabilized type 304 austenitic stainless steel.

Depending on the form, the material shall conform to one of the following specifications:

Plate material shall be in accordance with ASTM A-240 hot rolled, annealed and descaled.

Strip material shall be in accordance with ASTM A-240 No. 1 finish.

Sheet material shall be in accordance with ASTM A-240 No. 1 or No. 2-D finish.

Bolting material shall be in accordance with ASTM A-193, Grade B-8.

Nuts shall be in accordance with ASTM A-194 Grade 8 except that there shall be no minimum hardness requirements.

Forgings shall be in accordance with ASTM A-182, Grade F-304.

Bars shall be in accordance with ASTM A-276 or ASTM A-479 Type 304, annealed and descaled.

Pipe material shall be in accordance with ASTM A-312 Grade TP-304, welded pipe with filler material shall not be acceptable.

Tube material shall be in accordance with ASTM A-269 Grade TP-304.

Pipe fittings shall be in accordance with ASTM A-403 WPW-304 of WP-304 or ASTM A-351 Grade CF-8.

Welding electrodes shall be in accordance with ASTM A-298 TP-E308 or ASTM A-371 TP-ER308. Filler

metal for austenitic stainless steel welds shall be selected and controlled to produce welds which contain measurable amount of ferrite.

Material used for consumable inserts shall be in accordance with ASTM A-371 Type E308.

Springs shall be Inconel X-750, No. 1 Temper GE Spec. B50YP25A2 Age Hardened after forming at 1350°F ± 25°F for 16 hours per GE Spec. P10JPY1B.

System Identification	Group Identification	Part Identification	Part Number	Part Description	Part Size in inches	Part Thickness in inches	Material A	Material W	Material B	Weld Type	Operating Temperature in of	Operating Pressure in psia	Operating Flow in gpm	Design Temperature in of	Design Pressure in psia	Design Flow in gpm	Inside Environment	Outside Environment	Residual Stress in ksi	Normal Stress in ksi	Faulted Stress in ksi	CUF	Stress Comments	Operating Experience	General Comments
Support Systems (SS)	Group 28 - Reactor Water Cleanup Piping to Feedwater (RWCUFW)	SS - RWCUFW-	1	Regenerative HX outlet nozzle - Pipe	4	0.438	SA105		ASTM A-106 Gr. B		435	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	35	30	60				To make this group spreadsheet, erosion-corrosion isometric drawings were used. As-built drawings were not available. Engineering judgement was used when inputting data into this table, due to lack of information on erosion-corrosion drawings. Assumed all
Support Systems (SS)	Group 28 - Reactor Water Cleanup Piping to Feedwater (RWCUFW)	SS - RWCUFW-	2	Straight Pipe	4	0.438	ASTM A-106 Gr. B		Not Applicable		435	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	35	30	60				Could not read UFSAR figure 5.4-6 sheet 2. Used NRC BWR training manual Figure 2.8-3 for operating conditions.
Support Systems (SS)	Group 28 - Reactor Water Cleanup Piping to Feedwater (RWCUFW)	SS - RWCUFW-	3	Pipe - Elbow	4	0.438	ASTM A-106 Gr. B		ASTM A-234 Gr. WPB		435	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	35	31.2	62.4				
Support Systems (SS)	Group 28 - Reactor Water Cleanup Piping to Feedwater (RWCUFW)	SS - RWCUFW-	4	Elbow	4	0.438	ASTM A-234 Gr. WPB		Not Applicable		435	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	35	31.2	62.4				
Support Systems (SS)	Group 28 - Reactor Water Cleanup Piping to Feedwater (RWCUFW)	SS - RWCUFW-	5	Elbow - Reducing Tee	4	0.438	ASTM A-234 Gr. WPB		ASTM A-234 Gr. WPB		435	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	35	31.2	62.4				
Support Systems (SS)	Group 28 - Reactor Water Cleanup Piping to Feedwater (RWCUFW)	SS - RWCUFW-	6	4 x 2 x 4 Reducing Tee	4 x 2 x 4	0.438	ASTM A-234 Gr. WPB		Not Applicable		435	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	35	31.2	62.4				
Support Systems (SS)	Group 28 - Reactor Water Cleanup Piping to Feedwater (RWCUFW)	SS - RWCUFW-	7	Reducing Tee - Flange	2	0.344	ASTM A-234 Gr. WPB		SA105		434	1193	Normally Stagnant (No flow)	575	1465	Not Available	Reactor Coolant	Secondary Containment	35	31.2	62.4				
Support Systems (SS)	Group 28 - Reactor Water Cleanup Piping to Feedwater (RWCUFW)	SS - RWCUFW-	8	Flange	2	0.344	SA105		Not Applicable		434	1193	Normally Stagnant (No flow)	575	1465	Not Available	Reactor Coolant	Secondary Containment	30	25.8	51.6				
Support Systems (SS)	Group 28 - Reactor Water Cleanup Piping to Feedwater (RWCUFW)	SS - RWCUFW-	9	Blind Flange	2	0.344	SA105		Not Applicable		434	1193	Normally Stagnant (No flow)	575	1465	Not Available	Reactor Coolant	Secondary Containment	30	25.8	51.6				
Support Systems (SS)	Group 28 - Reactor Water Cleanup Piping to Feedwater (RWCUFW)	SS - RWCUFW-	10	Pipe - Valve 1G33-F047E	4	0.438	ASTM A-106 Gr. B		A-216 Gr. WCB		435	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	36	30.9	61.8				
Support Systems (SS)	Group 28 - Reactor Water Cleanup Piping to Feedwater (RWCUFW)	SS - RWCUFW-	11	Valve 1G33-F047E	4	0.438	A-216 Gr. WCB		Not Applicable		435	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	36	30.9	61.8				
Support Systems (SS)	Group 28 - Reactor Water Cleanup Piping to Feedwater (RWCUFW)	SS - RWCUFW-	12	Valve 1G33-F105E	4	0.438	A-216 Gr. WCB		Not Applicable		435	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	36	30.9	61.8				
Support Systems (SS)	Group 28 - Reactor Water Cleanup Piping to Feedwater (RWCUFW)	SS - RWCUFW-	13	Valve 1G33-F105E - Elbow	4	0.438	A-216 Gr. WCB		ASTM A-234 Gr. WPB		435	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	35	31.2	62.4				
Support Systems (SS)	Group 28 - Reactor Water Cleanup Piping to Feedwater (RWCUFW)	SS - RWCUFW-	14	Tee	4	0.438	ASTM A-234 Gr. WPB		Not Applicable		435	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	35	31.2	62.4				
Support Systems (SS)	Group 28 - Reactor Water Cleanup Piping to Feedwater (RWCUFW)	SS - RWCUFW-	15	Tee - Pipe	4	0.438	ASTM A-234 Gr. WPB		ASTM A-106 Gr. B		435	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	35	31.2	62.4				
Support Systems (SS)	Group 28 - Reactor Water Cleanup Piping to Feedwater (RWCUFW)	SS - RWCUFW-	16	Valve 1G33-F042	4	0.438	A-216 Gr. WCB		Not Applicable		435	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	36	30.9	61.8				
Support Systems (SS)	Group 28 - Reactor Water Cleanup Piping to Feedwater (RWCUFW)	SS - RWCUFW-	17	Pipe - Flange	4	0.438	ASTM A-106 Gr. B		SA105		435	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	35	30	60				
Support Systems (SS)	Group 28 - Reactor Water Cleanup Piping to Feedwater (RWCUFW)	SS - RWCUFW-	18	Flange	4	0.438	SA105		Not Applicable		435	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	30	25.8	51.6				
Support Systems (SS)	Group 28 - Reactor Water Cleanup Piping to Feedwater (RWCUFW)	SS - RWCUFW-	19	Valve 1G33-F039	4	0.531	A-216 Gr. WCB		Not Applicable		435	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	36	30.9	61.8				
Support Systems (SS)	Group 28 - Reactor Water Cleanup Piping to Feedwater (RWCUFW)	SS - RWCUFW-	20	Valve 1G33-F040	4	0.531	A-216 Gr. WCB		Not Applicable		435	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	36	30.9	61.8				
Support Systems (SS)	Group 28 - Reactor Water Cleanup Piping to Feedwater (RWCUFW)	SS - RWCUFW-	21	Pipe - Wye	4	0.531	ASTM A-106 Gr. B		ASTM A-234 Gr. WPB		435	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	35	31.2	62.4				
Support Systems (SS)	Group 28 - Reactor Water Cleanup Piping to Feedwater (RWCUFW)	SS - RWCUFW-	22	Wye	4	0.531	ASTM A-234 Gr. WPB		Not Applicable		435	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	35	31.2	62.4				
Support Systems (SS)	Group 28 - Reactor Water Cleanup Piping to Feedwater (RWCUFW)	SS - RWCUFW-	23	Valve 1B21-F508B	4	0.531	A-216 Gr. WCB		Not Applicable		435	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	36	30.9	61.8				
Support Systems (SS)	Group 28 - Reactor Water Cleanup Piping to Feedwater (RWCUFW)	SS - RWCUFW-	24	Pipe - Weldolet	4	0.531	ASTM A-106 Gr. B		ASTM A-234 Gr. WPB		435	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	35	31.2	62.4				
Support Systems (SS)	Group 28 - Reactor Water Cleanup Piping to Feedwater (RWCUFW)	SS - RWCUFW-	25	Weldolet	4	0.531	ASTM A-234 Gr. WPB		Not Applicable		435	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	35	31.2	62.4				
Support Systems (SS)	Group 28 - Reactor Water Cleanup Piping to Feedwater (RWCUFW)	SS - RWCUFW-	26	Weldolet - FW 24" Pipe	4	0.531	ASTM A-234 Gr. WPB		SA-672 Gr. B70 Class 22 (Welded)		435	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	40	34.3	68.6				

System Identification	Group Identification	Part Identification	Part Number	Part Description	Part Size in inches	Part Thickness in inches	Material A	Material W	Material B	Weld Type	Operating Temperature in oF	Operating Pressure in psia	Operating Flow in gpm	Design Temperature in oF	Design Pressure in psia	Design Flow in gpm	Inside Environment	Outside Environment	Residual Stress in ksi	Normal Stress in ksi	Faulted Stress in ksi	CUF	Stress Comments	Operating Experience	General Comments
Support Systems (SS)	Group 27 - Reactor Water Cleanup Piping to/from Filters (RWCUFLTR)	SS - RWCUFLTR	1	Non-Regenerative HX - Pipe	4	0.438	SA182 T304		ASTM A-106 Gr. B		120	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	30	30	60			Could not read UFSAR figure 5.4-6 sheet 2. Used NRC BWR training manual Figure 2.9-3 for operating conditions.	
Support Systems (SS)	Group 27 - Reactor Water Cleanup Piping to/from Filters (RWCUFLTR)	SS - RWCUFLTR	2	Straight Pipe	4	0.438	ASTM A-106 Gr. B		Not Applicable		120	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	30	30	60				
Support Systems (SS)	Group 27 - Reactor Water Cleanup Piping to/from Filters (RWCUFLTR)	SS - RWCUFLTR	3	Pipe - Elbow	4	0.438	ASTM A-106 Gr. B		ASTM A-234 Gr. WPB		120	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	35	32.6	65.1				
Support Systems (SS)	Group 27 - Reactor Water Cleanup Piping to/from Filters (RWCUFLTR)	SS - RWCUFLTR	4	Elbow	4	0.438	ASTM A-234 Gr. WPB		Not Applicable		120	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	35	32.6	65.1				
Support Systems (SS)	Group 27 - Reactor Water Cleanup Piping to/from Filters (RWCUFLTR)	SS - RWCUFLTR	5	Pipe - Pipe	4	0.438	ASTM A-106 Gr. B		ASTM A-106 Gr. B		120	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	30	30	60				
Support Systems (SS)	Group 27 - Reactor Water Cleanup Piping to/from Filters (RWCUFLTR)	SS - RWCUFLTR	6	Pipe - Valve F04AB	4	0.438	ASTM A-106 Gr. B		A-216 Gr. WCB		120	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	30	30	60				
Support Systems (SS)	Group 27 - Reactor Water Cleanup Piping to/from Filters (RWCUFLTR)	SS - RWCUFLTR	7	Valve F04AB	4	0.438	A-216 Gr. WCB		Not Applicable		120	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	30	30	60				
Support Systems (SS)	Group 27 - Reactor Water Cleanup Piping to/from Filters (RWCUFLTR)	SS - RWCUFLTR	8	Valve - Elbow	4	0.438	A-216 Gr. WCB		ASTM A-234 Gr. WPB		120	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	35	32.6	65.1				
Support Systems (SS)	Group 27 - Reactor Water Cleanup Piping to/from Filters (RWCUFLTR)	SS - RWCUFLTR	9	Pipe - Tee	4	0.438	ASTM A-106 Gr. B		ASTM A-234 Gr. WPB		120	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	35	32.6	65.1				
Support Systems (SS)	Group 27 - Reactor Water Cleanup Piping to/from Filters (RWCUFLTR)	SS - RWCUFLTR	10	4x4x4 Tee	4	0.438	ASTM A-234 Gr. WPB		Not Applicable		120	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	35	32.6	65.1				
Support Systems (SS)	Group 27 - Reactor Water Cleanup Piping to/from Filters (RWCUFLTR)	SS - RWCUFLTR	11	Pipe - Socketlet	4	0.438	ASTM A-106 Gr. B		SA182 Gr. F304 (SW Class 3000)		120	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	30	30	60				
Support Systems (SS)	Group 27 - Reactor Water Cleanup Piping to/from Filters (RWCUFLTR)	SS - RWCUFLTR	12	Socketlet	<1		SA182 Gr. F304 (SW Class 3000)		Not Applicable		120	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	25	24.9	49.8				
Support Systems (SS)	Group 27 - Reactor Water Cleanup Piping to/from Filters (RWCUFLTR)	SS - RWCUFLTR	13	Valve F333 - Tee	4	0.438	A-216 Gr. WCB		ASTM A-234 Gr. WPB		120	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	35	32.6	65.1				
Support Systems (SS)	Group 27 - Reactor Water Cleanup Piping to/from Filters (RWCUFLTR)	SS - RWCUFLTR	14	Tee - 4x3 Reducer	4	0.438	ASTM A-234 Gr. WPB		ASTM A-234 Gr. WPB		120	1193	117	575	1465	360	Reactor Coolant	Secondary Containment	35	32.6	65.1				
Support Systems (SS)	Group 27 - Reactor Water Cleanup Piping to/from Filters (RWCUFLTR)	SS - RWCUFLTR	15	4x3 Reducer	3	0.3	ASTM A-234 Gr. WPB		Not Applicable		120	1193	117	575	1465	360	Reactor Coolant	Secondary Containment	35	32.6	65.1				
Support Systems (SS)	Group 27 - Reactor Water Cleanup Piping to/from Filters (RWCUFLTR)	SS - RWCUFLTR	16	Pipe - Pipe	3	0.3	ASTM A-106 Gr. B		ASTM A-106 Gr. B		120	1193	117	575	1465	360	Reactor Coolant	Secondary Containment	30	30	60				
Support Systems (SS)	Group 27 - Reactor Water Cleanup Piping to/from Filters (RWCUFLTR)	SS - RWCUFLTR	17	Straight Pipe	3	0.3	ASTM A-106 Gr. B		Not Applicable		120	1193	117	575	1465	360	Reactor Coolant	Secondary Containment	30	30	60				
Support Systems (SS)	Group 27 - Reactor Water Cleanup Piping to/from Filters (RWCUFLTR)	SS - RWCUFLTR	18	Pipe - Elbow	3	0.3	ASTM A-106 Gr. B		ASTM A-234 Gr. WPB		120	1193	117	575	1465	360	Reactor Coolant	Secondary Containment	35	32.6	65.1				
Support Systems (SS)	Group 27 - Reactor Water Cleanup Piping to/from Filters (RWCUFLTR)	SS - RWCUFLTR	19	Elbow	3	0.3	ASTM A-234 Gr. WPB		Not Applicable		120	1193	117	575	1465	360	Reactor Coolant	Secondary Containment	35	32.6	65.1				
Support Systems (SS)	Group 27 - Reactor Water Cleanup Piping to/from Filters (RWCUFLTR)	SS - RWCUFLTR	20	Pipe - Valve Z00106A	3	0.3	ASTM A-106 Gr. B		A-216 Gr. WCB		120	1193	117	575	1465	360	Reactor Coolant	Secondary Containment	30	30	60				
Support Systems (SS)	Group 27 - Reactor Water Cleanup Piping to/from Filters (RWCUFLTR)	SS - RWCUFLTR	21	Valve Z00106A	3	0.3	A-216 Gr. WCB		Not Applicable		120	1193	117	575	1465	360	Reactor Coolant	Secondary Containment	30	30	60				
Support Systems (SS)	Group 27 - Reactor Water Cleanup Piping to/from Filters (RWCUFLTR)	SS - RWCUFLTR	22	Pipe - Socketlet	3	0.3	ASTM A-106 Gr. B		SA182 Gr. F304 (SW Class 3000)		120	1193	117	575	1465	360	Reactor Coolant	Secondary Containment	30	30	60				
Support Systems (SS)	Group 27 - Reactor Water Cleanup Piping to/from Filters (RWCUFLTR)	SS - RWCUFLTR	23	Socketlet	<1		SA182 Gr. F304 (SW Class 3000)		Not Applicable		120	1193	117	575	1465	360	Reactor Coolant	Secondary Containment	25	24.9	49.8				
Support Systems (SS)	Group 27 - Reactor Water Cleanup Piping to/from Filters (RWCUFLTR)	SS - RWCUFLTR	24	Pipe - Filter Demin. Inlet Nozzle	4	0.438	ASTM A-106 Gr. B		Stainless Steel (Assumed)		120	1193	117	575	1465	360	Reactor Coolant	Secondary Containment	30	30	60				
Support Systems (SS)	Group 27 - Reactor Water Cleanup Piping to/from Filters (RWCUFLTR)	SS - RWCUFLTR	25	Filter Demin. Outlet Nozzle - Pipe	4	0.438	Stainless Steel (Assumed)		ASTM A-106 Gr. B		120	1193	117	575	1465	360	Reactor Coolant	Secondary Containment	30	30	60				
Support Systems (SS)	Group 27 - Reactor Water Cleanup Piping to/from Filters (RWCUFLTR)	SS - RWCUFLTR	26	Pipe - Valve F331B	4	0.438	ASTM A-106 Gr. B		A-216 Gr. WCB		120	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	30	30	60				
Support Systems (SS)	Group 27 - Reactor Water Cleanup Piping to/from Filters (RWCUFLTR)	SS - RWCUFLTR	27	Check Valve F331B	4	0.438	A-216 Gr. WCB		Not Applicable		120	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	30	30	60				
Support Systems (SS)	Group 27 - Reactor Water Cleanup Piping to/from Filters (RWCUFLTR)	SS - RWCUFLTR	28	Pipe - Reg. HX Inlet Nozzle	4	0.438	ASTM A-106 Gr. B		SA182 T304		120	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	30	30	60				
Support Systems (SS)	Group 27 - Reactor Water Cleanup Piping to/from Filters (RWCUFLTR)	SS - RWCUFLTR	29	Cleanup Filter Deminizer Shell			Stainless Steel (Assumed)		Not Applicable		120	1193	117	575	1465	360	Reactor Coolant	Secondary Containment	25	24.9	49.8				
Support Systems (SS)	Group 27 - Reactor Water Cleanup Piping to/from Filters (RWCUFLTR)	SS - RWCUFLTR	30	Demin. Nozzles	4		Stainless Steel (Assumed)		Not Applicable		120	1193	117	575	1465	360	Reactor Coolant	Secondary Containment	25	24.9	49.8				
Support Systems (SS)	Group 27 - Reactor Water Cleanup Piping to/from Filters (RWCUFLTR)	SS - RWCUFLTR	31	Demin. Fittings			Stainless Steel (Assumed)		Not Applicable		120	1193	117	575	1465	360	Reactor Coolant	Secondary Containment	25	24.9	49.8				

System Identification	Group Identification	Part Identification	Part Number	Part Description	Part Size in inches	Part Thickness in inches	Material A	Material W	Material B	Weld Type	Operating Temperature in oF	Operating Pressure in psia	Operating Flow in gpm	Design Temperature in oF	Design Pressure in psia	Design Flow in gpm	Inside Environment	Outside Environment	Residual Stress in ksi	Normal Stress in ksi	Faulted Stress in ksi	CUF	Stress Comments	Operating Experience	General Comments
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	1	Flange Connection to RWCU Pump Discharge Nozzle Flange	4	0.438	SA105		Not Applicable		535	1193	175	575	1465	360	Reactor Coolant	Secondary Containment	30	24.3	48.6				To make this group spreadsheet, erosion-corrosion isometric drawings were used. As-built drawings were not available. Engineering judgement was used when inputting data into this table, due to lack of information on erosion-corrosion drawings. Assumed all
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	2	Flange - Pipe	4	0.438	SA105		ASTM A-106 Gr. B		535	1193	175	575	1465	360	Reactor Coolant	Secondary Containment	35	28.4	56.8				Could not read USFAR figure 5.4-6 sheet 2. Used NRC BWR training manual Figure 2.8-3 for operating conditions.
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	3	Elbow	4	0.438	ASTM A-234 Gr. WPB		Not Applicable		535	1193	175	575	1465	360	Reactor Coolant	Secondary Containment	35	30.3	60.6				
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	4	Elbow - Pipe	4	0.438	ASTM A-234 Gr. WPB		ASTM A-106 Gr. B		535	1193	175	575	1465	360	Reactor Coolant	Secondary Containment	35	30.3	60.6				
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	5	Straight Pipe	4	0.438	ASTM A-106 Gr. B		Not Applicable		535	1193	175	575	1465	360	Reactor Coolant	Secondary Containment	35	28.4	56.8				
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	6	Pipe - Socketlet	3/4"	0.219	ASTM A-106 Gr. B		SA105		535	1193	175	575	1465	360	Reactor Coolant	Secondary Containment	35	28.4	56.8				
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	7	Socketlet	3/4"	0.219	SA105		Not Applicable		535	1193	Normally Stagnant (No flow)	575	1465	Not Available	Reactor Coolant	Secondary Containment	30	24.3	48.6				Used Schedule 160 thickness since Schedule 120 called out on dwg 1 E/C-RT-01 Sheet 2D is not in Crane book.
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	8	Socketlet - Pipe	3/4"	0.219	SA105		ASTM A-106 Gr. B		535	1193	Normally Stagnant (No flow)	575	1465	Not Available	Reactor Coolant	Secondary Containment	35	28.4	56.8				
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	9	Straight Pipe	3/4"	0.219	ASTM A-106 Gr. B		Not Applicable		535	1193	Normally Stagnant (No flow)	575	1465	Not Available	Reactor Coolant	Secondary Containment	35	28.4	56.8				
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	10	Pipe - Valve 1G33-F377A	3/4"	0.219	ASTM A-106 Gr. B		A-216 Gr. WCB		535	1193	Normally Stagnant (No flow)	575	1465	Not Available	Reactor Coolant	Secondary Containment	36	29.1	58.2				
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	11	Valve 1G33-F377A	3/4"	0.219	A-216 Gr. WCB		Not Applicable		535	1193	Normally Stagnant (No flow)	575	1465	Not Available	Reactor Coolant	Secondary Containment	36	29.1	58.2				
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	12	Check Valve 1G33-F012A	4	0.438	A-216 Gr. WCB		Not Applicable		535	1193	175	575	1465	360	Reactor Coolant	Secondary Containment	36	29.1	58.2				
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	13	Valve 1G33-F377A	1	0.25	A-216 Gr. WCB		Not Applicable		531	1193	Normally Stagnant (No flow)	575	1465	Not Available	Reactor Coolant	Secondary Containment	36	29.1	58.2				Used Schedule 160 thickness since Schedule 120 called out on dwg 1 E/C-RT-01 Sheet 2D is not in Crane book.
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	14	Pipe - Valve 1G33-F013A	4	0.438	ASTM A-106 Gr. B		A-216 Gr. WCB		535	1193	175	575	1465	360	Reactor Coolant	Secondary Containment	36	29.1	58.2				
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	15	Valve 1G33-F013A	4	0.438	A-216 Gr. WCB		Not Applicable		535	1193	175	575	1465	360	Reactor Coolant	Secondary Containment	36	29.1	58.2				
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	16	Check Valve 1G33-F334	4	0.438	A-216 Gr. WCB		Not Applicable		535	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	36	29.1	58.2				
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	17	Check Valve 1G33-F334 - Elbow	4	0.438	A-216 Gr. WCB		ASTM A-234 Gr. WPB		535	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	35	30.3	60.6				
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	18	Pipe - Tee	4	0.438	ASTM A-106 Gr. B		ASTM A-234 Gr. WPB		535	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	35	30.3	60.6				
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	19	Tee	4	0.438	ASTM A-234 Gr. WPB		Not Applicable		535	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	35	30.3	60.6				
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	20	Valve 1G33-F105D	4	0.438	A-216 Gr. WCB		Not Applicable		535	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	36	29.1	58.2				
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	21	Valve 1G33-F047D	4	0.438	A-216 Gr. WCB		Not Applicable		535	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	36	29.1	58.2				
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	22	Pipe - Reducing Tee	4	0.438	ASTM A-106 Gr. B		ASTM A-234 Gr. WPB		535	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	35	30.3	60.6				
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	23	4 x 2 x 4 Reducing Tee	4 x 2 x 4	0.438	ASTM A-234 Gr. WPB		Not Applicable		535	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	35	30.3	60.6				
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	24	Tee - Flange	2	0.344	ASTM A-234 Gr. WPB		SA105		535	1193	Normally Stagnant (No flow)	575	1465	Not Available	Reactor Coolant	Secondary Containment	35	30.3	60.6				Used Schedule 160 thickness since Schedule 120 called out on dwg 1 E/C-RT-01 Sheet 2D is not in Crane book.
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	25	Flange	2	0.344	SA105		Not Applicable		535	1193	Normally Stagnant (No flow)	575	1465	Not Available	Reactor Coolant	Secondary Containment	30	24.3	48.6				
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	26	Pipe - HX Inlet Nozzle (Regen.)	4	0.438	ASTM A-106 Gr. B		SA105		535	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	30	24.3	48.6				
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	27	Pipe - HX Outlet Nozzle (Regen.)	4	0.438	ASTM A-106 Gr. B		SA105		435	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	30	24.3	48.6				
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	28	Pipe - Elbow	4	0.438	ASTM A-106 Gr. B		ASTM A-234 Gr. WPB		235	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	35	32.6	65.1				
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	29	Elbow	4	0.438	ASTM A-234 Gr. WPB		Not Applicable		235	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	35	32.6	65.1				
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	30	Straight Pipe	4	0.438	ASTM A-106 Gr. B		Not Applicable		235	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	35	30	60				
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	31	Pipe - HX inlet Nozzle (Non Regen.)	4	0.438	ASTM A-106 Gr. B		SA105		178	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	35	30	60				
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	32	Pipe - HX outlet Nozzle (Non Regen.)	4	0.438	ASTM A-106 Gr. B		SA105		120	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	35	30	60				
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	33	RHX Heads			SA240 T304 Formd		Not Applicable		535	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	25	22.1	44.2				Used highest operating conditions for heat exchanger.
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	34	RHX Shell			SA240 T304 Plates		Not Applicable		535	1193	350	575	1465	360	Reactor Coolant	Reactor Coolant	25	22.1	44.2				Used Schedule 160 thickness since Schedule 120 called out on dwg 1 E/C-RT-01 Sheet 2D is not in Crane book.
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	35	RHX Nozzle Necks			SA182 T304		Not Applicable		535	1193	350	575	1465	360	Not Available	Reactor Coolant	25	22.1	44.2				
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	36	RHX Tubesheets			SA182 T304F		Not Applicable		535	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	25	22.1	44.2				
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	37	RHX Tubes			SA249 T304		Not Applicable		535	1193	350	575	1465	360	Reactor Coolant	Reactor Coolant	30	22.1	44.2				
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	38	RHX Baffles			SA240 T304		Not Applicable		535	1193	350	575	1465	360	Not Available	Reactor Coolant	25	22.1	44.2				
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	39	RHX Internal Piping			SA312 T304 SMLS		Not Applicable		535	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	25	22.1	44.2				
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	40	RHX Fittings			SA182 F304		Not Applicable		535	1193	350	575	1465	360	Not Available	Reactor Coolant	25	22.1	44.2				
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	41	NRHX Heads			SA240 T304 Formd		Not Applicable		235	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	25	24.9	49.8				Used highest operating conditions for heat exchanger.
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	42	NRHX Shell			SA240 T304 Plates		Not Applicable		235	1193	350	575	1465	360	Service Water	Secondary Containment							Used Schedule 160 thickness since Schedule 120 called out on dwg 1 E/C-RT-01 Sheet 2D is not in Crane book.
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	43	NRHX Tube side nozzles	4		SA182 T304		Not Applicable		235	1193	350	575	1465	360	Reactor Coolant	Secondary Containment	25	23.6	47.1				
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	44	NRHX Shell side nozzles	6		SA105, Gr. II FS		Not Applicable		235	1193	350	575	1465	360	Service Water	Secondary Containment							
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	45	NRHX Tubesheets			SA182 T304F		Not Applicable		235	1193	350	575	1465	360	Not Available	Reactor Coolant	25	23.6	47.1				
Support Systems (SS)	Group 26 - Reactor Water Cleanup Piping to Regen. And Non-Regen. HXs (RWCUHX)	SS - RWCUHX	46	NRHX Tubes			SA249 T304		Not Applicable		235	1193	350	575	1465	360	Reactor Coolant	Service Water	30	24.9	49.8				
Support Systems (SS)	Group 26 - Reactor																								

