Table 6.2.1-9—Peak Containment Pressure and Temperature for MSLB
Sheet 1 of 3

Description	Time of Peak Pressure (s)	Peak Pressure (psia)	Time of Peak Temperature (s)	Peak Temperature (°F)
100% Power Cases				
DEG[1]	56.0	54.8	28.0	406.9
1.0 ft^2 split	180.0	55.8	180.0	376.2
0.7 ft^2 split	300.0	55.4	275.0	388.8
0.52 ft^2 split	380.0	55.9	365.0	388.0
0.3 ft^2 split	1800.0	57.5	610.0	395.4
80% Power Cases				
DEG[1]	80.0	56.0	28.0	410.6
1.0 ft^2 split	185.0	56.6	57.0	377.6
0.7 ft^2 split	300.0	56.1	255.0	388.2
0.52 ft^2 split	420.0	56.6	400.0	387.1
0.3 ft^2 split	1800.0	58.3	670.0	401.2
60% Power Cases				
DEG[1]	41.0	58.0	26.0	418.0
1.0 ft^2 split	210.0	56.2	165.0	388.8
0.7 ft^2 split	300.0	56.4	265.0	388.4
0.52 ft^2 split	420.0	56.9	385.0	389.0
0.3 ft^2 split	1800.0	58.5	670.0	403.6
50% Power Cases				
DEG[1]	39.1	58.9	26.1	420.8
1.0 ft^2 split	240.0	56.4	96.0	381.7
0.7 ft^2 split	340.0	56.7	280.0	388.1
0.52 ft^2 split	440.0	57.0	405.0	386.3
0.3 ft^2 split	1800.0	58.6	762.0	400.7
40% Power Cases				
DEG[1]	39.1	59.8	26.1	423.3
3.0 ft^2 split	52.0	59.0	28.0	426.9
1.72 ft^2 split	140.0	57.6	42.0	392.2
1.0 ft^2 split	240.0	56.7	80.0	382.3

Table 6.2.1-9—Peak Containment Pressure and Temperature for MSLB
Sheet 2 of 3

Description	Time of Peak Pressure (s)	Peak Pressure (psia)	Time of Peak Temperature (s)	Peak Temperature (°F)
0.7 ft^2 split	340.0	56.9	285.0	387.4
0.52 ft^2 split	1800.0	57.1	420.0	384.4
0.3 ft^2 split	1800.0	58.9	740.0	403.0
20% Power Cases				
DEG[1]	38.5	62.1	26.1	427.3
DEG[2]	34.1	62.7	26.1	428.5
DEG[2, 3]	18.15	66.4	18.1	479.5
8.25 ft^2 split	38.0	61.1	24.0	433.7
4.12 ft^2 split	41.0	61.4	24.0	428.3
3.0 ft^2 split	52.0	61.2	26.0	431.3
1.72 ft^2 split	100.0	59.4	38.0	398.3
1.0 ft^2 split	210.1	58.3	82.1	384.6
0.7 ft^2 split	340.0	58.0	320.0	382.8
0.52 ft^2 split	1800.0	58.4	500.0	380.9
0.3 ft^2 split	1800.0	59.6	950.0	391.5
0% Power Cases				
DEG[1]	41.0	60.5	2.0	401.2
8.25 ft^2 split	38.0	60.1	1.0	420.8
4.12 ft^2 split	42.0	58.7	31.0	363 .9
3.0 ft^2 split	47.0	57.9	34.0	369.4
1.72 ft^2 split	66.0	63.1	33.0	413.1
1.72 ft^2 split[3]	66.0	64.8	19.0	433.8
1.72 ft^2 split[2, 3]	56.0	65.6	19.0	435.0
1.0 ft^2 split	220.0	60.4	45.0	390.3
0.7 ft^2 split	320.0	60.4	285.0	395.1
0.52 ft^2 split	440.0	60.5	430.0	397.2
0.3 ft^2 split	1800.0	61.2	830.0	416.0
0.2 ft^2 split	1860.0	62.1	1330.0	407.8
0.15 ft^2 split	1900.0	62.9	1860.0	397.4
0.1 ft^2 split	2600.0	59.1	2540.0	372.8

Table 6.2.1-9—Peak Containment Pressure and Temperature for MSLB
Sheet 3 of 3

Description	Time of Peak Pressure (s)	Peak Pressure (psia)	Time of Peak Temperature (s)	Peak Temperature (°F)
0.01 ft^2 split	1800.0	21.5	1800.0	196.7
0.005 ft^2 split	1800.0	19.2	1800.0	167.2

Notes:

1. DEG = double-ended guillotine.
2. No EFW supplied to broken SG.
3. Break located in the accessible space outside the SG towers.

Table 6.2.1-10—Critical Rooms Containing HELBs
Sheet 1 of 4

Room Name	Adjacent Critical Section(s)
-8 ft Room 2	Reactor Containment Building – Typical Liner Plate & Typical Cylinder Wall and Buttress
-8 ft Room 3	Reactor Containment Building – Typical Liner Plate & Typical Cylinder Wall and Buttress
-8 ft Room 4	Reactor Containment Building – Typical Liner Plate & Typical Cylinder Wall and Buttress
-8 ft Room 5	Reactor Containment Building – Typical Liner Plate & Typical Cylinder Wall and Buttress
-8 ft Room 7	Reactor Building Internal Structures – Typical Elevation +1.5m Heavy Slab and Support Walls
-8 ft Room 9	Reactor Building Internal Structures – Typical Elevation +1.5m Heavy Slab and Support Walls & Typical Primary Shield Wall / Reactor Vessel Support Area
-8 ft Room 11	Reactor Building Internal Structures – Typical Elevation +1.5m Heavy Slab and Support Walls
-8 ft Room 14	Reactor Building Internal Structures – Typical Elevation +1.5m Heavy Slab and Support Walls
-8 ft Room 15	Reactor Building Internal Structures – Typical Elevation +1.5m Heavy Slab and Support Walls
-8 ft Room 16	Reactor Building Internal Structures – Typical Elevation +1.5m Heavy Slab and Support Walls
-8 ft Room 17	Reactor Building Internal Structures – Typical Elevation +1.5m Heavy Slab and Support Walls
+5 ft Room 2	Reactor Building Internal Structures – Typical Elevation +1.5m Heavy Slab and Support Walls & Typical Primary Shield Wall / Reactor Vessel Support Area
+5 ft Room 3	Reactor Building Internal Structures – Typical Elevation +1.5m Heavy Slab and Support Walls & Typical Primary Shield Wall / Reactor Vessel Support Area
+5 ft Room 4	Reactor Building Internal Structures – Typical Elevation +1.5m Heavy Slab and Support Walls & Typical Primary Shield Wall / Reactor Vessel Support Area
+5 ft Room 5	Reactor Building Internal Structures – Typical Elevation +1.5m Heavy Slab and Support Walls & Typical Primary Shield Wall / Reactor Vessel Support Area
+5 ft Room 6	Reactor Building Internal Structures – Typical Elevation +1.5m Heavy Slab and Support Walls & Typical Primary Shield Wall / Reactor Vessel Support Area
+5 ft Room 7	Reactor Building Internal Structures – Typical Elevation +1.5m Heavy Slab and Support Walls & Typical Primary Shield Wall / Reactor Vessel Support Area

Table 6.2.1-10—Critical Rooms Containing HELBs
Sheet 2 of 4

Room Name	Adjacent Critical Section(s)
+5 ft Room 8	Reactor Building Internal Structures – Typical Elevation +1.5m Heavy Slab and Support Walls & Typical Primary Shield Wall / Reactor Vessel Support Area
+5 ft Room 9	Reactor Building Internal Structures – Typical Elevation +1.5m Heavy Slab and Support Walls & Typical Primary Shield Wall / Reactor Vessel Support Area
+5 ft Room 12	Reactor Containment Building – Typical Liner Plate & Typical Cylinder Wall and Buttress
+5 ft Room 13	Reactor Containment Building – Typical Liner Plate & Typical Cylinder Wall and Buttress
+5 ft Room 14	Reactor Containment Building – Typical Liner Plate & Typical Cylinder Wall and Buttress
+5 ft Room 15	Reactor Containment Building – Typical Liner Plate & Typical Cylinder Wall and Buttress
+5 ft Room 16	Reactor Building Internal Structures – Typical Elevation +1.5m Heavy Slab and Support Walls & Typical Primary Shield Wall / Reactor Vessel Support Area
+5 ft Room 18	Reactor Containment Building – Typical Liner Plate & Typical Cylinder Wall and Buttress
+5 ft Room 20	Reactor Building Internal Structures – Typical Elevation +1.5m Heavy Slab and Support Walls
+5 ft Room 21	Reactor Building Internal Structures – Typical Elevation +1.5m Heavy Slab and Support Walls
+5 ft Room 22	Reactor Building Internal Structures – Typical Elevation +1.5m Heavy Slab and Support Walls
+17 ft Room 2	Reactor Building Internal Structures – Typical SG Cubicle Area Walls
+17 ft Room 3	Reactor Building Internal Structures – Typical SG Cubicle Area Walls
+17 ft Room 4	Reactor Building Internal Structures – Typical SG Cubicle Area Walls
+17 ft Room 5	Reactor Building Internal Structures – Typical SG Cubicle Area Walls
+17 ft Room 6	Reactor Building Internal Structures – Typical SG Cubicle Area Walls
+17 ft Room 7	Reactor Building Internal Structures – Typical SG Cubicle Area Walls
+17 ft Room 8	Reactor Building Internal Structures – Typical SG Cubicle Area Walls
+17 ft Room 9	Reactor Building Internal Structures – Typical SG Cubicle Area Walls
+17 ft Room 13	Reactor Containment Building – Typical Liner Plate & Typical Cylinder Wall and Buttress
+17 ft Room 14	Reactor Containment Building – Typical Liner Plate & Typical Cylinder Wall and Buttress

Table 6.2.1-10—Critical Rooms Containing HELBs
Sheet 3 of 4

Room Name	Adjacent Critical Section(s)
+17 ft Room 15	Reactor Containment Building – Typical Liner Plate & Typical Cylinder Wall and Buttress
+17 ft Room 16	Reactor Containment Building – Typical Liner Plate & Typical Cylinder Wall and Buttress
+17 ft Room 19	Reactor Building Internal Structures – Typical SG Cubicle Area Walls
+29 ft Room 3	Reactor Building Internal Structures – Typical SG Cubicle Area Walls
+29 ft Room 4	Reactor Building Internal Structures – Typical SG Cubicle Area Walls
+29 ft Room 5	Reactor Building Internal Structures – Typical SG Cubicle Area Walls
+29 ft Room 6	Reactor Building Internal Structures – Typical SG Cubicle Area Walls
+29 ft Room 7	Reactor Building Internal Structures – Typical SG Cubicle Area Walls
+29 ft Room 8	Reactor Building Internal Structures – Typical SG Cubicle Area Walls
+29 ft Room 9	Reactor Building Internal Structures – Typical SG Cubicle Area Walls
+29 ft Room 10	Reactor Building Internal Structures – Typical SG Cubicle Area Walls
+29 ft Room 14	Reactor Containment Building – Typical Liner Plate & Typical Cylinder Wall and Buttress
+29 ft Room 15	Reactor Containment Building – Typical Liner Plate & Typical Cylinder Wall and Buttress
+29 ft Room 16	Reactor Containment Building – Typical Liner Plate & Typical Cylinder Wall and Buttress
+29 ft Room 17	Reactor Containment Building – Typical Liner Plate & Typical Cylinder Wall and Buttress
+29ft Room 18	Reactor Building Internal Structures – Typical SG Cubicle Area Walls
+29 ft Room 19	Reactor Building Internal Structures – Typical SG Cubicle Area Walls
+45 ft Room 1	Reactor Building Internal Structures – Typical SG Cubicle Area Walls
+45 ft Room 2	Reactor Building Internal Structures – Typical SG Cubicle Area Walls
+45 ft Room 3	Reactor Building Internal Structures – Typical SG Cubicle Area Walls
+45 ft Room 4	Reactor Building Internal Structures – Typical SG Cubicle Area Walls
+45 ft Room 6	Reactor Building Internal Structures – Typical SG Cubicle Area Walls
+45 ft Room 7	Reactor Building Internal Structures – Typical SG Cubicle Area Walls

Table 6.2.1-10—Critical Rooms Containing HELBs
Sheet 4 of 4

Room Name	Adjacent Critical Section(s)
+45 ft Room 12	Reactor Containment Building – Typical Liner Plate & Typical Cylinder Wall and Buttress
+45 ft Room 13	Reactor Containment Building – Typical Liner Plate & Typical Cylinder Wall and Buttress
+45 ft Room 14	Reactor Containment Building – Typical Liner Plate & Typical Cylinder Wall and Buttress
+45 ft Room 15	Reactor Containment Building – Typical Liner Plate & Typical Cylinder Wall and Buttress
+64 ft Room 1	Reactor Building Internal Structures – Typical Operating Floor Slab Area
+64 ft Room 2	Reactor Building Internal Structures – Typical Operating Floor Slab Area
+64 ft Room 5	Reactor Building Internal Structures – Typical Operating Floor Slab Area
+64 ft Room 6	Reactor Building Internal Structures – Typical Operating Floor Slab Area
+64 ft Room 10	Reactor Containment Building – Typical Liner Plate & Typical Cylinder Wall and Buttress
+64 ft Room 11	Reactor Containment Building – Typical Liner Plate & Typical Cylinder Wall and Buttress
+64 ft Room 12	Reactor Containment Building – Typical Cylinder Wall and Buttress & Equipment Hatch Area
+64 ft Room 14	Reactor Building Internal Structures – Typical Operating Floor Slab Area
+64 ft Room 16	Reactor Containment Building – Typical Cylinder Wall and Buttress & Typical Airlock and MS/FW Penetrations
+79 ft Room 9	Reactor Containment Building – Typical Liner Plate & Typical Cylinder Wall and Buttress
+79 ft Room 10	Reactor Containment Building – Typical Liner Plate & Typical Cylinder Wall and Buttress

Table 6.2.1-11—Evaluated Subcompartment HELBs
Sheet 1 of 6

Room Number	Room Description	High Energy Line Pipe Name	Pipe Description	Line Pressure (psia)	Line Temperature (F)	Line Size (in)
-8 ft Room 2	Access Area	LCA90BR006	Main Condensate	575	420	6
-8 ft Room 3	Area for JND, JNG & JMQ (MHSI, LHSI, SAHRS) Pipe Penetrations	JNG13BR004	Low Head Safety Injection	815	140	2
-8 ft Room 4	Area for JND, JNG & JMQ (MHSI, LHSI, SAHRS) Pipe Penetrations	LCQ51BR103	Steam Generator Blowdown	315	338	6
-8 ft Room 5	Area for Hot Pipe penetrations from UFA	KBA14BR012	Chemical and Volume Control	380	340	6
-8 ft Room 7	LCQ (SGBS) HX Room	LCQ51BR001	Steam Generator Blowdown	265	406	6
-8 ft Room 9	KT (NI DVS) Floor Drain and Tank Room	KPL85BR004	Gaseous Waste Processing	190	212	2
-8 ft Room 11	KTA10 (NI DVS) Pumps Room	KTA10BR027	Nuclear Island Drain and Vent System – Primary Effluents	145	305	4
-8 ft Room 14	KBA12 (CVCS) HX Room	KBA12BR001	Chemical and Volume Control	2250	566	3
-8 ft Room 15	KBA11 (CVCS) HX Room	KBA11BR001	Chemical and Volume Control	2250	566	3
-8 ft Room 16	KBA (CVCS) Valve Room	KBA11BR001	Chemical and Volume Control	2250	566	3
-8 ft Room 17	KBA (CVCS) Valve Room	KBA10BR004	Chemical and Volume Control	2250	566	4
+5 ft Room 2	JEB10 (RCP) Oil Collection Tank Area	KBA10BR001	Chemical and Volume Control	2250	566	4

