

summary of the predictions is listed in Tables 6.2.1-6, 6.2.1-7, and 6.2.1-8 for short-term containment response for LOCAs, and Table 6.2.1-9 for the MSLB.

Table 6.2.1-6, Table 6.2.1-7, and Table 6.2.1-8 present thirty-eight separate cases for LOCA analysis for three postulated break locations. For the LOCA, the limiting containment pressure results from the double-ended guillotine (~~DEG~~) break in the RCS hot leg (~~HL~~) piping, with the worst single failure being the loss of one ESF train.

Table 6.2.1-9 lists twenty cases for the MSLB, with four break sizes ranging from the double-ended guillotine ~~DEG~~ break to the 0.5 square foot break area, and power levels from 100 percent down to zero percent of rated thermal power (RTP). The peak containment pressure results from the assumed ~~DEG~~ double-ended guillotine MSLB with a failure of one MSIV at 50 percent RTP.

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The passive heat sinks inside the primary containment consists of all painted and unpainted concrete ~~and metal surfaces that are exposed to the primary containment atmosphere~~, steel structures and liner for the containment shell and IRWST surfaces. The IRWST heat sinks are exposed to the water in the pool. The remaining heat sinks are exposed to the containment atmosphere. These areas are approximately the same temperature as the containment ambient temperature during normal plant operation. The specific passive heat sinks considered in the containment pressure-temperature analysis and their parameters are listed in Table 6.2.1-5—Containment Heat Sink Inventory. A minimum heat sink surface area was considered for conservatism.

The requirements of 10 CFR 50, Appendix K, Part I.A list the required features of the evaluation models for sources of heat during the LOCA. For the heat sources of 10 CFR 50, Appendix K, it must be assumed that the reactor has been operating continuously at a power level at least 1.02 times rated thermal power to allow for instrumentation error. The assumed power level may be decreased provided the proposed alternative value has been demonstrated to account for uncertainties of power level with a lower instrumentation error. The core power is measured using a secondary side heat balance with feedwater flow rate. A heat balance measurement uncertainty of approximately one-half percent of rated thermal power, or 1.005, is applicable to the core power for the U.S. EPR. This value is achieved with the use of an ultrasonic flow meter for the feedwater flow rate. This value is consistent with the assumption used in the safety analysis in Section 15.0.0.3.1.

The heat removal due to safety injection system/residual heat removal (SIS/RHR) system operation is simulated in the GOTHIC Version 7.2 computer code by specifying heat exchanger input values from Table 6.2.1-3. The GOTHIC heat exchanger model was benchmarked against heat exchanger performance data to provide a conservative representation.

building surface temperature will be no greater than the saturation temperature at building design pressure of 62 psig, or 309.1°F. Figure 6.2.1-35 shows that the analysis predicts that the containment vapor temperature remains above the design temperature for less than two minutes.

### 6.2.1.5 Minimum Containment Pressure Analysis for Performance Capability Studies on Emergency Core Cooling System

#### 6.2.1.5.1 Mass and Energy Release Data

Containment pressure calculations are performed by the ICECON module within S-RELAP5 code. ICECON is a variant to the CONTEMPT containment code series. The RLBLOCA methodology treats containment pressure as a statistically varied parameter with a random sampling of the containment volume. The tabular M&E mass and energy release data are not explicitly generated because they are part of the internal code calculations at each time step. The mathematical models that calculate the M&E mass and energy releases to the containment are described in Section 15.6 and conform to ECCS evaluation models of 10 CFR Part 50, Appendix K.

#### 6.2.1.5.2 Initial Containment Internal Conditions

The initial values for the containment conditions are representative of 100 percent rated thermal power, and are a pressure of 14.7 psia and temperature of 59°F. The outside atmospheric temperature of 20°F and relative humidity of 100 percent are assumed and modeled within the ICECON module, which also assumes an outside atmospheric temperature of 20°F and a relative humidity of 100 percent. Inside the containment, the IRWST water temperature is expected to be at the containment temperature of approximately 60°F, but could range as high as 120°F, which is the Technical Specification maximum value for IRWST temperature. The RLBLOCA methodology uses the value of 120°F.

#### 6.2.1.5.3 Other Parameters

The containment pressure varies and the RLBLOCA methodology determines it by sampling the containment volume. The nominal or best-estimate value of the containment volume is  $2.888 \times 10^6$  ft<sup>3</sup>. The upper estimate value for the containment volume is  $3.645 \times 10^6$  ft<sup>3</sup> and represents the empty volume of the containment dome and cylinder and also neglects the volume displaced by the internal walls and structures. This latter value is conservative because a lower containment backpressure results in the highest calculated peak cladding temperature. ~~Heat transfer between the IRWST water and the containment vapor space is not considered in the analysis.~~

Heat transfer between the IRWST water and containment vapor is treated in a conservative manner. First, the IRWST is assumed to be well mixed so the liquid temperature at the interface between the IRWST water and the containment vapor

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space is the bulk liquid temperature. This neglects heating of the surface water and maximizes the temperature differential for heat transfer. Second, structures that reduce the exposed surface of the IRWST are neglected. Other simplifications are included that effectively double the IRWST surface area available for heat transfer.

Water spillage rates from the accumulator in the broken loop are determined as part of the core ~~reflood~~re-flooding calculation, and are included in the containment code calculational model. The passive heat sinks and thermo-physical properties were derived in accordance with Branch Technical Position 6-2, “Minimum Containment Pressure Model for PWR ECCS Performance Evaluation.”

#### 6.2.1.6 Tests and Inspections

Refer to Section 3.8.1.7 and Section 3.8.2.7 for testing and inspection requirements for the containment structure. Refer to Section 6.2.6 for the containment leakage rate testing program, and Section 6.6 for inservice inspection of ASME Class 2 and 3 components. Containment testing and inspections are also included in the Technical Specifications (Chapter 16), ~~which specifies the inservice inspection and testing required for the plant’s operating license.~~

#### 6.2.1.7 Instrumentation Requirements

Refer to Section 7.3 for engineered safety features instrumentation. Refer to Section 12.3.4 for radiation monitoring instrumentation.