System Identification	Group Identification	Part Identification	Part Number	Part Description	Part Size in inches	Part Thickness in inches	Material A	Material W	Material B	Weld Type	Operating Temperature in °F	Operating Pressure in psia	Operating Flow in gpm	Design Temperature in °F	Design Pressure in psia	Design Flow in gpm	Inside Environment	Outside Environment	Residual Stress in ksi	Normal Stress in ksi	Faulted Stress in ksi	CUF	Stress Comments	Operating Experience	General Comments
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-1	1	Recirculation Loop Pipe - Weldolet	24 x 4	0.337	SA358 TP 304 (Welded)		SA403 Gr. and Class WP 304S or WP 304WX		535	1035	175	575	1265	180	Reactor Coolant	Primary Containment	30	26.3	52.5			Could not read UFSAR figure 5.4-6 sheet 2. Used NRC BWR training manual Figure 2.8-3 for operating conditions.	
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-2	2	Weldolet	4	0.337	SA403 Gr. and Class WP 304S or WP 304WX		Not Applicable		535	1035	175 gpm	575	1265	180	Reactor Coolant	Primary Containment	30	26.3	52.5				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-3	3	Weldolet - Elbow	4	0.337	SA403 Gr. and Class WP 304S or WP 304WX		SA403 Gr. and Class WP 304S or WP 304WX		535	1035	175 gpm	575	1265	180	Reactor Coolant	Primary Containment	30	26.3	52.5				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-4	4	Elbow	4	0.337	SA403 Gr. and Class WP 304S or WP 304WX		Not Applicable		535	1035	175 gpm	575	1265	180	Reactor Coolant	Primary Containment	30	26.3	52.5				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-5	5	Elbow - Pipe	4	0.337	SA403 Gr. and Class WP 304S or WP 304WX		SA312 Gr. TP 304 (SMLS) or SA376 Gr. TP 304 (SMLS)		535	1035	175 gpm	575	1265	180	Reactor Coolant	Primary Containment	30	26.3	52.5				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-6	6	Pipe - Socket	4 x 1-1/2	0.2	SA312 Gr. TP 304 (SMLS) or SA376 Gr. TP 304 (SMLS)		SA182 Gr. F304 (SW Class 3000)		535	1035	175 gpm	575	1265	180	Reactor Coolant	Primary Containment	25	22.1	44.2				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-7	7	Socket	1-1/2"	0.2	SA182 Gr. F304 (SW Class 3000)		Not Applicable		535	1035	175 gpm	575	1265	180	Reactor Coolant	Primary Containment	25	22.1	44.2				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-8	8	Socket - Pipe	1-1/2"	0.2	SA182 Gr. F304 (SW Class 3000)		SA312 Gr. TP 304 (SMLS) or SA376 Gr. TP 304 (SMLS)		535	1035	175 gpm	575	1265	180	Reactor Coolant	Primary Containment	25	22.1	44.2				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-9	9	Straight Pipe	1-1/2"	0.2	SA312 Gr. TP 304 (SMLS) or SA376 Gr. TP 304 (SMLS)		Not Applicable		535	1035	175 gpm	575	1265	180	Reactor Coolant	Primary Containment	25	22.1	44.2				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-10	10	Elbow - Elbow	4	0.438	SA403 Gr. and Class WP 304S or WP 304WX		SA234 Gr. WPB		535	1035	175 gpm	575	1265	180	Reactor Coolant	Primary Containment	35	30.3	60.6				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-11	11	Elbow - Valve MO 1G33-F100	4	0.438	SA234 Gr. WPB		SA105/SA216 Gr. WCB		535	1035	175 gpm	575	1265	180	Reactor Coolant	Primary Containment	35	30.3	60.6				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-12	12	Valve MO 1G33-F100	4	0.438	SA105/SA216 Gr. WCB		Not Applicable		535	1035	175 gpm	575	1265	180	Reactor Coolant	Primary Containment	35	29.1	58.2				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-13	13	Pipe - Pipe	4	0.438	SA-106 Gr. B (Seamless)		SA-106 Gr. B (Seamless)		535	1035	175 gpm	575	1265	180	Reactor Coolant	Primary Containment	35	28.4	56.8				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-14	14	Pipe - 45 degree Elbow	4	0.438	SA-106 Gr. B (Seamless)		SA234 Gr. WPB		535	1035	175 gpm	575	1265	180	Primary Containment	Primary Containment	35	28.4	56.8				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-15	15	45 degree Elbow	4	0.438	SA234 Gr. WPB		Not Applicable		535	1035	175 gpm	575	1265	180	Primary Containment	Primary Containment	35	30.3	60.6				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-16	16	Elbow - Reducer	4	0.438	SA234 Gr. WPB		SA234 Gr. WPB		535	1035	175 gpm	575	1265	180	Reactor Coolant	Primary Containment	35	30.3	60.6				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-17	17	4 x 8 Reducer	4 x 6	0.562	SA234 Gr. WPB		Not Applicable		535	1035	175 gpm	575	1265	180	Reactor Coolant	Primary Containment	35	30.3	60.6				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-18	18	Reducer - Tee	6	0.562	SA234 Gr. WPB		SA234 Gr. WPB		535	1035	175 gpm	575	1265	180	Reactor Coolant	Primary Containment	35	30.3	60.6				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-19	19	Tee	6	0.562	SA234 Gr. WPB		Not Applicable		535	1035	175 gpm	575	1265	180	Reactor Coolant	Primary Containment	35	30.3	60.6				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-20	20	Tee - Valve MO 1G33-F102	6	0.562	SA234 Gr. WPB		SA105/SA216 Gr. WCB		535	1035	350 gpm	575	1265	360	Reactor Coolant	Primary Containment	35	30.3	60.6				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-21	21	Valve MO 1G33-F102	6	0.562	SA105/SA216 Gr. WCB		Not Applicable		535	1035	350 gpm	575	1265	360	Reactor Coolant	Primary Containment	35	29.1	58.2				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-22	22	Valve MO 1G33-F102 - Elbow	6	0.562	SA105/SA216 Gr. WCB		SA234 Gr. WPB		535	1035	350 gpm	575	1265	360	Reactor Coolant	Primary Containment	35	30.3	60.6				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-23	23	Elbow	6	0.562	SA234 Gr. WPB		Not Applicable		535	1035	350 gpm	575	1265	360	Reactor Coolant	Primary Containment	35	30.3	60.6				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-24	24	Elbow - Pipe	6	0.562	SA234 Gr. WPB		SA-106 Gr. B (Seamless)		535	1035	350 gpm	575	1265	360	Reactor Coolant	Primary Containment	35	30.3	60.6				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-25	25	Straight Pipe	6	0.562	SA-106 Gr. B (Seamless)		Not Applicable		535	1035	350 gpm	575	1265	360	Reactor Coolant	Primary Containment	35	28.4	56.8				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-26	26	Pipe - Flange	6	0.562	SA-106 Gr. B (Seamless)		SA105 (WN Class 900)		535	1035	350 gpm	575	1265	360	Reactor Coolant	Primary Containment	35	28.4	56.8				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-27	27	Flange	6	0.562	SA105 (WN Class 900)		Not Applicable		535	1035	350 gpm	575	1265	360	Reactor Coolant	Primary Containment	30	24.3	48.6			Bolts - SA193 Gr. B7; Nuts SA194 Gr. 2H	
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-28	28	Valve MO 1G33-F001	6	0.562	SA105/SA216 Gr. WCB		Not Applicable		535	1035	350 gpm	575	1265	360	Reactor Coolant	Primary Containment	35	29.1	58.2				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-29	29	Elbow	6	0.562	SA234 Gr. WPB		Not Applicable		535	1035	350 gpm	575	1265	360	Reactor Coolant	Secondary Containment	35	30.3	60.6				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-30	30	Elbow - Valve MO 1G33-F004	6	0.562	SA234 Gr. WPB		SA105/SA216 Gr. WCB		535	1035	350 gpm	575	1265	360	Reactor Coolant	Secondary Containment	35	30.3	60.6				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-31	31	Valve MO 1G33-F004	6	0.562	SA105/SA216 Gr. WCB		Not Applicable		535	1035	350 gpm	575	1265	360	Reactor Coolant	Secondary Containment	35	29.1	58.2				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-32	32	Valve MO 1G33-F004 - Reducer	6	0.562	SA105/SA216 Gr. WCB		ASME A-234 Gr. WPB		535	1035	350 gpm	575	1265	360	Reactor Coolant	Secondary Containment	35	30.3	60.6				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-33	33	6 x 4 Reducer	6 x 4	0.562	ASME A-234 Gr. WPB		Not Applicable		535	1035	350 gpm	575	1265	360	Reactor Coolant	Secondary Containment	35	30.3	60.6				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-34	34	Reducer - Pipe	4	0.438	ASTM A-234 Gr. WPB		ASTM A-106 Gr. B		535	1035	350 gpm	575	1265	360	Reactor Coolant	Secondary Containment	35	30.3	60.6				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-35	35	Straight Pipe	4	0.438	ASTM A-106 Gr. B		Not Applicable		535	1035	350 gpm	575	1265	360	Reactor Coolant	Secondary Containment	35	28.4	56.8				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-36	36	Pipe - Elbow	4	0.438	ASTM A-106 Gr. B		ASTM A-234 Gr. WPB		535	1035	350 gpm	575	1265	360	Reactor Coolant	Secondary Containment	35	30.3	60.6				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-37	37	Elbow	4	0.438	ASTM A-234 Gr. WPB		Not Applicable		535	1035	350 gpm	575	1265	360	Reactor Coolant	Secondary Containment	35	30.3	60.6				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-38	38	Pipe - Socket	4 x 3/4	0.219	SA105		ASTM A-106 Gr. B		535	1035	350 gpm	575	1265	360	Reactor Coolant	Secondary Containment	35	28.4	56.8				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-39	39	Socket	3/4"	0.219	SA105		Not Applicable		535	1035	Normally Stagnant (No flow)	Not Available	Not Available	Not Available	Reactor Coolant	Secondary Containment	30	24.3	48.6			Used Schedule 160 thickness since Schedule 120 called out on dwg 1-E/C-RT-01 Sheet 2A is not in Crane book.	
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-40	40	Socket - Pipe	3/4"	0.219	SA105		ASTM A-106 Gr. B		535	1035	Normally Stagnant (No flow)	Not Available	Not Available	Not Available	Reactor Coolant	Secondary Containment	35	28.4	56.8				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-41	41	Straight Pipe	3/4"	0.219	ASTM A-106 Gr. B		Not Applicable		535	1035	Normally Stagnant (No flow)	Not Available	Not Available	Not Available	Reactor Coolant	Secondary Containment	35	28.4	56.8				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-42	42	Pipe - Valve 1C33-F376	3/4"	0.219	ASTM A-106 Gr. B		SA105/SA216 Gr. WCB forged		535	1035	Normally Stagnant (No flow)	Not Available	Not Available	Not Available	Reactor Coolant	Secondary Containment	35	29.1	58.2				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-43	43	Valve 1C33-F376	3/4"	0.219	SA105/SA216 Gr. WCB forged		Not Applicable		535	1035	Normally Stagnant (No flow)	Not Available	Not Available	Not Available	Reactor Coolant	Secondary Containment	35	29.1	58.2				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-44	44	Tee	4	0.438	ASME A-234 Gr. WPB		Not Applicable		535	1035	350 gpm	575	1265	360	Reactor Coolant	Secondary Containment	35	30.3	60.6				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-45	45	Tee - Pipe	4	0.438	ASTM A-234 Gr. WPB		ASTM A-106 Gr. B		535	1035	175 gpm	575	1265	360	Reactor Coolant	Secondary Containment	35	30.3	60.6				
Support Systems (SS)	Group 25 - Reactor Water Cleanup Piping to Pumps (RWCUPMPS)	SS - RWCUPMPS-46	46	Elbow - Valve 1G33-F043A	4	0.438	ASTM A-234 Gr. WPB		A-216 Gr. WCB		535	1035	175 gpm	575	1265	360	Reactor Coolant	Secondary Containment	35	30.3	60.6				

System Identification	Group Identification	Part Identification	Part Number	Part Description	Part Size in inches	Part Thickness in inches	Material A	Material W	Material B	Weld Type	Operating Temperature in °F	Operating Pressure in psia	Operating Flow	Design Temperature in °F	Design Pressure in psia	Design Flow	Inside Environment	Outside Environment	Residual Stress in ksi	Normal Stress in ksi	Faulted Stress in ksi	CUF	Stress Comments	Operating Experience	General Comments
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	1	Condensate Booster pump discharge nozzle - Reducing Elbow	12		Carbon Steel (Assumed)		ASTM A-234 Gr. WPB		124	615	3.9 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	35	32.6	65.1			To make this group spreadsheet, erosion-corrosion isometric drawings were used. As-built drawings were not available. Engineering judgement was used when inputting data into this table, due to lack of information on erosion-corrosion drawings. Assumed all	
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	2	12 x 16 Reducing Elbow	12 x 16	0.656	ASTM A-234 Gr. WPB		Not Applicable		124	615	3.9 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	35	32.6	65.1			Operating temp. obtained from NRC BWR training manual page 2.7-51 (figure R2.7.7).	
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	3	Reducing Elbow - Reducing Tee	16	0.656	ASTM A-234 Gr. WPB		ASTM A-234 Gr. WPB		124	615	3.9 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	35	32.6	65.1				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	4	16 x 8 x 16 Reducing Tee	16 x 8 x 16	0.656	ASTM A-234 Gr. WPB		Not Applicable		124	615	3.9 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	35	32.6	65.1				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	5	Reducing Tee - Pipe	8		ASTM A-234 Gr. WPB		ASTM A-106 Gr. B		124	615	3.9 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	35	32.6	65.1				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	6	Reducing Tee - Check Valve 1CB001A	16	0.656	ASTM A-234 Gr. WPB		SA105/SA216 Gr. WCB (SW Forged)		124	615	3.9 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	35	32.6	65.1				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	7	Check Valve 1CB001A	16	0.656	SA105/SA216 Gr. WCB (SW Forged)		Not Applicable		124	615	3.9 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	36	35	70				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	8	Check Valve 1CB001A - Valve 1CB002A	16	0.656	SA105/SA216 Gr. WCB (SW Forged)		SA105/SA216 Gr. WCB (SW Forged)		124	615	3.9 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	36	35	70				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	9	Valve 1CB002A	16	0.656	SA105/SA216 Gr. WCB (SW Forged)		Not Applicable		124	615	3.9 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	36	35	70				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	10	Valve 1CB002A - Pipe	16	0.656	SA105/SA216 Gr. WCB (SW Forged)		ASTM A-106 Gr. B		124	615	3.9 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	36	35	70				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	11	Pipe - Elbow	16	0.656	ASTM A-106 Gr. B		ASTM A-234 Gr. WPB		124	615	3.9 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	35	32.6	65.1				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	12	Straight Pipe	16	0.656	ASTM A-106 Gr. B		Not Applicable		124	615	3.9 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	35	30	60				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	13	16 x 30 Reducing Elbow	16 x 30	0.853	ASTM A-234 Gr. WPB/WPC		Not Applicable		124	615	3.9 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	35	32.6	65.1				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	14	Reducing Elbow - Pipe	30	0.853	ASTM A-234 Gr. WPB/WPC		ASTM A 672 Gr. B70 Class 22		124	615	3.9 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	40	35	70				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	15	Straight Pipe	30	0.853	ASTM A 672 Gr. B70 Class 22		Not Applicable		124	615	3.9 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	40	35	70				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	16	Pipe - Tee	30	0.853	ASTM A 672 Gr. B70 Class 22		ASTM A-234 Gr. WPB/WPC		124	615	3.9 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	40	35	70				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	17	Tee	30	0.853	ASTM A-234 Gr. WPB/WPC		Not Applicable		124	615	3.9 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	35	32.6	65.1				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	18	Pipe - Wye	30	0.853	ASTM A 672 Gr. B70 Class 22		ASTM A-234 Gr. WPB/WPC		124	615	3.9 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	40	35	70				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	19	Wye	30	0.853	ASTM A-234 Gr. WPB/WPC		Not Applicable		124	615	3.9 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	35	32.6	65.1				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	20	Pipe - Elbow	30	0.853	ASTM A-234 Gr. WPB/WPC		ASTM A-234 Gr. WPB/WPC		124	615	3.9 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	40	35	70				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	21	Elbow	30	0.853	ASTM A-234 Gr. WPB/WPC		Not Applicable		124	615	3.9 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	35	32.6	65.1				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	22	Elbow - Reducer	30	0.853	ASTM A-234 Gr. WPB/WPC		ASTM A-234 Gr. WPB/WPC		124	615	3.9 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	35	32.6	65.1				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	23	30 x 16 Reducer	30 x 16	0.853	ASTM A-234 Gr. WPB/WPC		Not Applicable		124	615	3.9 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	35	32.6	65.1				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	24	Reducer - Pipe	16	0.656	ASTM A-234 Gr. WPB		ASTM A-106 Gr. B		124	615	3.9 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	35	32.6	65.1				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	25	Pipe - Valve 1CB005C	16	0.656	ASTM A-106 Gr. B		SA105/SA216 Gr. WCB (SW Forged)		124	615	3.9 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	36	35	70				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	26	Valve 1CB005C	16	0.656	SA105/SA216 Gr. WCB (SW Forged)		Not Applicable		124	615	3.9 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	36	35	70				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	27	Pipe - L.P. Heater (1CB01AB) inlet Nozzle	16	0.656	ASTM A-106 Gr. B		SA105 GR. II		124	615	3.9 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	36	30	60				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	28	Pipe - L.P. Heater (1CB05AC) outlet Nozzle	24	0.969	ASTM A-106 Gr. B		SA105 GR. II		365	615	5.2 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	35	25.8	51.6			Temp change from 124F at the booster pump to 365F after five sets of low pressure heaters.	
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	29	Straight Pipe	24	0.969	ASTM A-106 Gr. B		Not Applicable		365	615	5.2 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	35	25.8	51.6			Press change from 465psia at the booster pump to 1100 psia after five sets of low pressure heaters.	
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	30	Straight Pipe - Elbow	24	0.969	ASTM A-106 Gr. B		ASTM A-234 Gr. WPB/WPC		365	615	5.2 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	35	31.2	62.2				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	31	Elbow	24	0.969	ASTM A-234 Gr. WPB/WPC		Not Applicable		365	615	5.2 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	35	31.2	62.2				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	32	Elbow - Valve 1CB006C	24	0.969	ASTM A-234 Gr. WPB/WPC		SA105/SA216 Gr. WCB (SW Forged)		365	615	5.2 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	35	31.2	62.4				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	33	Valve 1CB006C	24	0.969	SA105/SA216 Gr. WCB (SW Forged)		Not Applicable		365	615	5.2 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	36	30.8	61.8				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	34	Elbow - Reducing Tee	24	0.969	ASTM A-234 Gr. WPB/WPC		ASTM A-234 Gr. WPB/WPC		365	615	5.2 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	35	31.2	62.2				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	35	36 x 24 x 36 Reducing Tee	36 x 24 x 36	1.005	ASTM A-234 Gr. WPB/WPC		Not Applicable		365	615	5.2 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	35	31.2	62.2				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	36	Straight Pipe	36	1.005	ASTM A 672 Gr. B70 Class 22		Not Applicable		365	615	15.6 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	40	34.3	68.6				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	37	Pipe - Elbow	36	1.005	ASTM A 672 Gr. B70 Class 22		ASTM A-234 Gr. WPB/WPC		365	615	15.6 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	40	34.3	68.6				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	38	Elbow	36	1.005	ASTM A-234 Gr. WPB/WPC		Not Applicable		365	615	15.6 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	35	31.2	62.2				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	39	Pipe - Weldolet	6		ASTM A 672 Gr. B70 Class 22		ASTM A-234 Gr. WPB		365	615	Stagnant Flow	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	40	34.3	68.6				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	40	Weldolet	6		ASTM A-234 Gr. WPB		Not Applicable		365	615	Stagnant Flow	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	35	31.2	62.2				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	41	Weldolet - Elbow	6		ASTM A-234 Gr. WPB		ASTM A-234 Gr. WPB		365	615	Stagnant Flow	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	35	31.2	62.2				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	42	Elbow	6		ASTM A-234 Gr. WPB		Not Applicable		365	615	Stagnant Flow	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	35	31.2	62.2				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	43	Elbow - Valve 1FW022	6		ASTM A-234 Gr. WPB		SA105/SA216 Gr. WCB (SW Forged)		365	615	Stagnant Flow	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	35	31.2	62.4				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	44	Valve 1FW022	6		SA105/SA216 Gr. WCB (SW Forged)		Not Applicable		365	615	Stagnant Flow	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	36	30.8	61.8				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	45	Pipe - Wye	36	1.005	ASTM A 672 Gr. B70 Class 22		ASTM A-234 Gr. WPB/WPC		365	615	15.6 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available	Reactor Condensate	Secondary Containment	40	34.3	68.6				
Power Conversion System (PCS)	Group 24 - Condensate Piping to FW Pump (CONDWFMPMP)	PCS - CONDWFMPMP	46	Wye	36	1.005	ASTM A-234 Gr. WPB/WPC		Not Applicable		365	615	15.6 x 10 ⁶ lbs/hr	Not Available	Not Available	Not Available									

System Identification	Group Identification	Part Identification	Part Number	Part Description	Part Size in inches	Part Thickness in inches	Material A	Material W	Material B	Weld Type	Operating Temperature in oF	Operating Pressure in psia	Operating Flow	Design Temperature in oF	Design Pressure in psia	Design Flow	Inside Environment	Outside Environment	Residual Stress in ksi	Normal Stress in ksi	Faulted Stress in ksi	CUF	Stress Comments	Operating Experience	General Comments
Power Conversion System (PCS)	Group 21 - Main Condenser (CONDNSR)	PCS - CONDNSR	1	Top Plate		0.875	Carbon Steel (GALL)		Not Applicable		120-134	3.41"-4.99" Hg	Not Applicable	212	30" Hg Vacuum to 30psia	9.572 x 10 ⁶ lb/hr (steam)	Reactor Steam	Turbine Building	35	30	60				Information obtained from UFSAR Section 10.4.1 and drawing 731J390 sheet 1.
Power Conversion System (PCS)	Group 21 - Main Condenser (CONDNSR)	PCS - CONDNSR	2	Top Plate - Top Plate		0.875	Carbon Steel (GALL)		Carbon Steel (GALL)		120-134	3.41"-4.99" Hg	Not Applicable	212	30" Hg Vacuum to 30psia	9.572 x 10 ⁶ lb/hr (steam)	Reactor Steam	Turbine Building	35	30	60				
Power Conversion System (PCS)	Group 21 - Main Condenser (CONDNSR)	PCS - CONDNSR	3	Top Plate - Intermediate Plate		0.875	Carbon Steel (GALL)		Carbon Steel (GALL)		120-134	3.41"-4.99" Hg	Not Applicable	212	30" Hg Vacuum to 30psia	9.572 x 10 ⁶ lb/hr (steam)	Reactor Steam	Turbine Building	35	30	60				
Power Conversion System (PCS)	Group 21 - Main Condenser (CONDNSR)	PCS - CONDNSR	4	Intermediate Plate		0.875	Carbon Steel (GALL)		Not Applicable		120-134	3.41"-4.99" Hg	Not Applicable	212	30" Hg Vacuum to 30psia	9.572 x 10 ⁶ lb/hr (steam)	Reactor Steam	Turbine Building	35	30	60				
Power Conversion System (PCS)	Group 21 - Main Condenser (CONDNSR)	PCS - CONDNSR	5	Intermediate Plate - Intermediate Plate		0.875	Carbon Steel (GALL)		Carbon Steel (GALL)		120-134	3.41"-4.99" Hg	Not Applicable	212	30" Hg Vacuum to 30psia	9.572 x 10 ⁶ lb/hr (steam)	Reactor Steam	Turbine Building	35	30	60				
Power Conversion System (PCS)	Group 21 - Main Condenser (CONDNSR)	PCS - CONDNSR	6	Intermediate Plate - End Plate		0.875	Carbon Steel (GALL)		Carbon Steel (GALL)		120-134	3.41"-4.99" Hg	Not Applicable	212	30" Hg Vacuum to 30psia	9.572 x 10 ⁶ lb/hr (steam)	Reactor Steam	Turbine Building	35	30	60				
Power Conversion System (PCS)	Group 21 - Main Condenser (CONDNSR)	PCS - CONDNSR	7	End Plate - Side Plate		0.875	Carbon Steel (GALL)		Carbon Steel (GALL)		120-134	3.41"-4.99" Hg	Not Applicable	212	30" Hg Vacuum to 30psia	9.572 x 10 ⁶ lb/hr (steam)	Reactor Steam/Condensate	Turbine Building	35	30	60				
Power Conversion System (PCS)	Group 21 - Main Condenser (CONDNSR)	PCS - CONDNSR	8	End Plate		0.875	Carbon Steel (GALL)		Not Applicable		120-134	3.41"-4.99" Hg	Not Applicable	212	30" Hg Vacuum to 30psia	9.572 x 10 ⁶ lb/hr (steam)	Reactor Steam/Condensate	Turbine Building	35	30	60				
Power Conversion System (PCS)	Group 21 - Main Condenser (CONDNSR)	PCS - CONDNSR	9	CW Inlet Head			Carbon Steel (GALL)		Not Applicable		100	40	615,000 GPM Total	150	50	645,000 GPM Total	Circulating Water (Treated or sea/lake/pond)	Turbine Building	35	30	60				
Power Conversion System (PCS)	Group 21 - Main Condenser (CONDNSR)	PCS - CONDNSR	10	CW Inlet Head - Inlet Pipe	144	0.75	Carbon Steel (GALL)		Carbon Steel (GALL)		100	40	615,000 GPM Total	150	50	645,000 GPM Total	Circulating Water (Treated or sea/lake/pond)	Turbine Building	35	30	60				
Power Conversion System (PCS)	Group 21 - Main Condenser (CONDNSR)	PCS - CONDNSR	11	CW Inlet Pipe	144	0.75	Carbon Steel (GALL)		Not Applicable		100	40	615,000 GPM Total	150	50	645,000 GPM Total	Circulating Water (Treated or sea/lake/pond)	Turbine Building	35	30	60				
Power Conversion System (PCS)	Group 21 - Main Condenser (CONDNSR)	PCS - CONDNSR	12	CW Inlet Head - Side Plate			Carbon Steel (GALL)		Carbon Steel (GALL)		120-134	3.41"-4.99" Hg	Not Applicable	212	30" Hg Vacuum to 30psia	9.572 x 10 ⁶ lb/hr (steam)	Reactor Steam/Condensate	Turbine Building	35	30	60				
Power Conversion System (PCS)	Group 21 - Main Condenser (CONDNSR)	PCS - CONDNSR	13	Side Plate			Carbon Steel (GALL)		Not Applicable		120-134	3.41"-4.99" Hg	Not Applicable	212	30" Hg Vacuum to 30psia	9.572 x 10 ⁶ lb/hr (steam)	Reactor Steam/Condensate	Turbine Building	35	30	60				
Power Conversion System (PCS)	Group 21 - Main Condenser (CONDNSR)	PCS - CONDNSR	14	Side Plate - Side Plate			Carbon Steel (GALL)		Carbon Steel (GALL)		120-134	3.41"-4.99" Hg	Not Applicable	212	30" Hg Vacuum to 30psia	9.572 x 10 ⁶ lb/hr (steam)	Reactor Steam/Condensate	Turbine Building	35	30	60				
Power Conversion System (PCS)	Group 21 - Main Condenser (CONDNSR)	PCS - CONDNSR	15	First Stage Reheater Drain Pipe - Condenser Side Plate	12	0.687	Carbon Steel (GALL)		Carbon Steel (GALL)		475	555	1320 GPM	Not Available	Not Available	Not Available	Reactor Condensate	Turbine Building	35	28.4	56.8				
Power Conversion System (PCS)	Group 21 - Main Condenser (CONDNSR)	PCS - CONDNSR	16	First Stage Reheater Drain Pipe	12	0.687	Carbon Steel (GALL)		Not Applicable		475	555	1320 GPM	Not Available	Not Available	Not Available	Reactor Condensate	Turbine Building	35	28.4	56.8				
Power Conversion System (PCS)	Group 21 - Main Condenser (CONDNSR)	PCS - CONDNSR	17	Condensate Outlet Pipe - Condenser Side Plate	24	0.375	ASTM A-106 Gr. B		Carbon Steel (GALL)		165	65	4750- 5500 GPM	Not Available	Not Available	Not Available	Reactor Condensate	Turbine Building	35	30	60				
Power Conversion System (PCS)	Group 21 - Main Condenser (CONDNSR)	PCS - CONDNSR	18	Condensate Outlet Pipe	24	0.375	ASTM A-106 Gr. B		Not Applicable		165	65	4750- 5500 GPM	Not Available	Not Available	Not Available	Reactor Condensate	Turbine Building	35	30	60				
Power Conversion System (PCS)	Group 21 - Main Condenser (CONDNSR)	PCS - CONDNSR	19	Steam Seal Evaporator Vent Pipe - Intermediate Plate	1	0.179	Carbon Steel (Assumed)		Carbon Steel (Assumed)		120-134	3.41"-4.99" Hg		Not Available	Not Available	Not Available	Reactor Steam	Turbine Building	35	30	60				
Power Conversion System (PCS)	Group 21 - Main Condenser (CONDNSR)	PCS - CONDNSR	20	Steam Seal Evaporator Vent Pipe	1	0.179	Carbon Steel (Assumed)		Not Applicable		120-134	3.41"-4.99" Hg		Not Available	Not Available	Not Available	Reactor Steam	Turbine Building	35	30	60				
Power Conversion System (PCS)	Group 21 - Main Condenser (CONDNSR)	PCS - CONDNSR	21	Heater Emergency Drain Pipe - Side Plate	18	0.5	Carbon Steel (Assumed)		Carbon Steel (Assumed)		330	103	993,000 lb/hr	Not Available	Not Available	Not Available	Reactor Condensate	Turbine Building	35	30	60				
Power Conversion System (PCS)	Group 21 - Main Condenser (CONDNSR)	PCS - CONDNSR	22	Heater Emergency Drain Pipe	18	0.5	Carbon Steel (Assumed)		Not Applicable		330	103	993,000 lb/hr	Not Available	Not Available	Not Available	Reactor Condensate	Turbine Building	35	30	60				
Power Conversion System (PCS)	Group 21 - Main Condenser (CONDNSR)	PCS - CONDNSR	23	CW Outlet Head			Carbon Steel (GALL)		Not Applicable		130	40	615,000 GPM (Total)	Not Available	Not Available	Not Available	Circulating Water (Treated or sea/lake/pond)	Turbine Building	35	30	60				
Power Conversion System (PCS)	Group 21 - Main Condenser (CONDNSR)	PCS - CONDNSR	24	CW Outlet Head - Discharge Pipe	144	0.75	Carbon Steel (GALL)		Carbon Steel (GALL)		130	40	307,500 GPM	Not Available	Not Available	Not Available	Circulating Water (Treated or sea/lake/pond)	Turbine Building	35	30	60				
Power Conversion System (PCS)	Group 21 - Main Condenser (CONDNSR)	PCS - CONDNSR	25	Discharge Pipe	144	0.75	Carbon Steel (GALL)		Not Applicable		130	40	307,500 GPM	Not Available	Not Available	Not Available	Circulating Water (Treated or sea/lake/pond)	Turbine Building	35	30	60				
Power Conversion System (PCS)	Group 21 - Main Condenser (CONDNSR)	PCS - CONDNSR	26	Manway	24		Carbon Steel (Assumed)		Not Applicable		130	40	307,500 GPM	Not Available	Not Available	Not Available	Circulating Water (Treated or sea/lake/pond)	Turbine Building	35	30	60				
Power Conversion System (PCS)	Group 21 - Main Condenser (CONDNSR)	PCS - CONDNSR	27	Condenser Tubes (40,462)	1	22 BWG	Stainless Steel (GALL)		Not Applicable		100/130	40	15.2 GPM/tube	Not Available	Not Available	Not Available	Circulating Water (Treated or sea/lake/pond)	Reactor Steam/Condensate	25	24.9	49.8				There are a total of 40,462 tubes each 90 ft long.
Power Conversion System (PCS)	Group 21 - Main Condenser (CONDNSR)	PCS - CONDNSR	28	Tube Sheet			Carbon Steel (GALL)		Not Applicable		100/130	40	615,000 GPM	Not Available	Not Available	Not Available	Circulating Water (Treated or sea/lake/pond)	Reactor Steam/Condensate	35	30	60				
Power Conversion System (PCS)	Group 21 - Main Condenser (CONDNSR)	PCS - CONDNSR	29	Tube Supports			Carbon Steel (Assumed)		Not Applicable		120-134	3.41"-4.99" Hg	Not Applicable	212	30" Hg Vacuum to 30psia	9.572 x 10 ⁶ lb/hr (steam)	Not Applicable	Reactor Steam/Condensate	35	30	60				
Power Conversion System (PCS)	Group 21 - Main Condenser (CONDNSR)	PCS - CONDNSR	30	Internal Baffle Plates			Stainless Steel		Not Applicable		120-134	3.41"-4.99" Hg	Not Applicable	212	30" Hg Vacuum to 30psia	9.572 x 10 ⁶ lb/hr (steam)	Not Applicable	Reactor Steam/Condensate	25	24.9	49.8				
Power Conversion System (PCS)	Group 21 - Main Condenser (CONDNSR)	PCS - CONDNSR	31	Other Component Repair Sleeves			A106 GR. B		Not Applicable		100/130	40	15.2 GPM/tube	Not Available	Not Available	Not Available	Circulating Water (Treated or sea/lake/pond)	Reactor Steam/Condensate	35	30	60				
Power Conversion System (PCS)	Group 21 - Main Condenser (CONDNSR)	PCS - CONDNSR	32	Tube Repair Sleeves/Plugs			A312 TP304, 304L or 316		Not Applicable		100/130	40	15.2 GPM/tube	Not Available	Not Available	Not Available	Circulating Water (Treated or sea/lake/pond)	Reactor Steam/Condensate	25	24.9	49.8				