Table 6.2.1-11—Evaluated Subcompartment HELBs
Sheet 2 of 6

Room Number	Room Description	High Energy Line Pipe Name	Pipe Description	Line Pressure (psia)	Line Temperature (F)	Line Size (in)
+5 ft Room 3	JEA10 (SG) Supports Area	JNA10BR001	Residual Heat Removal	2250	626	10
+5 ft Room 4	JEA20 (SG) Supports Area	JNA20BR001	Residual Heat Removal	2250	626	10
+5 ft Room 5	JEB20 (RCP) Oil Collection Tank Area	LCQ20BR001	Steam Generator Blowdown	1305	578	4
+5 ft Room 6	JEB30 (RCP) Oil Collection Tank Area	LCQ40BR001	Steam Generator Blowdown	1305	578	4
+5 ft Room 7	JEA30 (SG) Supports Area	JNA30BR001	Residual Heat Removal	2250	626	10
+5 ft Room 8	JEA40 (SG) Supports Area	JNA40BR001	Residual Heat Removal	2250	626	10
+5 ft Room 9	JEB40 (RCP) Oil Collection Tank Area	JEB40BR008	Reactor Coolant Pump	2250	566	3
+5 ft Room 12	Loop 1 Annular Area 180-270 Deg	KAB60BR038	Component Cooling Water	190	338	12
+5 ft Room 13	Loop 2 Annular Area 270-0 Deg	KAB60BR006	Component Cooling Water	190	338	12
+5 ft Room 14	Loop 3 Annular Area 0-90 Deg	LAR31BR006	Emergency Feedwater	1305	578	4
+5 ft Room 15	Loop 4 Annular Area 90-180 Deg	LAR41BR006	Emergency Feedwater	1305	578	4
+5 ft Room 16	LCQ50 (SGBS) Tank room	LCQ40BR905	Steam Generator Blowdown	265	420	16
+5 ft Room 18	Access to Personnel Airlock	LCA90BR006	Main Condensate	575	420	6
+5 ft Room 20	KBA (CVCS) Valve Room	KBA10BR002	Chemical and Volume Control	2250	566	4
+5 ft Room 21	KBA (CVCS) Valve Room	KBA10BR003	Chemical and Volume Control	2250	566	4

Table 6.2.1-11—Evaluated Subcompartment HELBs
Sheet 3 of 6

Room Number	Room Description	High Energy Line Pipe Name	Pipe Description	Line Pressure (psia)	Line Temperature (F)	Line Size (in)
+5 ft Room 22	KBA10 (CVCS) HX Room	KBA10BR003	Chemical and Volume Control	2250	566	4
+5 ft Room 23	JND & JNG (MHSI & LHSI) Valve 1 Room	JNG13BR001	Low Head Safety Injection	815	140	12
+5 ft Room 24	JND & JNG (MHSI & LHSI) Valve 2 Room	JNG23BR001	Low Head Safety Injection	815	140	12
+5 ft Room 25	JND & JNG (MHSI & LHSI) Valve 3 Room	JNG33BR001	Low Head Safety Injection	815	140	12
+5 ft Room 26	JND & JNG (MHSI & LHSI) Valve 4 Room	JNG43BR001	Low Head Safety Injection	815	140	12
+17 ft Room 2	JEB10 Pump (RCP) Room	JNG13BR007	Low Head Safety Injection	2250	566	10
+17 ft Room 3	JEA10 (SG) Support Area	KBA34BR019	Chemical and Volume Control	2250	487	3
+17 ft Room 4	JEA20 (SG) Support Area	KBA34BR019	Chemical and Volume Control	2250	487	3
+17 ft Room 5	JEB20 Pump (RCP) Room	JNG23BR007	Low Head Safety Injection	2250	566	10
+17 ft Room 6	JEB30 Pump (RCP) Room	JNG33BR007	Low Head Safety Injection	2250	566	10
+17 ft Room 7	JEA30 (SG) Support Area	LCQ30BR003	Steam Generator Blowdown	1305	578	4
+17 ft Room 8	JEA40 (SG) Support Area	LCQ40BR003	Steam Generator Blowdown	1305	578	4
+17 ft Room 9	JEB40 Pump (RCP) Room	JNG43BR007	Low Head Safety Injection	2250	566	10
+17 ft Room 13	JNG13 (LHSI) Tank & Loop 1 Annular Area	JNG13BR001	Low Head Safety Injection	815	140	12
+17 ft Room 14	JNG23 (LHSI) Tank & Loop 2 Annular Area	LCA90BR006	Main Condensate	575	420	6

Table 6.2.1-11—Evaluated Subcompartment HELBs
Sheet 4 of 6

Room Number	Room Description	High Energy Line Pipe Name	Pipe Description	Line Pressure (psia)	Line Temperature (F)	Line Size (in)
+17 ft Room 15	JNG33 (LHSI) Tank & Loop 3 Annular Area	JNG33BR001	Low Head Safety Injection	815	140	12
+17 ft Room 16	JNG43 (LHSI) Tank & Loop 4 Annular Area	JNG43BR001	Low Head Safety Injection	815	140	12
+17 ft Room 18	Spray Lines Area	LCQ52BR001	Steam Generator Blowdown	200	382	12
+17 ft Room 19	Surge Line area	KBA35BR003	Chemical and Volume Control	2250	652	4
+29ft Room 3	JEB10 Pump (RCP) Room	JEW50BR002	Pump Seal Injection of CVCS	190	212	2
+29 ft Room 4	JEA10 (SG) Room	LCQ10BR012	Steam Generator Blowdown	1305	578	2
+29 ft Room 5	JEA20 (SG) Room	LCQ10BR012	Steam Generator Blowdown	1305	578	2
+29 ft Room 6	JEB20 Pump (RCP) Room	KBA34BR022	Chemical and Volume Control	2250	566	4
+29 ft Room 7	JEB30 Pump (RCP) Room	JEF10BR103	Reactor Coolant Pressurizing	2250	652	4
+29 ft Room 8	JEA30 (SG) Room	LCQ30BR012	Steam Generator Blowdown	1305	578	2
+29 ft Room 9	JEA40 (SG) Room	LCQ30BR012	Steam Generator Blowdown	1305	578	2
+29 ft Room 10	JEB40 Pump (RCP) Room	KBA34BR023	Chemical and Volume Control	2250	566	4
+29 ft Room 14	JNG13 (LHSI) Tank & Loop 1 Annular Area	LAR11BR006	Emergency Feedwater	1305	578	4
+29 ft Room 15	JNG23 (LHSI) Tank & Loop 2 Annular Area	LCA90BR006	Main Condensate	575	420	6
+29 ft Room 16	JNG33 (LHSI) Tank & Loop 3 Annular Area	LAR31BR006	Emergency Feedwater	1305	578	4

Table 6.2.1-11—Evaluated Subcompartment HELBs
Sheet 5 of 6

Room Number	Room Description	High Energy Line Pipe Name	Pipe Description	Line Pressure (psia)	Line Temperature (F)	Line Size (in)
+29 ft Room 17	JNG43 (LHSI) Tank & Loop 4 Annular Area	QNJ41BR016	Supply to the KLA HVAC System	195	338	8
+29 ft Room 18	Spray Lines Area	LCQ52BR001	Steam Generator Blowdown	200	382	12
+29 ft Room 19	Surge Line area	KBA35BR003	Chemical and Volume Control	2250	652	4
+45 ft Room 1	JEB10 Pump (RCP) Room	JEW50BR021	Pump Seal Injection of CVCS	190	212	2
+45 ft Room 2	JEA10 (SG) Room	LAB60BR005	Feedwater	1133	446	20
+45 ft Room 3	JEA20 (SG) Room	LAB70BR005	Feedwater	1133	446	20
+45 ft Room 4	JEB20 Pump (RCP) Room	JEW50BR001	Pump Seal Injection of CVCS	2550	212	2
+45 ft Room 6	JEA30 (SG) Room	LAB80BR005	Feedwater	1133	446	20
+45 ft Room 7	JEA40 (SG) Room	LAB90BR005	Feedwater	1133	446	20
+45 ft Room 12	JNG13 (LHSI) Tank & Loop 1 Annular Area	LAB60BR005	Feedwater	1133	446	20
+45 ft Room 13	JNG23 (LHSI) Tank & Loop 2 Annular Area	LAB70BR005	Feedwater	1133	446	20
+45 ft Room 14	JNG33 (LHSI) Tank & Loop 3 Annular Area	LAB80BR005	Feedwater	1133	446	20
+45 ft Room 15	JNG43 (LHSI) Tank & Loop 4 Annular Area	LAB90BR005	Feedwater	1133	446	20
+45 ft Room 18	JEF10 (RCS) Pressurizer Room	JEF10BR103	Reactor Coolant Pressurizing	2250	652	4
+64 ft Room 1	JEA10 (SG) Room	LAB60BR005	Feedwater	1133	446	20
+64 ft Room 2	JEA20 (SG) Room	LAB70BR005	Feedwater	1133	446	20
+64 ft Room 5	JEA30 (SG) Room	LAB80BR005	Feedwater	1133	446	20

Table 6.2.1-11—Evaluated Subcompartment HELBs
Sheet 6 of 6

Room Number	Room Description	High Energy Line Pipe Name	Pipe Description	Line Pressure (psia)	Line Temperature (F)	Line Size (in)
+64 ft Room 6	JEA40 (SG) Room	LAB90BR005	Feedwater	1133	446	20
+64 ft Room 10	Annular Area, 240-0 Deg	LCA90BR006	Main Condensate	575	420	6
+64 ft Room 11	Annular Area, 0-120 Deg	LAR31BR006	Emergency Feedwater	1305	578	4
+64 ft Room 12	Access to Equipment Hatch	LAR41BR006	Emergency Feedwater	1305	578	4
+64 ft Room 14	JEF10 (RCS) Pressurizer Room	JEF10BR004	Reactor Coolant Pressurizing	2250	652	6
+64 ft Room 16	Access to Emergency Airlock	LAR11BR006	Emergency Feedwater	1305	578	4
+79 ft Room 5	JEA30 (SG) Room	KPL85BR030	Gaseous Waste Processing	365	450	2
+79 ft Room 9	Annular Area, 240-0 Deg	LCA90BR006	Main Condensate	575	420	6
+79 ft Room 10	Annular Area, 0-120 Deg	KPL85BR030	Gaseous Waste Processing	365	450	2
+79ft Room 12	Pressurizer Head & Safety Relief Valves Room	JEF10BR006	Reactor Coolant Pressurizing	2250	652	6

Table 6.2.1-12—Mass and Energy Discharge Rates for Bounding High Energy Line Breaks
Sheet 1 of 3

Pipe Name	Pipe Size (in)	Pipe Schedule	Pipe Area (ft2)	Pressure (psia)	Temp. (F)	Enthalpy (Btu/lb)	Mass Flux (lb/ft2-s)	Mass Disch. (lb/s)	Energy Disch. (Btu/s)	Break Config. (1)	Break Opening Time (s)	Notes
JEB40BR008	3	XXS	0.0289	2250	566	566.7	22402.5	1292.7	7.325E+05		0.003	
JEF10BR004	6	160	0.1469	2250	652	1116.0	5133.8	753.9	8.414E+05	SE	0.003	
JEF10BR006	6	160	0.1469	2250	652	1116.0	5133.8	753.9	8.414E+05	SE	0.003	
JEF10BR103	4	160	0.0645	2250	652	1116.0	5133.8	331.0	3.694E+05	SE	0.002	
JEW50BR001	2	160	0.0156	2550	212	185.8	38741.9	1205.6	2.240E+05		0.001	
JEW50BR002	2	40S	0.0233	190	212	180.6	9874.0	460.2	8.310E+04		0.010	
JEW50BR021	2	40S	0.0233	190	212	180.6	9874.0	460.2	8.310E+04		0.010	
JNA10BR001	10	160	0.3941	2250	626	651.8	15831.9	6238.7	4.066E+06	SE	0.006	
JNA20BR001	10	160	0.3941	2250	626	651.8	15831.9	6238.7	4.066E+06	SE	0.006	
JNA30BR001	10	160	0.3941	2250	626	651.8	15831.9	6238.7	4.066E+06	SE	0.006	
JNA40BR001	10	160	0.3941	2250	626	651.8	15831.9	6238.7	4.066E+06	SE	0.006	
JNG13BR001	12	80S	0.7058	815	140	110.0	22292.1	31469.3	3.462E+06		0.010	
JNG13BR004	2	40S	0.0233	815	140	110	22292.1	1038.8	1.143E+05		0.002	
JNG13BR007	10	160	0.3941	2250	566	566.7	22402.5	8828.0	5.003E+06	SE	0.006	
JNG23BR001	12	80S	0.7058	815	140	110.0	22292.1	31469.3	3.462E+06		0.010	
JNG23BR007	10	160	0.3941	2250	566	566.7	22402.5	8828.0	5.003E+06	SE	0.006	
JNG33BR001	12	80S	0.7058	815	140	110.0	22292.1	31469.3	3.462E+06		0.010	
JNG33BR007	10	160	0.3941	2250	566	566.7	22402.5	8828.0	5.003E+06	SE	0.006	
JNG43BR001	12	80S	0.7058	815	140	110.0	22292.1	31469.3	3.462E+06		0.010	
JNG43BR007	10	160	0.3941	2250	566	566.7	22402.5	8828.0	5.003E+06	SE	0.006	
KAB60BR006	12	STD	0.7854	190	338	309.3	6430.6	10101.2	3.125E+06		0.034	

Table 6.2.1-12—Mass and Energy Discharge Rates for Bounding High Energy Line Breaks
Sheet 2 of 3

Pipe Name	Pipe Size (in)	Pipe Schedule	Pipe Area (ft2)	Pressure (psia)	Temp. (F)	Enthalpy (Btu/lb)	Mass Flux (lb/ft2-s)	Mass Disch. (lb/s)	Energy Disch. (Btu/s)	Break Config. (1)	Break Opening Time (s)	Notes
KAB60BR038	12	STD	0.7854	190	338	309.3	6430.6	10101.2	3.125E+06		0.034	
KBA10BR001	4	160	0.0645	2250	566	566.7	22402.5	2888.5	1.637E+06		0.003	
KBA10BR002	4	XXS	0.0542	2250	566	566.7					0.003	(3)
KBA10BR003	4	XXS	0.0542	2250	566	566.7					0.003	(3)
KBA10BR004	4	XXS	0.0542	2250	566	566.7				SE	0.003	(3)
KBA11BR001	3	XXS	0.0289	2250	566	566.7				SE	0.003	(3)
KBA12BR001	3	XXS	0.0289	2250	566	566.7				SE	0.003	(3)
KBA14BR012	6	40S	0.2006	380	340	311.7	11773.0	4724.0	1.473E+06		0.009	
KBA34BR019	3	XXS	0.0289	2250	487	472.6	28080.9	1620.4	7.658E+05		0.003	
KBA34BR022	4	160	0.0645	2250	566	566.7	22402.5	2888.5	1.637E+06		0.003	
KBA34BR023	4	160	0.0645	2250	566	566.7	22402.5	2888.5	1.637E+06		0.003	
KBA35BR003	4	160	0.0645	2250	652	1116.0	5133.8	331.0	3.694E+05	SE	0.003	
KPL85BR004	2	40S	0.0233	190	212	1198.1	392.0	18.3	2.189E+04		0.010	(4)
KPL85BR030	2	40S	0.0233	365	450	1204.7	746.5	34.8	4.191E+04		0.005	
KTA10BR027	4	40s	0.0884	145	305	327.7	6475.0	1145	3.149E+05		0.025	
LAB60BR005	20	120	1.5763	1133	446	426.6					0.018	(2)
LAB70BR005	20	120	1.5763	1133	446	426.6					0.018	(2)
LAB80BR005	20	120	1.5763	1133	446	426.6					0.018	(2)
LAB90BR005	20	120	1.5763	1133	446	426.6					0.018	(2)
LAR11BR006	4	160	0.0645	1305	578	586.3	8890.1	1146.2	6.720E+05		0.005	
LAR31BR006	4	160	0.0645	1305	578	586.3	8890.1	1146.2	6.720E+05		0.005	
LAR41BR006	4	160	0.0645	1305	578	586.3	8890.1	1146.2	6.720E+05		0.005	

Table 6.2.1-12—Mass and Energy Discharge Rates for Bounding High Energy Line Breaks
Sheet 3 of 3

Pipe Name	Pipe Size (in)	Pipe Schedule	Pipe Area (ft2)	Pressure (psia)	Temp. (F)	Enthalpy (Btu/lb)	Mass Flux (lb/ft2-s)	Mass Disch. (lb/s)	Energy Disch. (Btu/s)	Break Config. (1)	Break Opening Time (s)	Notes
LCA90BR006	6	STD	0.2006	575	420	397.1	11865.4	4761.0	1.891E+06		0.007	
LCQ10BR012	2	160	0.0156	1305	578	586.3	8890.1	276.6	1.622E+05		0.003	
LCQ20BR001	4	120	0.0717	1305	578	586.3	8890.1	1275.0	7.475E+05		0.004	
LCQ30BR003	4	120	0.0717	1305	578	586.3	8890.1	1275.0	7.475E+05		0.004	
LCQ30BR012	2	160	0.0156	1305	578	586.3	8890.1	276.6	1.622E+05		0.003	
LCQ40BR001	4	120	0.0717	1305	578	586.3	8890.1	1275.0	7.475E+05		0.004	
LCQ40BR003	4	120	0.0717	1305	578	586.3	8890.1	1275.0	7.475E+05		0.004	
LCQ40BR905	16	60	1.1767	265	420	1202.2	543.8	1279.6	1.538E+06		0.031	
LCQ51BR001	6	STD	0.2006	265	406	381.7	4062.5	1630.1	6.221E+05		0.016	
LCQ51BR103	6	STD	0.2006	315	338	309.5	10467.3	4200.1	1.300E+06		0.014	
LCQ52BR001	12	60	0.7372	200	382	1198.8	412.2	607.7	7.285E+05		0.036	
QNJ41BR016	8	STD	0.3474	195	338	309.3	6639.2	4613.0	1.427E+06		0.027	

Notes:

1. "SE" indicates single-ended break where one end of the break is isolated by safety related valves. A blank indicates "double-ended" break.