**Table 6.2.1-4—Containment Initial and Boundary Conditions**

Item	Parameter	Analytical Value										
1	Containment Free Volume	2,754,237 ft <sup>3</sup> 78,000 m <sup>3</sup>										
2	Initial IRWST Water Volume	50,996 ft <sup>3</sup> 1444 m <sup>3</sup>										
3	Initial IRWST Water Temperature	122°F 50°C										
4	Initial Containment Pressure	15.96 psia 1.1 bar										
5	Initial Containment Temperature	<table border="0"> <tr> <td style="text-align: center;"><b>Minimum</b></td> <td style="text-align: center;"><b>Maximum</b></td> </tr> <tr> <td style="text-align: center;"><u>Service</u></td> <td style="text-align: center;"><u>Equipment</u></td> </tr> <tr> <td style="text-align: center;"><u>Compartments</u></td> <td style="text-align: center;"><u>Compartments</u></td> </tr> <tr> <td style="text-align: center;">86°F</td> <td style="text-align: center;">131°F</td> </tr> <tr> <td style="text-align: center;">30°C</td> <td style="text-align: center;">55°C</td> </tr> </table>	<b>Minimum</b>	<b>Maximum</b>	<u>Service</u>	<u>Equipment</u>	<u>Compartments</u>	<u>Compartments</u>	86°F	131°F	30°C	55°C
<b>Minimum</b>	<b>Maximum</b>											
<u>Service</u>	<u>Equipment</u>											
<u>Compartments</u>	<u>Compartments</u>											
86°F	131°F											
30°C	55°C											
6	Initial Relative Humidity	30%										
7	Outside or Ambient Temperature	Insulated boundary condition to maximize containment temperature and pressure										

**Table 6.2.1-5—Containment Heat Sink Inventory**  
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Description	Thickness, m					Total Surface, m <sup>2</sup>
	Paint	C-Steel	S-Steel	Air	Concrete	
<b>Containment Wall with Steel Liner</b>	0.0002	0	0.006	0.003	1.222	9177
1 Access to RB annulus	0.0002	0	0.006	0.003	1.306	77.56
2 Lower annulus rooms L1 & 2 to RB annulus	0.0002	0	0.006	0.003	1.306	151.24
3 Lower annulus rooms L3 & 4 to RB annulus	0.0002	0	0.006	0.003	1.306	151.24
4 Hot piping to RB annulus	0.0002	0	0.006	0.003	1.306	178.38
5 Middle annulus rooms L1 & 2 to RB annulus	0.0002	0	0.006	0.003	1.306	1140.81
6 Middle annulus rooms L3 & 4 to RB annulus	0.0002	0	0.006	0.003	1.3055	1269.38
7 Access to RB annulus	0.0002	0	0.006	0.003	1.306	65.95
8 Middle annulus rooms L3 & 4 to RB annulus	0.0002	0	0.006	0.003	1.306	130.42
9 Lower & upper dome L1, 2, 3 & 4 to RB annulus	0.0002	0	0.006	0.003	1.306	517.31
10 Upper annulus rooms L1 & 2 to RB annulus	0.0002	0	0.006	0.003	1.306	330.64
11 Upper annulus rooms L3 & 4 to RB annulus	0.0002	0	0.006	0.003	1.306	330.64
12 Staircase (south) to RB annulus	0.0002	0	0.006	0.003	1.306	43.7
13 Lower & upper dome L1, 2, 3 & 4 to RB annulus	0.0002	0	0.006	0.003	1.3	2309.5
14 Lower & upper dome L1, 2, 3 & 4 to RB annulus	0.0002	0	0.006	0.003	1	2480
<b>IRWST Vertical Wall</b>	0	0	0.004	0	1.404	669
1 Spreading rooms to IRWST	0	0	0.004	0	1.2	42.06
2 IRWST to SG blowdown (LCQ) HX etc.	0	0	0.004	0	0.3	19.66
3 IRWST to components	0	0	0.004	0	0.8	37.96
4 IRWST to elevator	0	0	0.004	0	0.74	2.08
5 IRWST to lower annulus rooms L1 & 2	0	0	0.004	0	1.5	560

**Table 6.2.1-5—Containment Heat Sink Inventory**  
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	Description	Thickness, m					Total Surface, m <sup>2</sup>
		Paint	C-Steel	S-Steel	Air	Concrete	
6	IRWST to hot piping	0	0	0.004	0	1.5	6.88
	<b>IRWST horizontal wall (floor/ceiling)</b>	0	0	0.004	0	1.434	983
1	IRWST to SG blowdown (LCQ) HX etc.	0	0	0.004	0	1	64.64
2	IRWST to components	0	0	0.004	0	0.8	46.56
3	IRWST to lower equipment rooms L1	0	0	0.004	0	1.5	78.8
4	IRWST to lower equipment rooms L2	0	0	0.004	0	1.5	139.2
5	IRWST to lower equipment rooms L3	0	0	0.004	0	1.5	139.2
6	IRWST to lower equipment rooms L4	0	0	0.004	0	1.5	78.8
7	IRWST to lower equipment rooms L1	0	0	0.004	0	1.5	78.8
8	IRWST to lower equipment rooms L2	0	0	0.004	0	1.5	139.2
9	IRWST to lower equipment rooms L3	0	0	0.004	0	1.5	139.2
10	IRWST to lower equipment rooms L4	0	0	0.004	0	1.5	78.8
	<b>IRWST Basemat</b>	0	0	0.004	0	4	1152
1	IRWST to ground	0	0	0.004	0	4	590
2	IRWST to Ambient	0	0	0.004	0	4	562
	<b>Vertical wall to accessible space</b>	0.0004	0	0	0	0.39	8342
1	access to elevator	0.0004	0	0	0	0.1	52.34
2	lower annulus rooms L1 & 2 to elevator	0.0004	0	0	0	0.1	12.54
3	lower annulus rooms L1 & 2 to access	0.0004	0	0	0	0.1	14.08
4	lower annulus rooms L3 & 4 to access	0.0004	0	0	0	0.1	27.56
5	lower annulus rooms L1 & 2 to hot piping	0.0004	0	0	0	0.15	20.8

**Table 6.2.1-5—Containment Heat Sink Inventory**  
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	Description	Thickness, m					Total Surface, m <sup>2</sup>
		Paint	C-Steel	S-Steel	Air	Concrete	
6	lower annulus rooms L3 & 4 to hot piping	0.0004	0	0	0	0.15	20.8
7	middle annulus rooms L1 & 2 to staircase (south)	0.0004	0	0	0	0.15	362.82
8	middle annulus rooms L1 & 2 to elevator	0.0004	0	0	0	0.1	178.94
9	Internal wall in middle annulus rooms L1 & 2	0.0004	0	0	0	0.1322	186.96
10	Internal wall in middle annulus rooms L1 & 2	0.0004	0	0	0	0.25	190.24
11	middle annulus rooms L1 & 2 to access	0.0004	0	0	0	0.1	17.8
12	middle annulus rooms L3 & 4 to access	0.0004	0	0	0	0.1	16.38
13	Internal wall in middle annulus rooms L3 & 4	0.0004	0	0	0	0.25	203.96
14	middle annulus rooms L1 & 2 to staircase (north)	0.0004	0	0	0	0.15	229.12
15	middle annulus rooms L3 & 4 to staircase (north)	0.0004	0	0	0	0.15	223.08
16	middle annulus rooms L1 & 2 to middle annulus rooms L3 & 4	0.0004	0	0	0	0.7132	365.38
17	Internal wall in middle annulus rooms L3 & 4	0.0004	0	0	0	0.6	28.28
18	Internal wall in middle annulus rooms L1 & 2	0.0004	0	0	0	0.755	47.6
19	middle annulus rooms L1 & 2 to lower & upper dome L1, 2, 3 & 4	0.0004	0	0	0	0.4443	105.12
20	middle annulus rooms L1 & 2 to lower & upper dome L1, 2, 3 & 4	0.0004	0	0	0	0.7	156.32
21	middle annulus rooms L1 & 2 to staircase (north)	0.0004	0	0	0	0.5	25.2
22	middle annulus rooms L1 & 2 to elevator	0.0004	0	0	0	0.5	102.74
23	Internal wall in middle annulus rooms L1 & 2	0.0004	0	0	0	0.5	35.3