System Identification	Group Identification	Part Identification	Part Number	Part Description	Part Size in inches	Part Thickness in inches	Material A	Material W	Material B	Weld Type	Operating Temperature in oF	Operating Pressure in psia	Operating Flow	Design Temperature in oF	Design Pressure in psia	Design Flow	Inside Environment	Outside Environment	Residual Stress in ksi	Normal Stress in ksi	Faulted Stress in ksi	CUF	Stress Comments	Operating Experience	General Comments
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-1		Straight Pipe from CCST	6"	0.237	ASTM A-312/376 Gr. TP304		Not Applicable		107	30	95 GPM	150	130	200 GPM	CRD Water	Outdoors	25	24.9	49.8			Could not read UFSAR Figure 4.6-5. Used information from NRC Technical Training (TTC) for operating conditions.	
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-2		Pipe - Elbow	6"	0.237	ASTM A-312/376 Gr. TP304		ASTM A403 Gr. WP304S/WX		107	30	95 GPM	150	130	200 GPM	CRD Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-3		Elbow	6"	0.237	ASTM A403 Gr. WP304S/WX		Not Applicable		107	30	95 GPM	150	130	200 GPM	CRD Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-4		Pipe - Tee	6"	0.237	ASTM A-312/376 Gr. TP304		ASTM A403 Gr. WP304S/WX		107	30	95 GPM	150	130	200 GPM	CRD Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-5		Tee	6"	0.237	ASTM A403 Gr. WP304S/WX		Not Applicable		107	30	95 GPM	150	130	100 GPM	CRD Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-6		Pipe - Valve 1C11- F115	6"	0.237	ASTM A-312/376 Gr. TP304		ASTM A182 Gr. F316 or A351 Gr. CF8M		107	30	95 GPM	150	130	100 GPM	CRD Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-7		Valve 1C11- F115	6"	0.237	ASTM A182 Gr. F316 or A351 Gr. CF8M		Not Applicable		107	30	95 GPM	150	130	100 GPM	CRD Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-8		Valve 1C11- F115 - Reducer	6"	0.237	ASTM A182 Gr. F316 or A351 Gr. CF8M		ASTM A403 Gr. WP304S/WX		107	30	95 GPM	150	130	100 GPM	CRD Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-9		6 x 4 Reducer	6 x 4	0.237	ASTM A403 Gr. WP304S/WX		Not Applicable		107	30	95 GPM	150	130	100 GPM	CRD Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-10		Reducer - Wye	4	0.337	ASTM A403 Gr. WP304S/WX		ASTM A403 Gr. WP304S/WX		107	30	95 GPM	150	130	100 GPM	CRD Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-11		Wye	4	0.337	ASTM A403 Gr. WP304S/WX		Not Applicable		107	30	95 GPM	150	130	100 GPM	CRD Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-12		Pipe - Pump Inlet Filter inlet nozzle	4	0.337	ASTM A-312/376 Gr. TP304		ASTM A182 Gr. F316 or A351 Gr. CF8M		107	30	95 GPM	150	130	100 GPM	CRD Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-13		Pump Inlet Filter outlet nozzle - Pipe	4	0.337	ASTM A182 Gr. F316 or A351 Gr. CF8M		ASTM A-312/376 Gr. TP304		107	30	95 GPM	150	130	100 GPM	CRD Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-14		Valve 1C11- F114	4	0.337	ASTM A182 Gr. F316 or A351 Gr. CF8M		Not Applicable		107	30	95 GPM	150	130	100 GPM	CRD Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-15		Pipe - Valve 1C11- F114	4	0.337	ASTM A-312/376 Gr. TP304		ASTM A182 Gr. F316 or A351 Gr. CF8M		107	30	95 GPM	150	130	100 GPM	CRD Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-16		Straight Pipe	4	0.337	ASTM A-312/376 Gr. TP304		Not Applicable		107	30	95 GPM	150	130	100 GPM	CRD Water	Secondary Containment	25	24.9	49.8				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-17		Tee	4	0.337	ASTM A403 Gr. WP304S/WX		Not Applicable		107	30	95 GPM	150	130	100 GPM	CRD Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-18		Tee - Pipe	4	0.337	ASTM A403 Gr. WP304S/WX		ASTM A-312/376 Gr. TP304		107	30	95 GPM	150	130	100 GPM	CRD Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-19		Valve 1C11-001B	4	0.337	ASTM A182 Gr. F316 or A351 Gr. CF8M		Not Applicable		107	30	95 GPM	150	130	100 GPM	CRD Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-20		4 x 3 Reducer	4 x 3	0.337	ASTM A403 Gr. WP304S/WX		Not Applicable		107	30	95 GPM	150	130	100 GPM	CRD Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-21		Reducer - Flange (Pump Suction)	3	0.3	ASTM A403 Gr. WP304S/WX		ASTM A182 Gr. F316		107	30	95 GPM	150	130	100 GPM	CRD Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-22		Flange (Pump Discharge)	2	0.218	ASTM A182 Gr. F316		Not Applicable		107	1515	95 GPM	150	1780	100 GPM	CRD Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-23		Flange - Pipe	2	0.218	ASTM A-312/376 Gr. TP304		ASTM A-312/376 Gr. TP304		107	1515	95 GPM	150	1780	100 GPM	CRD Water	Secondary Containment	25	24.9	49.8				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-24		Straight Pipe	2	0.218	ASTM A-312/376 Gr. TP304		Not Applicable		107	1515	95 GPM	150	1780	100 GPM	CRD Water	Secondary Containment	25	24.9	49.8				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-25		Pipe - Valve 1C11-F014A	2	0.218	ASTM A-312/376 Gr. TP304		ASTM A182 Gr. F316 or A351 Gr. CF8M (SW)		107	1515	95 GPM	150	1780	100 GPM	CRD Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-26		Valve 1C11-F014A	2	0.218	ASTM A182 Gr. F316 or A351 Gr. CF8M (SW)		Not Applicable		107	1515	95 GPM	150	1780	100 GPM	CRD Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-27		Valve 1C11-F386	2	0.218	ASTM A182 Gr. F316 or A351 Gr. CF8M (SW)		Not Applicable		107	1515	95 GPM	150	1780	100 GPM	CRD Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-28		Pipe - Elbow	2	0.218	ASTM A-312/376 Gr. TP304		ASTM A182 Gr. F304 (SW)		107	1515	95 GPM	150	1780	200 GPM	CRD Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-29		Elbow	2	0.218	ASTM A182 Gr. F304 (SW)		Not Applicable		107	1515	95 GPM	150	1780	200 GPM	CRD Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-30		Valve 1C11-F02A	2	0.218	ASTM A182 Gr. F316 or A351 Gr. CF8M (SW)		Not Applicable		107	1515	95 GPM	150	1780	100 GPM	CRD Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-31		Pipe - Pump Outlet Filter inlet nozzle	2	0.218	ASTM A-312/376 Gr. TP304		ASTM A182 Gr. F316 or A351 Gr. CF8M		107	1515	95 GPM	150	1780	100 GPM	CRD Water	Secondary Containment	25	24.9	49.8			Due to lack of information, assumed pump outlet filter materials were the same as the pump inlet filter.	
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-32		Pump Outlet Filter Shell	2	0.218	SA 515-70		Not Applicable		107	1515	95 GPM	150	1780	100 GPM	CRD Water	Secondary Containment	38	35	70				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-33		Pump Outlet Filter outlet nozzle - Pipe	2	0.218	ASTM A182 Gr. F316 or A351 Gr. CF8M		ASTM A-312/376 Gr. TP304		107	1515	95 GPM	150	1780	100 GPM	CRD Water	Secondary Containment	25	24.9	49.8				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-34		Valve 1C11-F021A	2	0.218	ASTM A182 Gr. F316 or A351 Gr. CF8M (SW)		Not Applicable		107	1515	95 GPM	150	1780	100 GPM	CRD Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-35		Valve 1C11-F034	2	0.218	ASTM A182 Gr. F316 or A351 Gr. CF8M (SW)		Not Applicable		107	1515	6 GPM/CRD	150	1780	40 GPM	CRD Charging Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-36		Pipe - Charging Water Manifold Tee	2	0.218	ASTM A-312/376 Gr. TP304		ASTM A182 Gr. F304 (SW)		107	1515	6 GPM/CRD	150	1780	40 GPM	CRD Charging Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-37		Charging Water Manifold Tee	2	0.218	ASTM A182 Gr. F304 (SW)		Not Applicable		107	1515	6 GPM/CRD	150	1780	40 GPM	CRD Charging Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-38		Valve 1C11-F046A	2	0.218	ASTM A182 Gr. F316 or A351 Gr. CF8M (SW)		Not Applicable		107	1515	63 GPM	150	1780	60 GPM	CRD Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-39		2 x 1-1/2 Reducer	2 x 1-1/2	0.218	ASTM A182 Gr. F304 (SW)		Not Applicable		107	1515	63 GPM	150	1780	60 GPM	CRD Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-40		Reducer - Pipe	1-1/2"	0.2	ASTM A182 Gr. F304 (SW)		ASTM A-312/376 Gr. TP304		107	1515	63 GPM	150	1780	60 GPM	CRD Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-41		Valve 1C11-F002A	1-1/2"	0.2	ASTM A182 Gr. F316 or A351 Gr. CF8M (SW)		Not Applicable		107	1515	63 GPM	150	1780	60 GPM	CRD Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-42		Valve 1C11-F047A	1-1/2"	0.2	ASTM A182 Gr. F316 or A351 Gr. CF8M (SW)		Not Applicable		107	1515	63 GPM	150	1780	60 GPM	CRD Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-43		Straight Pipe	1-1/2"	0.2	ASTM A-312/376 Gr. TP304		Not Applicable		107	1515	63 GPM	150	1780	60 GPM	CRD Water	Secondary Containment	25	24.9	49.8				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-44		1-1/2 x 1 x 1-1/2 Reducing Tee	1-1/2 x 1 x 1-1/2	0.2	ASTM A182 Gr. F304 (SW)		Not Applicable		107	1515	63 GPM	150	1780	60 GPM	CRD Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-45		Reducing Tee - Pipe	1	0.179	ASTM A182 Gr. F304 (SW)		ASTM A-312/376 Gr. TP304		107	1515	4GPM (insert)+2GPM (withdraw)/CRD	150	1780	20 GPM	CRD Drive Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-46		Straight Pipe	1	0.179	ASTM A-312/376 Gr. TP304		Not Applicable		107	1515	4GPM (insert)+2GPM (withdraw)/CRD	150	1780	20 GPM	CRD Drive Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-47		Pipe - Drive Water Manifold Tee	1	0.179	ASTM A-312/376 Gr. TP304		ASTM A182 Gr. F304 (SW)		107	1515	4GPM (insert)+2GPM (withdraw)/CRD	150	1780	20 GPM	CRD Drive Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-48		Drive Water Manifold Tee	1	0.179	ASTM A182 Gr. F304 (SW)		Not Applicable		107	1515	4GPM (insert)+2GPM (withdraw)/CRD	150	1780	20 GPM	CRD Drive Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)																								

Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-57	Nozzle - Shell	4	0.237	SA -106 Gr. B	SA 515-70		107	30	95 GPM	150	165 MWP	100 GPM	CRD Water	Secondary Containment	36	35	70						
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-58	Shell - Shell	16" Dia.	0.313	SA 515-70	SA 515-70		107	30	95 GPM	150	165 MWP	100 GPM	CRD Water	Secondary Containment	36	35	70						
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-59	Shell - Head	16" Dia.	0.313	SA 515-70	SA 515-70		107	30	95 GPM	150	165 MWP	100 GPM	CRD Water	Secondary Containment	36	35	70						
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-60	Shell - Pump Inlet Filter outlet nozzle	4	0.237	SA -106 Gr. B	Not Applicable		107	30	95 GPM	150	165 MWP	100 GPM	CRD Water	Secondary Containment	35	30	60						
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-61	Pump Inlet Filter outlet nozzle	4	0.237	SA -106 Gr. B	Not Applicable		107	30	95 GPM	150	165 MWP	100 GPM	CRD Water	Secondary Containment	35	30	60						
Auxiliary System (AS)	Group 20 - Control Rod Drive (CRD)	AS - CRD-62	Pump Casing			ASTM A-216 Gr. WCB	Not Applicable		107	1515	95 GPM	150	1780	100 GPM	CRD Water	Secondary Containment	36	35	70						

System Identification	Group Identification	Part Identification	Part Number	Part Description	Part Size in inches	Part Thickness in inches	Material A	Material W	Material B	Weld Type	Operating Temperature in oF	Operating Pressure in psia	Operating Flow	Design Temperature in oF	Design Pressure in psia	Design Flow	Inside Environment	Outside Environment	Residual Stress in ksi	Normal Stress in ksi	Faulted Stress in ksi	CUF	Stress Comments	Operating Experience	General Comments
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 1	1	FW Vessel Nozzle Safe End - Pipe	12	0.844	CS, SA-508 Cl 1 or Bimetallic CS/Inconel(LRD)		SA-106 Gr. B (Seamless)		427	1045	2.53 x 10 ⁶ lb/hr	575	1315	Not Available	Reactor Feedwater	Primary Containment	35	30	60			Feedwater inlet operating conditions from UFSAR Figure 5.1-1.	
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 2	2	Pipe - Elbow	12	0.844	SA-106 Gr. B (Seamless)		SA234 Gr. WPB		427	1045	2.53 x 10 ⁶ lb/hr	575	1315	Not Available	Reactor Feedwater	Primary Containment	35	31.2	62.4			To make this group spreadsheet, erosion-corrosion isometric drawings were used. Two as-built drawings were used. Engineering judgment was used when inputting data into this table due to lack of information on erosion-corrosion drawings.	
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 3	3	Elbow	12	0.844	SA234 Gr. WPB		Not Applicable		427	1045	2.53 x 10 ⁶ lb/hr	575	1315	Not Available	Reactor Feedwater	Primary Containment	35	31.2	62.4				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 4	4	Straight Pipe	12	0.844	SA-106 Gr. B (Seamless)		Not Applicable		427	1045	2.53 x 10 ⁶ lb/hr	575	1315	Not Available	Reactor Feedwater	Primary Containment	35	30	60				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 5	5	Pipe - Socket	<2"		SA-106 Gr. B (Seamless)		SA-105 Class 6000 (SW)		427	1045	2.53 x 10 ⁶ lb/hr	575	1315	Not Available	Reactor Feedwater	Primary Containment	35	30	60				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 6	6	Socket	<2"		SA-105 Class 6000 (SW)		Not Applicable		427	1045	Normally Stagnant (No flow)	575	1315	Not Available	Reactor Feedwater	Primary Containment							
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 7	7	Socket - Valve 1FW-019C	<2"		SA-105 Class 6000 (SW)		SA105/SA216 Gr. WCB (SW Forged)		427	1045	Normally Stagnant (No flow)	575	1315	Not Available	Reactor Feedwater	Primary Containment	36	30.9	61.8				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 8	8	Valve 1FW-019C	<2"		SA105/SA216 Gr. WCB (SW Forged)		Not Applicable		427	1045	Normally Stagnant (No flow)	575	1315	Not Available	Reactor Feedwater	Primary Containment	36	30.9	61.8				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 9	9	Pipe with Bend	12	0.844	SA-106 Gr. B (Seamless)		Not Applicable		427	1045	2.53 x 10 ⁶ lb/hr	575	1315	Not Available	Reactor Feedwater	Primary Containment	35	30	60				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 10	10	Pipe - Reducer	12	0.844	SA-106 Gr. B (Seamless)		SA234 Gr. WPB		427	1045	2.53 x 10 ⁶ lb/hr	575	1315	Not Available	Reactor Feedwater	Primary Containment	35	31.2	62.4				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 11	11	12 x 18 Reducer	12 x 18	1.156	SA234 Gr. WPB		Not Applicable		427	1045	2.53 x 10 ⁶ lb/hr	575	1315	Not Available	Reactor Feedwater	Primary Containment	35	31.2	62.4				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 12	12	Reducer - Reducing Tee	18	1.156	SA234 Gr. WPB		SA234 Gr. WPB		427	1045	2.53 x 10 ⁶ lb/hr	575	1315	Not Available	Reactor Feedwater	Primary Containment	35	31.2	62.4				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 13	13	18 x 12 x 18 Reducing Tee	18 x 12 x 18	1.156	SA234 Gr. WPB		Not Applicable		427	1045	5.06 x 10 ⁶ lb/hr	575	1315	Not Available	Reactor Feedwater	Primary Containment	35	31.2	62.4				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 14	14	Reducing Tee - Pipe	12	0.844	SA234 Gr. WPB		SA-106 Gr. B (Seamless)		427	1045	2.53 x 10 ⁶ lb/hr	575	1315	Not Available	Reactor Feedwater	Primary Containment	35	31.2	62.4				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 15	15	Reducing Tee - Pipe	18	1.156	SA234 Gr. WPB		SA-106 Gr. B (Seamless)		427	1045	5.06 x 10 ⁶ lb/hr	575	1315	Not Available	Reactor Feedwater	Primary Containment	35	31.2	62.4				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 16	16	Pipe with Bend	18	1.156	SA-106 Gr. B (Seamless)		Not Applicable		427	1045	5.06 x 10 ⁶ lb/hr	575	1315	Not Available	Reactor Feedwater	Primary Containment	35	30	60				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 17	17	Pipe with Bend - Reducer	18	1.156	SA-106 Gr. B (Seamless)		SA234 Gr. WPB		427	1045	5.06 x 10 ⁶ lb/hr	575	1315	Not Available	Reactor Feedwater	Primary Containment	35	31.2	62.4				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 18	18	18 x 24 Reducer	18 x 24	1.531	SA234 Gr. WPB		Not Applicable		427	1045	5.06 x 10 ⁶ lb/hr	575	1315	Not Available	Reactor Feedwater	Primary Containment	35	31.2	62.4				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 19	19	Reducer - Reducing Tee	24	1.531	SA234 Gr. WPB		SA234 Gr. WPB		427	1045	5.06 x 10 ⁶ lb/hr	575	1315	Not Available	Reactor Feedwater	Primary Containment	35	31.2	62.4				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 20	20	24 x 12 x 24 Reducing Tee	24 x 12 x 24	1.531	SA234 Gr. WPB		Not Applicable		427	1045	7.59 x 10 ⁶ lb/hr	575	1315	Not Available	Reactor Feedwater	Primary Containment	35	31.2	62.4				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 21	21	Reducing Tee - Pipe	12	0.844	SA234 Gr. WPB		SA-106 Gr. B (Seamless)		427	1045	2.53 x 10 ⁶ lb/hr	575	1315	Not Available	Reactor Feedwater	Primary Containment	35	31.2	62.4				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 22	22	Reducing Tee - Elbow	24	1.531	SA234 Gr. WPB		SA234 Gr. WPB		427	1045	7.59 x 10 ⁶ lb/hr	575	1315	Not Available	Reactor Feedwater	Primary Containment	35	31.2	62.4				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 23	23	Elbow	24	1.531	SA234 Gr. WPB		Not Applicable		427	1045	7.59 x 10 ⁶ lb/hr	575	1315	Not Available	Reactor Feedwater	Primary Containment	35	31.2	62.4				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 24	24	Elbow - Pipe (See Note 1)	24	1.531	SA234 Gr. WPB		SA-106 Gr. B (Seamless)		427	1045	7.59 x 10 ⁶ lb/hr	575	1315	Not Available	Reactor Feedwater	Primary Containment	35	31.2	62.4				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 25	25	Straight Pipe (See Note 1)	24	1.531	SA-106 Gr. B (Seamless)		Not Applicable		427	1045	7.59 x 10 ⁶ lb/hr	575	1315	Not Available	Reactor Feedwater	Primary Containment	35	30	60				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 26	26	Valve 1B21 F011A	24	1.876	SA105/SA216 Gr. WCB		Not Applicable		427	1045	7.59 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Feedwater	Primary Containment	36	30.9	61.8				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 27	27	Valve 1B21 F011A - Pipe (See Note 1)	24	1.876	SA105/SA216 Gr. WCB		SA-672 Gr. B60 Class 22 (Welded)		427	1045	7.59 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Feedwater	Primary Containment	40	34.3	68.6				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 28	28	Straight Pipe (See Note 1)	24	1.876	SA-672 Gr. B60 Class 22 (Welded)		Not Applicable		427	1045	7.59 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Feedwater	Primary Containment	40	34.3	68.6				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 29	29	Pipe (See Note 1) - Elbow	24	1.876	SA-672 Gr. B60 Class 22 (Welded)		SA234 Gr. WPB		427	1045	7.59 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Feedwater	Primary Containment	40	34.3	68.6				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 30	30	Elbow	24	1.876	SA234 Gr. WPB		Not Applicable		427	1045	7.59 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Feedwater	Primary Containment	35	31.2	62.4				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 31	31	Pipe (See Note 1) - Check Valve 1B21 F010A	24	1.876	SA-672 Gr. B60 Class 22 (Welded)		SA105/SA216 Gr. WCB		427	1045	7.59 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Feedwater	Primary Containment	40	34.3	68.6				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 32	32	Check Valve 1B21 F010A	24	1.876	SA105/SA216 Gr. WCB		Not Applicable		427	1045	7.59 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Feedwater	Primary Containment	36	30.9	61.8				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 33	33	Straight Pipe (See Note 1)	24	1.876	SA-672 Gr. B60 Class 22 (Welded)		Not Applicable		427	1045	7.59 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Feedwater	Primary Containment	40	34.3	68.6				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 34	34	Pipe (See Note 1) - Pipe (See Note 1)	24	1.876	SA-672 Gr. B60 Class 22 (Welded)		SA-672 Gr. B60 Class 22 (Welded)		427	1045	7.59 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Feedwater	Secondary Containment	40	34.3	68.6				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 35	35	Pipe (See Note 1) - Check Valve 1B21 F032A	24	1.876	SA-672 Gr. B60 Class 22 (Welded)		SA105/SA216 Gr. WCB		427	1045	7.59 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Feedwater	Secondary Containment	40	34.3	68.6				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 36	36	Check Valve 1B21 F032A	24	1.876	SA105/SA216 Gr. WCB		Not Applicable		427	1045	7.59 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Feedwater	Secondary Containment	36	30.9	61.8				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 37	37	Straight Pipe (See Note 1)	24	1.65	SA-672 Gr. B60 Class 22 (Welded)		Not Applicable		427	1045	7.59 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Feedwater	Secondary Containment	40	34.3	68.6				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 38	38	Pipe - Weldolet	4	0.531	SA-672 Gr. B60 Class 22 (Welded)		SA234 Gr. WPB		427	1045	7.59 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Feedwater	Secondary Containment	40	34.3	68.6				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 39	39	Weldolet	4	0.531	SA234 Gr. WPB		Not Applicable		427	1045	159 GPM	575	1265	Not Available	Reactor Feedwater	Secondary Containment	35	31.2	62.4				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 40	40	Weldolet - Pipe	4	0.531	SA234 Gr. WPB		SA-106 Gr. B (Seamless)		427	1045	159 GPM	575	1265	Not Available	Reactor Feedwater	Secondary Containment	35	31.2	62.4				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 41	41	Pipe (See Note 1) - Elbow	24	1.65	SA-672 Gr. B60 Class 22 (Welded)		SA234 Gr. WPC/WPB		427	1045	7.59 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Feedwater	Secondary Containment	40	34.3	68.6				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 42	42	Elbow	24	1.65	SA234 Gr. WPC/WPB		Not Applicable		427	1045	7.59 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Feedwater	Secondary Containment	35	31.2	62.4				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 43	43	Pipe (See Note 1) - Valve MO 1B21 F065A	24	1.65	SA-672 Gr. B60 Class 22 (Welded)		SA105/SA216 Gr. WCB		427	1045	7.59 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Feedwater	Secondary Containment	40	34.3	68.6				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 44	44	Valve MO 1B21 F065A	24	1.65	SA105/SA216 Gr. WCB		Not Applicable		427	1045	7.59 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Feedwater	Secondary Containment	36	30.9	61.8				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 45	45	Straight Pipe (See Note 1)	24	1.65	SA-672 Gr. B70 Class 22 (Welded)		Not Applicable		427	1045	7.59 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Feedwater	Secondary Containment	40	34.3	68.6			Due to lack of information, assumed part numbers 45 thru 88 were Sargent & Lundy Material Spec. 1503LS.	
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 46	46	Pipe (See Note 1) - Elbow	24	1.65	SA-672 Gr. B70 Class 22 (Welded)		SA234 Gr. WPC/WPB		427	1045	7.59 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Feedwater	Secondary Containment	40	34.3	68.6				
Power Conversion System (PCS)	Group 19 - Feedwater (FW)	PCS - FW - 47	47	Elbow	24	1.65	SA234 Gr. WPC/WPB		Not Applicable																

Engineered Safety Feature (ESF)	Group 18 - Cycled Condensate Storage Tank (CCST)	ESF - CCST-55	Plate - Channel			ASTM B209-5454-0 (Alum.)		Alum. 6061-T6 (Alum.)	Field	100	15	Not Applicable	150	15	Not Applicable	Cycled Condensate Upper Tank Atmosphere	Cycled Condensate Upper Tank Atmosphere	32	38.4	76.8				
Engineered Safety Feature (ESF)	Group 18 - Cycled Condensate Storage Tank (CCST)	ESF - CCST-56	Channel	C 6 x 3.63		Alum. 6061-T6 (Alum.)		Not Applicable		100	15	Not Applicable	150	15	Not Applicable	Cycled Condensate Upper Tank Atmosphere	Cycled Condensate Upper Tank Atmosphere	32	38.4	76.8				
Engineered Safety Feature (ESF)	Group 18 - Cycled Condensate Storage Tank (CCST)	ESF - CCST-57	Gusset		0.25	ASTM B209-5454-0 (Alum.)		Not Applicable		100	15	Not Applicable	150	15	Not Applicable	Cycled Condensate Upper Tank Atmosphere	Cycled Condensate Upper Tank Atmosphere	12	14.4	28.8				Gusset to channel attachment uses 3/4" hex bolts and nuts (A193-B8)
Engineered Safety Feature (ESF)	Group 18 - Cycled Condensate Storage Tank (CCST)	ESF - CCST-58	Gusset - Tank		0.25	ASTM B209-5454-0 (Alum.)		ASTM B209-5454-0 (Alum.)	Field	100	15	Not Applicable	150	15	Not Applicable	Cycled Condensate Upper Tank Atmosphere	Cycled Condensate Upper Tank Atmosphere	12	14.4	28.8				