2. Detailed mass and energy release rates generated by CRAFT2. See Table 6.2.1-14.

3. Detailed mass and energy release rates generated by RELAP. See Table 6.2.1-15.

4. Mass flux and enthalpy values based on saturated steam conditions at the given pressure.

Table 6.2.1-13—Safety Grade Doors Credited to Open in Subcompartment Analyses

Reactor Building Elevation and Door Number	Vent Path Direction		Burst Pressure (psid)	Vent Area (ft^2)	Opening Time (s)	Door Function – Pressure Relief
	From Room	To Room				
-8 ft Door 4 [2]	-8 ft Room 7	-8 ft Room 2	1.45+20%	5.92	0.50	Non Radiation Door, Blowout Panel
-8 ft Door 7	-8 ft Room 16	-8 ft Room 13	1.45+20%	5.92	0.50	Non Radiation Door, Blowout Panel
-8 ft Door 10	-8 ft Room 15	-8 ft Room 11	1.45+20%	5.92	0.50	Non Radiation Door, Blowout Panel
-8 ft Door 11	-8 ft Room 14	-8 ft Room 9	1.45+20%	5.92	0.50	Non Radiation Door, Blowout Panel
-8 ft Door 13	-8 ft Room 11	-8 ft Room 5	1.45+20%	5.92	0.50	Non Radiation Door, Blowout Panel
-8 ft Door 14	-8 ft Room 9	-8 ft Room 5	1.45+20%	5.92	0.50	Non Radiation Door, Blowout Panel
+5 ft Door 4 [2]	+5 ft Room 16	+5 ft Room 14	2.90+20%	28.63	0.75	Radiation Door, Swing Open
+5 ft Door 5	+5 ft Room 17	+5 ft Room 16	2.90+20%	20.77	0.50	Radiation Door, Swing Open
+5 ft Door 13	+5 ft Room 21	+5 ft Room 15	2.90+20%	19.91	0.75	Radiation Door, Swing Open
+5 ft Door 14 [2]	+5 ft Room 16	+5 ft Room 13	2.90+20%	13.89	0.75	Radiation Door, Swing Open
+29 ft Door 2 [2, 3]	+29 ft Room 18	+29 ft Room 15	2.90+20%	21.64	0.75	Radiation Door, Swing Open
+45 ft Door 2 [2]	+45 ft Room 18	+45 ft Room 22	2.90+20%	21.85	0.75	Radiation Door, Swing Open
+45 ft Door 15 [2]	+45 ft Room 22	+45 ft Room 13	1.45+20%	5.92	0.50	Non Radiation Door, Blowout Panel

Notes:

1. Doors open into “To Room.”
2. Door also credited to open in LBLOCA pressurizer surge line breaks discussed in Section 6.2.1.3.
3. The stairwell denoted as +29 ft Room 29 is part of the flow path connecting +29 ft Room 18 to +29 ft Room 15. The door is denoted as venting from the source room to the terminal room.

Table 6.2.1-14—Mass and Energy Discharge Rates for Feedwater Lines (LABn0BR005)
Sheet 1 of 2

Time (s)	Discharge Rate (lb/s)	Discharge Enthalpy (Btu/lb)
0.000	0	435.6
0.004	6772	435.6
0.008	23270	437.2
0.012	43239	439.6
0.016	42335	440.5
0.020	41589	441.5
0.024	42731	443.0
0.028	40484	443.5
0.032	42311	445.3
0.036	40084	445.7
0.040	41547	447.4
0.044	39986	448.0
0.048	40510	449.3
0.052	40050	450.4
0.056	39489	451.3
0.060	39714	452.6
0.064	38571	453.4
0.068	39292	454.9
0.072	38116	455.6
0.076	38391	456.9
0.080	37565	457.8
0.084	37622	459.0
0.088	37768	460.2
0.092	37233	461.2
0.096	37746	462.5
0.100	36977	463.4
0.117	37115	466.2
0.133	36625	470.0
0.150	36154	473.5
0.167	35718	476.8
0.183	35371	480.1

Table 6.2.1-14—Mass and Energy Discharge Rates for Feedwater Lines (LABn0BR005)
Sheet 2 of 2

Time (s)	Discharge Rate (lb/s)	Discharge Enthalpy (Btu/lb)
0.200	35014	483.3
0.217	34349	486.2
0.233	33843	488.9
0.250	33483	491.5
0.267	33072	493.9
0.283	32663	496.0
0.300	32390	498.1
0.317	32125	500.1
0.333	31808	501.9
0.350	31556	503.7
0.367	31321	505.3
0.383	31091	506.8
0.400	30891	508.2
0.417	30677	509.5
0.433	30464	510.7
0.450	30279	511.9
0.467	30104	513.0
0.483	29936	514.1
1.000	24529	530.0
10.0	24529	530.0

Table 6.2.1-15—Mass and Energy Discharge Rates for Letdown and Charging Lines
Sheet 1 of 3

Time (s)	Pipe Name					
	KBA10BR002 / KBA10BR003		KBA10BR004		KBA11BR001 / KBA12BR001	
	Discharge Rate Rate (lb/s)	Discharge Enthalpy (Btu/lb)	Discharge Rate Rate (lb/s)	Discharge Enthalpy (Btu/lb)	Discharge Rate Rate (lb/s)	Discharge Enthalpy (Btu/lb)
0.00	0.0	565.5	0.0	566.9	0.0	566.9
2.00E-03	45.8	565.5	17.8	566.9	17.8	566.9
0.10	751.2	562.3	371.1	563.3	301.6	566.0
0.20	831.9	564.2	474.5	564.5	429.5	568.5
0.30	822.9	556.5	523.1	565.3	430.1	569.0
0.40	800.8	549.1	519.8	565.7	429.7	569.3
0.50	796.9	543.6	519.0	566.2	429.3	569.6
0.60	794.6	539.5	518.6	566.4	429.1	569.7
0.70	795.9	535.4	518.3	566.6	428.8	570.0
0.80	795.3	531.7	518.0	566.8	428.7	570.0
0.90	794.2	528.1	517.9	566.8	428.6	570.1
1.00	792.0	524.9	517.8	566.9	428.6	570.1
1.20	786.6	520.7	517.7	567.0	428.4	570.2
1.40	802.6	512.5	517.6	567.0	428.3	570.3
1.60	874.5	498.3	517.5	567.1	428.3	570.3
1.80	880.5	490.7	517.5	567.1	428.3	570.3
2.00	886.5	483.5	517.3	567.3	428.3	570.3
2.20	892.5	476.5	517.5	567.1	428.2	570.4
2.40	898.5	469.7	517.5	567.1	428.4	570.1
2.60	903.5	463.5	517.5	567.1	428.0	570.7
2.80	908.0	458.0	517.5	567.1	428.5	570.0
3.00	910.5	453.8	517.5	567.1	428.0	570.7
3.20	913.5	449.5	517.5	567.1	428.5	570.0
3.40	915.0	446.3	517.5	567.1	428.0	570.7
3.60	916.5	443.5	517.5	567.1	428.5	570.0
3.80	918.0	440.9	517.5	567.1	428.0	570.7
4.00	918.5	439.0	517.5	567.1	428.0	570.7

Table 6.2.1-15—Mass and Energy Discharge Rates for Letdown and Charging Lines
Sheet 2 of 3

Time (s)	Pipe Name					
	KBA10BR002 / KBA10BR003		KBA10BR004		KBA11BR001 / KBA12BR001	
	Discharge Rate Rate (lb/s)	Discharge Enthalpy (Btu/lb)	Discharge Rate Rate (lb/s)	Discharge Enthalpy (Btu/lb)	Discharge Rate Rate (lb/s)	Discharge Enthalpy (Btu/lb)
4.20	919.5	437.2	517.5	567.1	428.5	569.9
4.40	920.0	435.7	517.0	567.6	428.0	570.7
4.60	920.5	434.4	517.5	567.1	428.5	570.0
4.80	921.0	433.2	517.5	567.1	428.0	570.7
5.00	921.5	432.0	517.5	567.1	428.5	570.0
5.20	921.5	431.1	517.5	567.1	428.0	570.7
5.40	922.0	430.2	517.5	567.1	428.5	570.0
5.60	922.0	429.4	517.5	567.1	428.0	570.7
5.80	922.5	428.5	517.5	567.1	428.5	570.0
6.00	922.5	427.8	517.5	567.1	428.0	570.7
6.20	922.5	427.2	517.5	567.1	428.5	570.0
6.40	923.0	426.4	517.5	567.1	428.0	570.7
6.60	923.5	425.5	517.5	567.1	428.0	570.7
6.80	923.0	425.2	517.0	567.6	428.5	569.9
7.00	923.5	424.4	517.5	567.1	428.0	570.7
7.20	923.5	423.8	517.5	567.1	428.5	570.0
7.40	924.0	423.1	517.5	567.1	428.0	570.7
7.60	923.5	422.8	517.5	567.1	428.5	570.0
7.80	924.0	422.1	517.5	567.1	428.0	570.7
8.00	924.5	421.3	517.5	567.1	428.5	570.0
8.20	924.0	421.1	517.5	567.1	428.0	570.7
8.40	924.5	420.4	517.5	567.1	428.5	570.0
8.60	924.5	420.0	517.5	567.1	428.0	570.7
8.80	924.5	419.5	517.5	567.1	428.5	570.0
9.00	925.0	418.9	517.5	567.1	428.0	570.7
9.20	925.0	418.5	517.0	567.6	428.0	570.7
9.40	925.0	418.1	517.5	567.1	428.5	570.0
9.60	925.0	417.7	517.5	567.1	428.0	570.6

Table 6.2.1-15—Mass and Energy Discharge Rates for Letdown and Charging Lines
Sheet 3 of 3

Time (s)	Pipe Name					
	KBA10BR002 / KBA10BR003		KBA10BR004		KBA11BR001 / KBA12BR001	
	Discharge Rate Rate (lb/s)	Discharge Enthalpy (Btu/lb)	Discharge Rate Rate (lb/s)	Discharge Enthalpy (Btu/lb)	Discharge Rate Rate (lb/s)	Discharge Enthalpy (Btu/lb)
9.80	925.0	417.3	517.5	567.1	428.5	570.0
10.00	925.5	416.7	517.5	567.1	428.0	570.7

Table 6.2.1-16—Subcompartment Volumes (For Subcompartments Where the Pressure Increase is More Than 5 psi)

Room Number	Room Description	Volume (ft^3)	Elevation (ft)	Height (ft)
-8 ft Room 2	Access Area	11464	-7.5	10.5
-8 ft Room 7	LCQ (SGBS) HX Room	9210	-7.5	10.5
-8 ft Room 14	KBA12 (CVCS) HX Room	1542	-7.5	10.5
-8 ft Room 15	KBA11 (CVCS) HX Room	1471	-7.5	10.5
-8 ft Room 16	KBA (CVCS) Valve Room	1584	-7.5	10.5
-8 ft Room 17	KBA (CVCS) Valve Room	1260	-7.5	10.5
+5 ft Room 16	LCQ50 (SGBS) Tank room	9234	4.9	15.0
+5 ft Room 20	KBA (CVCS) Valve Room	2053	4.9	15.6
+5 ft Room 21	KBA (CVCS) Valve Room	4471	4.9	14.6
+5 ft Room 22	KBA10 (CVCS) HX Room	2020	4.9	10.3
+45 ft Room 2	JEA10 (SG) Room	7195	45.3	18.7
+45 ft Room 3	JEA20 (SG) Room	7408	45.3	18.7
+45 ft Room 6	JEA30 (SG) Room	7408	45.3	18.7
+45ft Room 7	JEA40 (SG) Room	7195	45.3	18.7
+64 ft Room 1	JEA10 (SG) Room	4992	64.0	15.1
+64 ft Room 2	JEA20 (SG) Room	5004	64.0	15.1
+64 ft Room 5	JEA30 (SG) Room	5004	64.0	15.1
+64 ft Room 6	JEA40 (SG) Room	4992	64.0	15.1
+64 ft Room 14	JEF10 (RCS) Pressurizer Room	5509	67.9	13.6
+79 ft Room 12	Pressurizer Head & Safety Relief Valves Room	3168	83.2	8.7

Table 6.2.1-17—Subcompartment Vent Paths (For Subcompartments Where the Pressure Increase is More Than 5 psi)
Sheet 1 of 4

Room Number	Connecting Room Number	Opening Type	Inertia Length (ft)	Forward Loss Coefficient	Reverse Loss Coefficient	Time Delay (s)	Vent Path Area (ft^2)	Total Vent Path Area (ft^2)
-8 ft Room 2	+5 ft Room 18	Annulus gap	10.42	2.59	2.58		55.68	
								55.68
-8 ft Room 7	-8ft Room 2	Door, blowout panel	32.95	2.78	2.78	0.5	5.92	
	+5 ft Room 16	Floor opening	12.76	2.72	2.69		18.94	
								24.86
-8 ft Room 14	-8 ft Room 9	Door, blowout panel	15.32	2.71	2.68	0.5	5.92	
								5.92
-8 ft Room 15	-8 ft Room 11	Door, blowout panel	16.16	2.72	2.68	0.5	5.92	
								5.92
-8 ft Room 16	-8 ft Room 13	Door, blowout panel	15.28	2.71	2.66	0.5	5.92	
	-8 ft Room 17	Open access	11.74	2.24	2.3		18.19	
								24.11
-8 ft Room 17	-8 ft Room 16	Open access	11.74	2.24	2.3		18.19	
								18.19

Table 6.2.1-17—Subcompartment Vent Paths (For Subcompartments Where the Pressure Increase is More Than 5 psi)
Sheet 2 of 4