**Table 6.2.1-5—Containment Heat Sink Inventory**  
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	Description	Thickness, m					Total Surface, m <sup>2</sup>
		Paint	C-Steel	S-Steel	Air	Concrete	
24	middle annulus rooms L1 & 2 to upper annulus rooms L1 & 2	0.0004	0	0	0	0.5	350.76
25	upper annulus rooms L1 & 2 to staircase (north)	0.0004	0	0	0	0.15	80.34
26	upper annulus rooms L3 & 4 to staircase (north)	0.0004	0	0	0	0.15	110.26
27	upper annulus rooms L1 & 2 to staircase (north)	0.0004	0	0	0	0.5	16.32
28	upper annulus rooms L1 & 2 to elevator	0.0004	0	0	0	0.1	123.1
29	upper annulus rooms L1 & 2 to elevator	0.0004	0	0	0	0.5	13.68
30	upper annulus rooms L1 & 2 to lower & upper dome L1, 2, 3 & 4	0.0004	0	0	0	0.65	14.4
31	lower & upper dome L1, 2, 3 & 4 to staircase (south)	0.0004	0	0	0	0.15	58.22
32	Internal wall in upper annulus rooms L1 & 2	0.0004	0	0	0	0.5	14.04
33	upper annulus rooms L1 & 2 to staircase (south)	0.0004	0	0	0	0.15	29.62
34	upper annulus rooms L3 & 4 to lower & upper dome L1, 2, 3 & 4	0.0004	0	0	0	0.5	31.48
35	Internal wall in upper annulus rooms L3 & 4	0.0004	0	0	0	0.15	200.28
36	Internal wall in lower & upper dome L1, 2, 3 & 4	0.0004	0	0	0	0.44115	541.32
37	upper annulus rooms L1 & 2 to staircase (north)	0.0004	0	0	0	0.25	29.92
38	upper annulus rooms L1 & 2 to elevator	0.0004	0	0	0	0.25	25.08
39	Internal wall in upper annulus rooms L1 & 2	0.0004	0	0	0	0.25	37.68
40	upper annulus rooms L1 & 2 to lower & upper dome L1, 2, 3 & 4	0.0004	0	0	0	0.25	26.04
41	SG blowdown (LCQ) HX etc. to elevator	0.0004	0	0	0	0.4	8.32



**Table 6.2.1-5—Containment Heat Sink Inventory  
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	Description	Thickness, m					Total Surface, m <sup>2</sup>
		Paint	C-Steel	S-Steel	Air	Concrete	
42	SG blowdown (LCQ) HX etc. to access	0.0004	0	0	0	0.1	37.19
43	SG blowdown (LCQ) HX etc. to lower annulus rooms L1 & 2	0.0004	0	0	0	0.4	5.02
44	SG blowdown (LCQ) HX etc. to lower annulus rooms L3 & 4	0.0004	0	0	0	0.15	5.12
45	Components to hot piping	0.0004	0	0	0	0.5	77.08
46	Components to hot piping	0.0004	0	0	0	0.15	9.28
47	lower equipment rooms L1 to staircase (south)	0.0004	0	0	0	0.6	60.19
48	lower equipment rooms L1 to middle annulus rooms L1 & 2	0.0004	0	0	0	0.6	178.12
49	lower equipment rooms L1 to components	0.0004	0	0	0	0.2742	30.19
50	lower equipment rooms L2 to middle annulus rooms L1 & 2	0.0004	0	0	0	0.6	174.71
51	lower equipment rooms L3 to middle annulus rooms L3 & 4	0.0004	0	0	0	0.6	177.35
52	lower equipment rooms L4 to middle annulus rooms L3 & 4	0.0004	0	0	0	0.6	201.09
53	surge line, below to elevator	0.0004	0	0	0	0.4779	44.6
54	Components to middle annulus rooms L1 & 2	0.0004	0	0	0	0.4	35.02
55	surge line, below to middle annulus rooms L1 & 2	0.0004	0	0	0	0.6	12.46
56	surge line, below to middle annulus rooms L3 & 4	0.0004	0	0	0	0.43975	9.11
57	Components to middle annulus rooms L3 & 4	0.0004	0	0	0	0.3	6.76
58	Components to middle annulus rooms L3 & 4	0.0004	0	0	0	0.4	33.44

**Table 6.2.1-5—Containment Heat Sink Inventory**  
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	Description	Thickness, m					Total Surface, m <sup>2</sup>
		Paint	C-Steel	S-Steel	Air	Concrete	
59	Components to middle annulus rooms L3 & 4	0.0004	0	0	0	0.15	17.01
60	surge line, below to access	0.0004	0	0	0	0.4	48.55
61	reactor cavity to upper annulus rooms L1 & 2	0.0004	0	0	0	0.5	42.23
62	surge line, below to staircase (north)	0.0004	0	0	0	0.6	28.68
63	surge line, below to elevator	0.0004	0	0	0	0.6	12.12
64	surge line, below to middle annulus rooms L3 & 4	0.0004	0	0	0	0.6	14.14
65	reactor cavity to middle annulus rooms L1 & 2	0.0004	0	0	0	0.4	16.8
66	reactor cavity to lower & upper dome L1, 2, 3 & 4	0.0004	0	0	0	0.4	23.04
67	middle equipment rooms L1 to staircase (south)	0.0004	0	0	0	0.6	56.65
68	middle equipment rooms L1 to middle annulus rooms L1 & 2	0.0004	0	0	0	0.6	114.61
69	middle equipment rooms L2 to middle annulus rooms L1 & 2	0.0004	0	0	0	0.6	128.02
70	middle equipment rooms L3 to middle annulus rooms L3 & 4	0.0004	0	0	0	0.6	157.44
71	middle equipment rooms L4 to middle annulus rooms L3 & 4	0.0004	0	0	0	0.6	138.92
72	surge line, below to staircase (north)	0.0004	0	0	0	0.5	34.46
73	surge line, below to middle annulus rooms L1 & 2	0.0004	0	0	0	0.5	29.64
74	surge line, below to middle annulus rooms L1 & 2	0.0004	0	0	0	0.275	42.08
75	middle equipment rooms L2 to middle annulus rooms L1 & 2	0.0004	0	0	0	0.4	26.3
76	middle equipment rooms L1 to staircase (south)	0.0004	0	0	0	0.15	8.4