System Identification	Group Identification	Part Identification	Part Number	Part Description	Part Size in inches	Part Thickness in inches	Material A	Material W	Material B	Weld Type	Operating Temperature in °F	Operating Pressure in psia	Operating Flow	Design Temperature in °F	Design Pressure in psia	Design Flow	Inside Environment	Outside Environment	Residual Stress in ksi	Normal Stress in ksi	Faulted Stress in ksi	CUF	Stress Comments	Operating Experience	General Comments
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-1	1	RPV MS Nozzle Safe End - Pipe (See Note 1)	26	0.967	Carbon steel (Assumed)		ASME SA-106 Gr. B		547	1020	3.78 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Steam	Primary Containment	35	26	51.9			Operating Conditions taken from UFSAR Figure 5.1-1. Due to lack of G.E. piping specification, assumed Part Numbers 1 thru 26 were Sargent & Lundy Piping Spec. 905LS.	
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-2	2	Elbow	26	0.967	ASME SA-234 Gr. WPB		Not Applicable		547	1020	3.78 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Steam	Primary Containment	35	29.4	58.8				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-3	3	Elbow - Pipe (See Note 1)	26	0.967	ASME SA-234 Gr. WPB		ASME SA-106 Gr. B		547	1020	3.78 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Steam	Primary Containment	35	29.4	58.8				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-4	4	Straight Pipe (See Note 1)	26	0.967	ASME SA-106 Gr. B		Not Applicable		547	1020	3.78 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Steam	Primary Containment	35	26	51.9				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-5	5	Pipe (See Note 1) - Pipe (See Note 1)	26	0.967	ASME SA-106 Gr. B		ASME SA-106 Gr. B		547	1020	3.78 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Steam	Primary Containment	35	26	51.9				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-6	6	Pipe (See Note 1) - 45 degree Elbow	26	0.967	ASME SA-106 Gr. B		ASME SA-234 Gr. WPB		547	1020	3.78 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Steam	Primary Containment	35	29.4	58.8				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-7	7	45 degree Elbow	26	0.967	ASME SA-234 Gr. WPB		Not Applicable		547	1020	3.78 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Steam	Primary Containment	35	29.4	58.8				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-8	8	Pipe - Weldolet (See Note 1)	12	0.688	ASME SA-106 Gr. B		ASME SA-234 Gr. WPB		547	1020	3.78 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Steam	Primary Containment	35	29.4	58.8				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-9	9	Weldolet	26 x 12	0.967	ASME SA-234 Gr. WPB		Not Applicable		547	1020	3.78 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Steam	Primary Containment	35	29.4	58.8				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-10	10	Weldolet - Pipe	12	0.688	ASME SA-234 Gr. WPB		ASME SA-106 Gr. B		547	1020	3.78 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Steam	Primary Containment	35	29.4	58.8				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-11	11	Straight Pipe	12	0.688	ASME SA-106 Gr. B		Not Applicable		547	1020	3.78 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Steam	Primary Containment	35	26	51.9				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-12	12	Pipe - Flange	12	0.688	ASME SA-106 Gr. B		ASME SA-105 Class 900 WN		547	1020	3.78 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Steam	Primary Containment	35	26	51.9				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-13	13	Flange	12	0.688	ASME SA-105 Class 900 WN		Not Applicable		547	1020	3.78 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Steam	Primary Containment	30	22.2	44.4			Bolts - SA193 Gr. B7; Nuts SA194 Gr. 2H	
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-14	14	Pipe - Weldolet	10	0.719	SA-106 Gr. B (Seamless)		ASME SA-234 Gr. WPB		547	1020	26.6 x 10 ³ lb/hr	575	1265	Not Available	Reactor Steam	Primary Containment	35	29.4	58.8				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-15	15	Weldolet	26 x 10	0.719	SA234 Gr. WPB		Not Applicable		547	1020	26.6 x 10 ³ lb/hr	575	1265	Not Available	Reactor Steam	Primary Containment	35	29.4	58.8				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-16	16	Weldolet - Pipe	10	0.719	SA234 Gr. WPB		SA-106 Gr. B (Seamless)		547	1020	26.6 x 10 ³ lb/hr	575	1265	Not Available	Reactor Steam	Primary Containment	35	29.4	58.8				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-17	17	Elbow	10	0.719	SA234 Gr. WPB		Not Applicable		547	1020	26.6 x 10 ³ lb/hr	575	1265	Not Available	Reactor Steam	Primary Containment	35	29.4	58.8				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-18	18	Elbow - Pipe	10	0.719	SA234 Gr. WPB		SA-106 Gr. B (Seamless)		547	1020	26.6 x 10 ³ lb/hr	575	1265	Not Available	Reactor Steam	Primary Containment	35	29.4	58.8				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-19	19	Elbow - Valve MO 1E51-F063	10	0.719	SA234 Gr. WPB		SA105/SA216 Gr. WCB		547	1020	26.6 x 10 ³ lb/hr	575	1265	Not Available	Reactor Steam	Primary Containment	35	29.4	58.8				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-20	20	Valve MO 1E51-F063	10	0.719	SA105/SA216 Gr. WCB		Not Applicable		547	1020	26.6 x 10 ³ lb/hr	575	1265	Not Available	Reactor Steam	Primary Containment	36	26.7	53.4				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-21	21	Venturi (Flow restrictor)	26	0.967	SA351 TP 304 Cast		Not Applicable		547	1020	3.78 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Steam	Primary Containment	40	29.6	59.1				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-22	22	Pipe (See Note 1) - MSIV Valve AO 1B21-F022B	26	0.967	ASME SA-106 Gr. B		SA105/SA216 Gr. WCB		547	1020	3.78 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Steam	Primary Containment	36	26.7	53.4				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-23	23	MSIV Valve AO 1B21-F022B	26	0.967	SA105/SA216 Gr. WCB		Not Applicable		547	1020	3.78 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Steam	Primary Containment	36	26.7	53.4				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-24	24	Pipe (See Note 1) - Pipe (See Note 1)	26	0.967	ASME SA-106 Gr. B		ASME SA-106 Gr. B		547	1020	3.78 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Steam	Secondary Containment	35	26	51.9				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-25	25	Straight Pipe (See Note 1)	26	0.967	ASME SA-106 Gr. B		Not Applicable		547	1020	3.78 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Steam	Secondary Containment	35	26	51.9				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-26	26	Pipe (See Note 1) - MSIV Valve AO 1B21-F028B	26	0.967	ASME SA-106 Gr. B		SA105/SA216 Gr. WCB		547	1020	3.78 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Steam	Secondary Containment	36	26.7	53.4				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-27	27	MSIV Valve AO 1B21-F028B	26	0.967	SA105/SA216 Gr. WCB		Not Applicable		547	1020	3.78 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Steam	Secondary Containment	36	26.7	53.4				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-28	28	Pipe (See Note 1) - Elbow	26	0.967	ASTM A 672 Gr. B70 Class 22 or ASTM A 106 Gr. C		SA234 Gr. WPB		547	1020	3.78 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Steam	Secondary Containment	35	29.4	58.8				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-29	29	Elbow	26	0.967	SA234 Gr. WPB		Not Applicable		547	1020	3.78 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Steam	Secondary Containment	35	29.4	58.8				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-30	30	Straight Pipe (See Note 1)	26	0.967	ASTM A 672 Gr. B70 Class 22 or ASTM A 106 Gr. C		Not Applicable		547	1020	3.78 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Steam	Secondary Containment	40	29.6	59.1				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-31	31	Pipe (See Note 1) - Pipe (See Note 1)	26	0.967	ASTM A 672 Gr. B70 Class 22 or ASTM A 106 Gr. C		ASTM A 672 Gr. B70 Class 22 or ASTM A 106 Gr. C		547	1020	3.78 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Steam	Secondary Containment	40	29.6	59.1				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-32	32	Pipe (See Note 1) - Pipe (See Note 1)	26	0.967	ASTM A 672 Gr. B70 Class 22 or ASTM A 106 Gr. C		ASTM A 672 Gr. B70 Class 22 or ASTM A 106 Gr. C		547	1020	3.78 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Steam	Turbine Building	40	29.6	59.1				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-33	33	Straight Pipe (See Note 1)	26	0.967	ASTM A 672 Gr. B70 Class 22 or ASTM A 106 Gr. C		Not Applicable		547	1020	3.78 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Steam	Turbine Building	40	29.6	59.1				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-34	34	Pipe (See Note 1) - Socket	2"	0.218	ASME SA-106 Gr. B		SA-105 Class 3000		547	1020	3.78 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Steam	Turbine Building	35	26	51.9				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-35	35	Socket	2"	0.218	SA-105 Class 3000		Not Applicable		547	1020	3.78 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Steam	Turbine Building	30	22.2	44.4				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-36	36	Elbow	26	0.967	SA234 Gr. WPB		Not Applicable		547	1020	3.78 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Steam	Turbine Building	35	29.4	58.8				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-37	37	Elbow - Pipe (See Note 1)	26	0.967	SA234 Gr. WPB		ASTM A 672 Gr. B70 Class 22 or ASTM A 106 Gr. C		547	1020	3.78 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Steam	Turbine Building	40	29.6	59.1				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-38	38	Pipe (See Note 1) - Socket	<2"		ASME SA-106 Gr. B		SA-105 Class 3000		547	1020	3.78 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Steam	Turbine Building	35	26	51.9				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-39	39	Socket	<2"		SA-105 Class 3000		Not Applicable		547	1020	3.78 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Steam	Turbine Building	30	22.2	44.4				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-40	40	Socket - Valve 1B21 F339B	<2"		SA-105 Class 3000		SA105/SA216 Gr. WCB (Forged)		547	1020	3.78 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Steam	Turbine Building	36	26.7	53.4				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-41	41	Valve 1B21 F339B	<2"		SA105/SA216 Gr. WCB (Forged)		Not Applicable		547	1020	3.78 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Steam	Turbine Building	36	26.7	53.4				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-42	42	Pipe (See Note 1) - Saddle	26	0.967	ASTM A 672 Gr. B70 Class 22 or ASTM A 106 Gr. C		Carbon steel (Assumed)		547	1020	3.78 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Steam	Turbine Building	40	29.6	59.1				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-43	43	Saddle	26 x 36	1.335	Carbon steel (Assumed)		Not Applicable		547	1020	3.78 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Steam	Turbine Building	40	29.6	59.1				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-44	44	Saddle - Pipe (See Note 1)	36	1.335	Carbon steel (Assumed)		ASTM A 672 Gr. B70 Class 22 or ASTM A 106 Gr. C		547	1020	3.78 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Steam	Turbine Building	40	29.6	59.1				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-45	45	Pipe (See Note 1) - Saddle	36	1.335	ASTM A 672 Gr. B70 Class 22 or ASTM A 106 Gr. C		Carbon steel (Assumed)		547	1020	3.78 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Steam	Turbine Building	40	29.6	59.1				
Power and Steam Conversion System (PCS)	Group 17 - Main Steam (MS)	PCS - MS-46	46	Saddle	36 x 28	1.335	Carbon steel (Assumed)		Not Applicable		547	1020	3.78 x 10 ⁶ lb/hr	575	1265	Not Available	Reactor Steam	Turbine Building	40	29.6	59.1				
Power and Steam Conversion System (

System Identification	Group Identification	Part Identification	Part Number	Part Description	Part Size in inches	Part Thickness in inches	Material A	Material W	Material B	Weld Type	Operating Temperature in oF	Operating Pressure in psia	Operating Flow in gpm	Design Temperature in oF	Design Pressure in psia	Design Flow	Inside Environment	Outside Environment	Residual Stress in ksi	Normal Stress in ksi	Faulted Stress in ksi	CUF	Stress Comments	Operating Experience	General Comments
Engineered Safety Features (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	1	HX Discharge Pipe - 45 degree Elbow	16	0.5	SA-106 Gr. B (Seamless)	SA234 Gr. WPB			125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	35	30.3	60.6				
Engineered Safety Features (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	2	45 Degree Elbow	16	0.5	SA234 Gr. WPB		Not Applicable		125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	35	30.3	60.6				
Engineered Safety Features (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	3	Pipe - Tee	16	0.5	SA-106 Gr. B (Seamless)	SA234 Gr. WPB			125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	35	30.3	60.6				
Engineered Safety Features (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	4	Tee	16	0.5	SA234 Gr. WPB		Not Applicable		125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	35	30.3	60.6				
Engineered Safety Features (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	5	Reducer	16	0.5	SA234 Gr. WPB		SA234 Gr. WPB		125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	35	30.3	60.6				
Engineered Safety Features (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	6	16 x 12 Reducer	16 x 12	0.5	SA234 Gr. WPB		Not Applicable		125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	35	30.3	60.6				
Engineered Safety Features (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	7	Reducer - Pipe	12	0.406	SA234 Gr. WPB		SA-106 Gr. B (Seamless)		125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	35	30.3	60.6				
Engineered Safety Features (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	8	Straight Pipe	12	0.406	SA-106 Gr. B (Seamless)		Not Applicable		125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	35	28.4	56.8				
Engineered Safety Features (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	9	Pipe - Elbow	12	0.406	SA234 Gr. WPB		SA234 Gr. WPB		125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	35	30.3	60.6				
Engineered Safety Features (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	10	Elbow	12	0.406	SA234 Gr. WPB		Not Applicable		125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	35	30.3	60.6				
Engineered Safety Features (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	11	Pipe - Pipe	12	0.406	SA-106 Gr. B (Seamless)		SA-106 Gr. B (Seamless)		125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	35	30.3	60.6				
Engineered Safety Features (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	12	Elbow - Elbow	12	0.406	SA234 Gr. WPB		SA234 Gr. WPB		125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	35	30.3	60.6				
Engineered Safety Features (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	13	Pipe - Flange	12	0.406	SA-106 Gr. B (Seamless)		SA105 Class 300 (RFWN)		125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	35	28.4	56.8				
Engineered Safety Features (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	14	Flange	12	0.406	SA105 Class 300 (RFWN)		Not Applicable		125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	30	24.3	48.6				Bolts - SA193 Gr. B7; Nuts SA194 Gr. 2H
Engineered Safety Features (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	15	Elbow - Socket	<2"		SA234 Gr. WPB		SA-105 Class 6000 (SW)		125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	35	30.3	60.6				Assumed this line is < 2". No drawing information
Engineered Safety Features (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	16	Socket	<2"		SA105 Class 6000 (SW)		Not Applicable		125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	30	24.3	48.6				
Engineered Safety Features (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	17	Socket - Valve 1E12-F372A	<2"		SA-105 Class 6000 (SW)		SA105/SA216 Gr. WCB (SW Forged)		125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	36	29.1	58.2				
Engineered Safety Features (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	18	Valve 1E12-F372A	<2"		SA105/SA216 Gr. WCB (SW Forged)		Not Applicable		125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	36	29.1	58.2				
Engineered Safety Features (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	19	Elbow - Valve 1E12-F042A	12	0.719	SA234 Gr. WPB		SA105/SA216 Gr. WCB		125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	35	30.3	60.6				
Engineered Safety Features (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	20	Valve 1E12-F042A	12	0.719	SA105/SA216 Gr. WCB		Not Applicable		125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	36	29.1	58.2				
Engineered Safety Features (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	21	Valve 1E12-F042A - Pipe	12	0.719	SA105/SA216 Gr. WCB		SA-106 Gr. B (Seamless)		125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	36	29.1	58.2				
Engineered Safety Features (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	22	Straight Pipe	12	0.719	SA-106 Gr. B (Seamless)		Not Applicable		125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Primary Containment	35	28.4	56.8				
Engineered Safety Features (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	23	Pipe - Elbow	12	0.719	SA-106 Gr. B (Seamless)		SA234 Gr. WPB		125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Primary Containment	35	30.3	60.6				
Engineered Safety Features (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	24	Elbow	12	0.719	SA234 Gr. WPB		Not Applicable		125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Primary Containment	35	30.3	60.6				
Engineered Safety Features (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	25	Elbow - Check Valve AO 1E12-F041A	12	0.719	SA234 Gr. WPB		SA105/SA216 Gr. WCB		125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Primary Containment	35	30.3	60.6				
Engineered Safety Features (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	26	Check Valve AO 1E12-F041A	12	0.719	SA105/SA216 Gr. WCB		Not Applicable		125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Primary Containment	36	29.1	58.2				
Engineered Safety Features (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	27	Check Valve AO 1E12-F041A - Valve 1E21-F092A	12	0.719	SA105/SA216 Gr. WCB		SA105/SA216 Gr. WCB		125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Primary Containment	36	29.1	58.2				
Engineered Safety Features (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	28	Valve 1E21-F092A	12	0.719	SA105/SA216 Gr. WCB		Not Applicable		549	1150	7450	650	1500	Pump flow 8100 gpm	Reactor Coolant	Primary Containment	36	29.1	58.2				
Engineered Safety Features (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	29	Valve 1E21-F092A - Pipe	12	0.719	SA105/SA216 Gr. WCB		SA-106 Gr. B (Seamless)		549	1150	7450	650	1500	Pump flow 8100 gpm	Reactor Coolant	Primary Containment	36	29.1	58.2				
Engineered Safety Feature (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	30	45 degree Elbow	12	0.719	SA234 Gr. WPB		Not Applicable		549	1150	7450	650	1500	Pump flow 8100 gpm	Reactor Coolant	Primary Containment	35	30.3	60.6				
Engineered Safety Feature (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	31	45 degree Elbow - 45 degree Elbow	12	0.719	SA234 Gr. WPB		SA234 Gr. WPB		549	1150	7450	650	1500	Pump flow 8100 gpm	Reactor Coolant	Primary Containment	35	30.3	60.6				
Engineered Safety Feature (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	32	Pipe - RPV LPCI Nozzle (carbon steel extension)	12	0.719	SA-106 Gr. B (Seamless)		Carbon Steel (0.3%C max)		549	1150	7450	650	1500	Pump flow 8100 gpm	Reactor Coolant	Primary Containment	35	28.4	56.8				
Engineered Safety Feature (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	33	Pipe - Valve MO 1E12-F016A	16	0.5	SA-106 Gr. B (Seamless)		SA105/SA216 Gr. WCB		125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	36	29.1	58.2				
Engineered Safety Feature (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	34	Valve MO 1E12-F016A	16	0.5	SA105/SA216 Gr. WCB		Not Applicable		125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	36	29.1	58.2				
Engineered Safety Feature (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	35	Pipe - Weldolet	10	0.365	SA-106 Gr. B (Seamless)		SA234 Gr. WPB		125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	35	30.3	60.6				
Engineered Safety Feature (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	36	Weldolet	10	0.365	SA234 Gr. WPB		Not Applicable		125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	35	30.3	60.6				
Engineered Safety Feature (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	37	Weldolet - Flange	10	0.365	SA234 Gr. WPB		SA105 Class 300 (RFWN)		125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	35	30.3	60.6				
Engineered Safety Feature (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	38	Flange	10	0.365	SA105 Class 300 (RFWN)		SA105 Class 600 (SW)		125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	30	24.3	48.6				Bolts - SA193 Gr. B7; Nuts SA194 Gr. 2H
Engineered Safety Feature (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	39	Flange - Valve 1E12-F010A	<2"		SA105 Class 600 (SW)		SA105/SA216 Gr. WCB (SW Forged)		125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	36	29.1	58.2				Assumed this line is < 2". No drawing information
Engineered Safety Feature (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	40	Valve 1E12-F010A	<2"		SA105/SA216 Gr. WCB (SW Forged)		Not Applicable		125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	36	29.1	58.2				
Engineered Safety Feature (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	41	Elbow - Valve MO 1E12-F017A	16	0.5	SA234 Gr. WPB		SA105/SA216 Gr. WCB		125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	35	30.3	60.6				
Engineered Safety Feature (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	42	Valve MO 1E12-F017A	16	0.5	SA105/SA216 Gr. WCB		Not Applicable		125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	36	29.1	58.2				
Engineered Safety Feature (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	43	Pipe - Elbow	16	0.5	SA-106 Gr. B (Seamless)		SA234 Gr. WPB		125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Primary Containment	35	30.3	60.6				
Engineered Safety Feature (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	44	Elbow	16	0.5	SA234 Gr. WPB		Not Applicable		125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Primary Containment	35	30.3	60.6				
Engineered Safety Feature (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	45	Pipe - Tee	16	0.5	SA-106 Gr. B (Seamless)		SA234 Gr. WPB		125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Primary Containment	35	30.3	60.6				
Engineered Safety Feature (ESF)	Group 16 - RHR Spray Piping (RHRSPRAY)	ESF - RHRSPRAY	46</																						

Engineered Safety Feature (ESF)	Group 14 - RHR Pump Discharge Piping to RHR HX (RHRPMPHX)	ESF - RHRPMPHX-42	Valve MO 1E12-F047A	18	0.562	SA105/SA216 Gr. WCB	Not Applicable	344	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	36	29.1	58.2						
Engineered Safety Feature (ESF)	Group 14 - RHR Pump Discharge Piping to RHR HX (RHRPMPHX)	ESF - RHRPMPHX-43	Elbow - RHR HX Inlet Nozzle	18	0.562	SA234 Gr. WPB		344	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	35	30.3	60.6						
Engineered Safety Feature (ESF)	Group 14 - RHR Pump Discharge Piping to RHR HX (RHRPMPHX)	ESF - RHRPMPHX-44	Pipe - Pipe Flange	4	0.237	SA-106 Gr. B (Seamless)	SA105 Class 600 (RFWN)	344	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	35	28.4	56.8						
Engineered Safety Feature (ESF)	Group 14 - RHR Pump Discharge Piping to RHR HX (RHRPMPHX)	ESF - RHRPMPHX-45	Pipe Flange	4	0.237	SA105 Class 600 (RFWN)	Not Applicable	344	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	30	24.3	48.6						Bolts - SA193 Gr. B7; Nuts SA194 Gr. 2H
Engineered Safety Feature (ESF)	Group 14 - RHR Pump Discharge Piping to RHR HX (RHRPMPHX)	ESF - RHRPMPHX-46	Relief Valve 1E12-F055A	4	0.237	SA105/SA216 Gr. WCB	Not Applicable	344	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	36	29.1	58.2						
Engineered Safety Feature (ESF)	Group 14 - RHR Pump Discharge Piping to RHR HX (RHRPMPHX)	ESF - RHRPMPHX-47	Pipe - Reducer	18	0.562	SA-106 Gr. B (Seamless)	SA234 Gr. WPB	344	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	35	30.3	60.6						
Engineered Safety Feature (ESF)	Group 14 - RHR Pump Discharge Piping to RHR HX (RHRPMPHX)	ESF - RHRPMPHX-48	18 x 10 Reducer	18 x 10	0.562	SA234 Gr. WPB	Not Applicable	344	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	35	30.3	60.6						
Engineered Safety Feature (ESF)	Group 14 - RHR Pump Discharge Piping to RHR HX (RHRPMPHX)	ESF - RHRPMPHX-49	Reducer - Reducer	10	0.719	SA234 Gr. WPB	SA234 Gr. WPB	344	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	35	30.3	60.6						
Engineered Safety Feature (ESF)	Group 14 - RHR Pump Discharge Piping to RHR HX (RHRPMPHX)	ESF - RHRPMPHX-50	10 x 6 Reducer	10 x 6	0.719	SA234 Gr. WPB	Not Applicable	344	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	35	30.3	60.6						
Engineered Safety Feature (ESF)	Group 14 - RHR Pump Discharge Piping to RHR HX (RHRPMPHX)	ESF - RHRPMPHX-51	Reducer - Valve 1E12-F051A	6	0.562	SA234 Gr. WPB	SA105/SA216 Gr. WCB	344	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	35	30.3	60.6						
Engineered Safety Feature (ESF)	Group 14 - RHR Pump Discharge Piping to RHR HX (RHRPMPHX)	ESF - RHRPMPHX-52	Valve 1E12-F051A	6	0.562	SA105/SA216 Gr. WCB	Not Applicable	344	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	36	29.1	58.2						
Engineered Safety Feature (ESF)	Group 14 - RHR Pump Discharge Piping to RHR HX (RHRPMPHX)	ESF - RHRPMPHX-53	Reducer - Pipe	10	0.719	SA234 Gr. WPB	SA-106 Gr. B (Seamless)	344	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	35	30.3	60.6						
Engineered Safety Feature (ESF)	Group 14 - RHR Pump Discharge Piping to RHR HX (RHRPMPHX)	ESF - RHRPMPHX-54	Straight Pipe	10	0.719	SA-106 Gr. B (Seamless)	Not Applicable	344	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	35	28.4	56.8						
Engineered Safety Feature (ESF)	Group 14 - RHR Pump Discharge Piping to RHR HX (RHRPMPHX)	ESF - RHRPMPHX-55	Pipe - Elbow	10	0.719	SA-106 Gr. B (Seamless)	SA234 Gr. WPB	344	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	35	30.3	60.6						
Engineered Safety Feature (ESF)	Group 14 - RHR Pump Discharge Piping to RHR HX (RHRPMPHX)	ESF - RHRPMPHX-56	Elbow	10	0.719	SA234 Gr. WPB	Not Applicable	344	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	35	30.3	60.6						
Engineered Safety Feature (ESF)	Group 14 - RHR Pump Discharge Piping to RHR HX (RHRPMPHX)	ESF - RHRPMPHX-57	Elbow - Tee	10	0.719	SA234 Gr. WPB	SA234 Gr. WPB	344	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	35	30.3	60.6						
Engineered Safety Feature (ESF)	Group 14 - RHR Pump Discharge Piping to RHR HX (RHRPMPHX)	ESF - RHRPMPHX-58	Tee	10	0.719	SA234 Gr. WPB	Not Applicable	344	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	35	30.3	60.6						
Engineered Safety Feature (ESF)	Group 14 - RHR Pump Discharge Piping to RHR HX (RHRPMPHX)	ESF - RHRPMPHX-59	Tee - Pipe	10	0.719	SA234 Gr. WPB	SA-106 Gr. B (Seamless)	344	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	35	30.3	60.6						
Engineered Safety Feature (ESF)	Group 14 - RHR Pump Discharge Piping to RHR HX (RHRPMPHX)	ESF - RHRPMPHX-60	Pipe - Valve MO 1E12-F052A	10	0.719	SA-106 Gr. B (Seamless)	SA105/SA216 Gr. WCB	344	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	36	29.1	58.2						
Engineered Safety Feature (ESF)	Group 14 - RHR Pump Discharge Piping to RHR HX (RHRPMPHX)	ESF - RHRPMPHX-61	Valve MO 1E12-F052A	10	0.719	SA105/SA216 Gr. WCB	Not Applicable	344	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	36	29.1	58.2						
Engineered Safety Feature (ESF)	Group 14 - RHR Pump Discharge Piping to RHR HX (RHRPMPHX)	ESF - RHRPMPHX-62	Valve MO 1E12-F087A	10	0.719	SA105/SA216 Gr. WCB	Not Applicable	344	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	36	29.1	58.2						
Engineered Safety Feature (ESF)	Group 14 - RHR Pump Discharge Piping to RHR HX (RHRPMPHX)	ESF - RHRPMPHX-63	RHR HX Outlet Nozzle - Pipe	18	0.562	SA-106 Gr. B (Seamless)		125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	35	28.4	56.8						
Engineered Safety Feature (ESF)	Group 14 - RHR Pump Discharge Piping to RHR HX (RHRPMPHX)	ESF - RHRPMPHX-64	Valve MO 1E12-F003A	18	0.562	SA105/SA216 Gr. WCB	Not Applicable	125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	36	29.1	58.2						
Engineered Safety Feature (ESF)	Group 14 - RHR Pump Discharge Piping to RHR HX (RHRPMPHX)	ESF - RHRPMPHX-65	Valve MO 1E12-F003A - Elbow	18	0.562	SA105/SA216 Gr. WCB	SA234 Gr. WPB	125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	35	30.3	60.6						
Engineered Safety Feature (ESF)	Group 14 - RHR Pump Discharge Piping to RHR HX (RHRPMPHX)	ESF - RHRPMPHX-66	Elbow - Weldolet	3	0.3	SA234 Gr. WPB	SA234 Gr. WPB	125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	35	30.3	60.6						
Engineered Safety Feature (ESF)	Group 14 - RHR Pump Discharge Piping to RHR HX (RHRPMPHX)	ESF - RHRPMPHX-67	Weldolet	3	0.3	SA234 Gr. WPB	Not Applicable	125	275	7450	480	515	Pump flow 8100 gpm	Reactor Coolant/SP Water	Secondary Containment	35	30.3	60.6						
Engineered Safety Feature (ESF)	Group 14 - RHR Pump Discharge Piping to RHR HX (RHRPMPHX)	ESF - RHRPMPHX-68	RHR HX Inlet Nozzle - Hx Head	18		SS or CS with 1/8" clad/overlay	SS or CS with 1/8" clad/overlay	344	275	7450	480	515		Reactor Coolant/SP Water	Secondary Containment	35	28.4	56.8						RHR Hx capacity: Shell Side - 2010 Gal. ; Tube Side - 1438 Gal.
Engineered Safety Feature (ESF)	Group 14 - RHR Pump Discharge Piping to RHR HX (RHRPMPHX)	ESF - RHRPMPHX-69	Hx Head - Shell	54		SS or CS with 1/8" clad/overlay	SS or CS with 1/8" clad/overlay	344	275	7450	480	515		Reactor Coolant/SP Water	Secondary Containment	35	28.4	56.8						
Engineered Safety Feature (ESF)	Group 14 - RHR Pump Discharge Piping to RHR HX (RHRPMPHX)	ESF - RHRPMPHX-70	Hx Shell - Shell (Radial)	54		SS or CS with 1/8" clad/overlay	SS or CS with 1/8" clad/overlay	344	275	7450	480	515		Reactor Coolant/SP Water	Secondary Containment	35	28.4	56.8						
Engineered Safety Feature (ESF)	Group 14 - RHR Pump Discharge Piping to RHR HX (RHRPMPHX)	ESF - RHRPMPHX-71	Hx Shell - Shell (Longitudinal)	54		SS or CS with 1/8" clad/overlay	SS or CS with 1/8" clad/overlay	344	275	7450	480	515		Reactor Coolant/SP Water	Secondary Containment	35	28.4	56.8						
Engineered Safety Feature (ESF)	Group 14 - RHR Pump Discharge Piping to RHR HX (RHRPMPHX)	ESF - RHRPMPHX-72	RHR HX Outlet Nozzle - Shell	18		SS or CS with 1/8" clad/overlay	SS or CS with 1/8" clad/overlay	125	275	7450	480	515		Reactor Coolant/SP Water	Secondary Containment	35	28.4	56.8						
Engineered Safety Feature (ESF)	Group 14 - RHR Pump Discharge Piping to RHR HX (RHRPMPHX)	ESF - RHRPMPHX-73	RHR HX Inlet Nozzle - Hx (Tubeside)	18		Carbon Steel	Carbon Steel	100	105	7450	480	150		Service Water Coolant	Secondary Containment	35	28.4	56.8						
Engineered Safety Feature (ESF)	Group 14 - RHR Pump Discharge Piping to RHR HX (RHRPMPHX)	ESF - RHRPMPHX-74	RHR HX Outlet Nozzle - HX (Shellside)	18		Carbon Steel	Carbon Steel	125	105	7450	480	150		Service Water Coolant	Secondary Containment	35	28.4	56.8						
Engineered Safety Feature (ESF)	Group 14 - RHR Pump Discharge Piping to RHR HX (RHRPMPHX)	ESF - RHRPMPHX-75	RHR Hx Tubes			CSi w/outside clad with SS	Not Applicable	100	105	7450	480	150		Service Water Coolant	Reactor Coolant	35	28.4	56.8						
Engineered Safety Feature (ESF)	Group 14 - RHR Pump Discharge Piping to RHR HX (RHRPMPHX)	ESF - RHRPMPHX-76	Tube Sheet			CSi w/shell side clad with SS	Not Applicable	344	275	7450	480	515		Reactor Coolant/SP Water	Secondary Containment	35	28.4	56.8						
Engineered Safety Feature (ESF)	Group 14 - RHR Pump Discharge Piping to RHR HX (RHRPMPHX)	ESF - RHRPMPHX-77	Fittings			Carbon Steel	Not Applicable	344	275	7450	480	515		Reactor Coolant/SP Water	Secondary Containment	35	28.4	56.8						
Engineered Safety Feature (ESF)	Group 14 - RHR Pump Discharge Piping to RHR HX (RHRPMPHX)	ESF - RHRPMPHX-78	Supports (Outside)			Carbon Steel	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable		Secondary Containment	Secondary Containment	35	28.4	56.8						