Room Number	Connecting Room Number	Opening Type	Inertia Length (ft)	Forward Loss Coefficient	Reverse Loss Coefficient	Time Delay (s)	Vent Path Area (ft^2)	Total Vent Path Area (ft^2)
+5 ft Room 16	+5 ft Room 13	Door, swing open	28.9	2.74	2.72	0.75	13.89	
	+5 ft Room 14	Door, swing open	29.93	2.68	2.63	0.75	28.63	
	-8 ft Room 16	Floor opening	12.76	2.72	2.69		18.94	
								61.46
+5 ft Room 20	+5 ft Room 21	Open access	14.64	2.44	2.25		21.35	
								21.35
+5 ft Room 21	+5 ft Room 15	Door, swing open	28.83	2.7	2.58	0.75	19.91	
	+5 ft Room 20	Open access	14.64	2.44	2.25		21.35	
	+5 ft Room 22	Open access	16.18	2.55	2.6		13.89	
								55.15
+5 ft Room 22	+5 ft Room 21	Open access	16.18	2.55	2.6		13.89	
								13.89
+45 ft Room 2	+45 ft Room 1	Open access	23.53	1.31	1.06		242.02	
	+45 ft Room 3	Open access	26.13	0.42	0.42		516.02	
	+29 ft Room 4	Grating	17.72	0.81	0.81		196.28	
	+64 ft Room 1	Grating	16.9	0.85	0.84		168.77	
								1123.09

Table 6.2.1-17—Subcompartment Vent Paths (For Subcompartments Where the Pressure Increase is More Than 5 psi)
Sheet 3 of 4

Room Number	Connecting Room Number	Opening Type	Inertia Length (ft)	Forward Loss Coefficient	Reverse Loss Coefficient	Time Delay (s)	Vent Path Area (ft^2)	Total Vent Path Area (ft^2)
+45 ft Room 3	+45 ft Room 2	Open access	26.13	0.42	0.42		516.02	
	+45 ft Room 4	Open access	24.23	0.99	1.18		280.52	
	+29 ft Room 5	Grating	17.72	0.8	0.8		202.11	
	+64 ft Room 2	Grating	16.9	0.86	0.84		169.17	
								1167.82
+45 ft Room 6	+45 ft Room 5	Open access	24.42	1.2	1.02		280.52	
	+45 ft Room 7	Open access	26.13	0.42	0.42		516.02	
	+29 ft Room 8	Grating	17.72	0.8	0.8		202.11	
	+64 ft Room 5	Grating	16.9	0.86	0.84		169.17	
								1167.82
+45 ft Room 7	+45 ft Room 6	Open access	26.13	0.42	0.42		516.02	
	+45 ft Room 8	Open access	23.53	1.06	1.31		242.02	
	+29 ft Room 9	Grating	17.72	0.81	0.81		196.28	
	+64 ft Room 6	Grating	16.9	0.85	0.84		168.77	
								1123.09
+64 ft Room 1	+64 ft Room 2	Open access	24.95	1.19	1.19		280.25	
	+45 ft Room 2	Grating	16.9	0.85	0.84		168.77	
	+79 ft Room 1	Grating	19.52	0.84	0.84		168.77	
								617.79

Table 6.2.1-17—Subcompartment Vent Paths (For Subcompartments Where the Pressure Increase is More Than 5 psi)
Sheet 4 of 4

Room Number	Connecting Room Number	Opening Type	Inertia Length (ft)	Forward Loss Coefficient	Reverse Loss Coefficient	Time Delay (s)	Vent Path Area (ft^2)	Total Vent Path Area (ft^2)
+64 ft Room 2	+64 ft Room 1	Open access	24.95	1.19	1.19		280.25	
	+64 ft Room 3	Open access	19.99	2.47	2.61		21.31	
	+45 ft Room 3	Grating	16.9	0.86	0.84		169.17	
	+79 ft Room 2	Grating	19.52	0.84	0.84		169.17	
								639.9
+64 ft Room 5	+64 ft Room 4	Open access	20.19	2.61	2.48		21.31	
	+64 ft Room 6	Open access	24.95	1.19	1.19		280.25	
	+45 ft Room 6	Grating	16.9	0.86	0.84		169.17	
	+79 ft Room 5	Grating	19.52	0.84	0.84		169.17	
								639.9
+64 ft Room 6	+64 ft Room 5	Open access	24.95	1.19	1.19		280.25	
	+45 ft Room 7	Grating	16.9	0.85	0.84		168.77	
	+79 ft Room 6	Grating	19.52	0.84	0.84		168.77	
								617.79
+64 ft Room 14	+45 ft Room 18	Floor opening	14.91	2.48	2.48		42.68	
	+79 ft Room 12	Floor opening	11.15	2.39	2.39		55.46	
								98.14
+79 ft Room 12	+64 ft Room 14	Floor opening	11.15	2.39	2.39		55.46	
								55.46

Table 6.2.1-18—Subcompartment Peak HELB Pressures

Room Name	Room Description	HELB Pipe Name	Single-node Peak Pressure (psia)	Single-node Peak Pressure Time (s)	Subdivided node Peak Pressure (psia)
-8 ft Room 2	Access Area	LCA90BR006	27.48	6.5	27.46
-8 ft Room 7	LCQ (SGBS) HX Room	LCQ51BR001	22.15	32.70	22.19
-8 ft Room 14	KBA12 (CVCS) HX Room	KBA12BR001	32.2	7.11	31.97
-8 ft Room 15	KBA11 (CVCS) HX Room	KBA11BR001	32.2	6.66	31.99
-8 ft Room 16	KBA (CVCS) Valve Room	KBA11BR001	32.2	9.25	32.11
-8 ft Room 17	KBA (CVCS) Valve Room	KBA10BR004	39.39	10.0	39.45
+5 ft Room 16	LCQ50 (SGBS) Tank room	LCQ40BR905	27.69	0.36	26.81
+5 ft Room 20	KBA (CVCS) Valve Room	KBA10BR002	23.09	0.72	23.02
+5 ft Room 21	KBA (CVCS) Valve Room	KBA10BR003	21.71	0.64	21.51
+5 ft Room 22	KBA10 (CVCS) HX Room	KBA10BR003	25.49	0.82	25.55
+45 ft Room 2	JEA10 (SG) Room	LAB60BR005	22.40	0.48	22.50
+45 ft Room 3	JEA20 (SG) Room	LAB70BR005	22.30	0.52	22.55
+45 ft Room 6	JEA30 (SG) Room	LAB80BR005	22.30	0.52	22.55
+45 ft Room 7	JEA40 (SG) Room	LAB90BR005	22.60	0.48	22.08
+64 ft Room 1	JEA10 (SG) Room	LAB60BR005	25.39	0.02	23.88
+64 ft Room 2	JEA20 (SG) Room	LAB70BR005	25.23	0.02	24.32
+64 ft Room 5	JEA30 (SG) Room	LAB80BR005	25.23	0.02	+64 ft Room 2
+64 ft Room 6	JEA40 (SG) Room	LAB90BR005	25.95	0.16	25.95
+64 ft Room 14	JEF10 (RCS) Pressurizer Room	JEF10BR004	22.62	1.25	22.62
+79 ft Room 12	Pressurizer Head & Safety Relief Valves Room	JEF10BR006	23.57	1.30	23.63

Table 6.2.1-19—Mass and Energy Results for the Limiting Hot Leg Break
Sheet 1 of 18

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
0.000	2298.5	0.0	1212.4	0.0	410.0	2298.2	0.0	1197.0	0.0	600.0
0.0001	2339.8	0.0	1212.4	1000.0	510.0	2231.8	0.0	1197.0	1000.0	600.0
0.125	1611.6	2760.0	1162.7	50341.0	632.3	1334.4	5283.2	1199.0	36226.0	575.2
0.250	1941.0	2605.6	1161.5	51434.0	629.7	1013.9	6086.4	1219.2	32798.0	546.1
0.375	1524.5	3266.4	1167.3	47468.0	625.3	904.3	6637.6	1241.9	28321.0	505.9
0.500	1703.3	3380.8	1169.8	46960.0	619.2	787.0	7456.0	1289.1	26154.0	463.8
0.625	1408.4	3937.6	1167.9	47035.0	617.1	738.2	7128.8	1304.3	26177.0	447.6
0.750	1538.2	4120.0	1175.9	43629.0	609.5	757.9	6454.4	1287.8	26232.0	446.7
0.875	1514.2	4517.6	1191.8	43131.0	603.0	718.5	5827.2	1267.7	23994.0	452.9
1.000	1475.5	4442.4	1194.7	41715.0	607.5	670.3	5152.0	1257.9	22482.0	458.2
1.125	1422.7	4548.0	1192.7	39689.0	612.1	765.6	4938.4	1254.3	21936.0	458.8
1.250	1401.1	5285.6	1192.9	36898.0	610.1	683.5	4900.8	1255.1	21575.0	456.4
1.375	1293.5	6414.4	1198.4	33790.0	602.7	680.6	5226.4	1259.7	21639.0	444.9
1.500	1333.2	7839.2	1210.2	32921.0	572.2	667.8	4741.6	1257.1	20881.0	447.6
1.625	1285.3	7992.0	1213.8	32965.0	566.1	626.0	4837.6	1256.1	21076.0	447.2
1.750	1273.8	8128.8	1215.5	31890.0	562.3	591.5	5116.8	1264.2	21865.0	433.9
1.875	1233.4	8228.0	1218.2	31211.0	557.8	603.5	5018.4	1263.9	21990.0	432.8
2.000	1231.3	8180.8	1220.0	30962.0	554.1	598.4	4977.6	1264.5	21988.0	431.4

Table 6.2.1-19—Mass and Energy Results for the Limiting Hot Leg Break
Sheet 2 of 18

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
2.125	1197.9	8017.6	1220.8	31022.0	551.5	596.3	4935.2	1264.3	21794.0	430.3
2.250	1200.4	7792.8	1220.8	31246.0	549.6	580.9	4876.0	1263.5	21353.0	429.8
2.375	1172.8	7536.0	1220.5	31526.0	548.2	578.3	4803.2	1261.7	20745.0	429.5
2.500	1174.9	7272.0	1220.0	31798.0	547.0	597.7	4392.0	1256.8	19545.0	438.0
2.625	1152.3	7029.6	1219.6	32071.0	546.1	646.5	4619.2	1257.9	19227.0	431.4
2.750	1153.7	6812.8	1219.0	32260.0	545.2	533.8	4253.6	1252.1	17835.0	437.0
2.875	1131.8	6614.4	1218.8	32420.0	544.2	622.2	4174.4	1251.5	17343.0	437.9
3.000	1133.8	6444.8	1218.4	32551.0	543.2	513.8	4114.4	1249.5	16728.0	438.1
3.125	1111.1	6314.4	1218.2	32583.0	542.3	517.4	4085.6	1241.0	16186.0	445.7
3.250	1119.1	6231.2	1218.3	32590.0	541.3	511.7	3938.4	1234.5	16863.0	453.9
3.375	1095.3	6152.0	1218.2	32520.0	540.3	503.9	4057.6	1235.4	16777.0	453.1
3.500	1088.5	6152.0	1220.2	32265.0	537.4	547.5	3789.6	1253.8	16014.0	455.9
3.625	1084.2	6301.6	1224.2	32221.0	532.9	520.0	3582.4	1261.4	14988.0	456.1
3.750	1076.4	6291.2	1224.8	32114.0	531.7	471.3	3544.8	1264.4	14204.0	458.9
3.875	1069.2	6264.0	1224.5	31970.0	530.9	457.3	3476.8	1266.2	13754.0	457.8
4.000	1062.1	6226.4	1224.5	31840.0	530.3	532.8	3476.8	1261.9	13278.0	455.1
4.125	1055.6	6184.0	1224.2	31719.0	529.8	510.1	3443.2	1266.0	13256.0	456.4
4.250	1049.8	6133.6	1223.6	31623.0	529.6	516.9	3498.4	1263.8	13152.0	452.0
4.375	1044.2	6070.4	1223.2	31570.0	529.4	465.3	3431.2	1265.6	12808.0	453.2

Table 6.2.1-19—Mass and Energy Results for the Limiting Hot Leg Break
Sheet 3 of 18

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
4.500	1039.0	6008.8	1222.9	31538.0	529.0	446.5	3414.4	1267.2	12855.0	453.5
4.625	1034.4	5949.6	1222.8	31539.0	528.5	440.5	3425.6	1264.4	12558.0	450.2
4.750	1028.9	5888.8	1222.6	31548.0	528.0	441.2	3405.6	1266.3	12092.0	449.7
4.875	1023.9	5832.8	1222.6	31543.0	527.3	479.1	3372.8	1268.1	11856.0	448.7
5.000	1018.7	5789.6	1222.7	31522.0	526.7	428.2	3353.6	1264.4	12011.0	446.7
5.125	1013.2	5764.8	1222.8	31453.0	525.9	418.3	3284.8	1259.8	11861.0	448.6
5.250	1007.0	5764.0	1223.1	31316.0	525.0	483.5	3320.0	1261.5	11746.0	446.4
5.375	1001.7	5793.6	1223.5	31126.0	524.0	462.6	3236.0	1262.9	11922.0	447.0
5.500	994.8	5855.2	1224.1	30798.0	523.0	445.8	3335.2	1262.9	11765.0	444.6
5.625	987.8	5924.8	1224.8	30470.0	521.7	477.3	3364.8	1260.0	11822.0	443.2
5.750	981.1	5980.8	1225.7	30190.0	520.2	466.6	3247.2	1264.7	11508.0	446.0
5.875	974.0	6038.4	1226.5	29877.0	518.9	457.8	3307.2	1261.2	11432.0	441.0
6.000	966.4	6113.6	1227.3	29502.0	517.5	454.7	3300.0	1265.7	10911.0	442.3
6.125	959.0	6194.4	1228.1	29106.0	516.1	401.8	3469.6	1261.1	10646.0	431.7
6.250	951.3	6268.8	1229.1	28714.0	514.6	437.9	3345.6	1255.5	10006.0	436.8
6.375	943.3	6337.6	1229.9	28337.0	513.1	402.4	3298.4	1261.5	10247.0	439.5
6.500	935.3	6399.2	1231.0	27975.0	511.4	447.9	3275.2	1266.1	9798.4	440.0
6.625	927.7	6451.2	1231.9	27657.0	509.7	423.1	3335.2	1265.5	9735.2	436.8
6.750	920.0	6481.6	1233.1	27399.0	508.0	412.0	3704.8	1269.9	9250.4	411.1

Table 6.2.1-19—Mass and Energy Results for the Limiting Hot Leg Break
Sheet 4 of 18

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
6.875	912.6	6492.8	1234.0	27199.0	506.3	408.6	3958.4	1275.3	8906.4	383.7
7.000	904.7	6488.8	1235.0	27034.0	504.6	394.2	3950.4	1274.8	8610.4	383.2
7.125	895.2	6496.8	1235.9	26815.0	502.6	400.3	3956.0	1278.0	8465.6	381.3
7.250	885.6	6537.6	1237.2	26464.0	500.4	392.4	3886.4	1275.9	8026.4	384.6
7.375	875.7	6600.8	1238.7	26042.0	498.2	385.8	3817.6	1273.0	7569.6	388.6
7.500	866.2	6677.6	1240.5	25598.0	495.7	383.0	3800.8	1272.0	7114.4	389.1
7.625	831.9	6819.2	1249.5	24354.0	487.0	362.2	3826.4	1272.5	6655.2	386.8
7.750	804.7	7878.4	1268.5	21973.0	472.5	355.9	3882.4	1276.5	6108.8	376.3
7.875	816.3	8268.0	1289.0	22826.0	464.9	354.9	3880.0	1275.0	5619.2	376.0
8.000	805.4	8031.2	1289.3	23678.0	464.6	333.4	3864.8	1277.8	5282.4	373.1
8.125	794.6	7896.0	1288.6	23736.0	463.8	316.3	3997.6	1293.0	4428.8	357.6
8.250	785.0	7800.0	1288.2	23559.0	462.5	309.0	3924.0	1299.8	4639.2	351.2
8.375	775.6	7720.8	1288.2	23300.0	461.2	307.2	3871.2	1298.7	4594.4	351.7
8.500	766.5	7652.0	1288.1	23000.0	459.8	297.4	3799.2	1296.0	4358.4	350.0
8.625	757.7	7598.4	1288.0	22639.0	458.4	297.3	3763.2	1296.2	4208.0	350.0
8.750	750.2	7560.8	1288.1	22210.0	457.1	291.6	3709.6	1296.2	4025.6	347.5
8.875	739.8	7507.2	1288.6	21837.0	455.4	288.0	3648.8	1291.2	3878.4	348.1
9.000	734.7	7340.0	1289.3	22174.0	453.4	286.1	3628.0	1294.5	3774.4	347.0
9.125	722.1	7194.4	1288.9	22391.0	452.3	280.0	3580.8	1294.8	3646.4	344.7