**Table 6.2.1-5—Containment Heat Sink Inventory**  
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	Description	Thickness, m					Total Surface, m <sup>2</sup>
		Paint	C-Steel	S-Steel	Air	Concrete	
77	PZR to staircase (north)	0.0004	0	0	0	0.5	39.12
78	middle equipment rooms L1 to middle annulus rooms L1 & 2	0.0004	0	0	0	0.10695	79.38
79	middle equipment rooms L4 to middle annulus rooms L3 & 4	0.0004	0	0	0	0.10965	86.6
80	PZR to middle annulus rooms L3 & 4	0.0004	0	0	0	0.5	42.7
81	PZR to middle annulus rooms L1 & 2	0.0004	0	0	0	0.4	32.31
82	upper equipment rooms L1 & 2 to lower & upper dome L1, 2, 3 & 4	0.0004	0	0	0	0.15	156.04
83	upper equipment rooms L1 & 2 to lower & upper dome L1, 2, 3 & 4	0.0004	0	0	0	0.4423	316.84
84	upper equipment rooms L1 & 2 to upper annulus rooms L1 & 2	0.0004	0	0	0	0.5	277.91
85	upper equipment rooms L1 & 2 to staircase (south)	0.0004	0	0	0	0.5	16.4
86	upper equipment rooms L1 & 2 to upper annulus rooms L1 & 2	0.0004	0	0	0	0.25	43.19
87	upper equipment rooms L3 & 4 to upper annulus rooms L3 & 4	0.0004	0	0	0	0.5	227.72
88	upper equipment rooms L3 & 4 to lower & upper dome L1, 2, 3 & 4	0.0004	0	0	0	0.25	29.77
89	upper equipment rooms L3 & 4 to lower & upper dome L1, 2, 3 & 4	0.0004	0	0	0	0.4431	321.22
90	upper equipment rooms L3 & 4 to lower & upper dome L1, 2, 3 & 4	0.0004	0	0	0	0.15	156.04

**Table 6.2.1-5—Containment Heat Sink Inventory**  
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	Description	Thickness, m					Total Surface, m <sup>2</sup>
		Paint	C-Steel	S-Steel	Air	Concrete	
91	PZR to upper annulus rooms L3 & 4	0.0004	0	0	0	0.5	47.59
92	PZR to upper annulus rooms L1 & 2	0.0004	0	0	0	0.4	66.57
93	upper equipment rooms L1 & 2 to lower & upper dome L1, 2, 3 & 4	0.0004	0	0	0	0.25	15.09
94	PZR to lower & upper dome L1, 2, 3 & 4	0.0004	0	0	0	0.4	17.48
	<b>Vertical wall to non-accessible space</b>	0.0004	0	0	0	0.501	11032
1	spreading rooms to components	0.0004	0	0	0	0.6	91.12
2	spreading rooms to components	0.0004	0	0	0	0.25	91.4
3	spreading rooms to lower equipment rooms L4	0.0004	0	0	0	0.27265	41.92
4	spreading rooms to components	0.0004	0	0	0	0.4	25.18
5	Internal wall in SG blowdown (LCQ) HX etc.	0.0004	0	0	0	0.25	12.64
6	RPV pit to SG blowdown (LCQ) HX etc.	0.0004	0	0	0	1.36	5.2
7	Internal wall in components	0.0004	0	0	0	0.25365	299.32
8	RPV pit to components	0.0004	0	0	0	1.36	105.6
9	Internal wall in components	0.0004	0	0	0	0.2	46.9
10	lower equipment rooms L1 to RPV pit	0.0004	0	0	0	1.01135	65.1
11	lower equipment rooms L2 to RPV pit	0.0004	0	0	0	1.0228	61.42
12	RPV pit to lower equipment rooms L3	0.0004	0	0	0	1.0228	61.42
13	RPV pit to lower equipment rooms L4	0.0004	0	0	0	1.0212	63.48
14	RPV pit to surge line, below	0.0004	0	0	0	0.82845	26.88
15	lower equipment rooms L1 to lower equipment rooms L4	0.0004	0	0	0	0.25	30.96

**Table 6.2.1-5—Containment Heat Sink Inventory**  
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	Description	Thickness, m					Total Surface, m <sup>2</sup>
		Paint	C-Steel	S-Steel	Air	Concrete	
16	lower equipment rooms L2 to surge line, below	0.0004	0	0	0	0.4564	154.18
17	lower equipment rooms L3 to surge line, below	0.0004	0	0	0	0.44975	174.86
18	lower equipment rooms L4 to components	0.0004	0	0	0	0.25	7.46
19	lower equipment rooms L4 to components	0.0004	0	0	0	0.6	34.4
20	Internal wall in surge line, below	0.0004	0	0	0	0.25	154.68
21	Internal wall in components	0.0004	0	0	0	0.4	26.66
22	lower equipment rooms L1 to reactor cavity	0.0004	0	0	0	0.6	68.24
23	lower equipment rooms L2 to reactor cavity	0.0004	0	0	0	0.6	30.48
24	reactor cavity to lower equipment rooms L3	0.0004	0	0	0	0.6	30.48
25	reactor cavity to lower equipment rooms L4	0.0004	0	0	0	0.6	65.2
26	Internal wall in reactor cavity	0.0004	0	0	0	0.6	21.74
27	reactor cavity to surge line, below	0.0004	0	0	0	0.6	164.8
28	middle equipment rooms L1 to reactor cavity	0.0004	0	0	0	0.6	569.6
29	middle equipment rooms L2 to reactor cavity	0.0004	0	0	0	0.6	255.12
30	reactor cavity to middle equipment rooms L3	0.0004	0	0	0	0.6	250.64
31	reactor cavity to middle equipment rooms L4	0.0004	0	0	0	0.6	572.64
32	reactor cavity to PZR	0.0004	0	0	0	0.6	132.54
33	Internal wall in equipment rooms L1	0.0004	0	0	0	0.5	84.46
34	lower equipment rooms L1 to lower equipment rooms L2	0.0004	0	0	0	0.5	168.92
35	Internal wall in lower equipment rooms L2	0.0004	0	0	0	0.5	175.48
36	lower equipment rooms L2 to reactor cavity	0.0004	0	0	0	0.4	25.2