System Identification	Group Identification	Part Identification	Part Number	Part Description	Part Size in inches	Part Thickness in inches	Material A	Material W	Material B	Weld Type	Operating Temperature in oF	Operating Pressure in psia	Operating Flow	Design Temperature in oF	Design Pressure in psia	Design Flow	Inside Environment	Outside Environment	Residual Stress in ksi	Normal Stress in ksi	Faulted Stress in ksi	CUF	Stress Comments	Operating Experience	General Comments
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	1	Elbow Flange (Nozzle Connection)	6	0.562	SA105 (WN Class 900)		Not Applicable		547	1020	Normally Stagnant (No flow)	575	1540	Pump rated flow 625 gpm	Reactor Dry Steam	Primary Containment	30	27.5	54.9			Could not read UFSAR RCIC operational mode figure 5.4-3 due to poor quality of drawing. Used NRC BWR training manual Figure 4.7-3 for operating conditions for BFN. Suction From Suppression Pool. Reactor at High Pressure, Suppression Pool at Low Pressure	
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	2	Elbow Flange - Elbow	6	0.562	SA105 (WN Class 900)	SA234 Gr. WPB			547	1020	Normally Stagnant (No flow)	575	1540	Pump rated flow 625 gpm	Reactor Dry Steam	Primary Containment	35	32.6	65.1				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	3	Flanged Elbow	6	0.562	SA234 Gr. WPB		Not Applicable		547	1020	Normally Stagnant (No flow)	575	1540	Pump rated flow 625 gpm	Reactor Dry Steam	Primary Containment	35	32.6	65.1				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	4	Pipe - Socket	1	0.25	SA105 Class 6000 (SW)		SA105 Class 6000 (SW)		547	1020	Normally Stagnant (No flow)	575	1540	Pump rated flow 625 gpm	Reactor Dry Steam	Primary Containment	35	30	60				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	4A	Socket	1	0.25	SA105 Class 6000 (SW)		Not Applicable		547	1020	Normally Stagnant (No flow)	575	1540	Pump rated flow 625 gpm	Reactor Dry Steam	Primary Containment	30	27.5	54.9				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	4B	Socket - Pipe	1	0.25	SA105 Class 6000 (SW)		SA106 GR. B SMLS		547	1020	Normally Stagnant (No flow)	575	1540	Pump rated flow 625 gpm	Reactor Dry Steam	Primary Containment	35	30	60				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	4C	Straight Pipe	1	0.25	SA106 GR. B SMLS		Not Applicable		547	1020	Normally Stagnant (No flow)	575	1540	Pump rated flow 625 gpm	Reactor Dry Steam	Primary Containment	35	30	60				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	5	Pipe - Flange	6	0.562	SA106 GR. B SMLS		SA105 (WN Class 900)		547	1020	Normally Stagnant (No flow)	575	1540	Pump rated flow 625 gpm	Reactor Dry Steam	Primary Containment	35	30	60				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	6	Flange	6	0.562	SA105 (WN Class 900)		Not Applicable		547	1020	Normally Stagnant (No flow)	575	1540	Pump rated flow 625 gpm	Reactor Dry Steam	Primary Containment	30	27.5	54.9			Bolts - SA193 Gr. B7; Nuts - SA194 Gr. 2H	
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	7	Pipe - Elbow	6	0.562	SA106 GR. B SMLS	SA234 Gr. WPB			547	1020	Normally Stagnant (No flow)	575	1540	Pump rated flow 625 gpm	Reactor Dry Steam	Primary Containment	35	32.6	65.1				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	8	Elbow	6	0.562	SA234 Gr. WPB		Not Applicable		547	1020	Normally Stagnant (No flow)	575	1540	Pump rated flow 625 gpm	Reactor Dry Steam	Primary Containment	35	32.6	65.1				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	9	Pipe with Bend	6	0.562	SA106 GR. B SMLS		Not Applicable		547	1020	Normally Stagnant (No flow)	575	1540	Pump rated flow 625 gpm	Reactor Dry Steam	Primary Containment	35	30	60				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	10	Straight Pipe	6	0.562	SA106 GR. B SMLS		Not Applicable		547	1020	Normally Stagnant (No flow)	575	1540	Pump rated flow 625 gpm	Reactor Dry Steam	Primary Containment	35	30	60				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	11	Pipe - Check Valve AO 1E51-F066	6	0.562	SA106 GR. B SMLS	SA105/SA216 Gr. WCB			547	1020	Normally Stagnant (No flow)	575	1540	Pump rated flow 625 gpm	Reactor Dry Steam	Primary Containment	36	32.9	65.7				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	12	Check Valve AO 1E51-F066	6	0.562	SA105/SA216 Gr. WCB		Not Applicable		547	1020	Normally Stagnant (No flow)	575	1540	Pump rated flow 625 gpm	Reactor Dry Steam	Primary Containment	36	32.9	65.7				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	13	Check Valve AO 1E51-F066 - Elbow	6	0.562	SA105/SA216 Gr. WCB	SA234 Gr. WPB			<100	1140	600	212	1540	Pump rated flow 625 gpm	Reactor Coolant	Primary Containment	36	32.9	65.7				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	14	Pipe - Pipe	6	0.562	SA106 GR. B SMLS	SA106 GR. B SMLS			<100	1140	600	212	1540	Pump rated flow 625 gpm	Reactor Coolant	Primary Containment	35	30	60				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	15	Pipe - 45 degree Elbow	6	0.562	SA106 GR. B SMLS	SA234 Gr. WPB			<100	1140	600	212	1540	Pump rated flow 625 gpm	Reactor Coolant	Primary Containment	35	32.6	65.1				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	16	45 degree Elbow	6	0.562	SA234 Gr. WPB		Not Applicable		<100	1140	600	212	1540	Pump rated flow 625 gpm	Reactor Coolant	Primary Containment	35	32.6	65.1				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	17	Straight Pipe	6	0.562	SA106 GR. B SMLS		Not Applicable		<100	1140	600	212	1540	Pump rated flow 625 gpm	Reactor Coolant	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	18	Pipe - Elbow	6	0.562	SA106 GR. B SMLS	SA234 Gr. WPB			<100	1140	600	212	1540	Pump rated flow 625 gpm	Reactor Coolant	Secondary Containment	35	32.6	65.1				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	19	Elbow	6	0.562	SA234 Gr. WPB		Not Applicable		<100	1140	600	212	1540	Pump rated flow 625 gpm	Reactor Coolant	Secondary Containment	35	32.6	65.1				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	20	Pipe - Valve AO 1E51-F065	6	0.562	SA106 GR. B SMLS	SA105/SA216 Gr. WCB			<100	1140	600	212	1540	Pump rated flow 625 gpm	Reactor Coolant	Secondary Containment	36	32.9	65.7				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	21	Valve AO 1E51-F065	6	0.562	SA105/SA216 Gr. WCB		Not Applicable		<100	1140	600	212	1540	Pump rated flow 625 gpm	Reactor Coolant	Secondary Containment	36	32.9	65.7				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	22	Elbow - Tee	6	0.562	SA234 Gr. WPB	SA234 Gr. WPB			<100	1140	600	212	1540	Pump rated flow 625 gpm	CST/SP Water	Secondary Containment	35	32.6	65.1				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	23	Tee	6	0.562	SA234 Gr. WPB		Not Applicable		<100	1140	600	212	1540	Pump rated flow 625 gpm	CST/SP Water	Secondary Containment	35	32.6	65.1				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	24	Tee - Pipe	6	0.562	SA234 Gr. WPB	SA106 GR. B SMLS			<100	1140	600	212	1540	Pump rated flow 625 gpm	CST/SP Water	Secondary Containment	35	32.6	65.1				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	25	Check Valve 1E12-F019	6	0.562	SA105/SA216 Gr. WCB		Not Applicable		<100	1140	600	212	1540	Pump rated flow 625 gpm	CST/SP Water	Secondary Containment	36	32.9	65.7				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	26	Pipe - Socket	<2"		SA106 GR. B SMLS	SA105 Class 6000 (SW)			<100	1140	600	212	1540	Not Available	CST/SP Water	Secondary Containment	35	30	60			Assumed this line is < 2". No drawing information	
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	27	Socket	<2"		SA105 Class 6000 (SW)		Not Applicable		<100	1140	Normally Stagnant (No flow)	212	1540	Not Available	CST/SP Water	Secondary Containment	30	27.5	54.9				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	28	Socket - Valve 1E12-F061	<2"		SA105 Class 6000 (SW)	SA105/SA216 Gr. WCB (SW Forged)			<100	1140	Normally Stagnant (No flow)	212	1540	Not Available	CST/SP Water	Secondary Containment	36	32.9	65.7				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	29	Valve 1E12-F061	<2"		SA105/SA216 Gr. WCB (SW Forged)		Not Applicable		<100	1140	Normally Stagnant (No flow)	212	1540	Pump rated flow 625 gpm	CST/SP Water	Secondary Containment	36	32.9	65.7				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	30	Valve MO 1E12-F023	6	0.562	SA105/SA216 Gr. WCB		Not Applicable		<100	1140	600	212	1540	Pump rated flow 625 gpm	CST/SP Water	Secondary Containment	36	32.9	65.7				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	31	Valve 1E51-F387	6	0.562	SA105/SA216 Gr. WCB		Not Applicable		<100	1140	600	212	1540	Pump rated flow 625 gpm	CST/SP Water	Secondary Containment	36	32.9	65.7				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	32	Valve 1E51-F013	6	0.562	SA105/SA216 Gr. WCB		Not Applicable		<100	1140	600	212	1540	Pump rated flow 625 gpm	CST/SP Water	Secondary Containment	36	32.9	65.7				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	33	Straight Pipe	6	0.562	SA106 GR. B SMLS		Not Applicable		<100	1140	600	212	1540	Pump rated flow 625 gpm	CST/SP Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	34	Pipe - Elbow	6	0.562	SA106 GR. B SMLS	SA234 Gr. WPB			<100	1140	600	212	1540	Pump rated flow 625 gpm	CST/SP Water	Secondary Containment	35	32.6	65.1				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	35	Elbow	6	0.562	SA234 Gr. WPB		Not Applicable		<100	1140	600	212	1540	Pump rated flow 625 gpm	CST/SP Water	Secondary Containment	35	32.6	65.1				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	36	Pipe - Pipe	6	0.562	SA106 GR. B SMLS	SA106 GR. B SMLS			<100	1140	600	212	1540	Pump rated flow 625 gpm	CST/SP Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	37	Elbow - Reducing Tee	6	0.562	SA234 Gr. WPB	SA234 Gr. WPB			<100	1140	600	212	1540	Pump rated flow 625 gpm	CST/SP Water	Secondary Containment	35	32.6	65.1				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	38	6 x 4 x 6 Reducing Tee	6 x 4 x 6	0.562	SA234 Gr. WPB		Not Applicable		<100	1140	600	212	1540	Pump rated flow 625 gpm	CST/SP Water	Secondary Containment	35	32.6	65.1				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	39	Pipe - Pipe Flange	6	0.562	SA106 GR. B SMLS	SA105 (WN Class 900)			<100	1140	600	212	1540	Pump rated flow 625 gpm	CST/SP Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	40	Pipe Flange	6	0.562	SA105 (WN Class 900)		Not Applicable		<100	1140	600	212	1540	Pump rated flow 625 gpm	CST/SP Water	Secondary Containment	30	27.5	54.9				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	41	Valve 1E51-F012	6	0.562	SA105/SA216 Gr. WCB		Not Applicable		<100	1140	600	212	1540	Pump rated flow 625 gpm	CST/SP Water	Secondary Containment	36	32.9	65.7				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	42	Valve 1E51-F012 - Elbow	6	0.562	SA105/SA216 Gr. WCB	SA234 Gr. WPB			<100	1140	600	212	1540	Pump rated flow 625 gpm	CST/SP Water	Secondary Containment	36	32.9	65.7			Bolts - SA193 Gr. B7; Nuts - SA194 Gr. 2H	
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	43	Elbow - Pipe	6	0.562	SA234 Gr. WPB	SA106 GR. B SMLS			<100	1140	600	212	1540	Pump rated flow 625 gpm	CST/SP Water	Secondary Containment	35	32.6	65.1				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	44	Pipe - RCIC Pump Suction Nozzle	6	0.562	SA106 GR. B SMLS	ASTM A516 Gr. 70 or ASTM A333 Gr. 6			<100	1140	600	212	1540	Pump rated flow 625 gpm	CST/SP Water	Secondary Containment	35	30	60				
Auxiliary System (AS)	Group 12 - Reactor Core Isolation Cooling (RCIC)	AS - RCIC	45	RCIC Pump Outlet Nozzle - Pipe	6		ASTM A234 WPB	SA106 GR. B SMLS			<100	20	600	212	515	Pump rated flow 625 gpm									

System Identification	Group Identification	Part Identification	Part Number	Part Description	Part Size in inches	Part Thickness in inches	Material A	Material W	Material B	Weld Type	Operating Temperature in oF	Operating Pressure in psia	Operating Flow	Design Temperature in oF	Design Pressure in psia	Design Flow	Inside Environment	Outside Environment	Residual Stress in ksi	Normal Stress in ksi	Faulted Stress in ksi	CUF	Stress Comments	Operating Experience	General Comments
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	1	SP Strainer Flange	24	0.688	SA105 (RFWN Class 300)		Not Applicable		<100	20	1550 gpm supply	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Suppression Pool Water	30	30	60				Operating Conditions taken from UFSAR Figure 6.3-1, Reactor High Pressure Suction from Suppression Pool. Bolts - SA193 Gr. B7; Nuts - SA194 Gr. 2H.
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	2	SP Strainer Flange - Elbow	24	0.688	SA105 (RFWN Class 300)		SA234 Gr. WPB		<100	20	1550 gpm supply	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Suppression Pool Water	35	32.6	65.2				
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	3	Elbow	24	0.688	SA234 Gr. WPB		Not Applicable		<100	20	1550 gpm supply	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Suppression Pool Water	35	32.6	65.2				
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	4	Elbow - Pipe	24	0.688	SA234 Gr. WPB		SA106 GR. B SMLS		<100	20	1550 gpm supply	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Suppression Pool Water	35	32.6	65.2				
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	5	Pipe - Pipe	24	0.375	SA106 GR. B SMLS		SA106 GR. B SMLS		<100	20	1550 gpm supply	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Secondary Containment	35	30	60				
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	6	Straight Pipe	24	0.375	SA106 GR. B SMLS		Not Applicable		<100	20	1550 gpm supply	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Secondary Containment	35	30	60				
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	7	Pipe - Reducer	24	0.375	SA106 GR. B SMLS		SA234 Gr. WPB		<100	20	1550 gpm supply	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Secondary Containment	35	32.6	65.2				
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	8	24 x 18 Reducer	24 x 18	0.375	SA234 Gr. WPB		Not Applicable		<100	20	1550 gpm supply	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Secondary Containment	35	32.6	65.2				
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	9	Reducer - Valve MO 1E22-F015	18	0.375	SA234 Gr. WPB		SA105/SA216 Gr. WCB		<100	20	1550 gpm supply	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Secondary Containment	36	35	70				
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	10	Valve MO 1E22-F015	18	0.375	SA105/SA216 Gr. WCB		Not Applicable		<100	20	1550 gpm supply	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Secondary Containment	36	35	70				
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	11	Pipe - Socket	25 x <2	0.375	SA106 GR. B SMLS		SA105 Class 6000 (SW)		<100	20	1550 gpm supply	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Secondary Containment	35	30	60				
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	12	Socket	<2		SA105 Class 6000 (SW)		Not Applicable		<100	20	Normally Stagnant (No flow)	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Secondary Containment	30	30	60				Assumed this line is < 2". No drawing information
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	13	Socket - Valve 1E22-F017	<2		SA105 Class 6000 (SW)		SA105/SA216 Gr. WCB (SW Forged)		<100	20	Normally Stagnant (No flow)	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Secondary Containment	36	35	70				
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	14	Valve 1E22-F017	<2		SA105/SA216 Gr. WCB (SW Forged)		Not Applicable		<100	20	Normally Stagnant (No flow)	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Secondary Containment	36	35	70				
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	15	Pipe - Elbow	24	0.375	SA106 GR. B SMLS		SA234 Gr. WPB		<100	20	1550 gpm supply	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Secondary Containment	35	32.6	65.2				
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	16	Elbow	24	0.375	SA234 Gr. WPB		Not Applicable		<100	20	1550 gpm supply	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Secondary Containment	35	32.6	65.2				
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	17	Elbow - Valve Flange	24	0.375	SA234 Gr. WPB		SA105 (RFWN Class 300)		<100	20	1550 gpm supply	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Secondary Containment	35	32.6	65.2				
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	18	Valve Flange	24	0.375	SA105 (RFWN Class 300)		Not Applicable		<100	20	1550 gpm supply	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Secondary Containment	30	30	60				Bolts - SA193 Gr. B7; Nuts - SA194 Gr. 2H.
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	19	Check Valve 1E22-F016	24	0.375	SA105/SA216 Gr. WCB		Not Applicable		<100	20	1550 gpm supply	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Secondary Containment	36	35	70				
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	20	Valve Flange - Pipe	24	0.375	SA105 (RFWN Class 300)		SA106 GR. B SMLS		<100	20	1550 gpm supply	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Secondary Containment	30	30	60				
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	21	Blank Flange to Pipe	24	0.375	Carbon steel (Assumed)		SA106 GR. B SMLS		<100	20	1550 gpm supply	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Secondary Containment	35	30	60				In some plants the suction for this system is CST water whose quality is typically better than the suppression pool water
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	22	Blank Flange	24		Carbon steel (Assumed)		Not Applicable		<100	20	1550 gpm supply	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Secondary Containment	30	30	60				
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	23	Pipe - Tee	24	0.375	SA106 GR. B SMLS		SA234 Gr. WPB		<100	20	1550 gpm supply	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Secondary Containment	35	32.6	65.2				
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	24	Tee	24	0.375	SA234 Gr. WPB		Not Applicable		<100	20	1550 gpm supply	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Secondary Containment	35	32.6	65.2				
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	25	Tee - Elbow	24	0.375	SA234 Gr. WPB		SA234 Gr. WPB		<100	20	1550 gpm supply	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Secondary Containment	35	32.6	65.2				
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	26	HPCS Pump Nozzle Flange	12	0.844	SA105 (WN Class 900)		Not Applicable		<100	1145	1550 gpm supply	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Secondary Containment	30	30	60				Bolts - SA193 Gr. B7; Nuts - SA194 Gr. 2H.
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	27	Pump Nozzle Flange - Reducer	12	0.844	SA105 (WN Class 900)		SA234 Gr. WPB		<100	1145	1550 gpm supply	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Secondary Containment	35	32.6	65.2				
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	28	12 x 16 Reducer	12 x 16	1.031	SA234 Gr. WPB		Not Applicable		<100	1145	1550 gpm supply	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Secondary Containment	35	32.6	65.2				
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	29	Reducer - Pipe	16	1.031	SA234 Gr. WPB		SA106 GR. B SMLS		<100	1145	1550 gpm supply	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Secondary Containment	35	32.6	65.2				
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	30	Straight Pipe	16	1.031	SA106 GR. B SMLS		Not Applicable		<100	1145	1550 gpm supply	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Secondary Containment	35	30	60				
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	31	Pipe - Elbow	16	1.031	SA106 GR. B SMLS		SA234 Gr. WPB		<100	1145	1550 gpm supply	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Secondary Containment	35	32.6	65.2				
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	32	Elbow	16	1.031	SA234 Gr. WPB		Not Applicable		<100	1145	1550 gpm supply	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Secondary Containment	35	32.6	65.2				
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	33	Elbow - Check Valve 1E22-F024	16	1.031	SA234 Gr. WPB		SA105/SA216 Gr. WCB		<100	1145	1550 gpm supply	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Secondary Containment	36	35	70				
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	34	Check Valve 1E22-F024	16	1.031	SA105/SA216 Gr. WCB		Not Applicable		<100	1145	1550 gpm supply	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Secondary Containment	36	35	70				
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	35	Check Valve 1E22-F024 - Pipe	16	1.031	SA105/SA216 Gr. WCB		SA106 GR. B SMLS		<100	1145	1550 gpm supply	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Secondary Containment	36	35	70				
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	36	Pipe - Pipe Flange	16	1.031	SA106 GR. B SMLS		SA105 (WN Class 900)		<100	1145	1550 gpm supply	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Secondary Containment	35	30	60				
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	37	Pipe Flange	16	1.031	SA105 (WN Class 900)		Not Applicable		<100	1145	1550 gpm supply	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Secondary Containment	30	30	60				Bolts - SA193 Gr. B7; Nuts - SA194 Gr. 2H.
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	38	Pipe - Reducing Tee	16	1.031	SA106 GR. B SMLS		SA234 Gr. WPB		<100	1145	1550 gpm supply	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Secondary Containment	35	32.6	65.2				
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	39	16 x 14 x 16 Reducing Tee	16x14x16	1.031	SA234 Gr. WPB		Not Applicable		<100	1145	1550 gpm supply	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Secondary Containment	35	32.6	65.2				
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	40	Tee - Pipe	14	0.938	SA234 Gr. WPB		SA106 GR. B SMLS		<100	1145	1550 gpm supply	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Secondary Containment	35	32.6	65.2				
Emergency Core Cooling System (ECCS)	Group 11 - High Pressure Core Spray (HPCS)	ECCS - HPCS	41	Straight Pipe	14	0.938	SA106 GR. B SMLS		Not Applicable		<100	1145	1550 gpm supply	212	1540	Pump Design 7000 gpm	Suppression Pool Water	Secondary Containment	35	30	60				