Table 6.2.1-19—Mass and Energy Results for the Limiting Hot Leg Break
Sheet 5 of 18

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
9.250	709.2	7133.6	1288.1	21757.0	450.9	276.0	3524.0	1292.3	3597.6	344.6
9.375	696.3	7130.4	1287.8	20752.0	449.0	273.1	3487.2	1291.5	3489.6	343.7
9.500	682.7	7133.6	1288.2	19633.0	446.7	270.0	3450.4	1290.9	3408.8	342.4
9.625	669.0	7118.4	1288.6	18574.0	444.2	267.2	3416.0	1290.5	3304.8	341.4
9.750	658.2	7080.8	1289.0	17724.0	441.5	264.1	3382.4	1289.9	3196.0	340.5
9.875	645.2	6984.0	1289.5	17373.0	439.2	261.0	3349.6	1289.4	3065.6	339.8
10.000	630.6	6893.6	1288.7	16736.0	437.0	259.2	3319.2	1288.6	2936.8	338.9
10.125	616.8	6840.8	1288.6	15836.0	434.7	256.5	3276.0	1285.5	3021.6	339.5
10.250	603.1	6799.2	1288.4	14895.0	432.3	259.3	3245.6	1282.9	2813.6	339.7
10.375	589.6	6742.4	1288.3	14026.0	429.7	258.4	3205.6	1279.7	2604.0	340.7
10.500	579.8	6660.8	1288.7	13401.0	427.1	248.1	3192.8	1278.7	2259.2	340.9
10.625	566.1	6527.2	1288.9	13168.0	424.5	248.3	3175.2	1280.3	2185.6	337.5
10.750	549.5	6406.4	1288.4	12583.0	421.9	240.7	3152.8	1280.3	1870.4	336.9
10.875	535.2	6308.0	1288.3	11812.0	418.9	238.5	3120.8	1278.1	1816.8	337.3
11.000	521.4	6218.4	1288.4	10993.0	415.9	235.4	3084.8	1280.1	1655.2	335.7
11.125	507.4	6126.4	1288.0	10230.0	413.1	234.0	3066.4	1275.4	1542.4	336.6
11.250	493.0	6016.8	1287.5	9565.6	410.4	230.1	3036.0	1275.8	1263.2	337.0
11.375	477.1	5852.8	1288.4	9107.2	406.5	227.2	3018.4	1273.1	1052.0	337.3
11.500	462.6	5698.4	1288.6	8712.0	402.8	221.3	2964.8	1272.6	831.2	337.4

Table 6.2.1-19—Mass and Energy Results for the Limiting Hot Leg Break
Sheet 6 of 18

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
11.625	446.9	5532.0	1288.5	8304.8	399.2	215.9	2906.4	1269.9	670.4	336.9
11.750	435.3	5371.2	1289.2	7898.4	395.3	209.3	2835.2	1267.0	530.4	337.7
11.875	422.5	5241.6	1289.1	7452.8	391.9	204.7	2728.0	1266.1	479.2	335.9
12.000	410.2	5124.0	1288.1	6993.6	389.4	198.4	2646.4	1264.9	448.8	334.0
12.125	396.2	4964.8	1288.3	6669.6	386.1	193.2	2568.0	1263.8	427.2	331.5
12.250	385.1	4804.8	1288.7	6418.4	382.0	189.5	2492.8	1262.6	416.0	330.5
12.375	374.1	4702.4	1287.4	6052.0	379.7	184.6	2421.6	1261.3	419.2	327.8
12.500	364.0	4599.2	1286.2	5642.4	377.7	180.5	2355.2	1260.3	428.0	326.1
12.625	352.5	4460.8	1286.7	5393.6	374.3	177.4	2292.8	1259.9	438.4	324.1
12.750	343.3	4344.8	1286.0	5171.2	371.3	173.6	2238.4	1258.5	448.8	322.4
12.875	330.2	4215.2	1284.6	4889.6	369.0	170.6	2188.0	1257.5	459.2	320.7
13.000	309.9	3946.4	1286.3	4777.6	363.5	168.1	2138.4	1256.9	471.2	318.8
13.125	307.6	3790.4	1284.4	4797.6	359.0	165.8	2096.8	1256.3	474.4	317.7
13.250	293.6	3696.8	1281.6	4712.8	358.1	163.4	2057.6	1254.4	461.6	317.1
13.375	275.1	3441.6	1281.6	4459.2	353.5	161.6	2026.4	1253.9	440.0	316.4
13.500	273.7	3323.2	1281.7	4420.8	348.2	159.3	2000.0	1253.0	401.6	316.2
13.625	268.4	3292.8	1279.2	4331.2	347.7	155.1	1947.2	1251.0	347.2	316.7
13.750	255.4	3203.2	1277.8	4092.8	347.2	150.6	1884.8	1249.4	308.0	315.0
13.875	243.2	2992.0	1280.2	4016.0	341.1	145.7	1807.2	1247.6	273.6	313.8

Table 6.2.1-19—Mass and Energy Results for the Limiting Hot Leg Break
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Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
14.000	228.3	2786.4	1278.2	3909.6	335.5	140.3	1725.6	1245.0	237.6	313.5
15.000	201.3	2526.1	1256.1	3522.8	340.7	105.0	1350.1	1243.0	177.8	305.3
16.000	161.6	2008.2	1242.0	2407.1	327.1	88.0	884.8	1250.5	120.9	296.6
17.000	144.3	1736.6	1237.4	1264.8	316.5	76.6	608.8	1243.6	56.5	282.1
18.000	131.8	1487.9	1238.5	819.2	308.4	70.0	425.2	1237.7	23.8	276.0
19.000	115.0	1321.8	1224.6	536.8	303.8	67.2	235.8	1265.5	1.9	277.9
20.000	117.5	1195.9	1224.3	328.6	299.7	65.8	151.4	1268.9	0.2	320.0
21.000	122.8	1256.8	1225.3	194.3	298.8	65.0	20.6	1275.3	0.0	320.0
22.000	138.6	1452.1	1232.7	179.3	303.8	66.0	5.7	1271.6	0.0	320.0
23.000	137.5	1638.0	1237.1	147.7	308.6	65.4	5.7	1277.2	0.1	320.0
24.000	134.5	1440.3	1226.6	1789.2	310.8	64.4	0.0	1277.2	0.0	320.0
25.000	127.3	1283.0	1221.7	3177.2	310.9	64.5	0.0	1277.2	0.0	320.0
26.000	121.3	1074.0	1217.0	4732.6	309.4	63.8	0.0	1277.2	0.0	320.0
27.000	118.0	983.0	1221.2	4345.3	300.6	62.9	0.0	1277.2	0.0	320.0
28.000	106.5	881.1	1219.7	4656.0	295.5	62.3	0.0	1277.2	0.0	320.0
29.000	99.4	713.1	1215.3	5237.3	291.0	61.2	0.0	1277.2	0.0	320.0
30.000	98.2	773.9	1210.3	3363.9	291.0	60.8	0.0	1277.2	0.0	320.0
31.000	97.1	631.0	1207.4	4242.6	288.0	60.6	0.0	1277.2	0.0	320.0
32.000	88.3	533.7	1203.3	4526.3	286.5	60.6	0.0	1277.2	0.0	320.0

Table 6.2.1-19—Mass and Energy Results for the Limiting Hot Leg Break
Sheet 8 of 18

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
33.000	84.6	454.9	1199.7	4208.3	282.7	63.3	0.0	1277.2	0.0	320.0
34.000	78.6	364.5	1195.3	4109.5	280.9	65.9	2.3	1287.0	0.0	320.0
35.000	79.7	302.5	1192.6	3718.5	277.1	65.8	5.4	1281.5	0.0	320.0
36.000	74.8	260.6	1191.8	4048.0	275.6	65.8	4.8	1283.3	0.0	320.0
37.000	73.2	223.7	1190.9	4018.3	274.3	65.7	6.5	1276.3	0.0	320.0
38.000	73.5	211.9	1188.6	3430.2	273.1	65.6	5.1	1284.7	0.0	320.0
39.000	71.5	203.3	1187.2	3203.6	272.5	65.5	5.4	1287.4	0.0	320.0
40.000	71.3	193.5	1186.6	2862.2	272.6	65.5	3.5	1266.3	0.0	320.0
42.500	68.5	170.6	1188.7	1824.0	270.7	64.8	0.4	1287.5	0.0	320.0
45.000	67.9	92.1	1184.7	2913.2	269.7	65.0	0.0	1287.5	0.0	320.0
47.500	68.4	68.4	1183.3	3378.7	269.6	59.7	1.0	1264.0	0.0	320.0
50.000	67.8	50.2	1180.9	3953.1	269.3	53.1	0.0	1264.0	0.0	320.0
55.000	68.2	26.7	1180.5	4592.4	266.8	49.4	0.0	1264.0	0.0	320.0
60.000	64.0	11.4	1175.0	3194.4	263.6	41.5	0.0	1264.0	0.0	320.0
65.000	63.6	1.8	1180.6	71.8	263.6	31.4	0.0	1264.0	0.0	320.0
70.000	67.2	27.2	1183.2	1856.7	266.9	59.4	78.2	1225.3	7.6	269.6
75.000	67.4	103.6	1183.3	3863.8	269.2	63.6	33.1	1240.6	1.8	236.1
80.000	65.0	132.5	1182.5	2131.3	267.5	41.3	43.3	1219.9	3.1	268.4
85.000	64.2	142.0	1180.8	1314.2	266.5	44.6	82.3	1241.8	2.0	250.0

Table 6.2.1-19—Mass and Energy Results for the Limiting Hot Leg Break
Sheet 9 of 18

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
90.000	63.5	103.1	1181.0	2058.7	266.2	59.9	26.6	1245.8	0.8	245.0
95.000	62.2	93.2	1179.1	937.3	264.9	45.7	0.0	1245.8	0.0	245.0
100.00	62.3	90.6	1179.8	906.9	264.6	60.5	29.6	1263.6	0.2	240.0
110.00	62.5	103.3	1179.4	866.8	264.5	58.2	0.0	1263.6	0.0	240.0
120.00	61.6	115.7	1179.8	986.4	264.6	61.1	42.4	1264.3	0.1	120.0
130.00	61.3	86.9	1180.0	1448.2	264.3	55.3	30.3	1262.3	0.0	120.0
140.00	62.6	91.5	1179.5	1212.1	263.9	58.5	0.0	1262.3	0.0	120.0
150.00	62.2	113.6	1179.5	1172.4	264.0	58.0	0.0	1262.3	0.0	120.0
170.00	61.8	133.7	1179.9	1095.8	264.0	57.6	0.0	1262.3	0.0	120.0
190.00	60.9	127.1	1179.8	943.7	263.4	54.9	0.0	1262.3	0.0	120.0
210.00	61.0	109.9	1179.5	764.7	262.7	57.6	0.0	1262.3	0.0	120.0
230.00	60.1	112.4	1178.9	781.7	262.8	54.7	0.0	1262.3	0.0	120.0
250.00	59.7	124.1	1179.8	881.8	262.6	55.7	0.0	1262.3	0.0	120.0
270.00	59.2	116.3	1178.9	862.3	262.1	53.8	0.0	1262.3	0.0	120.0
290.00	59.9	103.0	1178.3	741.2	261.5	54.8	0.0	1262.3	0.0	120.0
310.00	58.9	94.6	1179.1	710.9	261.1	54.9	0.0	1262.3	0.0	120.0
330.00	58.3	99.6	1178.3	820.3	261.1	53.6	0.0	1262.3	0.0	120.0
350.00	58.5	88.6	1177.8	586.9	260.3	54.8	0.0	1262.3	0.0	120.0
370.00	58.8	98.6	1177.8	652.9	260.2	53.1	0.0	1262.3	0.0	120.0

Table 6.2.1-19—Mass and Energy Results for the Limiting Hot Leg Break
Sheet 10 of 18

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
390.00	57.3	97.1	1178.2	911.0	260.2	53.0	0.0	1262.3	0.0	120.0
430.00	57.4	83.0	1178.4	640.8	259.3	53.0	0.0	1262.3	0.0	120.0
470.00	57.0	75.6	1178.0	523.7	258.7	51.4	0.0	1262.3	0.0	120.0
510.00	56.4	83.0	1178.2	606.8	258.4	51.3	0.0	1262.3	0.0	120.0
550.00	56.3	80.9	1177.4	570.0	257.9	52.1	0.0	1262.3	0.0	120.0
590.00	55.9	79.8	1176.9	565.0	257.4	51.5	0.0	1262.3	0.0	120.0
630.00	55.4	74.7	1177.2	708.0	257.1	49.5	0.0	1262.3	0.0	120.0
670.00	55.2	76.8	1177.7	727.7	256.8	49.9	0.0	1262.3	0.0	120.0
710.00	54.9	75.3	1177.0	605.6	256.3	48.8	0.0	1262.3	0.0	120.0
750.00	54.4	71.8	1176.3	617.8	256.0	49.0	0.0	1262.3	0.0	120.0
790.00	54.4	71.3	1176.5	648.2	255.6	48.5	0.0	1262.3	0.0	120.0
830.00	53.8	68.7	1176.0	703.8	255.3	48.5	0.0	1262.3	0.0	120.0
870.00	53.6	63.4	1176.2	589.8	254.8	47.9	0.0	1262.3	0.0	120.0
910.00	53.2	62.8	1176.3	645.4	254.6	47.9	0.0	1262.3	0.0	120.0
950.00	53.2	61.1	1175.5	691.6	254.2	47.5	0.0	1262.3	0.0	120.0
990.00	52.9	45.8	1176.8	705.3	254.0	47.2	0.0	1262.3	0.0	120.0
1030.0	53.1	47.2	1175.9	530.5	253.4	46.4	0.0	1262.3	0.0	120.0
1167.0	52.4	43.1	1176.5	589.6	253.2	45.7	0.0	1262.3	0.0	120.0
1200.0	52.0	54.9	1175.1	584.4	252.7	49.1	2.7	1287.8	0.0	120.0

Table 6.2.1-19—Mass and Energy Results for the Limiting Hot Leg Break
Sheet 11 of 18

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
1300.0	51.4	59.3	1174.4	635.3	252.3	44.6	9.1	1231.9	0.5	258.0
1400.0	50.9	33.6	1174.7	431.0	251.8	45.1	0.0	1231.9	0.0	258.0
1500.0	50.4	14.5	1175.5	715.3	250.3	47.1	20.4	1259.0	0.1	360.0
1600.0	50.1	5.5	1185.3	1355.5	240.2	46.1	37.8	1256.0	0.6	233.3
1700.0	49.7	0.0	1185.3	593.9	213.6	47.6	1.0	1282.0	0.0	233.3
1800.0	49.5	0.0	1185.3	612.2	233.6	45.7	9.9	1269.2	0.0	233.3
1900.0	49.1	0.0	1185.3	849.3	238.4	45.4	0.0	1269.2	0.0	233.3
2000.0	48.8	0.0	1185.3	914.6	245.4	44.7	0.0	1269.2	0.0	233.3
2100.0	48.4	0.0	1185.3	879.8	238.6	44.3	0.0	1269.2	0.0	233.3
2200.0	48.1	0.0	1185.3	815.1	230.5	44.1	0.0	1269.2	0.0	233.3
2300.0	47.9	0.0	1185.3	827.7	225.5	43.8	0.0	1269.2	0.0	233.3
2400.0	47.6	0.0	1185.3	819.5	221.2	43.5	0.0	1269.2	0.0	233.3
2500.0	47.3	0.0	1185.3	809.8	217.1	43.2	0.0	1269.2	0.0	233.3
2600.0	47.0	0.0	1185.3	828.0	214.5	42.9	0.0	1269.2	0.0	233.3
2700.0	46.7	0.0	1185.3	821.3	211.3	42.6	0.0	1269.2	0.0	233.3
2800.0	46.4	0.0	1185.3	823.2	208.4	42.3	0.0	1269.2	0.0	233.3
2900.0	46.2	0.0	1185.3	838.2	206.2	42.1	0.0	1269.2	0.0	233.3
3000.0	45.6	0.0	1185.3	1128.2	202.2	42.8	3.9	1262.8	0.0	233.3
3100.0	45.7	0.0	1185.3	806.2	188.9	42.3	0.0	1262.8	0.0	233.3