**Table 6.2.1-5—Containment Heat Sink Inventory**  
**Sheet 10 of 22**

	Description	Thickness, m					Total Surface, m <sup>2</sup>
		Paint	C-Steel	S-Steel	Air	Concrete	
37	Internal wall in lower equipment rooms L3	0.0004	0	0	0	0.5	175.48
38	lower equipment rooms L3 to lower equipment rooms L4	0.0004	0	0	0	0.5	168.92
39	Internal wall in lower equipment rooms L4	0.0004	0	0	0	0.5	168.92
40	lower equipment rooms L4 to middle equipment rooms L4	0.0004	0	0	0	0.6	83.78
41	Internal wall in surge line, below	0.0004	0	0	0	0.4	163.86
42	reactor cavity to surge line, below	0.0004	0	0	0	0.25	29.62
43	reactor cavity to surge line, below	0.0004	0	0	0	0.4	17
44	Internal wall in middle equipment rooms L1	0.0004	0	0	0	0.5	127.08
45	middle equipment rooms L1 to middle equipment rooms L2	0.0004	0	0	0	0.75105	62.14
46	Internal wall in middle equipment rooms L2	0.0004	0	0	0	0.5	126.28
47	middle equipment rooms L2 to surge line, below	0.0004	0	0	0	0.4	110.16
48	Internal wall in middle equipment rooms L3	0.0004	0	0	0	0.5	126.48
49	middle equipment rooms L3 to surge line, below	0.0004	0	0	0	0.4	114
50	middle equipment rooms L3 to middle equipment rooms L4	0.0004	0	0	0	0.75155	61.94
51	Internal wall in middle equipment rooms L4	0.0004	0	0	0	0.5	127.52
52	surge line, below to PZR	0.0004	0	0	0	0.275	176.42
53	Internal wall in middle equipment rooms L1	0.0004	0	0	0	0.6	76.72
54	middle equipment rooms L1 to middle equipment rooms L2	0.0004	0	0	0	0.5	61.8

**Table 6.2.1-5—Containment Heat Sink Inventory**  
**Sheet 11 of 22**

	Description	Thickness, m					Total Surface, m <sup>2</sup>
		Paint	C-Steel	S-Steel	Air	Concrete	
55	middle equipment rooms L2 to PZR	0.0004	0	0	0	0.4	17.84
56	middle equipment rooms L3 to PZR	0.0004	0	0	0	0.4	85
57	middle equipment rooms L3 to middle equipment rooms L4	0.0004	0	0	0	0.5	61.8
58	Internal wall in middle equipment rooms L4	0.0004	0	0	0	0.6	71.04
59	Internal wall in PZR	0.0004	0	0	0	0.4	50.76
60	Internal wall in upper equipment rooms L1 & 2	0.0004	0	0	0	0.4535	226.34
61	Internal wall in upper equipment rooms L3 & 4	0.0004	0	0	0	0.4535	226.34
62	upper equipment rooms L3 & 4 to PZR	0.0004	0	0	0	0.25	102
63	SG blowdown (LCQ) HX etc. to elevator	0.0004	0	0	0	0.4	8.32
64	SG blowdown (LCQ) HX etc. to access	0.0004	0	0	0	0.1	37.19
65	SG blowdown (LCQ) HX etc. to lower annulus rooms L1 & 2	0.0004	0	0	0	0.4	5.02
66	SG blowdown (LCQ) HX etc. to lower annulus rooms L3 & 4	0.0004	0	0	0	0.15	5.12
67	Components to hot piping	0.0004	0	0	0	0.5	77.08
68	Components to hot piping	0.0004	0	0	0	0.15	9.28
69	lower equipment rooms L1 to staircase (south)	0.0004	0	0	0	0.6	60.19
70	lower equipment rooms L1 to middle annulus rooms L1 & 2	0.0004	0	0	0	0.6	178.12
71	lower equipment rooms L1 to components	0.0004	0	0	0	0.2742	30.19
72	lower equipment rooms L2 to middle annulus rooms L1 & 2	0.0004	0	0	0	0.6	174.71

**Table 6.2.1-5—Containment Heat Sink Inventory**  
**Sheet 12 of 22**

	Description	Thickness, m					Total Surface, m <sup>2</sup>
		Paint	C-Steel	S-Steel	Air	Concrete	
73	lower equipment rooms L3 to middle annulus rooms L3 & 4	0.0004	0	0	0	0.6	177.35
74	lower equipment rooms L4 to middle annulus rooms L3 & 4	0.0004	0	0	0	0.6	201.09
75	surge line, below to elevator	0.0004	0	0	0	0.4779	44.6
76	Components to middle annulus rooms L1 & 2	0.0004	0	0	0	0.4	35.02
77	surge line, below to middle annulus rooms L1 & 2	0.0004	0	0	0	0.6	12.46
78	surge line, below to middle annulus rooms L3 & 4	0.0004	0	0	0	0.43975	9.11
79	Components to middle annulus rooms L3 & 4	0.0004	0	0	0	0.3	6.76
80	Components to middle annulus rooms L3 & 4	0.0004	0	0	0	0.4	33.44
81	Components to middle annulus rooms L3 & 4	0.0004	0	0	0	0.15	17.01
82	surge line, below to access	0.0004	0	0	0	0.4	48.55
83	reactor cavity to upper annulus rooms L1 & 2	0.0004	0	0	0	0.5	42.23
84	surge line, below to staircase (north)	0.0004	0	0	0	0.6	28.68
85	surge line, below to elevator	0.0004	0	0	0	0.6	12.12
86	surge line, below to middle annulus rooms L3 & 4	0.0004	0	0	0	0.6	14.14
87	reactor cavity to middle annulus rooms L1 & 2	0.0004	0	0	0	0.4	16.8
88	reactor cavity to lower & upper dome L1, 2, 3 & 4	0.0004	0	0	0	0.4	23.04
89	middle equipment rooms L1 to staircase (south)	0.0004	0	0	0	0.6	56.65
90	middle equipment rooms L1 to middle annulus rooms L1 & 2	0.0004	0	0	0	0.6	114.61



**Table 6.2.1-5—Containment Heat Sink Inventory**  
**Sheet 13 of 22**

	Description	Thickness, m					Total Surface, m <sup>2</sup>
		Paint	C-Steel	S-Steel	Air	Concrete	
91	middle equipment rooms L2 to middle annulus rooms L1 & 2	0.0004	0	0	0	0.6	128.02
92	middle equipment rooms L3 to middle annulus rooms L3 & 4	0.0004	0	0	0	0.6	157.44
93	middle equipment rooms L4 to middle annulus rooms L3 & 4	0.0004	0	0	0	0.6	138.92
94	surge line, below to staircase (north)	0.0004	0	0	0	0.5	34.46
95	surge line, below to middle annulus rooms L1 & 2	0.0004	0	0	0	0.5	29.64
96	surge line, below to middle annulus rooms L1 & 2	0.0004	0	0	0	0.275	42.08
97	middle equipment rooms L2 to middle annulus rooms L1 & 2	0.0004	0	0	0	0.4	26.3
98	middle equipment rooms L1 to staircase (south)	0.0004	0	0	0	0.15	8.4
99	PZR to staircase (north)	0.0004	0	0	0	0.5	39.12
100	middle equipment rooms L1 to middle annulus rooms L1 & 2	0.0004	0	0	0	0.10695	79.38
101	middle equipment rooms L4 to middle annulus rooms L3 & 4	0.0004	0	0	0	0.10965	86.6
102	PZR to middle annulus rooms L3 & 4	0.0004	0	0	0	0.5	42.7
103	PZR to middle annulus rooms L1 & 2	0.0004	0	0	0	0.4	32.31
104	upper equipment rooms L1 & 2 to lower & upper dome L1, 2, 3 & 4	0.0004	0	0	0	0.15	156.04
105	upper equipment rooms L1 & 2 to lower & upper dome L1, 2, 3 & 4	0.0004	0	0	0	0.4423	316.84