Emergency Core Cooling System (ECCS)	Group 10 - Low Pressure Core Spray (LPCS)	ECCS - LPCS	67	Check Valve AD 1E21-F006	12	0.844	SA105/SA216 Gr. WCB	Not Applicable	<100	50-300	6360 gpm	212	515	Pump Design 8100 gpm	Suppression Pool Water	Primary Containment	36	32.9	65.7			
Emergency Core Cooling System (ECCS)	Group 10 - Low Pressure Core Spray (LPCS)	ECCS - LPCS	68	Pipe - Sockolet	12 x < 2"	0.844	SA106 GR. B SMLS	SA105 (Class 6000)	<100	50-300	6360 gpm	212	515	Pump Design 8100 gpm	Suppression Pool Water	Primary Containment	35	30	60			
Emergency Core Cooling System (ECCS)	Group 10 - Low Pressure Core Spray (LPCS)	ECCS - LPCS	69	Sockolet	< 2"		SA105 (Class 6000)	Not Applicable	<100	50-300	Normally Stagnant (No flow)	212	515	Pump Design 8100 gpm	Suppression Pool Water	Primary Containment	30	27.5	54.9			Assumed this line is < 2". No drawing information
Emergency Core Cooling System (ECCS)	Group 10 - Low Pressure Core Spray (LPCS)	ECCS - LPCS	70	Sockolet - Valve 1E21-F321	< 2"		SA105 (Class 6000)	SA105/SA216 Gr. WCB (Forged)	<100	50-300	Normally Stagnant (No flow)	212	515	Pump Design 8100 gpm	Suppression Pool Water	Primary Containment	36	32.9	65.7			
Emergency Core Cooling System (ECCS)	Group 10 - Low Pressure Core Spray (LPCS)	ECCS - LPCS	71	Valve 1E21-F321	< 2"		SA105/SA216 Gr. WCB (Forged)	Not Applicable	<100	50-300	Normally Stagnant (No flow)	212	515	Pump Design 8100 gpm	Suppression Pool Water	Primary Containment	36	32.9	65.7			
Emergency Core Cooling System (ECCS)	Group 10 - Low Pressure Core Spray (LPCS)	ECCS - LPCS	72	Valve 1E21-F051	12	0.844	SA105/SA216 Gr. WCB	Not Applicable	549	1035	Normally Stagnant (No flow)	575	1540	Pump Design 8100 gpm	Reactor Water	Primary Containment	36	32.9	65.7			
Emergency Core Cooling System (ECCS)	Group 10 - Low Pressure Core Spray (LPCS)	ECCS - LPCS	73	Pipe - Reducer	12	0.844	SA106 GR. B SMLS	SA234 Gr. WPB	549	1035	Normally Stagnant (No flow)	575	1540	Pump Design 8100 gpm	Reactor Water	Primary Containment	35	32.6	65.1			
Emergency Core Cooling System (ECCS)	Group 10 - Low Pressure Core Spray (LPCS)	ECCS - LPCS	74	12 x 10 Reducer	12 x 10	0.844	SA234 Gr. WPB	Not Applicable	549	1035	Normally Stagnant (No flow)	575	1540	Pump Design 8100 gpm	Reactor Water	Primary Containment	35	32.6	65.1			
Emergency Core Cooling System (ECCS)	Group 10 - Low Pressure Core Spray (LPCS)	ECCS - LPCS	75	Reducer - Pipe	10	0.719	SA234 Gr. WPB	SA106 GR. B SMLS	549	1035	Normally Stagnant (No flow)	575	1540	Pump Design 8100 gpm	Reactor Water	Primary Containment	35	32.6	65.1			
Emergency Core Cooling System (ECCS)	Group 10 - Low Pressure Core Spray (LPCS)	ECCS - LPCS	76	Pipe	10	0.719	SA106 GR. B SMLS	Not Applicable	549	1035	Normally Stagnant (No flow)	575	1540	Pump Design 8100 gpm	Reactor Water	Primary Containment	35	30	60			
Emergency Core Cooling System (ECCS)	Group 10 - Low Pressure Core Spray (LPCS)	ECCS - LPCS	77	Pipe - Core Spray Vessel Nozzle Carbon Steel Extension Safe end	10	0.719	SA106 GR. B SMLS	Carbon Steel (0.3% max) or SA508 Class 1	549	1035	Normally Stagnant (No flow)	575	1540	Pump Design 8100 gpm	Reactor Water	Primary Containment	35	32	64			
Emergency Core Cooling System (ECCS)	Group 10 - Low Pressure Core Spray (LPCS)	ECCS - LPCS	78	Pipe - Elbow	14	0.375	SA106 GR. B SMLS	SA234 Gr. WPB	<100	50-300	6360 gpm	212	515	Pump Design 8100 gpm	Suppression Pool Water	Secondary Containment	35	32.6	65.1			
Emergency Core Cooling System (ECCS)	Group 10 - Low Pressure Core Spray (LPCS)	ECCS - LPCS	79	Elbow	14	0.375	SA234 Gr. WPB	Not Applicable	<100	50-300	6360 gpm	212	515	Pump Design 8100 gpm	Suppression Pool Water	Secondary Containment	35	32.6	65.1			
Emergency Core Cooling System (ECCS)	Group 10 - Low Pressure Core Spray (LPCS)	ECCS - LPCS	80	Straight Pipe	14	0.375	SA106 GR. B SMLS	Not Applicable	<100	50-300	6360 gpm	212	515	Pump Design 8100 gpm	Suppression Pool Water	Secondary Containment	35	30	60			
Emergency Core Cooling System (ECCS)	Group 10 - Low Pressure Core Spray (LPCS)	ECCS - LPCS	81	Pipe - Pipe	14	0.375	SA106 GR. B SMLS	SA106 GR. B SMLS	<100	50-300	6360 gpm	212	515	Pump Design 8100 gpm	Suppression Pool Water	Secondary Containment	35	30	60			
Emergency Core Cooling System (ECCS)	Group 10 - Low Pressure Core Spray (LPCS)	ECCS - LPCS	82	Pipe - Elbow	14	0.375	SA106 GR. B SMLS	SA234 Gr. WPB	<100	50-300	6360 gpm	212	515	Pump Design 8100 gpm	Suppression Pool Water	Primary Containment	35	32.6	65.1			
Emergency Core Cooling System (ECCS)	Group 10 - Low Pressure Core Spray (LPCS)	ECCS - LPCS	83	Elbow to suppression pool	14	0.375	SA234 Gr. WPB	Not Applicable	<100	50-300	6360 gpm	212	515	Pump Design 8100 gpm	Suppression Pool Water	Primary Containment	35	32.6	65.1			
Emergency Core Cooling System (ECCS)	Group 10 - Low Pressure Core Spray (LPCS)	ECCS - LPCS	84	LPCS Pump Casing (E21-C001)	36		ASTM A516 Gr. 70	Not Applicable	<100	50-300	6360 gpm	212	515	Pump Design 8100 gpm	Suppression Pool Water	Secondary Containment	38	34.7	69.3			Due to lack of pump material specifications, used HPCS pump material specifications.
Emergency Core Cooling System (ECCS)	Group 10 - Low Pressure Core Spray (LPCS)	ECCS - LPCS	85	Casing - Inlet Nozzle	24		ASTM A516 Gr. 70	ASTM A516 Gr. 70 or ASTM A333 Gr. 6	<100	50-300	6360 gpm	212	515	Pump Design 8100 gpm	Suppression Pool Water	Secondary Containment	38	34.7	69.3			
Emergency Core Cooling System (ECCS)	Group 10 - Low Pressure Core Spray (LPCS)	ECCS - LPCS	86	Inlet Nozzle	24		ASTM A516 Gr. 70 or ASTM A333 Gr. 6	Not Applicable	<100	50-300	6360 gpm	212	515	Pump Design 8100 gpm	Suppression Pool Water	Secondary Containment	38	34.7	69.3			
Emergency Core Cooling System (ECCS)	Group 10 - Low Pressure Core Spray (LPCS)	ECCS - LPCS	87	Inlet Nozzle - Nozzle Flange	24		ASTM A516 Gr. 70 or ASTM A333 Gr. 6	ASTM A516 Gr. 70	<100	50-300	6360 gpm	212	515	Pump Design 8100 gpm	Suppression Pool Water	Secondary Containment	38	34.7	69.3			
Emergency Core Cooling System (ECCS)	Group 10 - Low Pressure Core Spray (LPCS)	ECCS - LPCS	88	Inlet Nozzle Flange	24		ASTM A516 Gr. 70	Not Applicable	<100	50-300	6360 gpm	212	515	Pump Design 8100 gpm	Suppression Pool Water	Secondary Containment	38	34.7	69.3			
Emergency Core Cooling System (ECCS)	Group 10 - Low Pressure Core Spray (LPCS)	ECCS - LPCS	89	Casing Cover - Outlet Nozzle Elbow	14		ASTM A516 Gr. 70	ASTM A234 WPB	<100	50-300	6360 gpm	212	515	Pump Design 8100 gpm	Suppression Pool Water	Secondary Containment	38	34.7	69.3			
Emergency Core Cooling System (ECCS)	Group 10 - Low Pressure Core Spray (LPCS)	ECCS - LPCS	90	Outlet Nozzle Elbow	14		ASTM A234 WPB	Not Applicable	<100	50-300	6360 gpm	212	515	Pump Design 8100 gpm	Suppression Pool Water	Secondary Containment	35	32.6	65.1			
Emergency Core Cooling System (ECCS)	Group 10 - Low Pressure Core Spray (LPCS)	ECCS - LPCS	91	Outlet Nozzle Elbow - Nozzle Flange	14		ASTM A234 WPB	ASTM A350 GR. LF1/LF2	<100	50-300	6360 gpm	212	515	Pump Design 8100 gpm	Suppression Pool Water	Secondary Containment	35	32.6	65.1			
Emergency Core Cooling System (ECCS)	Group 10 - Low Pressure Core Spray (LPCS)	ECCS - LPCS	92	Outlet Nozzle Flange	14		ASTM A350 GR. LF1/LF2	Not Applicable	<100	50-300	6360 gpm	212	515	Pump Design 8100 gpm	Suppression Pool Water	Secondary Containment	30	27.5	55			
Emergency Core Cooling System (ECCS)	Group 10 - Low Pressure Core Spray (LPCS)	ECCS - LPCS	93	Strainer Flange	32	2	ASTM A240 TP 304	Not Applicable	<100	20	6360 gpm	212	515	Pump Design 8100 gpm	Suppression Pool Water	Primary Containment	25	24.9	49.8			Class 150 lb flange. 1-1/4" - 7 UNC bolts A 564 Type 630 H1100. Nuts - A564 Type 630 H1100 (Quantity - 20)
Emergency Core Cooling System (ECCS)	Group 10 - Low Pressure Core Spray (LPCS)	ECCS - LPCS	94	Strainer Flange - Strainer Core Tube	24		ASTM A240 TP 304	ASTM A240 TP 304 (Assumed)	<100	20	6360 gpm	212	515	Pump Design 8100 gpm	Suppression Pool Water	Primary Containment	25	24.9	49.8			
Emergency Core Cooling System (ECCS)	Group 10 - Low Pressure Core Spray (LPCS)	ECCS - LPCS	95	Strainer Core Tube	24		ASTM A240 TP 304 (Assumed)	Not Applicable	<100	20	6360 gpm	212	515	Pump Design 8100 gpm	Suppression Pool Water	Primary Containment	25	24.9	49.8			
Emergency Core Cooling System (ECCS)	Group 10 - Low Pressure Core Spray (LPCS)	ECCS - LPCS	96	Strainer Perforated Plate	34		ASTM A240 TP 304	Not Applicable	<100	20	6360 gpm	212	515	Pump Design 8100 gpm	Suppression Pool Water	Primary Containment	25	24.9	49.8			Perforated plate 14 gauge 3/32" holes, 5/32" staggered centers with 33% open area. Strainer surface area = 100 square feet. Strainer weight 1142 lbs.

System Identification	Group Identification	Part Identification	Part Number	Part Description	Part Size in inches	Part Thickness in inches	Material A	Material W	Material B	Weld Type	Operating Temperature in oF	Operating Pressure in psia	Operating Flow in gpm	Design Temperature in oF	Design Pressure in psia	Design Flow	Inside Environment	Outside Environment	Residual Stress in ksi	Normal Stress in ksi	Faulted Stress in ksi	CUF	Stress Comments	Operating Experience	General Comments
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-1	1	Nozzle - Safe End	24	1.08	LAS, SA-508 Cl 2 (Forged Ring)	See note 2 below	SS, TP 316NG (LRD)		550	1025	44983 gpm	575	1265		Reactor Coolant	Drywell Containment	50	40	80	BFN LRA: 0.48 w/Env. Effect		Material specifications do not exist on plant component drawings. Used information from the UFSAR Table 5.2-7 and Section 4.5. Operating and Design conditions do not exist on plant component drawings. Used information from the UFSAR Figure 5.1-1, Section 1.2-12 and Table G.2.5-4.	
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-2	2	Safe End	24	1.08	SS, TP 316NG (LRD)		Not Applicable		550	1025	44983 gpm	575	1265		Reactor Coolant	Drywell Containment	30	20	40	BSEP LRA: 0.117 w/o Env. Effect			
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-3	3	Safe End - Pipe (see note 1 below)	24	1.08	SS, TP 316NG (LRD)	See note 2 below	SA358 Type 304		550	1025	44983 gpm	575	1265		Reactor Coolant	Drywell Containment	30	20	40				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-4	4	Straight Pipe (see note 1 below)	24	1.08	SA358 Type 304		Not Applicable		550	1025	44983 gpm	575	1265		Reactor Coolant	Drywell Containment	30	25	50				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-5	5	Pipe (see note 1 below) - Elbow (see note 1 below)	24	1.08	SA358 Type 304	See note 2 below	SA-403 GR and Class WP 304S or WP 304WX		550	1025	44983 gpm	575	1265		Reactor Coolant	Drywell Containment	30	25	50				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-6	6	Elbow (see note 1 below)	24	1.08	SA-403 GR and Class WP 304S or WP 304WX		Not Applicable		550	1025	44983 gpm	575	1265		Reactor Coolant	Drywell Containment	30	25	50				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-7	7	Elbow (see note 1 below) - Pipe (see note 1 below)	24	1.08	SA-403 GR and Class WP 304S or WP 304WX	See note 2 below	SA358 Type 304		550	1025	44983 gpm	575	1265		Reactor Coolant	Drywell Containment	30	25	50				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-8	8	Straight Pipe (see note 1 below)	24	1.08	SA358 Type 304		Not Applicable		550	1025	44983 gpm	575	1265		Reactor Coolant	Drywell Containment	30	25	50				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-9	9	Pipe (see note 1 below) - Pipe (see note 1 below)	24	1.08	SA358 Type 304	See note 2 below	SA358 Type 304		550	1025	44983 gpm	575	1265		Reactor Coolant	Drywell Containment	30	25	50				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-10	10	Straight Pipe (see note 1 below)	24	1.08	SA358 Type 304		Not Applicable		550	1025	44983 gpm	575	1265		Reactor Coolant	Drywell Containment	30	25	50				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-11	11	Shear Lug - Pipe (see note 1 below)		1.08	SA240 TP 304	See note 2 below	SA358 Type 304		550		44983 gpm	575				Drywell Containment	30	25	50			NOT USED SINCE OUTSIDE WELDING	
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-12	12	Pipe (see note 1 below) - Tee	24	1.08	SA358 Type 304	See note 2 below	SA-403 GR and Class WP 304S or WP 304WX		550	1025	44983 gpm	575	1265		Reactor Coolant	Drywell Containment	30	25	50				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-13	13	Tee (see note 1 below)	24x24x20	1.08	SA-403 GR and Class WP 304S or WP 304WX		Not Applicable		550	1025	44983 gpm	575	1265		Reactor Coolant	Drywell Containment	30	25	50	NUREG/CR-6260: 0.83 w/Env. Effect; PB LRA: 0.78 and 0.54 w/o Env. Effect			
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-14	14	Tee (see note 1 below) - Pipe (see note 1 below)	24	1.08	SA-403 GR and Class WP 304S or WP 304WX	See note 2 below	SA358 Type 304		550	1025	44983 gpm	575	1265		Reactor Coolant	Drywell Containment	30	25	50				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-15	15	Straight Pipe (see note 1 below)	24	1.08	SA358 Type 304		Not Applicable		550	1025	44983 gpm	575	1265		Reactor Coolant	Drywell Containment	30	25	50	BFN LRA: 2.8 w/Env. Effect			
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-16	16	Pipe (see note 1 below) - Socket (Assumed)	24 x 3/4	1.08	SA358 Type 304	See note 2 below	SA 182, GR 304		550	1025	44983 gpm	575	1265		Reactor Coolant	Drywell Containment	30	25	50				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-17	17	Socket	3/4"	0.219	SA 182, GR 304		Not Applicable		550	1025	44983 gpm	575	1265		Reactor Coolant	Drywell Containment	25	21	42				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-18	18	Pipe (see note 1 below) - Elbow (see note 1 below)	24	1.08	SA358 Type 304	See note 2 below	SA-403 GR and Class WP 304S or WP 304WX		550	1025	44983 gpm	575	1265		Reactor Coolant	Drywell Containment	30	25	50				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-19	19	Elbow (see note 1 below)	24	1.08	SA-403 GR and Class WP 304S or WP 304WX		Not Applicable		550	1025	44983 gpm	575	1265		Reactor Coolant	Drywell Containment	30	25	50				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-20	20	Pipe (see note 1 below) - Socket	24	1.08	SA358 Type 304	See note 2 below	SA 182, GR 304		550	1025	44983 gpm	575	1265		Reactor Coolant	Drywell Containment	30	25	50				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-21	21	Socket	<2		SA 182, GR 304		Not Applicable		550	1025	44983 gpm	575	1265		Reactor Coolant	Drywell Containment	25	21	42				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-22	22	Pipe (see note 1 below) - Valve MO-1B33-F023A	24	1.08	SA358 Type 304	See note 2 below	SA351 Gr.CF-8 and CF-8M		550	1025	44983 gpm	575	1265		Reactor Coolant	Drywell Containment	30	25	50				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-23	23	Valve MO-1B33-F023A	24	1.08	SA351 Gr.CF-8 and CF-8M		Not Applicable		550	1025	44983 gpm	575	1265		Reactor Coolant	Drywell Containment	30	27	54				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-24	24	Valve MO-1B33-F023A - Socket	24	1.08	SA351 Gr.CF-8 and CF-8M	See note 2 below	SA 182, GR 304		550	1025	44983 gpm	575	1265		Reactor Coolant	Drywell Containment	30	27	54				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-25	25	Socket	<2		SA 182, GR 304		Not Applicable		550	1025		575	1265		Reactor Coolant	Drywell Containment	25	21	42				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-26	26	Socket - Elbow (see note 1 below)	<2		SA 182, GR 304	See note 2 below	SA-403 GR and Class WP 304S or WP 304WX		550	1025		575	1265		Reactor Coolant	Drywell Containment	30	25	50				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-27	27	Elbow (see note 1 below)	<2		SA-403 GR and Class WP 304S or WP 304WX		Not Applicable		550	1025		575	1265		Reactor Coolant	Drywell Containment	30	25	50				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-28	28	Elbow (see note 1 below) - Valve	<2		SA-403 GR and Class WP 304S or WP 304WX	See note 2 below	SA182 Gr.F304; SA351 Gr.CF-8 and CF-8M		550	1025		575	1265		Reactor Coolant	Drywell Containment	30	25	50				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-29	29	Valve	<2		SA351 Gr.CF-8 and CF-8M		Not Applicable		550	1025		575	1265		Reactor Coolant	Drywell Containment	30	27	54				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-30	30	Valve MO-1B33-F023A - Pipe (see note 1 below)	24	1.08	SA351 Gr.CF-8 and CF-8M	See note 2 below	SA358 Type 304		550	1025	44983 gpm	575	1265		Reactor Coolant	Drywell Containment	30	27	54				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-31	31	Pipe (see note 1 below) - Weldolet (Assumed)	24 x 4	1.08	SA376 Type 304; SA312 Type 304	See note 2 below	SA 182, GR 304		550	1025	44983 gpm	575	1265		Reactor Coolant	Drywell Containment	30	25	50				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-32	32	Weldolet	4	0.337	SA 182, GR 304		Not Applicable		550	1025		575	1265		Reactor Coolant	Drywell Containment	25	21	42				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-33	33	Weldolet - Pipe (see note 1 below)	4	0.337	SA 182, GR 304	See note 2 below	SA376 Type 304; SA312 Type 304		550	1025		575	1265		Reactor Coolant	Drywell Containment	30	25	50				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-34	34	Straight Pipe (see note 1 below)	4	0.337	SA376 Type 304; SA312 Type 304		Not Applicable		550	1025		575	1265		Reactor Coolant	Drywell Containment	30	25	50				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-35	35	Pipe (see note 1 below) - Flange	4	0.337	SA376 Type 304; SA312 Type 304	See note 2 below	SA 182, GR F316		550	1025		575	1265		Reactor Coolant	Drywell Containment	30	25	50				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-36	36	Flange	4	0.337	SA 182, GR F316		Not Applicable		550	1025		575	1265		Reactor Coolant	Drywell Containment	25	20	40				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-37	37	Blank Flange	4	0.337	SA 182, GR F316		Not Applicable		550	1025		575	1265		Reactor Coolant	Drywell Containment	25	20	40				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-38	38	Pipe (see note 1 below) - Weldolet	4	0.337	SA376 Type 304; SA312 Type 304	See note 2 below	SA 182, GR 304		550	1025	44983 gpm	575	1265		Reactor Coolant	Drywell Containment	30	25	50				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-39	39	Weldolet	4	0.337	SA 182, GR 304		Not Applicable		550	1025		575	1265		Reactor Coolant	Drywell Containment	25	21	42				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-40	40	Straight Pipe (see note 1 below)	24	1.08	SA358 Type 304		Not Applicable		550	1025	44983 gpm	575	1265		Reactor Coolant	Drywell Containment	30	25	50				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-41	41	Pipe (see note 1 below) - Socket	24	1.08	SA358 Type 304	See note 2 below	SA 182, GR 304		550	1025		575	1265		Reactor Coolant	Drywell Containment	30	25	50				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-42	42	Socket	<2		SA 182, GR 304		Not Applicable		550	1025		575	1265		Reactor Coolant	Drywell Containment	25	21	42				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-43	43	Pipe (see note 1 below) - Elbow (see note 1 below)	24	1.08	SA358 Type 304	See note 2 below	SA-403 GR and Class WP 304S or WP 304WX		550	1025	44983 gpm	575	1265		Reactor Coolant	Drywell Containment	30	25	50				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-44	44	Elbow (see note 1 below)	24	1.08	SA-403 GR and Class WP 304S or WP 304WX		Not Applicable		550	1025	44983 gpm	575	1265		Reactor Coolant	Drywell Containment	30	25	50				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-45	45	Elbow (see note 1 below) - Pump Suction	24	1.08	SA-403 GR and Class WP 304S or WP 304WX	See note 2 below	SA 182 GR F316		550	1260	44983 gpm	575	1665		Reactor Coolant	Drywell Containment	30	25	50				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-46	46	Pump Discharge - Pipe (see note 1 below)	24	1.08	SA 182 GR F316	See note 2 below	SA358 Type 304		550	1260	44983 gpm	575	1665		Reactor Coolant	Drywell Containment	30	25	50				
Reactor Coolant System (RCS)	Group 9 - Reactor Coolant Recirculation System (RECIRC)	RCS-RECIRC-47	47	Straight Pipe (see note 1 below)	24	1.08	SA358 Type 304		Not Applicable		550														

System Identification	Group Identification	Part Identification	Part Number	Part Description	Part Size in inches	Part Thickness in inches	Material A	Material W	Material B	Weld Type	Operating Temperature in oF	Operating Pressure in psia	Operating Flow in gpm	Design Temperature in oF	Design Pressure in psia	Design Flow	Inside Environment	Outside Environment	Residual Stress in ksi	Normal Stress in ksi	Faulted Stress in ksi	CUF	Stress Comments	Operating Experience	General Comments
Reactor Coolant System (RCS)	Group 8 - Reactor Vessel Internals - Steam Separator and Steam Dryer (STMSEF)	STMSEP-1	1	Steam Dryer Assembly	Dryer Assembly 245.52 Dia. x 228 High		Stainless Steel (Misc., mostly TP 304)		Not Applicable		547	1020	15.1 x 10 ⁶ lb/hr		1265		Reactor Coolant Steam	Reactor Coolant Steam	25	21	42				Material specifications do not exist on plant component drawings. Use information from the UFSAR Table 5.2-7 and Section 4.5. Operating and Design conditions do not exist on plant component drawings. Use information from the UFSAR Figure 5.1-1 and Section 1.2-12.
Reactor Coolant System (RCS)	Group 8 - Reactor Vessel Internals - Steam Separator and Steam Dryer (STMSEF)	STMSEP-2	2	Lifting Eye	Dryer Assembly 245.52 Dia. x 228 High		Stainless Steel*		Not Applicable		547	1020	15.1 x 10 ⁶ lb/hr		1265		Reactor Coolant Steam	Reactor Coolant Steam	25	21	42				
Reactor Coolant System (RCS)	Group 8 - Reactor Vessel Internals - Steam Separator and Steam Dryer (STMSEF)	STMSEP-3	3	Lifting Eye Bolt	Dryer Assembly 245.52 Dia. x 228 High	3	ASTM A193 Gr. B8		Not Applicable		547	1020	15.1 x 10 ⁶ lb/hr		1265		Reactor Coolant Steam	Reactor Coolant Steam	30	9	18				
Reactor Coolant System (RCS)	Group 8 - Reactor Vessel Internals - Steam Separator and Steam Dryer (STMSEF)	STMSEP-4	4	Bolt - Bracket	Dryer Assembly 245.52 Dia. x 228 High		ASTM A193 Gr. B8		ASTM A240 Type 304		547	1020	15.1 x 10 ⁶ lb/hr		1265		Reactor Coolant Steam	Reactor Coolant Steam	30	9	18				
Reactor Coolant System (RCS)	Group 8 - Reactor Vessel Internals - Steam Separator and Steam Dryer (STMSEF)	STMSEP-5	5	Bracket	Dryer Assembly 245.52 Dia. x 228 High		ASTM A240 Type 304		Not Applicable		547	1020	15.1 x 10 ⁶ lb/hr		1265		Reactor Coolant Steam	Reactor Coolant Steam	25	21	42				
Reactor Coolant System (RCS)	Group 8 - Reactor Vessel Internals - Steam Separator and Steam Dryer (STMSEF)	STMSEP-6	6	Steam Separator Assembly	Steam Separator Assembly 220 Dia. x 208.25 High		Stainless Steel (Misc., mostly TP 304)		Not Applicable		547	1020	15.1 x 10 ⁶ lb/hr		1265		Reactor Coolant Steam	Reactor Coolant Steam	25	21	42				
Reactor Coolant System (RCS)	Group 8 - Reactor Vessel Internals - Steam Separator and Steam Dryer (STMSEF)	STMSEP-7	7	Lifting Eye Assembly	Steam Separator Assembly 220 Dia. x 208.25 High		Stainless Steel 304 (LRD)		Not Applicable		547	1020	15.1 x 10 ⁶ lb/hr		1265		Reactor Coolant Steam	Reactor Coolant Steam	25	21	42				
Reactor Coolant System (RCS)	Group 8 - Reactor Vessel Internals - Steam Separator and Steam Dryer (STMSEF)	STMSEP-8	8	Guide Rod Assembly	Steam Separator Assembly 220 Dia. x 208.25 High	2.5	Stainless Steel 304 (LRD)		Not Applicable		547	1020	15.1 x 10 ⁶ lb/hr		1265		Reactor Coolant Steam	Reactor Coolant Steam	25	21	42				
Reactor Coolant System (RCS)	Group 8 - Reactor Vessel Internals - Steam Separator and Steam Dryer (STMSEF)	STMSEP-9	9	Steam Separator Bolt Assembly	Steam Separator Assembly 220 Dia. x 208.25 High		ASTM A193 Gr. B8		Not Applicable		547	1020	15.1 x 10 ⁶ lb/hr		1265		Reactor Coolant Steam	Reactor Coolant Steam	30	9	18				
Reactor Coolant System (RCS)	Group 8 - Reactor Vessel Internals - Steam Separator and Steam Dryer (STMSEF)	STMSEP-10	10	Guide Pin Assembly	Steam Separator Assembly 220 Dia. x 208.25 High		Stainless Steel 304 (LRD)		Not Applicable		547	1020	15.1 x 10 ⁶ lb/hr		1265		Reactor Coolant Steam	Reactor Coolant Steam	25	21	42				
Reactor Coolant System (RCS)	Group 8 - Reactor Vessel Internals - Steam Separator and Steam Dryer (STMSEF)	STMSEP-11	11	Head Spray Flange	4	0.237	Stainless Steel 304 (LRD)		Not Applicable		547	1020	15.1 x 10 ⁶ lb/hr		1265		Reactor Coolant Steam	Reactor Coolant Steam	25	21	42				
Reactor Coolant System (RCS)	Group 8 - Reactor Vessel Internals - Steam Separator and Steam Dryer (STMSEF)	STMSEP-12	12	Flange - Pipe with Bend	4	0.237	Stainless Steel 304 (LRD)		Stainless Steel*		547	1020	15.1 x 10 ⁶ lb/hr		1265		Reactor Coolant Steam	Reactor Coolant Steam	25	21	42				
Reactor Coolant System (RCS)	Group 8 - Reactor Vessel Internals - Steam Separator and Steam Dryer (STMSEF)	STMSEP-13	13	Head Spray Pipe	4	0.237	Stainless Steel*		Not Applicable		547	1020	15.1 x 10 ⁶ lb/hr		1265		Reactor Coolant Steam	Reactor Coolant Steam	25	21	42				
Reactor Coolant System (RCS)	Group 8 - Reactor Vessel Internals - Steam Separator and Steam Dryer (STMSEF)	STMSEP-14	14	Head Spray Nozzle	4	0.237	Stainless Steel*		Not Applicable		547	1020	15.1 x 10 ⁶ lb/hr		1265		Reactor Coolant Steam	Reactor Coolant Steam	25	21	42				

* Actual plant-specific material unknown. Best known material based on other generic sources including technical evaluations of published documents.