Table 6.2.1-19—Mass and Energy Results for the Limiting Hot Leg Break
Sheet 12 of 18

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
3200.0	45.5	0.0	1185.3	818.2	199.1	42.0	0.0	1262.8	0.0	233.3
3300.0	45.3	0.0	1185.3	812.9	207.9	41.8	0.0	1262.8	0.0	233.3
3400.0	45.1	0.0	1185.3	814.7	204.1	41.5	0.0	1262.8	0.0	233.3
3500.0	44.9	0.0	1185.3	820.9	199.3	41.3	0.0	1262.8	0.0	233.3
3600.0	44.7	0.0	1185.3	822.1	196.6	41.1	0.0	1262.8	0.0	233.3
Begin Long-Term Release (Total Break Flow)[2]										
3640	Note 3	50.1	1171.1	313.2	240.6	-	-	-	-	-
3660	Note 3	50.5	1171.1	312.3	240.8	-	-	-	-	-
3680	Note 3	50.7	1171.2	311.8	240.9	-	-	-	-	-
3700	Note 3	50.6	1171.2	311.3	241.1	-	-	-	-	-
3900	Note 3	48.8	1171.6	312.9	242.2	-	-	-	-	-
4100	Note 3	48.1	1171.8	314	243	-	-	-	-	-
4301	Note 3	46.9	1172	315.1	243.7	-	-	-	-	-
4501	Note 3	45.7	1172.2	316.3	244.2	-	-	-	-	-
4701	Note 3	44.5	1172.4	317.7	244.7	-	-	-	-	-
4901	Note 3	43.1	1172.5	318.8	245.1	-	-	-	-	-
5101	Note 3	42	1172.6	319.9	245.4	-	-	-	-	-
5301	Note 3	41	1172.7	320.9	245.7	-	-	-	-	-
5501	Note 3	40.1	1172.8	321.8	246	-	-	-	-	-

Table 6.2.1-19—Mass and Energy Results for the Limiting Hot Leg Break
Sheet 13 of 18

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
5702	Note 3	39.2	1172.8	322.7	246.2	-	-	-	-	-
5902	Note 3	38.4	1172.9	323.6	246.4	-	-	-	-	-
6102	Note 3	37.6	1172.9	324.4	246.6	-	-	-	-	-
6302	Note 3	36.9	1173	325.1	246.7	-	-	-	-	-
6502	Note 3	36.2	1173	325.8	246.9	-	-	-	-	-
6702	Note 3	35.6	1173.1	326.4	247	-	-	-	-	-
6902	Note 3	34.9	1173.1	327.1	247.1	-	-	-	-	-
7102	Note 3	34.3	1173.1	327.7	247.2	-	-	-	-	-
7303	Note 3	33.8	1173.2	328.2	247.3	-	-	-	-	-
7503	Note 3	33.3	1173.2	328.8	247.4	-	-	-	-	-
7703	Note 3	32.8	1173.2	329.3	247.5	-	-	-	-	-
7903	Note 3	32.4	1173.2	329.8	247.6	-	-	-	-	-
8103	Note 3	26.9	1173.2	335.1	247.5	-	-	-	-	-
8303	Note 3	26.5	1173.2	335.5	247.4	-	-	-	-	-
8503	Note 3	26.1	1173.2	335.9	247.3	-	-	-	-	-
8703	Note 3	25.7	1173.1	336.3	247.2	-	-	-	-	-
8903	Note 3	25.4	1173.1	336.6	247.1	-	-	-	-	-
9103	Note 3	25.1	1173.1	337	247	-	-	-	-	-
9304	Note 3	24.8	1173	337.3	246.9	-	-	-	-	-

Table 6.2.1-19—Mass and Energy Results for the Limiting Hot Leg Break
Sheet 14 of 18

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
9504	Note 3	24.5	1173	337.6	246.8	-	-	-	-	-
9704	Note 3	24.2	1173	337.9	246.8	-	-	-	-	-
9904	Note 3	23.9	1173	338.2	246.7	-	-	-	-	-
10104	Note 3	23.6	1172.9	338.5	246.6	-	-	-	-	-
10304	Note 3	23.4	1172.9	338.7	246.5	-	-	-	-	-
10504	Note 3	23.2	1172.9	338.9	246.5	-	-	-	-	-
10704	Note 3	23	1172.9	339.1	246.4	-	-	-	-	-
10904	Note 3	22.8	1172.9	339.3	246.3	-	-	-	-	-
11104	Note 3	22.6	1172.8	339.5	246.3	-	-	-	-	-
11304	Note 3	22.4	1172.8	339.7	246.2	-	-	-	-	-
11505	Note 3	22.2	1172.8	339.9	246.2	-	-	-	-	-
11705	Note 3	22.1	1172.8	340.1	246.2	-	-	-	-	-
11905	Note 3	21.9	1172.8	340.3	246.1	-	-	-	-	-
12105	Note 3	21.7	1172.8	340.5	246.1	-	-	-	-	-
12305	Note 3	21.5	1172.8	340.7	246	-	-	-	-	-
12505	Note 3	21.3	1172.8	340.9	246	-	-	-	-	-
12705	Note 3	21.1	1172.7	341.1	246	-	-	-	-	-
12905	Note 3	20.9	1172.7	341.3	245.9	-	-	-	-	-
13105	Note 3	20.7	1172.7	341.5	245.9	-	-	-	-	-

Table 6.2.1-19—Mass and Energy Results for the Limiting Hot Leg Break
Sheet 15 of 18

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
13306	Note 3	20.6	1172.7	341.7	245.8	-	-	-	-	-
13506	Note 3	20.4	1172.7	341.9	245.8	-	-	-	-	-
13706	Note 3	20.2	1172.7	342	245.8	-	-	-	-	-
13906	Note 3	20	1172.7	342.2	245.7	-	-	-	-	-
14106	Note 3	19.8	1172.7	342.4	245.7	-	-	-	-	-
14306	Note 3	19.6	1172.7	342.6	245.7	-	-	-	-	-
14506	Note 3	19.5	1172.6	342.8	245.6	-	-	-	-	-
14706	Note 3	19.3	1172.6	343	245.6	-	-	-	-	-
14906	Note 3	19.1	1172.6	343.1	245.6	-	-	-	-	-
15107	Note 3	18.9	1172.6	343.3	245.5	-	-	-	-	-
15307	Note 3	18.8	1172.6	343.5	245.5	-	-	-	-	-
15507	Note 3	18.6	1172.6	343.7	245.4	-	-	-	-	-
15707	Note 3	18.4	1172.6	343.8	245.4	-	-	-	-	-
15907	Note 3	18.2	1172.6	344	245.4	-	-	-	-	-
16107	Note 3	18.1	1172.5	344.2	245.3	-	-	-	-	-
16307	Note 3	17.9	1172.5	344.4	245.3	-	-	-	-	-
16507	Note 3	17.7	1172.5	344.5	245.2	-	-	-	-	-
16708	Note 3	17.5	1172.5	344.7	245.2	-	-	-	-	-
16908	Note 3	17.4	1172.5	344.9	245.1	-	-	-	-	-

Table 6.2.1-19—Mass and Energy Results for the Limiting Hot Leg Break
Sheet 16 of 18

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
17108	Note 3	17.2	1172.5	345.1	245.1	-	-	-	-	-
17308	Note 3	17	1172.5	345.2	245	-	-	-	-	-
17508	Note 3	16.9	1172.4	345.4	245	-	-	-	-	-
17708	Note 3	16.7	1172.4	345.6	244.9	-	-	-	-	-
17908	Note 3	16.5	1172.4	345.7	244.9	-	-	-	-	-
18109	Note 3	16.3	1172.4	345.9	244.8	-	-	-	-	-
18309	Note 3	16.2	1172.4	346.1	244.8	-	-	-	-	-
18509	Note 3	16	1172.4	346.2	244.7	-	-	-	-	-
18709	Note 3	15.8	1172.3	346.4	244.6	-	-	-	-	-
18909	Note 3	15.7	1172.3	346.6	244.6	-	-	-	-	-
19109	Note 3	15.5	1172.3	346.7	244.5	-	-	-	-	-
19309	Note 3	15.4	1172.3	346.9	244.5	-	-	-	-	-
19510	Note 3	15.2	1172.3	347.1	244.4	-	-	-	-	-
19710	Note 3	15	1172.2	347.2	244.3	-	-	-	-	-
19910	Note 3	14.9	1172.2	347.4	244.3	-	-	-	-	-
20110	Note 3	14.7	1172.2	347.5	244.2	-	-	-	-	-
20310	Note 3	14.6	1172.2	347.6	244.1	-	-	-	-	-
20510	Note 3	14.5	1172.2	347.7	244.1	-	-	-	-	-
20710	Note 3	14.4	1172.1	347.8	244	-	-	-	-	-

Table 6.2.1-19—Mass and Energy Results for the Limiting Hot Leg Break
Sheet 17 of 18

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
20910	Note 3	14.3	1172.1	347.9	243.9	-	-	-	-	-
21110	Note 3	14.2	1172.1	348	243.9	-	-	-	-	-
21311	Note 3	14.2	1172.1	348.1	243.8	-	-	-	-	-
21511	Note 3	14.1	1172.1	348.2	243.8	-	-	-	-	-
21711	Note 3	14	1172	348.3	243.7	-	-	-	-	-
21911	Note 3	13.9	1172	348.4	243.6	-	-	-	-	-
22111	Note 3	13.8	1172	348.5	243.6	-	-	-	-	-
22311	Note 3	13.7	1172	348.6	243.5	-	-	-	-	-
22511	Note 3	13.6	1172	348.7	243.5	-	-	-	-	-
22711	Note 3	13.5	1172	348.8	243.4	-	-	-	-	-
22911	Note 3	13.4	1171.9	348.9	243.4	-	-	-	-	-
23112	Note 3	13.3	1171.9	349	243.3	-	-	-	-	-
23312	Note 3	13.2	1171.9	349.1	243.2	-	-	-	-	-
23512	Note 3	13.1	1171.9	349.2	243.2	-	-	-	-	-
23712	Note 3	13	1171.9	349.3	243.1	-	-	-	-	-
23912	Note 3	12.9	1171.8	349.4	243.1	-	-	-	-	-
24112	Note 3	12.8	1171.8	349.5	243	-	-	-	-	-
26113	Note 3	11.8	1171.6	350.5	242.4	-	-	-	-	-
30116	Note 3	10	1171.2	352.4	241.1	-	-	-	-	-

Table 6.2.1-19—Mass and Energy Results for the Limiting Hot Leg Break
Sheet 18 of 18

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
34118	Note 3	8.8	1170.8	353.6	239.7	-	-	-	-	-
36119	Note 3	8.2	1170.6	354.2	239.1	-	-	-	-	-
40122	Note 3	7	1170.2	355.5	237.8	-	-	-	-	-
44124	Note 3	6.3	1169.8	356.3	236.5	-	-	-	-	-
46125	Note 3	5.9	1169.6	356.7	236	-	-	-	-	-
50128	Note 3	5.1	1169.3	357.5	234.8	-	-	-	-	-
54131	Note 3	4.6	1168.9	358.1	233.8	-	-	-	-	-
56132	Note 3	4.3	1168.8	358.4	233.3	-	-	-	-	-
60135	Note 3	3.8	1168.5	359	232.4	-	-	-	-	-
64137	Note 3	3.4	1168.2	359.4	231.5	-	-	-	-	-
66138	Note 3	3.2	1168.1	359.6	231.1	-	-	-	-	-
70141	Note 3	2.8	1167.8	360.1	230.3	-	-	-	-	-
74144	Note 3	2.5	1167.6	360.4	229.6	-	-	-	-	-
76145	Note 3	2.4	1167.5	360.6	229.3	-	-	-	-	-
80148	Note 3	2.1	1167.3	360.9	228.7	-	-	-	-	-
84151	Note 3	1.8	1167.1	361.2	228.1	-	-	-	-	-
86352	Note 3	1.2	1166.9	361.9	227.6	-	-	-	-	-
86400	Note 3	1.2	1166.9	361.9	227.6	-	-	-	-	-

Notes:

1. Tabulated values are produced by averaging the instantaneous mass and energy releases at discrete times.

2. The code transition from RELAP5/MOD2-B&W to GOTHIC results occurs at 3600 seconds. Post 3600 seconds the mass and energy results were calculated internally by the GOTHIC code.

3. The RCS upstream pressure is equal to containment pressure over this interval

Table 6.2.1-20—Mass and Energy Result for the Limiting Cold Leg Pump Suction Break
Sheet 1 of 15

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Press (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Press (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
0	2246.8	0	1212.4	0	410	2247.9	0	1197	0	480
0.0001	2158	0	1212.4	1000	420	2321.2	0	1197	1000	480
0.125	653.1	2903.2	1212.1	23792.8	489	997.6	1182.4	1196.7	37972.8	544.3
0.250	665	2443.2	1207.8	25724.8	501.9	1083.4	659.2	1195.1	40866.4	550.5
0.375	712.3	2280.8	1207.2	27094.4	511.9	1091.9	428	1190.4	41798.4	557
0.500	701.3	2308.8	1206.6	27215.2	512.1	1088.7	608.8	1193.2	41406.4	556.9
0.625	698.1	2277.6	1206.7	27007.2	512.9	1085.1	797.6	1193	40998.4	556.5
0.750	694.3	2254.4	1207.2	26844	513.3	1081.3	1003.2	1192.7	40535.2	556
0.875	690.1	2229.6	1206.9	26669.6	513.6	1074.6	1229.6	1193.5	39994.4	555.3
1.000	693.2	2228	1206.6	26671.2	513.8	1064.2	1496.8	1194.4	39304	554.1
1.125	692.3	2228	1206.9	26702.4	513.8	1048.6	1811.2	1195.1	38426.4	552.3
1.250	688.8	2208.8	1206	26616	514	1028.6	2168.8	1196.1	37353.6	549.6
1.375	683.7	2173.6	1206.6	26444	514.4	1008.8	2528.8	1197.4	36232	546.7
1.500	678.2	2135.2	1206.1	26228.8	514.8	996.2	2849.6	1198.4	35246.4	544.2
1.625	673	2097.6	1206.1	26016	515.2	987.4	3110.4	1199.4	34475.2	542.8
1.750	668.1	2064	1206.1	25818.4	515.5	982.2	3334.4	1199.7	33856	541.9
1.875	663.3	2032	1206	25623.2	515.9	973.1	3544	1200.4	33188.8	540.8
2.000	658.9	2003.2	1205.7	25438.4	516.2	961.6	3744	1201	32484	539.5

Table 6.2.1-20—Mass and Energy Result for the Limiting Cold Leg Pump Suction Break
Sheet 2 of 15