**Table 6.2.1-5—Containment Heat Sink Inventory**  
**Sheet 14 of 22**

	Description	Thickness, m					Total Surface, m <sup>2</sup>
		Paint	C-Steel	S-Steel	Air	Concrete	
106	upper equipment rooms L1 & 2 to upper annulus rooms L1 & 2	0.0004	0	0	0	0.5	277.91
107	upper equipment rooms L1 & 2 to staircase (south)	0.0004	0	0	0	0.5	16.4
108	upper equipment rooms L1 & 2 to upper annulus rooms L1 & 2	0.0004	0	0	0	0.25	43.19
109	upper equipment rooms L3 & 4 to upper annulus rooms L3 & 4	0.0004	0	0	0	0.5	227.72
110	upper equipment rooms L3 & 4 to lower & upper dome L1, 2, 3 & 4	0.0004	0	0	0	0.25	29.77
111	upper equipment rooms L3 & 4 to lower & upper dome L1, 2, 3 & 4	0.0004	0	0	0	0.4431	321.22
112	upper equipment rooms L3 & 4 to lower & upper dome L1, 2, 3 & 4	0.0004	0	0	0	0.15	156.04
113	PZR to upper annulus rooms L3 & 4	0.0004	0	0	0	0.5	47.59
114	PZR to upper annulus rooms L1 & 2	0.0004	0	0	0	0.4	66.57
115	upper equipment rooms L1 & 2 to lower & upper dome L1, 2, 3 & 4	0.0004	0	0	0	0.25	15.09
116	PZR to lower & upper dome L1, 2, 3 & 4	0.0004	0	0	0	0.4	17.48
	<b>Horizontal wall (floor/ceiling) to accessible space</b>	0.001	0	0	0	0.318	8056
1	Internal wall in access	0.001	0	0	0	0.3	23.94
2	lower annulus rooms L1 & 2 to middle annulus rooms L1 & 2	0.001	0	0	0	0.3	595.74

**Table 6.2.1-5—Containment Heat Sink Inventory**  
**Sheet 15 of 22**

	Description	Thickness, m					Total Surface, m <sup>2</sup>
		Paint	C-Steel	S-Steel	Air	Concrete	
3	lower annulus rooms L3 & 4 to middle annulus rooms L3 & 4	0.001	0	0	0	0.3	756.3
4	staircase (south) to hot piping	0.001	0	0	0	0.3	32.22
5	middle annulus rooms L1 & 2 to hot piping	0.001	0	0	0	0.3	286.54
6	middle annulus rooms L3 & 4 to hot piping	0.001	0	0	0	0.3	250
7	Internal wall in middle annulus rooms L1 & 2	0.001	0	0	0	0.25	560.4
8	Internal wall in middle annulus rooms L3 & 4	0.001	0	0	0	0.25	498.8
9	Internal wall in middle annulus rooms L3 & 4	0.001	0	0	0	0.14925	782.62
10	middle annulus rooms L1 & 2 to middle annulus rooms L3 & 4	0.001	0	0	0	0.95	36.6
11	access to staircase (north)	0.001	0	0	0	0.25	48.4
12	middle annulus rooms L1 & 2 to access	0.001	0	0	0	0.25	47
13	middle annulus rooms L3 & 4 to access	0.001	0	0	0	0.25	52.2
14	Internal wall in middle annulus rooms L1 & 2	0.001	0	0	0	0.15	719.68
15	Internal wall in lower & upper dome L1, 2, 3 & 4	0.001	0	0	0	0.15	17.38
16	middle annulus rooms L1 & 2 to lower & upper dome L1, 2, 3 & 4	0.001	0	0	0	0.5	167
17	middle annulus rooms L1 & 2 to staircase (south)	0.001	0	0	0	0.5	40.82
18	middle annulus rooms L3 & 4 to upper annulus rooms L3 & 4	0.001	0	0	0	0.5	366.08
19	middle annulus rooms L3 & 4 to lower & upper dome L1, 2, 3 & 4	0.001	0	0	0	0.5	335.16

**Table 6.2.1-5—Containment Heat Sink Inventory**  
**Sheet 16 of 22**

	Description	Thickness, m					Total Surface, m <sup>2</sup>
		Paint	C-Steel	S-Steel	Air	Concrete	
20	middle annulus rooms L1 & 2 to upper annulus rooms L1 & 2	0.001	0	0	0	0.5	84.26
21	Internal wall in upper annulus rooms L1 & 2	0.001	0	0	0	0.25	359
22	Internal wall in upper annulus rooms L3 & 4	0.001	0	0	0	0.25	430
23	Internal wall in upper annulus rooms L1 & 2	0.001	0	0	0	0.5	132
24	upper annulus rooms L1 & 2 to staircase (south)	0.001	0	0	0	0.25	98.1
25	lower & upper dome L1, 2, 3 & 4 to staircase (north)	0.001	0	0	0	0.25	29
26	lower & upper dome L1, 2, 3 & 4 to elevator	0.001	0	0	0	0.15	13.44
27	upper annulus rooms L3 & 4 to lower & upper dome L1, 2, 3 & 4	0.001	0	0	0	0.25	224
28	upper annulus rooms L1 & 2 to lower & upper dome L1, 2, 3 & 4	0.001	0	0	0	0.5	132
29	Components to hot piping	0.001	0	0	0	0.3	11.3
30	Components to middle annulus rooms L1 & 2	0.001	0	0	0	0.3	9.55
31	Components to staircase (south)	0.001	0	0	0	0.3	7.75
32	Components to middle annulus rooms L3 & 4	0.001	0	0	0	0.26235	27.1
33	Components to middle annulus rooms L1 & 2	0.001	0	0	0	0.95	23.7
34	Components to lower & upper dome L1, 2, 3 & 4	0.001	0	0	0	0.95	26.4
35	reactor cavity to lower & upper dome L1, 2, 3 & 4	0.001	0	0	0	0.6	490.84
36	middle equipment rooms L1 to lower & upper dome L1, 2, 3 & 4	0.001	0	0	0	0.5	69.8
37	middle equipment rooms L2 to upper annulus rooms L1 & 2	0.001	0	0	0	0.5	6.78