System Identification	Group Identification	Part Identification	Part Number	Part Description	Part Size in inches	Part Thickness in inches	Material A	Material W	Material B	Weld Type	Operating Temperature in oF	Operating Pressure in psia	Operating Flow in gpm	Design Temperature in oF	Design Pressure in psia	Design Flow	Inside Environment	Outside Environment	Residual Stress in ksi	Normal Stress in ksi	Faulted Stress in ksi	CUF	Stress Comments	Operating Experience	General Comments
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-1	1	Feedwater Triple Thermal Sleeve Design Seal Ring	12		Stainless Steel*		Not Applicable		427	1045	2.53 x 10 ⁶ lb/hr/sparger	575	1265		Reactor Coolant	Reactor Coolant	25	24	48			NOT USED SINCE ORIGINAL SLEEVE INCLUDED IN GROUP 2	Material specifications do not exist on plant component drawings. Use information from the UFSAR Table 5.2-7 and Section 4.5. Operating and Design conditions do not exist on plant component drawings. Use information from the UFSAR Figure 5.1-1 and Section 1.2-12.
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-2	2	Outer/Middle Thermal Sleeves	12		Inconel or SS SA336 Class F8 (LRD)		Not Applicable		427	1045	2.53 x 10 ⁶ lb/hr/sparger	575	1265		Reactor Coolant	Reactor Coolant	35	35	70			NOT USED SINCE ORIGINAL SLEEVE INCLUDED IN GROUP 2	There are six feedwater spargers. Flow from UFSAR FIGURE 5.1-1.
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-3	3	Outer/ Middle Thermal Sleeves - Beveled Outer/Middle Thermal Sleeves	12		Inconel or SS SA336 Class F8 (LRD)		Inconel or SS SA336 Class F8 (LRD)		427	1045	2.53 x 10 ⁶ lb/hr/sparger	575	1265		Reactor Coolant	Reactor Coolant	35	35	70			NOT USED SINCE ORIGINAL SLEEVE INCLUDED IN GROUP 2	
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-4	4	Thermal Sleeve Spacer Ring	12		Inconel or SS SA336 Class F8 (LRD)		Not Applicable		427	1045	2.53 x 10 ⁶ lb/hr/sparger	575	1265		Reactor Coolant	Reactor Coolant	35	35	70			NOT USED SINCE ORIGINAL SLEEVE INCLUDED IN GROUP 2	
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-5	5	Inner Thermal Sleeve	12		Inconel or SS SA336 Class F8 (LRD)		Not Applicable		427	1045	2.53 x 10 ⁶ lb/hr/sparger	575	1265		Reactor Coolant	Reactor Coolant	35	35	70			NOT USED SINCE ORIGINAL SLEEVE INCLUDED IN GROUP 2	
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-6	6	Inner Thermal Sleeve - Sparger Tee	12		Inconel or SS SA336 Class F8 (LRD)		Austenitic SST TP 304		427	1045	2.53 x 10 ⁶ lb/hr/sparger	575	1265		Reactor Coolant	Reactor Coolant	35	35	70			NOT USED SINCE ORIGINAL SLEEVE INCLUDED IN GROUP 2	
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-7	7	Beveled Outer/Middle Thermal Sleeves	12		Inconel or SS SA336 Class F8 (LRD)		Not Applicable		427	1045	2.53 x 10 ⁶ lb/hr/sparger	575	1265		Reactor Coolant	Reactor Coolant	35	35	70			NOT USED SINCE ORIGINAL SLEEVE INCLUDED IN GROUP 2	
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-8	8	Sparger Header Pipe - Spray Nozzle Elbow			Austenitic SST TP 304		Austenitic SST TP 304		427	1045	2.53 x 10 ⁶ lb/hr/sparger	575	1265		Reactor Coolant	Reactor Coolant	25	24	48				
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-9	9	Spray Nozzle Elbow			Austenitic SST TP 304		Not Applicable		427	1045	2.53 x 10 ⁶ lb/hr/sparger	575	1265		Reactor Coolant	Reactor Coolant	25	24	48				
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-10	10	Spray Nozzle Elbow - Spray Nozzle			Austenitic SST TP 304		Austenitic SST TP 304		427	1045	2.53 x 10 ⁶ lb/hr/sparger	575	1265		Reactor Coolant	Reactor Coolant	25	24	48				
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-11	11	Spray Nozzle			Austenitic SST TP 304		Not Applicable		427	1045	2.53 x 10 ⁶ lb/hr/sparger	575	1265		Reactor Coolant	Reactor Coolant	25	24	48				
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-12	12	Sparger Tee	12 x 6 appx.		Austenitic SST TP 304		Not Applicable		427	1045	2.53 x 10 ⁶ lb/hr/sparger	575	1265		Reactor Coolant	Reactor Coolant	25	24	48				
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-13	13	Sparger Tee - Sparger Header Pipe	appx. 6		Austenitic SST TP 304		Austenitic SST TP 304		427	1045	2.53 x 10 ⁶ lb/hr/sparger	575	1265		Reactor Coolant	Reactor Coolant	25	24	48				
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-14	14	Sparger Pipe Header	appx. 6		Austenitic SST TP 304		Not Applicable		427	1045	2.53 x 10 ⁶ lb/hr/sparger	575	1265		Reactor Coolant	Reactor Coolant	25	24	48				
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-15	15	Sparger Pipe Header - End Plate	appx. 6		Austenitic SST TP 304		Austenitic SST Type - 316L		427	1045	2.53 x 10 ⁶ lb/hr/sparger	575	1265		Reactor Coolant	Reactor Coolant	25	24	48				
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-16	16	End Plate - Sliding Sparger Support Bracket			Austenitic SST Type - 316L		Austenitic SST Type - 304L		427	1045	2.53 x 10 ⁶ lb/hr/sparger	575	1265		Reactor Coolant	Reactor Coolant	25	24	48				Material Spec. from dwg. 112D1782
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-17	17	Sliding Sparger Support Bracket			Austenitic SST Type - 304L		Not Applicable		427	1045	Not Applicable	575	1265		Reactor Coolant	Reactor Coolant	25	24	48				
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-18	18	Sliding Bracket Bolt Assembly			SA193 GR B7 (GALL)*		Not Applicable		427	1045	Not Applicable	575	1265		Reactor Coolant	Reactor Coolant	25	24	48				
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-19	19	FW Sparger Lifting Hook			Austenitic SST TP 304		Not Applicable		427	1045	Not Applicable	575	1265		Reactor Coolant	Reactor Coolant	25	24	48				
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-20	20	FW Sparger Lifting Hook - Sparger Header Pipe			Austenitic SST TP 304		Austenitic SST TP 304		427	1045	Not Applicable	575	1265		Reactor Coolant	Reactor Coolant	25	24	48				
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-21	21	Core Spray Nozzle Thermal Sleeve - CS Supply Tee Box	10		Stainless Steel (LRD)		ASTM A312 GR TP304 (LRD)		120/40	1145	1550 GPM Supply	575	1265		Reactor Coolant	Reactor Coolant	30	25	50				There are two core spray nozzles and four core spray spargers. Operating Conditions taken from UFSAR Figure 6.3-1 for Primary Mod B.
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-22	22	CS Supply Tee Box	10 x 6 appx.		Stainless Steel (LRD)		Not Applicable		120/40	1145	1550 GPM Supply	575	1265		Reactor Coolant	Reactor Coolant	25	25	50				
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-23	23	CS Supply Tee Box - CS Piping	6 appx.		Stainless Steel (LRD)		ASTM A312 GR TP304 (LRD)		120/40	1145	1550 GPM Supply	575	1265		Reactor Coolant	Reactor Coolant	30	25	50				
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-24	24	CS Bent Pipe	6 appx.		ASTM A312 GR TP304 (LRD)		Not Applicable		120/40	1145	1550 GPM Supply	575	1265		Reactor Coolant	Reactor Coolant	30	25	50				
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-25	25	CS Support Bracket	6 appx.		Stainless Steel (LRD)		Not Applicable		120/40	1145	1550 GPM Supply	575	1265		Reactor Coolant	Reactor Coolant	25	25	50				
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-26	26	CS Pipe - CS Elbow	6 appx.		ASTM A312 GR TP304 (LRD)		Stainless Steel (LRD)		120/40	1145	1550 GPM Supply	575	1265		Reactor Coolant	Reactor Coolant	30	25	50				
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-27	27	CS Elbow	6 appx.		Stainless Steel (LRD)		Not Applicable		120/40	1145	1550 GPM Supply	575	1265		Reactor Coolant	Reactor Coolant	25	25	50				
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-28	28	CS Elbow - CS Pipe	6 appx.		Stainless Steel (LRD)		ASTM A312 GR TP304 (LRD)		120/40	1145	1550 GPM Supply	575	1265		Reactor Coolant	Reactor Coolant	30	25	50				
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-29	29	CS Sparger Tee Box - Shroud	6 appx.		Stainless Steel (LRD)		SS, ASTM A240 TP 304		120/40	1145	1550 GPM Supply	575	1265		Reactor Coolant	Reactor Coolant	25	25	50				
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-30	30	CS Sparger Tee Box			Stainless Steel (LRD)		Not Applicable		120/40	1145	1550 GPM Supply	575	1265		Reactor Coolant	Reactor Coolant	25	25	50				
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-31	31	CS Sparger Tee Box - CS Sparger Header			Stainless Steel (LRD)		ASTM A312 GR TP304 (LRD)		120/40	1145	1550 GPM Supply	575	1265		Reactor Coolant	Reactor Coolant	30	25	50				
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-32	32	CS Sparger Header			ASTM A312 GR TP304 (LRD)		Not Applicable		120/40	1145	1550 GPM Supply	575	1265		Reactor Coolant	Reactor Coolant	30	25	50				
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-33	33	CS Sparger Header - CS Sparger Header End Plate			ASTM A312 GR TP304 (LRD)		Stainless Steel (LRD)		120/40	1145	1550 GPM Supply	575	1265		Reactor Coolant	Reactor Coolant	30	25	50				
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-34	34	CS Sparger Header End Plate			Stainless Steel (LRD)		Not Applicable		120/40	1145	1550 GPM Supply	575	1265		Reactor Coolant	Reactor Coolant	25	25	50				
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-35	35	LPCI Header			Stainless Steel*		Not Applicable		120/40	24	2484 gpm/nozzle	575	1265		Reactor Coolant	Reactor Coolant	25	25	50				There are three LPCI nozzles. Operating Conditions taken from UFSAR Figure 6.3-8, for Mode A-1.
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-36	36	CS Sparger Header - CS Sparger Elbow			ASTM A312 GR TP304 (LRD)		Stainless Steel (LRD)		120/40	1145	1550 GPM Supply	575	1265		Reactor Coolant	Reactor Coolant	30	25	50				
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-37	37	CS Sparger Elbow			Stainless Steel (LRD)		Not Applicable		120/40	1145	1550 GPM Supply	575	1265		Reactor Coolant	Reactor Coolant	25	25	50				
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-38	38	CS Sparger Elbow - CS Sparger Orifice			Stainless Steel (LRD)		Stainless Steel (LRD)		120/40	1145	1550 GPM Supply	575	1265		Reactor Coolant	Reactor Coolant	25	25	50				
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-39	39	CS Sparger Orifice - CS Sparger Elbow (Threaded)			Stainless Steel (LRD)		Stainless Steel (LRD)		120/40	1145	1550 GPM Supply	575	1265		Reactor Coolant	Reactor Coolant	25	25	50				
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-40	40	CS Sparger Elbow			Stainless Steel (LRD)		Not Applicable		120/40	1145	1550 GPM Supply	575	1265		Reactor Coolant	Reactor Coolant	25	25	50				
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-41	41	CS Sparger Elbow - CS Sparger Orifice (Threaded)			Stainless Steel (LRD)		Stainless Steel (LRD)		120/40	1145	1550 GPM Supply	575	1265		Reactor Coolant	Reactor Coolant	25	25	50				
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-42	42	CS Sparger Orifice			Stainless Steel (LRD)		Not Applicable		120/40	1145	1550 GPM Supply	575	1265		Reactor Coolant	Reactor Coolant	25	25	50				
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-43	43	LPCI Thermal Sleeve - LPCI Flange			Type 316 SS*		Stainless Steel (GALL)		120/40	24	2484 gpm/nozzle	575	1265		Reactor Coolant	Reactor Coolant	30	25	50				
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-44	44	LPCI Flange	12 appx.		Stainless Steel (GALL)		Not Applicable		120/40	24	2484 gpm/nozzle	575	1265		Reactor Coolant	Reactor Coolant	25	25	50				
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-45	45	LPCI Clamp Assembly	12 appx.		Stainless Steel (GALL)		Not Applicable		120/40	24	2484 gpm/nozzle	575	1265		Reactor Coolant	Reactor Coolant	25	25	50				
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-46	46	LPCI Sleeve	12 appx.		Stainless Steel (GALL)		Not Applicable		120/40	24	2484 gpm/nozzle	575	1265		Reactor Coolant	Reactor Coolant	25	25	50				
Reactor Coolant System (RCS)	Group 7 - Reactor Vessel Internals - ECCS Connections (ECCSCONN)	ECCSCONN-47	47	LPCI Flange	12 appx.																				

System Identification	Group Identification	Part Identification	Part Number	Part Description	Part Size in inches	Part Thickness in inches	Material A	Material W	Material B	Weld Type	Operating Temperature in oF	Operating Pressure in psia	Operating Flow in gpm	Design Temperature in oF	Design Pressure in psia	Design Flow	Inside Environment	Outside Environment	Residual Stress in ksi	Normal Stress in ksi	Faulted Stress in ksi	CUF	Stress Comments	Operating Experience	General Comments
Reactor Coolant System (RCS)	Group 6 - Reactor Vessel Internals - Jet Pump Assembly (JETPUMP)	RCS-JETPUMP-	1	RR Inlet Nozzle Thermal Sleeve - Inlet Riser Elbow	12		Stainless Steel*		ASTM A403 Gr. WP304		535	1290	3.4 x 10 ⁶ lb/hr	575	1565		Reactor Coolant	Reactor Coolant	30	25	50				Material specifications do not exist on plant component drawings. Used information from the UFSAR Table 5.2-7 and Section 4.5. Operating and Design conditions do not exist on plant component drawings. Used information from the UFSAR Figure 5.1-1, Section 1.2-12 and Table G.2.4.
Reactor Coolant System (RCS)	Group 6 - Reactor Vessel Internals - Jet Pump Assembly (JETPUMP)	RCS-JETPUMP-	2	Inlet Riser Elbow	12		ASTM A403 Gr. WP304		Not Applicable		535	1290	3.4 x 10 ⁶ lb/hr	575	1565		Reactor Coolant	Reactor Coolant	30	25	50				
Reactor Coolant System (RCS)	Group 6 - Reactor Vessel Internals - Jet Pump Assembly (JETPUMP)	RCS-JETPUMP-	3	Inlet Riser Elbow - Inlet Riser Pipe	12		ASTM A403 Gr. WP304		ASTM A358 Type 304 or ASTM A312 Gr. TP304		535	1290	3.4 x 10 ⁶ lb/hr	575	1565		Reactor Coolant	Reactor Coolant	30	25	50				
Reactor Coolant System (RCS)	Group 6 - Reactor Vessel Internals - Jet Pump Assembly (JETPUMP)	RCS-JETPUMP-	4	Inlet Riser Straight Pipe	12		ASTM A358 Type 304 or ASTM A312 Gr. TP304		Not Applicable		535	1290	3.4 x 10 ⁶ lb/hr	575	1565		Reactor Coolant	Reactor Coolant	30	25	50				
Reactor Coolant System (RCS)	Group 6 - Reactor Vessel Internals - Jet Pump Assembly (JETPUMP)	RCS-JETPUMP-	5	Inlet Riser Pipe - Transition Piece	12		ASTM A358 Type 304 or ASTM A312 Gr. TP304		ASTM A182 Gr. F304		535	1290	3.4 x 10 ⁶ lb/hr	575	1565		Reactor Coolant	Reactor Coolant	30	25	50				
Reactor Coolant System (RCS)	Group 6 - Reactor Vessel Internals - Jet Pump Assembly (JETPUMP)	RCS-JETPUMP-	6	Transition Piece			ASTM A182 Gr. F304		Not Applicable		535	1290	3.4 x 10 ⁶ lb/hr	575	1565		Reactor Coolant	Reactor Coolant	25	21	42				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Jet Pump Assembly (JETPUMP)	RCS-JETPUMP-	7	Hold-Down Assembly			ASTM A182 Gr. F304		Not Applicable		535	1290	3.4 x 10 ⁶ lb/hr	575	1565		Reactor Coolant	Reactor Coolant	25	21	42				
Reactor Coolant System (RCS)	Group 6 - Reactor Vessel Internals - Jet Pump Assembly (JETPUMP)	RCS-JETPUMP-	8	Inlet Elbow			ASTM A182 Gr. F304		Not Applicable		535	1290	3.4 x 10 ⁶ lb/hr	575	1565		Reactor Coolant	Reactor Coolant	25	21	42				
Reactor Coolant System (RCS)	Group 6 - Reactor Vessel Internals - Jet Pump Assembly (JETPUMP)	RCS-JETPUMP-	9	Inlet Elbow - Jet Pump Nozzle			ASTM A182 Gr. F304		ASTM A182 Gr. F304		535	1290	3.4 x 10 ⁶ lb/hr	575	1565		Reactor Coolant	Reactor Coolant	25	21	42				
Reactor Coolant System (RCS)	Group 6 - Reactor Vessel Internals - Jet Pump Assembly (JETPUMP)	RCS-JETPUMP-	10	Jet Pump Nozzle	1.3		ASTM A182 Gr. F304		Not Applicable		535	1290	3.4 x 10 ⁶ lb/hr	575	1565		Reactor Coolant	Reactor Coolant	25	21	42				
Reactor Coolant System (RCS)	Group 6 - Reactor Vessel Internals - Jet Pump Assembly (JETPUMP)	RCS-JETPUMP-	11	RR Water and Vessel Water Mixer Pipe	6.4		ASTM A358 Type 304 or ASTM A312 Gr. TP304		Not Applicable		535	1290	5.7 x 10 ⁶ lb/hr	575	1565		Reactor Coolant	Reactor Coolant	30	25	50				
Reactor Coolant System (RCS)	Group 6 - Reactor Vessel Internals - Jet Pump Assembly (JETPUMP)	RCS-JETPUMP-	12	Restrainer Bracket Support			ASTM A182 Gr. F XM19		Not Applicable		535	1290	5.7 x 10 ⁶ lb/hr	575	1565		Reactor Coolant	Reactor Coolant	25	21	42				
Reactor Coolant System (RCS)	Group 6 - Reactor Vessel Internals - Jet Pump Assembly (JETPUMP)	RCS-JETPUMP-	13	Diffuser	19		ASTM A240 Type 304		Not Applicable		535	1290	5.7 x 10 ⁶ lb/hr	575	1565		Reactor Coolant	Reactor Coolant	25	21	42				
Reactor Coolant System (RCS)	Group 6 - Reactor Vessel Internals - Jet Pump Assembly (JETPUMP)	RCS-JETPUMP-	14	Diffuser - Tail Pipe	19		ASTM A240 Type 304		ASTM A358 Type 304 or ASTM A312 Gr. TP304		535	1290	5.7 x 10 ⁶ lb/hr	575	1565		Reactor Coolant	Reactor Coolant	30	25	50				
Reactor Coolant System (RCS)	Group 6 - Reactor Vessel Internals - Jet Pump Assembly (JETPUMP)	RCS-JETPUMP-	15	Tail Pipe	22		ASTM A358 Type 304 or ASTM A312 Gr. TP304		Not Applicable		535	1290	5.7 x 10 ⁶ lb/hr	575	1565		Reactor Coolant	Reactor Coolant	30	25	50				
Reactor Coolant System (RCS)	Group 6 - Reactor Vessel Internals - Jet Pump Assembly (JETPUMP)	RCS-JETPUMP-	16	Tail Pipe - Adapter	22		ASTM A358 Type 304 or ASTM A312 Gr. TP304		ASTM A240 Type 304		535	1290	5.7 x 10 ⁶ lb/hr	575	1565		Reactor Coolant	Reactor Coolant	30	25	50				
Reactor Coolant System (RCS)	Group 6 - Reactor Vessel Internals - Jet Pump Assembly (JETPUMP)	RCS-JETPUMP-	17A	Adapter (Unit 1)	22		ASTM A240 Type 304		Not Applicable		535	1290	5.7 x 10 ⁶ lb/hr	575	1565		Reactor Coolant	Reactor Coolant	25	21	42				
Reactor Coolant System (RCS)	Group 6 - Reactor Vessel Internals - Jet Pump Assembly (JETPUMP)	RCS-JETPUMP-	17B	Adapter (Unit 2)	18.36		ASTM A240 Type 304		Not Applicable		535	1290	5.7 x 10 ⁶ lb/hr	575	1565		Reactor Coolant	Reactor Coolant	25	21	42				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Jet Pump Assembly (JETPUMP)	RCS-JETPUMP-	18	Adapter - Shroud Support Plate	20.5		ASTM A240 Type 304		Alloy 600 (SB-168) (LRD)		535	1290	5.7 x 10 ⁶ lb/hr	575	1565		Reactor Coolant	Reactor Coolant	35	35	70				
Reactor Coolant System (RCS)	Group 6 - Reactor Vessel Internals - Jet Pump Assembly (JETPUMP)	RCS-JETPUMP-	19	Access Hole Cover	20.5		Alloy 600 (GALL)		Not Applicable		535	1290	5.7 x 10 ⁶ lb/hr	575	1565		Reactor Coolant	Reactor Coolant	35	35	70				
Reactor Coolant System (RCS)	Group 6 - Reactor Vessel Internals - Jet Pump Assembly (JETPUMP)	RCS-JETPUMP-	20	Access Hole Cover - Shroud Support Plate	20.5		Alloy 600 (GALL)	Alloy 182 (GALL)	Alloy 600 (SB-168) (LRD)		535	1290	5.7 x 10 ⁶ lb/hr	575	1565		Reactor Coolant	Reactor Coolant	35	35	70				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Jet Pump Assembly (JETPUMP)	RCS-JETPUMP-	21	Collar below Restrainer Part#12			304 SS		Not Applicable		535	1290	5.7 x 10 ⁶ lb/hr	575	1565		Reactor Coolant	Reactor Coolant	25	21	42				
Reactor Coolant System (RCS)	Group 6 - Reactor Vessel Internals - Jet Pump Assembly (JETPUMP)	RCS-JETPUMP-	22	Riser brace to Riser Weld			SS TP304 (LRD)		ASTM A358 Type 304 or ASTM A312		535	1290	3.4 x 10 ⁶ lb/hr	575	1565		Reactor Coolant	Reactor Coolant	25	21	42				

* Actual plant-specific material unknown. Best known material based on other generic sources including technical evaluations of published documents.

System Identification	Group Identification	Part Identification	Part Number	Part Description	Part Size in inches	Part Thickness in inches	Material A	Material W	Material B	Weld Type	Operating Temperature in oF	Operating Pressure in psia	Operating Flow in gpm	Design Temperature in oF	Design Pressure in psia	Design Flow	Inside Environment	Outside Environment	Residual Stress in ksi	Normal Stress in ksi	Faulted Stress in ksi	CUF	Stress Comments	Operating Experience	General Comments
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	1	Fuel Assembly			Enriched Uranium Dioxide pellets sealed in Zircaloy Tubes		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Reactor Coolant						EXCLUDED FROM PMDA	Material specifications do not exist on plant component drawings. Used information from the UFSAR Table 5.2-7 and Section 4.5. Operating and Design conditions do not exist on plant component drawings. Used information from the UFSAR Figure 5.1-1 and Section 1.2-12.
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	2	Fuel Support Structure			SS or CASS (GALL)		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Reactor Coolant	30	23	48				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	3	Control Rod Guide Tube			ASTM A351 GR CF-3		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Reactor Coolant	30	23	48				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	4	Control Rod Blade			Boron or other poison chemicals		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Reactor Coolant							
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	5	Control Rod Drive Housing			ASTM A351 GR CF-3 or SA312 TP 304		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Reactor Coolant	30	23	48				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	6	Fuel Bundle Alignment Pin			Stainless Steel*		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Reactor Coolant	25	21	42				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	7	Control Rod Drive Housing (CRD) Flange			SA 182 GR. F304		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	25	21	42				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	8	CRD Housing Flange - CRD Housing			SA 182 GR. F304	SFA 5.9 or 5.4 TP 309	ASTM A269 GR. TP 304 or SA312 TP 304		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	25	21	42				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	9	RPV Stub Tube - CRD Housing			SB-166 or 167 Inconel	SFA 5.9 or 5.4 TP 309	ASTM A269 GR. TP 304		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Reactor Coolant	35	35	70				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	10	CRD Position Indicator Probe			Stainless Steel*		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Reactor Coolant	25	21	42				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	11	Control Rod Drive Assembly			Inconel X-750 and Misc. SS TP 304		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Reactor Coolant							
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	12	Incore Guide Tube Flange			SS, TP 304		Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable		Reactor Coolant	Reactor Coolant	25	21	42				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	13	Incore Guide Tube Flange - Incore Housing Guide Tube			SS, SA213, TP 304	SFA 5.9 or 5.4 TP 308L	SS, TP 304		Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable		Reactor Coolant	Reactor Coolant	25	21	42				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	14	Incore Housing Guide Tube (Lower)			SS, SA213, TP 304		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Reactor Coolant	25	21	42				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	15	Incore Housing Guide Tube - Incore Guide Tube			SS, SA213, TP 304	SFA 5.9 or 5.4 TP 308L	SS, SA213, TP 304		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Reactor Coolant	25	21	42				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	16	Incore Guide Tube			SS, SA213, TP 304		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Reactor Coolant	25	21	42				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	17	Dry Tube Assembly			Stainless Steel*		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Reactor Coolant	25	21	42				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	18	CRD Housing Hangar Rod			ASTM A36 and A235		Not Applicable		<135	Not Applicable	Not Applicable	Not Applicable	Not Applicable		Not Applicable	Drywell Containment	25	21	42				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	19	CRD Housing Support Beam			ASTM A36 and A235		Not Applicable		<135	Not Applicable	Not Applicable	Not Applicable	Not Applicable		Not Applicable	Drywell Containment	25	21	42				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	20	CRD Housing Support Bar			ASTM A36 and A235		Not Applicable		<135	Not Applicable	Not Applicable	Not Applicable	Not Applicable		Not Applicable	Drywell Containment	25	21	42				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	21	CRD Housing Support Grid			ASTM A36 and A235		Not Applicable		<135	Not Applicable	Not Applicable	Not Applicable	Not Applicable		Not Applicable	Drywell Containment	25	21	42				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	22	CRD Housing Support Grid Clamps			ASTM A36 and A235		Not Applicable		<135	Not Applicable	Not Applicable	Not Applicable	Not Applicable		Not Applicable	Drywell Containment	25	21	42				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	23	CRD Housing end Restraint Beam			ASTM A36 and A235		Not Applicable		<135	Not Applicable	Not Applicable	Not Applicable	Not Applicable		Not Applicable	Drywell Containment	25	21	42				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	24	Core Plate DP/SLC Bracket to CRD Housing			Carbon Steel*		Not Applicable		533	Not Applicable	Not Applicable	575	Not Applicable		Not Applicable	Drywell Containment	25	21	42				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	25	Core Plate DP/SLC Housing Tube - Socket Weld Coupling			LAS, SA-508 Cl 2 (Forged Ring) or Alloy 600		SS, TP 304		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Reactor Coolant	50	40	80				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	26	Socket Weld Coupling			SS, TP 304		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Reactor Coolant	25	21	42				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	27	Core Plate DP/SLC Guide Tube (lower)			Stainless Steel*		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Reactor Coolant	25	21	42				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	28	Core Plate DP/SLC Guide Tube (lower) - Core Plate DP/SLC Guide Tube (upper)			Stainless Steel*		Stainless Steel*		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Reactor Coolant	25	21	42				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	29	DP/SLC Guide Tube Bracket			Stainless Steel*		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Reactor Coolant	25	21	42				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	30	DP/SLC Guide Tube Bracket - DP/SLC Guide Tube Support			Stainless Steel*		Stainless Steel*		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Reactor Coolant	25	21	42				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	31	DP/SLC Guide Tube Support			Stainless Steel*		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Reactor Coolant	25	21	42				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	32	DP/SLC Guide Tube Support - Support Pad under Shroud Support Plate			Stainless Steel*		Stainless Steel*		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Reactor Coolant	25	21	42				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	33	Support Pad under Shroud Support Plate			Inconel or SS*		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Reactor Coolant	35	35	70				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	34	Support Pad on Shroud Support Plate - Shroud Support Plate			Inconel*		Inconel*		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Reactor Coolant	35	35	70				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	35	DP/SLC Guide Tube Horizontal Support			Stainless Steel*		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Reactor Coolant	25	21	42				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	36	Core Plate DP/SLC Guide Tube Horizontal Support - Shroud			Stainless Steel*		SS, ASTM A240 TP 304		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Reactor Coolant	25	21	42				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	37	SLC Guide Tube - SLC Guide Tube			Stainless Steel*		Stainless Steel*		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Reactor Coolant	25	21	42				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	38	SLC Guide Tube			Stainless Steel*		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Reactor Coolant	25	21	42				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	39	DP Guide Tube - DP Guide Tube			Stainless Steel*		Stainless Steel*		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Reactor Coolant	25	21	42				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	40	DP Guide Tube			Stainless Steel*		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Reactor Coolant	25	21	42				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	41	CRD Return Line Nozzle - Cap			LAS, SA-508 Cl 2 (Forged Ring)	Ni-Cr-Fe	Stainless Steel*		533	1059	Capped	575	1265		Reactor Coolant	Drywell Containment	50	40	80				
Reactor Coolant System (RCS)	Group 5 - Reactor Vessel Internals - Core Controls (CORECTRL)	RCS-CORECTRL	42	CRD Return Line Nozzle Cap			Stainless Steel*	Ni-Cr-Fe	Not Applicable		533	1059	Capped	575	1265		Reactor Coolant	Drywell Containment	25	21	42				

* Actual plant-specific material unknown. Best known material based on other generic sources including technical evaluations of published documents.