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Press (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Press (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
2.125	654.6	1976	1206.2	25267.2	516.4	945.1	3869.6	1201.1	31600	539.3
2.250	650	1950.4	1205.7	25088	516.7	930.8	3840.8	1200.8	30601.6	543.2
2.375	645.2	1924	1205.4	24898.4	516.9	914.4	3804	1200.3	29323.2	548.9
2.500	640.6	1896.8	1205.9	24705.6	517.2	838.9	4165.6	1200.4	27171.2	547.7
2.625	636	1872.8	1205.4	24516.8	517.4	742	5300	1210.5	22241.6	516.3
2.750	631.6	1850.4	1205	24331.2	517.7	717	5652.8	1215.2	20720.8	501.2
2.875	627.4	1828.8	1205.1	24149.6	517.9	689.9	5850.4	1217.2	19059.2	496.1
3.000	623.5	1809.6	1205.3	23975.2	518.1	661.2	6013.6	1219.3	17371.2	491.2
3.125	619.7	1793.6	1204.9	23807.2	518.3	636.2	6187.2	1221.4	15436.8	486.2
3.250	616.1	1780	1204.3	23640	518.5	615.9	6292	1223	13659.2	482
3.375	613	1772.8	1205	23484	518.6	596	6305.6	1224.2	12392.8	478.2
3.500	609.3	1788.8	1204.6	23327.2	518.1	580.3	6276.8	1225.3	11615.2	474.5
3.625	605.6	1811.2	1204.4	23165.6	517.5	566.5	6220.8	1226	11131.2	471.4
3.750	601.7	1836.8	1204.1	22991.2	516.7	555.7	6118.4	1226.3	10938.4	468.9
3.875	597.9	1863.2	1204.6	22814.4	516	547.1	6010.4	1226.3	10893.6	466.8
4.000	594.4	1892	1204.4	22641.6	515.2	539.1	5904	1226.3	10944	464.9
4.125	591.1	1921.6	1205	22472.8	514.5	530.5	5808.8	1226.5	11060.8	463
4.250	588	1954.4	1204.5	22306.4	513.7	524.9	5722.4	1226.5	11196	461.4
4.375	585.2	1986.4	1204.9	22147.2	513	518.8	5644.8	1226.4	11324	460

Table 6.2.1-20—Mass and Energy Result for the Limiting Cold Leg Pump Suction Break
Sheet 3 of 15

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Press (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Press (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
4.500	582.5	2020	1205.1	21995.2	512.4	512.4	5560	1226.5	11457.6	458.7
4.625	579.9	2055.2	1205.2	21840.8	511.7	505.4	5482.4	1226.4	11453.6	457.1
4.750	577.6	2092	1205	21690.4	511	497.1	5424.8	1226.5	11238.4	455.2
4.875	576.8	2124	1205.5	21565.6	510.6	497.1	5369.6	1226.6	11328.8	454.3
5.000	571.4	2157.6	1205.2	21391.2	510.1	496.5	5322.4	1226.3	11577.6	454.2
5.125	561.5	2210.4	1205.8	21001.6	508.4	493.7	5276	1226.1	11693.6	453.7
5.250	550.4	2274.4	1206	20525.6	506.1	490.8	5233.6	1226.1	11713.6	453.1
5.375	519	3112	1212.4	20048.8	480.8	486.9	5186.4	1225.9	11720.8	452.2
5.500	503.3	3748.8	1217.2	19062.4	455.8	484.4	5136.8	1226	11772.8	451.4
5.625	490.6	3764.8	1218	18312	452	481.8	5086.4	1225.8	11891.2	450.7
5.750	481.8	3786.4	1218.2	17797.6	449.6	481.4	5040	1225.5	12076.8	450.4
5.875	475.4	3808	1218.8	17404.8	447.9	479.9	4993.6	1225.4	12310.4	450.1
6.000	467.8	3826.4	1219.2	17020	446.3	479.4	4948.8	1225.2	12512.8	449.8
6.125	459.8	3842.4	1219.6	16602.4	444.5	477.7	4912	1225.1	12652	449.5
6.250	452.3	3858.4	1220.1	16178.4	442.7	477.2	4880.8	1225	12759.2	449.2
6.375	444.8	3875.2	1220.4	15760	440.9	475.9	4854.4	1224.9	12848	448.9
6.500	437.4	3890.4	1221.1	15336	439.1	475.7	4833.6	1224.7	12918.4	448.7
6.625	430.5	3909.6	1221.3	14912.8	437.4	474.6	4816	1224.7	12968	448.6
6.750	423.9	3934.4	1221.9	14458.4	435.7	474.3	4802.4	1224.8	12996.8	448.4

Table 6.2.1-20—Mass and Energy Result for the Limiting Cold Leg Pump Suction Break
Sheet 4 of 15

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Press (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Press (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
6.875	415.7	3978.4	1222.6	13911.2	434.1	473	4794.4	1224.5	12994.4	448.2
7.000	403.3	4024.8	1223.4	13104.8	431.5	472.2	4790.4	1224.7	12950.4	447.9
7.125	394.1	4061.6	1224.6	12305.6	428.7	470.5	4792	1224.9	12860	447.7
7.250	388.8	4084	1225	11803.2	426.9	469.7	4800	1224.8	12749.6	447.4
7.375	383.8	4092	1225.6	11448.8	425.7	467.2	4805.6	1225.1	12613.6	447
7.500	379	4096	1225.8	11108.8	424.4	465.3	4810.4	1225.2	12448	446.5
7.625	375.1	4096.8	1226.3	10804	423.2	461.9	4813.6	1225.5	12248.8	445.9
7.750	371.5	4096.8	1226.6	10561.6	422.2	459	4816	1225.6	12024.8	445.1
7.875	366.5	4086.4	1226.6	10308	421.1	454.9	4812.8	1225.8	11804	444.3
8.000	362.2	4065.6	1227	10088.8	419.8	451.8	4802.4	1225.9	11613.6	443.5
8.125	358.9	4048	1227.1	9926.4	418.7	448	4786.4	1226.2	11465.6	442.6
8.250	355.6	4028.8	1227.2	9800.8	417.8	445.7	4769.6	1226.2	11356.8	441.9
8.375	351.1	4005.6	1227.3	9652.8	416.7	442.9	4752.8	1226.3	11280	441.2
8.500	349.8	3986.4	1227.1	9554.4	415.7	441.3	4738.4	1226.2	11225.6	440.7
8.625	347.8	3972	1227.4	9498.4	415.2	439.2	4725.6	1226.4	11168.8	440.3
8.750	346.1	3954.4	1227.5	9513.6	414.8	437.4	4718.4	1226.5	11063.2	439.7
8.875	343.4	3929.6	1227.3	9490.4	414.1	434.2	4720	1226.6	10824.8	439.1
9.000	343.4	3915.2	1227.1	9463.2	413.6	430.6	4729.6	1226.8	10431.2	438.4
9.125	339.1	3896	1227.4	9422.4	413.1	427.3	4744.8	1227.4	10024	437.4

Table 6.2.1-20—Mass and Energy Result for the Limiting Cold Leg Pump Suction Break
Sheet 5 of 15

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Press (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Press (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
9.250	335.6	3864.8	1227.1	9316.8	411.9	421.7	4762.4	1227.5	9588	436.5
9.375	333	3841.6	1227.4	9233.6	411	412.7	4746.4	1228	9242.4	435.1
9.500	330	3823.2	1227.6	9122.4	410.2	422	4801.6	1227.9	9263.2	436
9.625	326.6	3809.6	1227.4	8957.6	409.2	422.8	4798.4	1228	9304.8	436.2
9.750	323.1	3801.6	1227.7	8720.8	408.2	417.4	4820	1228.6	8960	435.5
9.875	319.8	3796	1227.9	8458.4	407.2	413.3	4803.2	1228.6	8724	434.3
10.000	316.8	3788	1228.4	8217.6	406.2	409.5	4783.2	1228.7	8543.2	433.3
10.125	313.1	3776.8	1228.4	7983.2	405.2	405.6	4761.6	1228.8	8378.4	432.3
10.250	310.1	3765.6	1228.7	7716.8	404.2	401.8	4732.8	1229.1	8243.2	431.3
10.375	307.5	3755.2	1228.6	7516.8	403.4	398.1	4702.4	1229.1	8133.6	430.3
10.500	305.2	3737.6	1228.8	7401.6	402.5	394.2	4672	1229.2	8032.8	429.3
10.625	302.7	3719.2	1228.9	7320.8	401.9	390.5	4640	1229.1	7941.6	428.2
10.750	300.1	3698.4	1229	7204	401	386.9	4608	1229.3	7861.6	427.2
10.875	297.7	3683.2	1228.9	7058.4	400.2	383.4	4576	1229.3	7784.8	426.3
11.000	295.5	3670.4	1229.1	6880.8	399.4	379.8	4543.2	1229.3	7714.4	425.2
11.125	293.5	3661.6	1229	6691.2	398.8	376.4	4511.2	1229.3	7643.2	424.3
11.250	291.4	3648	1229.4	6485.6	398.1	372.8	4480	1229.5	7560.8	423.4
11.375	289.8	3638.4	1229.3	6254.4	397.5	369.2	4449.6	1229.5	7473.6	422.3
11.500	288.5	3628.8	1229.3	6054.4	397	365.6	4419.2	1229.5	7381.6	421.3

Table 6.2.1-20—Mass and Energy Result for the Limiting Cold Leg Pump Suction Break
Sheet 6 of 15

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Press (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Press (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
11.625	286.7	3620	1229.2	5889.6	396.5	362.1	4389.6	1229.6	7283.2	420.3
11.750	284.3	3608.8	1229.4	5735.2	395.8	358.6	4360	1229.5	7189.6	419.3
11.875	282.2	3597.6	1229.4	5595.2	395	355.1	4328	1229.8	7104	418.3
12.000	280.1	3584.8	1229.7	5464.8	394.4	351.8	4297.6	1229.6	7031.2	417.3
12.125	278.1	3572	1229.6	5338.4	393.7	348.5	4264.8	1229.9	6966.4	416.3
12.250	276.1	3556	1229.8	5226.4	393	345.3	4232.8	1229.6	6907.2	415.4
12.375	274.3	3540	1229.7	5133.6	392.4	342.2	4200	1229.7	6856	414.4
12.500	272.6	3524	1229.8	5050.4	391.8	339.1	4169.6	1229.6	6800	413.5
12.625	270.8	3508.8	1229.5	4970.4	391.1	336.1	4139.2	1229.7	6742.4	412.6
12.750	269	3491.2	1229.9	4887.2	390.5	333.2	4109.6	1229.6	6688	411.7
12.875	267.5	3476.8	1229.5	4794.4	389.9	330.2	4079.2	1229.8	6632	410.8
13.000	266.2	3463.2	1229.8	4688.8	389.4	327.3	4050.4	1229.5	6577.6	409.8
13.125	264.4	3448.8	1229.7	4576	388.9	324.5	4020.8	1229.7	6527.2	409
13.250	261.6	3424.8	1229.5	4460	388	321.4	3992	1229.5	6474.4	408.1
13.375	258.7	3393.6	1229.8	4374.4	387	318	3958.4	1229.5	6413.6	407
13.500	255.2	3356	1229.2	4360.8	385.9	314.3	3923.2	1229.7	6340.8	405.9
13.625	251.8	3311.2	1229.5	4392	384.4	310.3	3888	1229.5	6236	404.7
13.750	250.1	3282.4	1229.3	4357.6	383.5	306.4	3852.8	1229.8	6106.4	403.4
13.875	249.7	3274.4	1229.1	4254.4	383.2	302.9	3823.2	1229.7	5976.8	402.3

Table 6.2.1-20—Mass and Energy Result for the Limiting Cold Leg Pump Suction Break
Sheet 7 of 15

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Press (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Press (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
14.000	247.4	3261.6	1229.3	4099.2	382.7	299.4	3794.4	1229.7	5855.2	401.1
14.125	245.2	3248	1229.2	3928	381.8	295.3	3759.2	1229.9	5735.2	399.9
14.250	243.6	3236	1229.4	3747.2	381.1	291.2	3717.6	1230	5628.8	398.5
14.375	242.2	3228.8	1229.2	3576.8	380.6	287.5	3680	1229.7	5536	397.1
14.500	240.7	3212.8	1229.5	3370.4	380	283.9	3642.4	1229.8	5455.2	396
14.625	239.5	3196.8	1229.3	3192.8	379.6	280	3596.8	1229.6	5439.2	394.7
14.750	237.4	3175.2	1229.1	3073.6	378.8	276.7	3541.6	1229.5	5525.6	393.3
14.875	234.7	3146.4	1228.8	3021.6	377.9	273	3492	1229.3	5653.6	392.1
15.000	230.8	3105.6	1228.9	3028	376.5	270	3456	1229.4	5729.6	390.9
15.250	224.4	3043.6	1228.8	3092.8	374.5	266.4	3422.4	1229.3	5650	389.7
15.750	214.8	2943	1228.3	3098.6	371.2	261.3	3411.4	1229.4	4933.8	388.3
16.250	224.3	2791.6	1227.1	3121	368.4	254.9	3402.8	1229.9	3735	386.3
16.750	229.6	2510.4	1221.2	3252	376.4	246.1	3318	1229.4	3024.6	383.6
17.250	237.1	2043.6	1213.2	4951.8	379.6	236.3	3191.4	1228.8	2633.8	379.8
17.750	239.6	1702.6	1209	6776	379	225.8	3057.4	1228.2	2359	375.8
18.250	235.6	1510.8	1207.3	7842	377.9	218.2	2937	1227.6	2201.6	371.9
18.750	225.4	1351.8	1206	8110.4	373.8	214.4	2863.2	1227.2	1941.4	369.5
19.250	215.3	1172.8	1204.5	8310.6	368.6	213.7	2805.4	1226.3	1605.4	368.3
19.375	213	1074.4	1203.8	8428.8	365.6	213.5	2769.6	1225.6	1400.8	368.2

Table 6.2.1-20—Mass and Energy Result for the Limiting Cold Leg Pump Suction Break
Sheet 8 of 15

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Press (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Press (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
19.500	210.8	1039.2	1203.1	8464.8	364.5	213	2757.6	1225.4	1332.8	367.7
21.500	165.1	829.8	1201.2	8385.8	354.1	192.5	2618.9	1222.2	630.5	368
22.750	144.9	469.7	1196	9079.9	334	196	2281.9	1218.9	317.5	357.5
24.000	119.8	335.9	1194.1	9434	324.4	154.7	1877.8	1218.5	16.1	348.2
25.250	89.7	173.8	1188.6	9242.2	301.7	115.9	1482.2	1218.2	64.8	322.1
26.500	83.3	78.6	1183.9	9690.7	289.4	104.2	1267.2	1210.4	107	310.8
27.750	74.6	45.6	1183.7	10270.3	287	89.5	1052.5	1237.2	31.1	314
28.375	72.6	18.7	1184.9	9561.4	267.8	82.3	914.7	1244.2	24.6	310.1
29.000	72.8	13.3	1182.8	8925	261.5	78	791	1244.2	1.4	274.3
29.625	68.3	9.9	1181.7	7667.8	256.2	71.4	615	1240	2.6	275.8
35.0	60.3	1.6	1199.4	7183.5	247.3	65.4	547.6	1223.5	29.2	281.3
47.5	60.6	0	1199.4	2146.9	224.3	64.8	155.8	1234.9	5.9	270.2
60.0	63.1	0	1199.4	5175.5	192.6	64.5	348.1	1208.7	41.7	269.2
72.5	63.6	20	1179.9	4337.3	207.4	64.6	337.3	1204.5	48.5	268.5
85.0	62.3	162.9	1179.3	346.2	265.9	63.1	328.3	1201.9	51.9	267.6
97.5	60.9	126.1	1179.3	300.2	264.4	61.2	256	1207.3	33.3	265.3
110.0	60.8	108.1	1178.7	208	263.4	61.5	218.2	1217.8	20.3	264.9
122.5	61.4	120	1178.1	210.4	263.7	62.4	238.1	1210.8	36.3	265.2
135.0	61.5	127.8	1179.1	364.4	264.5	62.4	298.9	1208.3	38.9	266.2

Table 6.2.1-20—Mass and Energy Result for the Limiting Cold Leg Pump Suction Break
Sheet 9 of 15