**Table 6.2.1-5—Containment Heat Sink Inventory**  
**Sheet 17 of 22**

	Description	Thickness, m					Total Surface, m <sup>2</sup>
		Paint	C-Steel	S-Steel	Air	Concrete	
38	middle equipment rooms L3 to lower & upper dome L1, 2, 3 & 4	0.001	0	0	0	0.5	17.08
39	middle equipment rooms L4 to lower & upper dome L1, 2, 3 & 4	0.001	0	0	0	0.5	35.88
40	middle equipment rooms L1 to upper annulus rooms L1 & 2	0.001	0	0	0	0.5	47.8
41	middle equipment rooms L4 to upper annulus rooms L3 & 4	0.001	0	0	0	0.5	24.51
42	PZR to upper annulus rooms L1 & 2	0.001	0	0	0	0.5	12.88
43	upper equipment rooms L1 & 2 to lower & upper dome L1, 2, 3 & 4	0.001	0	0	0	0.25	32
44	upper equipment rooms L3 & 4 to lower & upper dome L1, 2, 3 & 4	0.001	0	0	0	0.25	34
45	PZR to lower & upper dome L1, 2, 3 & 4	0.001	0	0	0	0.25	60
	<b>Horizontal wall (floor/ceiling) to non-accessible space</b>	0.001	0	0	0	0.439	3068
1	spreading rooms to components	0.001	0	0	0	0.7	463.72
2	spreading rooms to components	0.001	0	0	0	0.15	33.4
3	Internal wall in components	0.001	0	0	0	0.7	26.8
4	surge line, below to SG blowdown (LCQ) HX etc.	0.001	0	0	0	0.3	273.84
5	lower equipment rooms L4 to components	0.001	0	0	0	0.3	138.48
6	lower equipment rooms L1 to components	0.001	0	0	0	0.3	81.14
7	Internal wall in components	0.001	0	0	0	0.3	165.68

**Table 6.2.1-5—Containment Heat Sink Inventory**  
**Sheet 18 of 22**

	Description	Thickness, m					Total Surface, m <sup>2</sup>
		Paint	C-Steel	S-Steel	Air	Concrete	
8	RPV pit to reactor cavity	0.001	0	0	0	0.3	76
9	lower equipment rooms L1 to reactor cavity	0.001	0	0	0	0.6	44.4
10	lower equipment rooms L2 to reactor cavity	0.001	0	0	0	0.68	5.4
11	lower equipment rooms L3 to surge line, below	0.001	0	0	0	0.88	5.4
12	reactor cavity to lower equipment rooms L4	0.001	0	0	0	0.6	56
13	Internal wall in surge line, below	0.001	0	0	0	0.3	226.4
14	reactor cavity to surge line, below	0.001	0	0	0	0.68	17.2
15	reactor cavity to components	0.001	0	0	0	0.6	34.2
16	lower equipment rooms L4 to middle equipment rooms L4	0.001	0	0	0	0.15	61.78
17	Internal wall in surge line, below	0.001	0	0	0	0.15	218
18	reactor cavity to surge line, below	0.001	0	0	0	0.15	17.38
19	middle equipment rooms L3 to PZR	0.001	0	0	0	0.5	9.48
20	Internal wall in PZR	0.001	0	0	0	0.5	80.48
21	Internal wall in upper equipment rooms L3 & 4	0.001	0	0	0	0.15	4.4
22	Internal wall in PZR	0.001	0	0	0	0.25	90.8
23	Components to hot piping	0.001	0	0	0	0.3	11.3
24	Components to middle annulus rooms L1 & 2	0.001	0	0	0	0.3	9.55
25	Components to staircase (south)	0.001	0	0	0	0.3	7.75
26	Components to middle annulus rooms L3 & 4	0.001	0	0	0	0.26235	27.1
27	Components to middle annulus rooms L1 & 2	0.001	0	0	0	0.95	23.7
28	Components to lower & upper dome L1, 2, 3 & 4	0.001	0	0	0	0.95	26.4

**Table 6.2.1-5—Containment Heat Sink Inventory**  
Sheet 19 of 22

	Description	Thickness, m					Total Surface, m <sup>2</sup>
		Paint	C-Steel	S-Steel	Air	Concrete	
29	reactor cavity to lower & upper dome L1, 2, 3 & 4	0.001	0	0	0	0.6	490.84
30	middle equipment rooms L1 to lower & upper dome L1, 2, 3 & 4	0.001	0	0	0	0.5	69.8
31	middle equipment rooms L2 to upper annulus rooms L1 & 2	0.001	0	0	0	0.5	6.78
32	middle equipment rooms L3 to lower & upper dome L1, 2, 3 & 4	0.001	0	0	0	0.5	17.08
33	middle equipment rooms L4 to lower & upper dome L1, 2, 3 & 4	0.001	0	0	0	0.5	35.88
34	middle equipment rooms L1 to upper annulus rooms L1 & 2	0.001	0	0	0	0.5	47.8
35	middle equipment rooms L4 to upper annulus rooms L3 & 4	0.001	0	0	0	0.5	24.51
36	PZR to upper annulus rooms L1 & 2	0.001	0	0	0	0.5	12.88
37	upper equipment rooms L1 & 2 to lower & upper dome L1, 2, 3 & 4	0.001	0	0	0	0.25	32
38	upper equipment rooms L3 & 4 to lower & upper dome L1, 2, 3 & 4	0.001	0	0	0	0.25	34
39	PZR to lower & upper dome L1, 2, 3 & 4	0.001	0	0	0	0.25	60
	<b>Thick steel</b>	0.0002	0.04	0	0	0	2470
1	Components to hot piping	0.0002	0.3	0	0	0	8
2	lower & upper dome L1, 2, 3 & 4 to RB annulus	0.0002	0.05	0	0	0	57
3	Internal steel in lower & upper dome L1, 2, 3 & 4	0.0002	0.0388	0	0	0	1942.8

**Table 6.2.1-5—Containment Heat Sink Inventory**  
**Sheet 20 of 22**

	Description	Thickness, m					Total Surface, m <sup>2</sup>
		Paint	C-Steel	S-Steel	Air	Concrete	
4	Internal steel in lower & upper dome L1, 2, 3 & 4	0.0002	0.0371	0	0	0	462
	<b>Medium steel</b>	0.0002	0.0086	0	0	0	13230
1	Internal steel in components	0.0002	0.0086	0	0	0	23.72
2	Internal steel in IRWST	0.0002	0.0086	0	0	0	59.8
3	Internal steel in SG blowdown (LCQ) HX etc.	0.0002	0.0086	0	0	0	2.54
4	Internal steel in access	0.0002	0.0086	0	0	0	44.99
5	Internal steel in lower annulus rooms L3 & 4	0.0002	0.0086	0	0	0	37.64
6	Internal steel in hot piping	0.0002	0.0086	0	0	0	35.31
7	Internal steel in lower annulus rooms L1 & 2	0.0002	0.0086	0	0	0	36.47
8	Internal steel in lower equipment rooms L3	0.0002	0.0086	0	0	0	398.32
9	Internal steel in lower equipment rooms L4	0.0002	0.0086	0	0	0	432.57
10	Internal steel in lower equipment rooms L1	0.0002	0.0086	0	0	0	432.57
11	Internal steel in lower equipment rooms L2	0.0002	0.0086	0	0	0	398.32
12	Internal steel in middle annulus rooms L3 & 4	0.0002	0.0086	0	0	0	1928.98
13	Internal steel in middle annulus rooms L1 & 2	0.0002	0.0086	0	0	0	1790.91
14	Internal steel in surge line, below	0.0002	0.0086	0	0	0	48.78
15	Internal steel in middle equipment rooms L3	0.0002	0.0086	0	0	0	926.23
16	Internal steel in middle equipment rooms L4	0.0002	0.0086	0	0	0	881.02
17	Internal steel in middle equipment rooms L1	0.0002	0.0086	0	0	0	881.02
18	Internal steel in middle equipment rooms L2	0.0002	0.0086	0	0	0	926.23
19	Internal steel in PZR	0.0002	0.0086	0	0	0	11.84