System Identification	Group Identification	Part Identification	Part Number	Part Description	Part Size in inches	Part Thickness in inches	Material A	Material W	Material B	Weld Type	Operating Temperature in oF	Operating Pressure in psia	Operating Flow	Design Temperature in oF	Design Pressure in psia	Design Flow	Inside Environment	Outside Environment	Residual Stress in ksi	Normal Stress in ksi	Faulted Stress in ksi	CUF	Stress Comments	Operating Experience	General Comments
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-1		Intermediate Shell "C" - Lower Shell	254 Inside Diameter	7.125	LAS, SA-533 Gr. B (Rolled Plate)	LAS, SFA-5.5; 15-308	LAS, SA-533 Gr. B (Rolled Plate)		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80			Material specifications do not exist on plant component drawings. Used information from the UFSAR Table 5.2-7 and Section 4.5. Operating and Design conditions do not exist on plant component drawings. Used information from the UFSAR Figure 5.1-1 and Section 1.2-12.	
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-2		Lower Shell	254 Inside Diameter	7.125	LAS, SA-533 Gr. B (Rolled Plate)		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-3		Lower Shell - Bottom Head	254 Inside Diameter	7.125 - 3.438	LAS, SA-533 Gr. B (Rolled Plate)	LAS, SFA-5.5; 15-308	LAS, SA-533 Gr. B (Rolled Plate)		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80		PB LRA: 0.85 and 1.02 w/o Env. Effect		
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-4		Lower Shell - Lower Shell (long. weld-1)	254 Inside Diameter	7.125	LAS, SA-533 Gr. B (Rolled Plate)	LAS, SFA-5.5; 15-308	LAS, SA-533 Gr. B (Rolled Plate)		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-5		Lower Shell - Lower Shell (long. weld-2)	254 Inside Diameter	7.125	LAS, SA-533 Gr. B (Rolled Plate)	LAS, SFA-5.5; 15-308	LAS, SA-533 Gr. B (Rolled Plate)		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-6		Lower Shell - Lower Shell (long. weld-3)	254 Inside Diameter	7.125	LAS, SA-533 Gr. B (Rolled Plate)	LAS, SFA-5.5; 15-308	LAS, SA-533 Gr. B (Rolled Plate)		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-7		Side Plate "A" - Side Plate "A"		3.438	LAS, SA-533 Gr. B (Rolled Plate)	LAS, SFA-5.5; 15-308	LAS, SA-533 Gr. B (Rolled Plate)		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-8		Side Plate "A" - Side Plate "B"		3.438	LAS, SA-533 Gr. B (Rolled Plate)	LAS, SFA-5.5; 15-308	LAS, SA-533 Gr. B (Rolled Plate)		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-9		Side Plate "B" - Side Plate "B"		3.438	LAS, SA-533 Gr. B (Rolled Plate)	LAS, SFA-5.5; 15-308	LAS, SA-533 Gr. B (Rolled Plate)		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-10		Side Plate "B" - Dollar Plate			LAS, SA-533 Gr. B (Rolled Plate)	LAS, SFA-5.5; 15-308	LAS, SA-533 Gr. B (Rolled Plate)		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-11		Side Plate "A"			LAS, SA-533 Gr. B (Rolled Plate)		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-12		Side Plate "B"			LAS, SA-533 Gr. B (Rolled Plate)		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80		BSEP LRA: 0.482 w/Env. Effect		
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-13		Dollar Plate			LAS, SA-533 Gr. B (Rolled Plate)		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80		NUREG/CR-6260: 0.628 w/Env. Effect		
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-14		Vessel - Recirculation Outlet Nozzle			LAS, SA-533 Gr. B (Rolled Plate)	LAS, SFA-5.5; 15-308	LAS, SA-508 CI 2 (Forged Ring)		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-15		Recirculation Outlet Nozzle			LAS, SA-508 CI 2 (Forged Ring)		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	50	40	80		BSEP LRA: 0.60 w/Env. Effect; BFN LRA: 0.78 w/o Env. Effect	There are two recirculation outlet nozzles.	
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-16		Vessel - Jet Pump Instrumentation Nozzle			LAS, SA-533 Gr. B (Rolled Plate)	LAS, SFA-5.5; 15-308	LAS, SA-508 CI 2 (Forged Ring)		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-17		Jet Pump Instrumentation Nozzle			LAS, SA-508 CI 2 (Forged Ring)		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	50	40	80			There are two jet pump instrumentation nozzles.	
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-18		Vessel - Core Differential Pressure Nozzle			LAS, SA-533 Gr. B (Rolled Plate)	LAS, SFA-5.5; 15-308	LAS, SA-508 CI 2 (Forged Ring) or Alloy 600		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-19		Core Differential Pressure Nozzle			LAS, SA-508 CI 2 (Forged Ring) or Alloy 600		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	50	40	80			There is one core differential pressure nozzle.	
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-20		Vessel - Recirculation Inlet Nozzle			LAS, SA-533 Gr. B (Rolled Plate)	LAS, SFA-5.5; 15-308	LAS, SA-508 CI 2 (Forged Ring)		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-21		Recirculation Inlet Nozzle			LAS, SA-508 CI 2 (Forged Ring)		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	50	40	80		BSEP LRA: 0.11 w/o Env. Effect; BFN LRA: 0.22 w/o Env. Effect	There are ten recirculation inlet nozzles.	
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-22		Recirculation Inlet Nozzle - Safe End			LAS, SA-508 CI 2 (Forged Ring)		SS, TP 316NG (LRD)		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	50	40	80				
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-23		Safe End			SS, TP 316NG (LRD)		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	30	20	41		BSEP LRA: 0.86 w/o Env. Effect		
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-24		Safe End - Thermal Sleeve			SS, TP 316NG (LRD)		Stainless Steel*		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	30	20	41				
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-25		Thermal Sleeve	10	0.365	Stainless Steel*		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	25	21	42				
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-26		Centering and Support Pad for thermal sleeve			Ni-Cr-Fe		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	35	35	70				
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-27		Control Rod Drive Stub			SB-166 or 167 Inconel		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	35	35	70			PB LRA: 0.875 w/o Env. Effect	
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-28A		Vessel - Control Rod Drive Stub (Central Location)			LAS, SA-533 Gr. B (Rolled Plate)	Inconel 82 or 182*	SB-166 or 167 Inconel		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80			NUREG/CR-6260: 0.474 w/Env. Effect	
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-28B		Vessel - Control Rod Drive Stub (Intermediate Location)			LAS, SA-533 Gr. B (Rolled Plate)	Inconel 82 or 182*	SB-166 or 167 Inconel		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-28C		Vessel - Control Rod Drive Stub (Peripheral Location)			LAS, SA-533 Gr. B (Rolled Plate)	Inconel 82 or 182*	SB-166 or 167 Inconel		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-29		In-Core Instrumentation Sleeve			SA213 TP304 and SA182 GR. F304 (LRD)		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	25	21	42				
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-30A		Vessel - In-Core Instrument Sleeve (central location)			LAS, SA-533 Gr. B (Rolled Plate)	Aust. SST (308/308L/309)	SA213 TP304 and SA182 GR. F304 (LRD)		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-30B		Vessel - In-Core Instrument Sleeve (intermediate location)			LAS, SA-533 Gr. B (Rolled Plate)	Aust. SST (308/308L/309)	SA213 TP304 and SA182 GR. F304 (LRD)		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-30C		Vessel - In-Core Instrument Sleeve (peripheral location)			LAS, SA-533 Gr. B (Rolled Plate)	Aust. SST (308/308L/309)	SA213 TP304 and SA182 GR. F304 (LRD)		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-31		Vessel - Shroud Support Leg			LAS, SA-533 Gr. B (Rolled Plate)		Alloy 600 (SB-168) (LRD)		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-32		Shroud Support Leg			Alloy 600 (SB-168) (LRD)		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	35	35	70		D&QC LRA: 0.82 w/o Env. Effect		
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-33		Shroud Support Leg - Shroud Support Ring			Alloy 600 (SB-168) (LRD)	Alloy 182 (GALL)	Alloy 600 (GALL)		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	35	35	70				
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-34		Shroud Support Plate			Alloy 600 (SB-168) (LRD)		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	35	35	70		BSEP LRA: 0.197 w/o Env. Effect		
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-35		Shroud Support Plate - Vessel			Alloy 600 (SB-168) (LRD)		LAS, SA-533 Gr. B (Rolled Plate)		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-36		Shroud Support Plate - Shroud Support Ring			Alloy 600 (SB-168) (LRD)		Alloy 600 - SB168 (LRD)		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	35	35	70				
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-37		Shroud Support Ring			Alloy 600 - SB168 (LRD)		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	35	35	70				
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-38		Vessel - First Alternate Control Rod Drive Sleeve			LAS, SA-533 Gr. B (Rolled Plate)		Inconel*		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-39		First Alternate Control Rod Drive Sleeve			Inconel*		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	35	35	70				
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-40		Vessel - Alternate Shroud Support Gusset			LAS, SA-533 Gr. B (Rolled Plate)		Inconel*		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 3 - Reactor Pressure Vessel Bottom Head (RPVBH)	RCS-RPVBH-41		Alternate Shroud Support Gusset			Alloy 600 (SB-168) (LRD)		Not Applicable		533														

System Identification	Group Identification	Part Identification	Part Number	Part Description	Part Size in inches	Part Thickness in inches	Material A	Material W	Material B	Weld Type	Operating Temperature in °F	Operating Pressure in psia	Operating Flow	Design Temperature in °F	Design Pressure in psia	Design Flow	Inside Environment	Outside Environment	Residual Stress in ksi	Normal Stress in ksi	Faulted Stress in ksi	CUF	Stress Comments	Operating Experience	General Comments
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	1	Vessel Flange	254 Inside Diameter	6.75	LAS, SA-508 Cl 2 (Forged Ring)		Not Applicable		547	1020	15.1 x 10 ⁶ lb/hr (steam)	575	1265		Reactor Coolant Steam	Drywell Containment	50	40	80				Material specifications do not exist on plant component drawings. Used information from the UFSAR Table 5.2-7 and Section 4.5. Operating and Design conditions do not exist on plant component drawings. Used information from the UFSAR Figure 5.1-1 and Section 1.2-12.
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	2	Vessel Flange - Upper Shell	254 Inside Diameter	6.75	LAS, SA-508 Cl 2 (Forged Ring)	LAS, SFA-5.5; 15-308	LAS, SA-533 Gr. B (Rolled Plate)		547	1020	15.1 x 10 ⁶ lb/hr (steam)	575	1265		Reactor Coolant Steam	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	3	Upper Shell	254 Inside Diameter	6.75	LAS, SA-533 Gr. B (Rolled Plate)		Not Applicable		547	1020	15.1 x 10 ⁶ lb/hr (steam)	575	1265		Reactor Coolant Steam	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	4	Upper Shell - Intermediate Shell "A"	254 Inside Diameter	6.75	LAS, SA-533 Gr. B (Rolled Plate)	LAS, SFA-5.5; 15-308	LAS, SA-533 Gr. B (Rolled Plate)		547	1020	15.1 x 10 ⁶ lb/hr (steam)	575	1265		Reactor Coolant Steam	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	5	Intermediate Shell "A"	254 Inside Diameter	6.75	LAS, SA-533 Gr. B (Rolled Plate)		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80				BSEP LRA: 0.482 w/Env. Effect
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	6	Intermediate Shell "A" - Intermediate Shell "B"	254 Inside Diameter	6.75	LAS, SA-533 Gr. B (Rolled Plate)	LAS, SFA-5.5; 3-308-A, B, C	LAS, SA-533 Gr. B (Rolled Plate)		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80				Weld Material Cu - 0.37%; P - 0.017%
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	7	Intermediate Shell "B" (Bellline Region)	254 Inside Diameter	6.75	LAS, SA-533 Gr. B (Rolled Plate)		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80				BFN LRA: 0.78 w/Env. Effect
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	8	Intermediate Shell "B" - Intermediate Shell "C"	254 Inside Diameter	6.75	LAS, SA-533 Gr. B (Rolled Plate)	LAS, SFA-5.5; 3-308-A, B, C	LAS, SA-533 Gr. B (Rolled Plate)		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80				Weld Material Cu - 0.37%; P - 0.017%
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	9	Intermediate Shell "C" (Bellline Region)	254 Inside Diameter	6.75	LAS, SA-533 Gr. B (Rolled Plate)		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80				Cu - 0.11 to 0.15%; P - 0.010 to 0.012%
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	10	Upper Shell - Upper Shell (long weld 1)	254 Inside Diameter	6.75	LAS, SA-533 Gr. B (Rolled Plate)	LAS, SFA-5.5; 15-308	LAS, SA-533 Gr. B (Rolled Plate)		547	1020	15.1 x 10 ⁶ lb/hr (steam)	575	1265		Reactor Coolant Steam	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	11	Upper Shell - Upper Shell (long weld 2)	254 Inside Diameter	6.75	LAS, SA-533 Gr. B (Rolled Plate)	LAS, SFA-5.5; 15-308	LAS, SA-533 Gr. B (Rolled Plate)		547	1020	15.1 x 10 ⁶ lb/hr (steam)	575	1265		Reactor Coolant Steam	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	12	Upper Shell - Upper Shell (long weld 3)	254 Inside Diameter	6.75	LAS, SA-533 Gr. B (Rolled Plate)	LAS, SFA-5.5; 15-308	LAS, SA-533 Gr. B (Rolled Plate)		547	1020	15.1 x 10 ⁶ lb/hr (steam)	575	1265		Reactor Coolant Steam	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	13	Intermediate Shell "A" - Intermediate Shell "A" (long weld-1)	254 Inside Diameter	6.75	LAS, SA-533 Gr. B (Rolled Plate)	LAS, SFA-5.5; 15-308	LAS, SA-533 Gr. B (Rolled Plate)		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	14	Intermediate Shell "A" - Intermediate Shell "A" (long weld-2)	254 Inside Diameter	6.75	LAS, SA-533 Gr. B (Rolled Plate)	LAS, SFA-5.5; 15-308	LAS, SA-533 Gr. B (Rolled Plate)		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	15	Intermediate Shell "A" - Intermediate Shell "A" (long weld-3)	254 Inside Diameter	6.75	LAS, SA-533 Gr. B (Rolled Plate)	LAS, SFA-5.5; 15-308	LAS, SA-533 Gr. B (Rolled Plate)		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	16	Intermediate Shell "B" - Intermediate Shell "B" (long weld-1)	254 Inside Diameter	6.75	LAS, SA-533 Gr. B (Rolled Plate)	LAS, SFA-5.5; 15-308	LAS, SA-533 Gr. B (Rolled Plate)		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	17	Intermediate Shell "B" - Intermediate Shell "B" (long weld-2)	254 Inside Diameter	6.75	LAS, SA-533 Gr. B (Rolled Plate)	LAS, SFA-5.5; 15-308	LAS, SA-533 Gr. B (Rolled Plate)		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	18	Intermediate Shell "B" - Intermediate Shell "B" (long weld-3)	254 Inside Diameter	6.75	LAS, SA-533 Gr. B (Rolled Plate)	LAS, SFA-5.5; 15-308	LAS, SA-533 Gr. B (Rolled Plate)		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	19	Intermediate Shell "C" - Intermediate Shell "C" (long weld-1)	254 Inside Diameter	6.75	LAS, SA-533 Gr. B (Rolled Plate)	LAS, SFA-5.5; 15-308	LAS, SA-533 Gr. B (Rolled Plate)		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	20	Intermediate Shell "C" - Intermediate Shell "C" (long weld-2)	254 Inside Diameter	6.75	LAS, SA-533 Gr. B (Rolled Plate)	LAS, SFA-5.5; 15-308	LAS, SA-533 Gr. B (Rolled Plate)		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	21	Intermediate Shell "C" - Intermediate Shell "C" (long weld-3)	254 Inside Diameter	6.75	LAS, SA-533 Gr. B (Rolled Plate)	LAS, SFA-5.5; 15-308	LAS, SA-533 Gr. B (Rolled Plate)		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	22	Vessel - Feedwater Nozzle	12	appx. 6.75	LAS, SA-533 Gr. B (Rolled Plate)	LAS, SFA-5.5; 15-308	LAS, SA-508 Cl 2 (Forged Ring)		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	23	Feedwater Nozzle	12	appx. 6.375	LAS, SA-508 Cl 2 (Forged Ring)		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	50	40	80				BSEP LRA: 0.617 w/Env. Effect; PB LRA: 0.57 and 0.59 w/Env. Effect; BFN LRA: 0.75 w/Env. Effect
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	24	Feedwater Nozzle - Safe End	12	appx. 1.0	LAS, SA-508 Cl 2 (Forged Ring)		CS, SA-508 Cl 1		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	50	40	80				Flow from UFSAR Figure 5.1.1.
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	25	Safe End	12	appx. 1.0	CS, SA-508 Cl 1 or bimetallic CS/Inconel (LRD)		Not Applicable		427	1045	2.53 x 10 ⁶ lb/hr/sparger	575	1265		Reactor Coolant	Drywell Containment	50	40	80				NUREG/CR-6260: 1.881 w/Env. Effect; BSEP LRA: 0.7584 w/Env. Effect; DAC LRA: 0.748 w/Env. Effect; PB LRA: 0.471 w/Env. Effect
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	26	Safe End - Thermal Sleeve	12		CS, SA-508 Cl 1 or bimetallic CS/Inconel (LRD)		Inconel 600 (SB-166) or SS SA336 Class F8 (LRD)		427	1045	2.53 x 10 ⁶ lb/hr/sparger	575	1265		Reactor Coolant	Reactor Coolant	50	40	80				Flow from UFSAR Figure 5.1.1. Replacement thermal sleeve in Group 7
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	27	Thermal Sleeve (old design)	12		Inconel 600 (SB-166) or SS SA336 Class F8 (LRD)		Not Applicable		427	1045	2.53 x 10 ⁶ lb/hr/sparger	575	1265		Reactor Coolant	Reactor Coolant	35	35	70				Flow from UFSAR Figure 5.1.1. Replacement thermal sleeve in Group 7
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	28	Centering and Support Pad (old design)	12		Ni-Cr-Fe		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Reactor Coolant	35	35	70				Flow from UFSAR Figure 5.1.1.
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	29	Vessel - Core Spray Nozzle	10		LAS, SA-533 Gr. B (Rolled Plate)	LAS, SFA-5.5; 15-308	LAS, SA-508 Cl 2 (Forged Ring)		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80				Flow from UFSAR Figure 5.1.1.
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	30	Core Spray Nozzle	10		LAS, SA-508 Cl 2 (Forged Ring)		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	50	40	80				There are two core spray nozzles and four core spray spargers. Operating Conditions taken from UFSAR Figure 6.3-1 for Primary Mode B.
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	31	Core Spray Nozzle - Safe End	10		LAS, SA-508 Cl 2 (Forged Ring)		316NG SS or SA182 F316L SS or Alloy 600 (LRD)		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	50	40	80				
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	32	Safe End	10		316NG SS or SA182 F316L SS or Alloy 600 (LRD)		Not Applicable		120/40	1145	1550 GPM Supply	575	1265		Reactor Coolant	Drywell Containment	30	25	50				BSEP LRA: 0.96 w/Env. Effect
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	33	Safe End - Carbon Steel Extension	10		316NG SS or SA182 F316L SS or Alloy 600 (LRD)		Carbon steel (0.3%C max)		120/40	1145	1550 GPM Supply	575	1265		Reactor Coolant	Drywell Containment	30	25	50				
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	34	Carbon Steel Extension	10		Carbon steel (0.3%C max) or SA508, Class 1		Not Applicable		120/40	1145	1550 GPM Supply	575	1265		Reactor Coolant	Drywell Containment	50	40	80				NUREG/CR-6260: 0.943 w/Env. Effect; BSEP LRA: 0.63 w/Env. Effect
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	35	Safe End - Thermal Sleeve	10		316NG SS or Alloy 600 (LRD)		Alloy 600 (SB-166) or Type 316 SS (LRD)		120/40	1145	1550 GPM Supply	575	1265		Reactor Coolant	Reactor Coolant	35	35	70				
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	36	Thermal Sleeve	10		Alloy 600 (SB-166) or Type 316 SS (LRD)		Not Applicable		120/40	1145	1550 GPM Supply	575	1265		Reactor Coolant	Reactor Coolant	35	35	70				NUREG/CR-6260: 0.436 w/Env. Effect
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	37	Centering and Support Pad	10		Ni-Cr-Fe		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Reactor Coolant	35	35	70				
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	38	Vessel - CRD Return Nozzle	4		LAS, SA-533 Gr. B (Rolled Plate)	LAS, SFA-5.5; 15-308	LAS, SA-508 Cl 2 (Forged Ring)		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	39	CRD Return Nozzle with Cap	4		LAS, SA-508 Cl 2 (Forged Ring)		Not Applicable		533	1059	108.5 x 10 ⁶ lb/hr	575	1265		Reactor Coolant	Drywell Containment	50	40	80				There is one CRD return nozzle which has been capped.
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	40	CRD Return Nozzle - Safe End	4		LAS, SA-508 Cl 2 (Forged Ring)		SB-166 (GALL)		Capped	Capped	Capped	575	1265		Reactor Coolant	Drywell Containment	50	40	80				Not in use
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	41	Safe End	4		SB-166 (GALL)		Not Applicable		Removed from service	Removed from service	Removed from service	575	1265		Reactor Coolant	Drywell Containment	35	35	70				BSEP LRA: 0.71 w/Env. Effect
Reactor Coolant System (RCS)	Group 2 - Reactor Pressure Vessel Shell (RPVSHL)	RCS-RPVSHL	42	Safe End - Thermal Sleeve	4		SB-166 (GALL)		Type 316 SS		Removed from service	Removed from service	Removed from service	575											

System Identification	Group Identification	Part Identification	Part Number	Part Description	Part Size in inches	Part Thickness in inches	Material A	Material W	Material B	Weld Type	Operating Temperature in °F	Operating Pressure in psia	Operating Flow	Design Temperature in °F	Design Pressure in psia	Design Flow	Inside Environment	Outside Environment	Residual Stress in ksi	Normal Stress in ksi	Faulted Stress in ksi	CUF	Stress Comments	Operating Experience	General Comments
Reactor Coolant System (RCS)	Group 1 - Reactor Pressure Vessel Closure Head (RPVCH)	RCS-RPVCH-1		Closure Head Flange - Side Plate "A"	253.5" ID Closure Head	3.625	LAS, SA-508 Cl 2 (Forged Ring)	LAS, SFA-5.5, 15-308	LAS, SA-533 Gr. B (Rolled Plate)		547	1020	15.1 x 10 ⁶ lb/hr (steam)	575	1265		Reactor Coolant Steam	Drywell Containment	70	40	80				Material specifications do not exist on plant component drawings. Used information from the UFSAR Table 5.2-7 and Section 4.5. Operating and Design conditions do not exist on plant component drawings. Used information from the UFSAR Figure 5.1-1 and Section 1.2-12. Design temperature from GE Tech. Manual.
Reactor Coolant System (RCS)	Group 1 - Reactor Pressure Vessel Closure Head (RPVCH)	RCS-RPVCH-2		Side Plate "A" - Side Plate "A"	253.5" ID Closure Head	3.625	LAS, SA-533 Gr. B (Rolled Plate)	LAS, SFA-5.5, 15-308	LAS, SA-533 Gr. B (Rolled Plate)		547	1020	15.1 x 10 ⁶ lb/hr (steam)	575	1265		Reactor Coolant Steam	Drywell Containment	70	40	80				Eight radial welds. Design pressure from UFSAR Section 1.2.2.3.2.
Reactor Coolant System (RCS)	Group 1 - Reactor Pressure Vessel Closure Head (RPVCH)	RCS-RPVCH-3		Side Plates "A" - Side Plates "B"	253.5" ID Closure Head	3.625	LAS, SA-533 Gr. B (Rolled Plate)	LAS, SFA-5.5, 15-308	LAS, SA-533 Gr. B (Rolled Plate)		547	1020	15.1 x 10 ⁶ lb/hr (steam)	575	1265		Reactor Coolant Steam	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 1 - Reactor Pressure Vessel Closure Head (RPVCH)	RCS-RPVCH-4		Side Plate "B" - Side Plate "B"	253.5" ID Closure Head	3.625	LAS, SA-533 Gr. B (Rolled Plate)	LAS, SFA-5.5, 15-308	LAS, SA-533 Gr. B (Rolled Plate)		547	1020	15.1 x 10 ⁶ lb/hr (steam)	575	1265		Reactor Coolant Steam	Drywell Containment	70	40	80				Five radial welds.
Reactor Coolant System (RCS)	Group 1 - Reactor Pressure Vessel Closure Head (RPVCH)	RCS-RPVCH-5		Side Plates "B" - Dollar Plate	253.5" ID Closure Head	3.625	LAS, SA-533 Gr. B (Rolled Plate)	LAS, SFA-5.5, 15-308	LAS, SA-533 Gr. B (Rolled Plate)		547	1020	15.1 x 10 ⁶ lb/hr (steam)	575	1265		Reactor Coolant Steam	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 1 - Reactor Pressure Vessel Closure Head (RPVCH)	RCS-RPVCH-6		Lifting Lug - Side Plate "A"	12" x 23" Lug	3" Lug - 3.625" Plate	LAS, SA-533 Gr. B (Rolled Plate) *	LAS, SFA-5.5, 15-308	LAS, SA-533 Gr. B (Rolled Plate)		547	Not Applicable	Not Applicable	575	Not Applicable		Not Applicable	Drywell Containment	70	40	80				There are four lifting lugs.
Reactor Coolant System (RCS)	Group 1 - Reactor Pressure Vessel Closure Head (RPVCH)	RCS-RPVCH-7		Cladding - Closure Head	253.5" ID Closure Head	3.625	7/32" thick cladding, SFA 5.9 OR SFA-5.4 TP 309 with Carbon content on final surface limit to 0.08% maximum.		LAS, SA-533 Gr. B (Rolled Plate) and LAS, SA-508 Cl 2 (Forged Ring)		547	1020	15.1 x 10 ⁶ lb/hr (steam)	575	1265		Reactor Coolant Steam	Drywell Containment	70	40	80				Typically the vessel closure head is uncladded, except the mating surface of the closure head flange with the vessel flange. However, this plant drawings indicate the entire inner surface is cladded.
Reactor Coolant System (RCS)	Group 1 - Reactor Pressure Vessel Closure Head (RPVCH)	RCS-RPVCH-8		Closure Head Flange	253.5" ID Closure Head	28.75	LAS, SA-508 Cl 2 (Forged Ring)		Not Applicable		547	1020	15.1 x 10 ⁶ lb/hr (steam)	575	1265		Reactor Coolant Steam	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 1 - Reactor Pressure Vessel Closure Head (RPVCH)	RCS-RPVCH-9		Side Plate "A"	253.5" ID Closure Head	3.625	LAS, SA-533 Gr. B (Rolled Plate)		Not Applicable		547	1020	15.1 x 10 ⁶ lb/hr (steam)	575	1265		Reactor Coolant Steam	Drywell Containment	70	40	80				There are eight "A" side plates.
Reactor Coolant System (RCS)	Group 1 - Reactor Pressure Vessel Closure Head (RPVCH)	RCS-RPVCH-10		Side Plate "B"	253.5" ID Closure Head	3.625	LAS, SA-533 Gr. B (Rolled Plate)		Not Applicable		547	1020	15.1 x 10 ⁶ lb/hr (steam)	575	1265		Reactor Coolant Steam	Drywell Containment	70	40	80				There are five "B" side plates.
Reactor Coolant System (RCS)	Group 1 - Reactor Pressure Vessel Closure Head (RPVCH)	RCS-RPVCH-11		Dollar Plate	253.5" ID Closure Head	3.625	LAS, SA-533 Gr. B (Rolled Plate)		Not Applicable		547	1020	15.1 x 10 ⁶ lb/hr (steam)	575	1265		Reactor Coolant Steam	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 1 - Reactor Pressure Vessel Closure Head (RPVCH)	RCS-RPVCH-12		Lifting Lug		3	LAS, SA-533 Gr. B (Rolled Plate) *		Not Applicable		547	Not Applicable	Not Applicable	575	Not Applicable		Not Applicable	Drywell Containment	70	40	80				There are four lifting lugs.
Reactor Coolant System (RCS)	Group 1 - Reactor Pressure Vessel Closure Head (RPVCH)	RCS-RPVCH-13		Closure Stud	53" long	6" Dia.	CS, SA540 B23 or B24; PCH-16C, GR. B		Not Applicable		547	Not Applicable	Not Applicable	575	Not Applicable		Not Applicable	Drywell Containment	50	40	80				BSEF LRA: 0.81 w/o Env. Effect; D&GC LRA: 0.75 w/o Env. Effect; BFN LRA: 0.70 w/o Env. Effect
Reactor Coolant System (RCS)	Group 1 - Reactor Pressure Vessel Closure Head (RPVCH)	RCS-RPVCH-14		Closure Nut and Washer	8.375" wide	5.625" high	CS, SA540 B23 or B24		Not Applicable		547	Not Applicable	Not Applicable	575	Not Applicable		Not Applicable	Drywell Containment	50	40	80				68 each
Reactor Coolant System (RCS)	Group 1 - Reactor Pressure Vessel Closure Head (RPVCH)	RCS-RPVCH-15		Head Spray/Instrumentation Nozzles - Dollar Plate	6	1.625 - 3.625	LAS, SA-508 Cl 2	LAS, SFA-5.5, 15-308	LAS, SA-533 Gr. B (Rolled Plate)		547	1020	15.1 x 10 ⁶ lb/hr (steam)	575	1265		Reactor Coolant Steam	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 1 - Reactor Pressure Vessel Closure Head (RPVCH)	RCS-RPVCH-16		Head Spray/Instrumentation Nozzles - Nozzle Flanges	6	1.625	LAS, SA-508 Cl 2		LAS, SA-508 Cl 1		547	1020		575	1265		Reactor Coolant Steam	Drywell Containment	50	40	80				
Reactor Coolant System (RCS)	Group 1 - Reactor Pressure Vessel Closure Head (RPVCH)	RCS-RPVCH-17		Head Vent Nozzle - Dollar Plate	4	1.625	LAS, SA-508 Cl 2	LAS, SFA-5.5, 15-308	LAS, SA-533 Gr. B (Rolled Plate)		547	1020	15.1 x 10 ⁶ lb/hr (steam)	575	1265		Reactor Coolant Steam	Drywell Containment	70	40	80				
Reactor Coolant System (RCS)	Group 1 - Reactor Pressure Vessel Closure Head (RPVCH)	RCS-RPVCH-18		Head Vent Nozzle - Nozzle Flange	4	1.625	LAS, SA-508 Cl 2		LAS, SA-508 Cl 1		547	1020		575	1265		Reactor Coolant Steam	Drywell Containment	50	40	80				
Reactor Coolant System (RCS)	Group 1 - Reactor Pressure Vessel Closure Head (RPVCH)	RCS-RPVCH-19		Head Spray/Instrumentation Nozzles	6	1.625	LAS, SA-508 Cl 2		Not Applicable		547	1020	15.1 x 10 ⁶ lb/hr (steam)	575	1265		Reactor Coolant Steam	Drywell Containment	50	40	80				There is one head spray nozzle and one instrumentation nozzle.
Reactor Coolant System (RCS)	Group 1 - Reactor Pressure Vessel Closure Head (RPVCH)	RCS-RPVCH-20		Head Spray /Instrumentation Nozzles Flanges	6	1.625	LAS, SA-508 Cl 1		Not Applicable		547	1020	15.1 x 10 ⁶ lb/hr (steam)	575	1265		Reactor Coolant Steam	Drywell Containment	25	21	42				
Reactor Coolant System (RCS)	Group 1 - Reactor Pressure Vessel Closure Head (RPVCH)	RCS-RPVCH-21		Head Vent Nozzle	4	1.625	LAS, SA-508 Cl 2		Not Applicable		547	1020	15.1 x 10 ⁶ lb/hr (steam)	575	1265		Reactor Coolant Steam	Drywell Containment	50	40	80				There is one head vent nozzle.
Reactor Coolant System (RCS)	Group 1 - Reactor Pressure Vessel Closure Head (RPVCH)	RCS-RPVCH-22		Head Vent Nozzle Flange	4	1.625	LAS, SA-508 Cl 1		Not Applicable		547	1020	15.1 x 10 ⁶ lb/hr (steam)	575	1265		Reactor Coolant Steam	Drywell Containment	25	21	42				
Reactor Coolant System (RCS)	Group 1 - Reactor Pressure Vessel Closure Head (RPVCH)	RCS-RPVCH-23		Vessel Closure Head - Dryer Hold Down Bracket	9.75 High	4	LAS, SA-508 Cl 2 (Forged Ring)	EB018 (LRD)	SS, SA182 GR.304 or SA533 GR. B Class 1 (LRD)		547	1020	15.1 x 10 ⁶ lb/hr (steam)	575	1265		Reactor Coolant Steam	Drywell Containment	50	40	80				There are two guide rod brackets. All bracket material spec. obtained from drawings and BWR/4 plant
Reactor Coolant System (RCS)	Group 1 - Reactor Pressure Vessel Closure Head (RPVCH)	RCS-RPVCH-24		Dryer Hold Down Bracket	9.75 High	4	SS, SA182 GR.304 or SA533 GR. B Class 1 (LRD)		Not Applicable		547	1020	15.1 x 10 ⁶ lb/hr (steam)	575	1265		Reactor Coolant Steam	Drywell Containment	25	21	42				There are four dryer hold down brackets.

* Actual plant-specific material unknown. Best known material based on other generic sources including technical evaluations of published document