**Table 6.2.1-5—Containment Heat Sink Inventory**  
**Sheet 21 of 22**

	Description	Thickness, m					Total Surface, m <sup>2</sup>
		Paint	C-Steel	S-Steel	Air	Concrete	
20	Internal steel in upper equipment rooms L3 & 4	0.0002	<u>0.0086</u>	<u>0</u>	0	0	818.35
21	Internal steel in upper equipment rooms L1 & 2	0.0002	<u>0.0086</u>	<u>0</u>	0	0	818.35
22	Internal steel in upper annulus rooms L3 & 4	0.0002	<u>0.0086</u>	<u>0</u>	0	0	40.2
23	Internal steel in lower & upper dome L1, 2, 3 & 4	0.0002	<u>0.0086</u>	<u>0</u>	0	0	2194.65
24	Internal steel in upper annulus rooms L1 & 2	0.0002	<u>0.0086</u>	<u>0</u>	0	0	57.34
25	Internal steel in staircase (south)	0.0002	<u>0.0086</u>	<u>0</u>	0	0	4.29
	<b>Thin steel</b>	0.0002	<u>0.0015</u>	<u>0</u>	0	0	8640
1	Internal steel in components	0.0002	<u>0.0015</u>	<u>0</u>	0	0	26.76
2	Internal steel in IRWST	0.0002	<u>0.0015</u>	<u>0</u>	0	0	67.5
3	Internal steel in SG blowdown (LCQ) HX etc.	0.0002	<u>0.0015</u>	<u>0</u>	0	0	4.3
4	Internal steel in access	0.0002	<u>0.0015</u>	<u>0</u>	0	0	60.84
5	Internal steel in lower annulus rooms L3 & 4	0.0002	<u>0.0015</u>	<u>0</u>	0	0	50.93
6	Internal steel in hot piping	0.0002	<u>0.0015</u>	<u>0</u>	0	0	47.78
7	Internal steel in lower annulus rooms L1 & 2	0.0002	<u>0.0015</u>	<u>0</u>	0	0	49.36
8	Internal steel in lower equipment rooms L3	0.0002	<u>0.0015</u>	<u>0</u>	0	0	192.5
9	Internal steel in lower equipment rooms L4	0.0002	<u>0.0015</u>	<u>0</u>	0	0	209.05
10	Internal steel in lower equipment rooms L1	0.0002	<u>0.0015</u>	<u>0</u>	0	0	209.05
11	Internal steel in lower equipment rooms L2	0.0002	<u>0.0015</u>	<u>0</u>	0	0	192.5
12	Internal steel in middle annulus rooms L3 & 4	0.0002	<u>0.0015</u>	<u>0</u>	0	0	1671.17
13	Internal steel in middle annulus rooms L1 & 2	0.0002	<u>0.0015</u>	<u>0</u>	0	0	1606.45
14	Internal steel in surge line, below	0.0002	<u>0.0015</u>	<u>0</u>	0	0	109.56

**Table 6.2.1-5—Containment Heat Sink Inventory**  
**Sheet 22 of 22**

	Description	Thickness, m					Total Surface, m <sup>2</sup>
		Paint	C-Steel	S-Steel	Air	Concrete	
15	Internal steel in middle equipment rooms L3	0.0002	<u>0.0015</u>	<u>0</u>	0	0	454.34
16	Internal steel in middle equipment rooms L4	0.0002	<u>0.0015</u>	<u>0</u>	0	0	427.97
17	Internal steel in middle equipment rooms L1	0.0002	<u>0.0015</u>	<u>0</u>	0	0	428.09
18	Internal steel in middle equipment rooms L2	0.0002	<u>0.0015</u>	<u>0</u>	0	0	454.31
19	Internal steel in PZR	0.0002	<u>0.0015</u>	<u>0</u>	0	0	16.03
20	Internal steel in upper equipment rooms L3 & 4	0.0002	<u>0.0015</u>	<u>0</u>	0	0	415.34
21	Internal steel in upper equipment rooms L1 & 2	0.0002	<u>0.0015</u>	<u>0</u>	0	0	415.34
22	Internal steel in upper annulus rooms L3 & 4	0.0002	<u>0.0015</u>	<u>0</u>	0	0	54.4
23	Internal steel in lower & upper dome L1, 2, 3 & 4	0.0002	<u>0.0015</u>	<u>0</u>	0	0	1392.85
24	Internal steel in upper annulus rooms L1 & 2	0.0002	<u>0.0015</u>	<u>0</u>	0	0	77.6
25	Internal steel in staircase (south)	0.0002	<u>0.0015</u>	<u>0</u>	0	0	5.8

Table 6.2.1-8—Short Term Response Cold Leg Pump Discharge Breaks

Variable	Case 15	Case 16	Case 17	Case 18	Case 19	Case 20	Case 21	Case 22	Case 23	Case 24	Case 25	Case 26	Case 27	Case 28	Case 29	Case 30	Case 31
<b>Short Term Analysis Results</b>																	
Peak Pressure(psia)	49.07 63.77	49.07 63.77	48.99 63.69	48.99 63.69	48.99 63.69	48.99 63.69	49.12 63.82	49.60 64.30	48.71 63.41	49.22 63.92	50.15 64.85	50.47 65.17	50.21 64.91	50.25 64.95	50.28 64.98	50.67 65.37	50.68 65.38
Time of Peak Pressure (see)	24	24	25	25	25	25	26	25	27	28	24	25	24	25	25	24	25
Peak Vapor Temp. (°F)	270.04	270.04	269.93	269.93	269.93	269.93	270.11	270.77	269.53	270.24	271.52	271.96	271.61	271.66	271.71	272.24	272.25
Time of Peak Vapor Temp. (see)	24	24	25	25	25	25	26	25	27	28	24	25	24	25	24	24	25
<b>Case Description</b>																	
Break Configuration <sup>1</sup>	DEG C=1	DEG C=1	DEG C=1	DEG C=1	DEG Cd=1	DEG C=1	DEG C=.8	DES C=.8	DES C=.6	DEG C=.6	DES C=1	DES C=1	DES C=1	DES C=1	DES C=1	DES C=1	DES C=1
ECCS	MAX	MIN	MIN	MAX	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN	MIN
Pressure (psia)	60	60	60	60	60	60	60	60	60	60	60	14.7	76.7	60	60	60	60
IRWST Temp. (°F)	122	122	122	122	122	122	122	122	122	122	122	122	122	248	122	122	170

**Notes:**

1. DEG = double-ended guillotine; DES = double-ended split