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Press (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Press (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
147.5	61.9	136.3	1179.4	287.8	264.7	63	302.6	1216.8	25.5	266.2
170.0	62.3	139.1	1178.8	302.6	265.1	63.5	315.2	1201.3	60.2	267.3
195.0	62.4	130.8	1178.9	342.5	265.3	63	302.5	1187.6	106.4	267.1
220.0	62.5	112.2	1178.3	334.3	265	62.2	211.7	1181.1	212.8	265.4
245.0	61.9	84.4	1178.9	345	264.5	61.7	170.4	1180.3	181.7	264.8
270.0	61.1	80.3	1179.5	271.9	264.3	61.6	140	1179.6	202	264.3
295.0	61.5	72.8	1178.5	311.6	264.1	61.5	130.4	1178.4	224.4	264.2
320.0	61.4	83.2	1180.7	143.2	264	61.3	114.5	1178.4	200.9	264
345.0	61.6	73.7	1178.8	204	264	61.4	101.8	1178.9	261.4	263.8
370.0	61.3	68.6	1178.4	270.8	263.9	61.3	108.3	1178.3	298.8	263.8
395.0	61.3	62.5	1179	222.8	263.8	61.1	94.6	1178.6	219	263.7
420.0	61.2	53.6	1179.9	278.1	263.6	61	86.4	1178	271.6	263.6
445.0	60.8	46.5	1179	359	263.3	60.9	90.5	1178.4	299.2	263.5
470.0	60.8	46.8	1178.7	300.9	263.1	60.8	85.8	1177.5	241	263.2
495.0	60.6	39.4	1179.3	338.3	262.7	60.6	80.9	1177.9	267.6	263.1
520.0	60.4	31.6	1179.5	394.9	261.9	60.5	82	1177.7	277.9	263
545.0	60.2	25	1178.6	409.7	260.8	60.4	84.6	1177.8	250.1	262.9
570.0	60.6	13.5	1173.6	1111	239.2	60.3	83.9	1177.9	232	262.8
595.0	60	22.2	1184.7	72.7	262.5	60.1	82.1	1178	85.2	262.5

Table 6.2.1-20—Mass and Energy Result for the Limiting Cold Leg Pump Suction Break
Sheet 10 of 15

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Press (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Press (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
620.0	59.9	25.3	1181.9	93.6	261.3	60	59.8	1177.2	45.4	262
645.0	59.9	14.5	1177.8	784.5	238.9	60	71.4	1177.8	294.4	262.3
670.0	59.7	14.7	1179.9	560.1	247.6	59.9	80.7	1177.1	153.7	262.3
695.0	59.6	23.3	1179.4	257.2	259.7	59.7	66.8	1176.7	162.9	262.1
720.0	59.5	15.5	1173.9	411.1	258	59.7	67.4	1177.5	257.8	262
745.0	59.4	11.6	1176	438	256.3	59.6	71	1177.2	277.4	261.9
770.0	59.4	12	1180.8	424.4	256.8	59.5	70.7	1177.1	263.5	261.8
795.0	59.3	10.6	1182.4	450.9	256.2	59.4	68.1	1176.9	246.7	261.7
820.0	58.6	11.4	1182.6	442.4	254.3	59.4	68.6	1178.1	232.6	261.6
845.0	59.2	5.1	1178.4	1109.5	233.4	59.4	72.3	1177	179.2	261.6
870.0	57.7	1.7	1145.9	891.2	226.2	59.3	60.2	1177.5	20.2	262.1
895.0	58.5	5.7	1178.4	397.6	235	59.3	51.4	1178.3	18.6	261.8
940.0	39.3	10.9	1173.7	344.9	247.2	59.2	57.3	1177.3	88.9	261.5
990.0	57.6	19	1191	860.6	226.4	59.2	68.5	1177.2	210.6	261.4
1040	59	6.6	1171.8	719.7	234.4	59.2	70.9	1177.9	99.3	261.4
1090	58.9	11	1184.5	449.8	232.4	59.1	59.7	1176.5	78.5	261.2
1140	54.6	12.6	1179	761.4	228.3	59.1	57.6	1177.6	163.5	261.2
1187	58.5	1.4	1140.7	664.5	238	58.9	61.2	1177.7	53.3	261.1
1200	58.6	2.9	1198.6	27.5	260.2	58.9	44.2	1179	0.3	263.3

Table 6.2.1-20—Mass and Energy Result for the Limiting Cold Leg Pump Suction Break
Sheet 11 of 15

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Press (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Press (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
1220	Note 3	106.6	1178.5	0	265.4	-	-	-	-	-
1240	Note 3	106.3	1178.5	0	265.5	-	-	-	-	-
1260	Note 3	105.9	1178.5	0	265.6	-	-	-	-	-
1280	Note 3	105.4	1178.6	0	265.7	-	-	-	-	-
1300	Note 3	105.0	1178.6	0	265.8	-	-	-	-	-
1400	Note 3	102.7	1178.7	0	266.1	-	-	-	-	-
1500	Note 3	100.5	1178.8	0	266.5	-	-	-	-	-
1600	Note 3	98.2	1178.9	0	266.8	-	-	-	-	-
1700	Note 3	95.9	1179	0	267.2	-	-	-	-	-
1800	Note 3	93.6	1179.1	0	267.5	-	-	-	-	-
1900	Note 3	91.4	1179.1	0	267.8	-	-	-	-	-
2000	Note 3	89.1	1179.2	0	268	-	-	-	-	-
2100	Note 3	88.1	1179.3	0	268.3	-	-	-	-	-
2200	Note 3	87.1	1179.4	0	268.6	-	-	-	-	-
2300	Note 3	86.1	1179.5	0	268.9	-	-	-	-	-
2400	Note 3	85.2	1179.5	0	269.1	-	-	-	-	-
2500	Note 3	84.2	1179.6	0	269.4	-	-	-	-	-
2600	Note 3	83.2	1179.7	0	269.7	-	-	-	-	-
2700	Note 3	82.3	1179.7	0	269.9	-	-	-	-	-

Table 6.2.1-20—Mass and Energy Result for the Limiting Cold Leg Pump Suction Break
Sheet 12 of 15

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Press (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Press (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
2800	Note 3	81.3	1179.8	0	270.2	-	-	-	-	-
2900	Note 3	80.3	1179.9	0	270.4	-	-	-	-	-
3000	Note 3	79.4	1180	0	270.7	-	-	-	-	-
3100	Note 3	78.7	1180	0	270.9	-	-	-	-	-
3200	Note 3	78.1	1180.1	0	271.2	-	-	-	-	-
3300	Note 3	77.4	1180.2	0	271.4	-	-	-	-	-
3400	Note 3	76.8	1180.2	0	271.6	-	-	-	-	-
3500	Note 3	76.1	1180.3	0	271.9	-	-	-	-	-
3520	Note 3	76.0	1180.3	0	271.9	-	-	-	-	-
3540	Note 3	75.9	1180.3	0	272	-	-	-	-	-
3560	Note 3	75.7	1180.3	0	272	-	-	-	-	-
3580	Note 3	75.6	1180.3	0	272.1	-	-	-	-	-
3600	Note 3	67.0	1180.3	0	272.1	-	-	-	-	-
3620	Note 3	41.2	1180.3	214.6	272	-	-	-	-	-
3640	Note 3	41.1	1180.3	214.7	271.9	-	-	-	-	-
3660	Note 3	41.0	1180.3	214.8	271.8	-	-	-	-	-
3680	Note 3	40.8	1180.3	214.8	271.8	-	-	-	-	-
3700	Note 3	40.7	1180.2	214.9	271.7	-	-	-	-	-
4100	Note 3	38.8	1180	215.9	270.7	-	-	-	-	-

Table 6.2.1-20—Mass and Energy Result for the Limiting Cold Leg Pump Suction Break
Sheet 13 of 15

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Press (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Press (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
4300	Note 3	38.3	1179.8	216	270.2	-	-	-	-	-
4701	Note 3	37.2	1179.6	216.7	269.4	-	-	-	-	-
5101	Note 3	34.9	1179.4	217.3	268.8	-	-	-	-	-
5301	Note 3	34.5	1179.3	217.5	268.5	-	-	-	-	-
6302	Note 3	32.8	1179	218.3	267.2	-	-	-	-	-
7302	Note 3	31.0	1178.7	219.1	266.3	-	-	-	-	-
8303	Note 3	29.5	1178.5	219.7	265.6	-	-	-	-	-
9303	Note 3	28.3	1178.4	220.3	265	-	-	-	-	-
10304	Note 3	27.4	1178.3	220.7	264.6	-	-	-	-	-
11304	Note 3	26.7	1178.2	221	264.3	-	-	-	-	-
12305	Note 3	26	1178.1	221.3	264.1	-	-	-	-	-
13305	Note 3	16.0	1177.8	226.3	263	-	-	-	-	-
14306	Note 3	15.0	1177.4	226.9	261.6	-	-	-	-	-
15307	Note 3	14.1	1177	227.5	260.3	-	-	-	-	-
16307	Note 3	13.2	1176.7	228	259.1	-	-	-	-	-
17308	Note 3	12.3	1176.3	228.5	257.9	-	-	-	-	-
18308	Note 3	11.5	1176	229	256.8	-	-	-	-	-
19309	Note 3	10.7	1175.7	229.5	255.7	-	-	-	-	-
20310	Note 3	10.0	1175.4	229.9	254.7	-	-	-	-	-

Table 6.2.1-20—Mass and Energy Result for the Limiting Cold Leg Pump Suction Break
Sheet 14 of 15

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Press (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Press (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
21310	Note 3	9.5	1175.1	230.1	253.6	-	-	-	-	-
22311	Note 3	9.1	1174.8	230.4	252.7	-	-	-	-	-
23311	Note 3	8.7	1174.5	230.6	251.7	-	-	-	-	-
24312	Note 3	8.2	1174.2	230.9	250.8	-	-	-	-	-
25313	Note 3	7.8	1174	231.1	249.9	-	-	-	-	-
26314	Note 3	7.4	1173.7	231.3	249.1	-	-	-	-	-
27314	Note 3	7.0	1173.4	231.6	248.2	-	-	-	-	-
28315	Note 3	6.6	1173.2	231.8	247.4	-	-	-	-	-
29316	Note 3	6.2	1172.9	232	246.6	-	-	-	-	-
30316	Note 3	5.8	1172.7	232.2	245.8	-	-	-	-	-
32318	Note 3	5.4	1172.2	232.4	244.3	-	-	-	-	-
34319	Note 3	4.9	1171.8	232.7	242.9	-	-	-	-	-
36321	Note 3	4.5	1171.4	232.9	241.5	-	-	-	-	-
38322	Note 3	4.0	1171	233.2	240.2	-	-	-	-	-
41323	Note 3	3.4	1170.4	233.5	238.4	-	-	-	-	-
44326	Note 3	3.0	1169.9	233.7	236.8	-	-	-	-	-
47328	Note 3	2.5	1169.4	234	235.2	-	-	-	-	-
50331	Note 3	2.1	1168.9	234.2	233.8	-	-	-	-	-
53333	Note 3	1.8	1168.5	234.4	232.5	-	-	-	-	-

Table 6.2.1-20—Mass and Energy Result for the Limiting Cold Leg Pump Suction Break
Sheet 15 of 15

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Press (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Press (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
56334	Note 3	1.5	1168.1	234.5	231.3	-	-	-	-	-
59337	Note 3	1.2	1167.8	234.7	230.2	-	-	-	-	-
62339	Note 3	1.0	1167.4	234.8	229.1	-	-	-	-	-
65342	Note 3	0.8	1167.1	234.9	228.2	-	-	-	-	-
68344	Note 3	0.6	1166.8	235.1	227.3	-	-	-	-	-
71346	Note 3	0.4	1166.6	235.2	226.5	-	-	-	-	-
76350	Note 3	0.1	1166.2	235.3	225.3	-	-	-	-	-
81353	Note 3	0.1	1165.4	235.4	222.8	-	-	-	-	-
86357	Note 3	0.1	1164.6	235.4	220.4	-	-	-	-	-
86400	Note 3	0.1	1164.6	235.4	220.4	-	-	-	-	-

Notes:

1. Tabulated values are produced by averaging the instantaneous mass and energy releases at discrete times.

2. The code transition from RELAP5/MOD2-B&W to GOTHIC results occurs at 1200 seconds. Post 1200 seconds the mass and energy results were calculated internally by the GOTHIC code

3. RCS upstream pressure equal to containment pressure over this interval.

Table 6.2.1-21—Mass and Energy Results for the Limiting Cold Leg Pump Discharge Break
Sheet 1 of 28

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
0	2356.7	0	1212.4	0	410	2357.1	0	1197	0	490
0.0001	2286	0	1212.4	1000	360	2429	0	1197	1000	490
0.130	1296.4	383.2	1191.9	51887.2	559.4	831.4	1784	1200.4	34859.2	533.3
0.250	1305.5	48	1177.3	59972	563.9	774.4	2544	1205.1	30890.4	509.1
0.380	1297.5	0	1177.3	60004	563.7	774.7	2615.2	1205.7	30582.4	507.1
0.500	1288.5	0	1177.3	59207.2	563.6	767.7	2642.4	1205.8	30344.8	506.5
0.630	1280.9	0	1177.3	58420	563.5	766	2660.8	1205.6	30116.8	506.4
0.750	1272.2	0	1177.3	57654.4	563.4	765.9	2672.8	1205.9	30001.6	506.9
0.880	1261.5	0	1177.3	56748.8	563.4	765.5	2690.4	1205.7	29875.2	507.5
1.000	1248.9	0	1177.3	55655.2	563.3	763.4	2702.4	1205.6	29683.2	508.4
1.130	1237.9	0	1177.3	54531.2	563.2	759.4	2700.8	1205.6	29404.8	509.6
1.250	1227.1	0	1177.3	53531.2	563.2	754.1	2683.2	1205.7	29048	511
1.380	1214.6	0	1177.3	52484	563.1	748.6	2654.4	1205.6	28641.6	512.7
1.500	1198.2	0	1177.3	51051.2	563.1	743.6	2625.6	1205.8	28244	514.6
1.630	1184.1	0	1177.3	49484.8	563	736.6	2594.4	1205.4	27771.2	516.5
1.750	1171.6	0	1177.3	48045.6	563	730.7	2566.4	1205	27320.8	518.6
1.880	1161.8	0	1177.3	46800	563	725	2544.8	1205	26872	520.6
2.000	1151.9	0	1177.3	45727.2	563.1	717.8	2532	1205	26420	522.6

Table 6.2.1-21—Mass and Energy Results for the Limiting Cold Leg Pump Discharge Break
Sheet 2 of 28

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
2.130	1143	0	1177.3	44618.4	563.2	699.8	2547.2	1204.7	25688	523.3
2.250	1135.8	0	1177.3	43684.8	563.3	672	2646.4	1205.2	24564.8	520.5
2.380	1127.2	35.2	1187.7	43060	563.1	639.5	2786.4	1206.4	23223.2	515.5
2.500	1107.4	244.8	1192.2	42552.8	560.6	640.7	2952	1207.5	21952.8	509.2
2.630	1095.2	393.6	1191.2	42023.2	558.4	541.3	3709.6	1213.6	20182.4	478.3
2.750	1087.2	498.4	1191.7	41660.8	557	520.6	4083.2	1217.9	18614.4	460.3
2.880	1078.6	588	1194	41348.8	555.9	500.8	4091.2	1219.1	17686.4	455.5
3.000	1072.3	685.6	1192.9	41028	554.7	485.4	4103.2	1219.6	16895.2	451.6
3.130	1067.3	757.6	1193.5	40797.6	554	473.3	4124	1220.4	16207.2	448.5
3.250	1062.6	835.2	1193.7	40555.2	553.2	461.1	4166.4	1221.4	15480	445.9
3.380	1058.4	908.8	1193.8	40332.8	552.5	440.6	4232.8	1222.3	14365.6	442.2
3.500	1055.1	975.2	1193.8	40143.2	552	414.4	4295.2	1224.4	12706.4	436.4
3.630	1050.4	1050.4	1194	39922.4	551.5	398.5	4298.4	1225.9	11381.6	430.8
3.750	1048.2	1121.6	1194.5	39728.8	551	399.1	4307.2	1226.4	11001.6	429.2
3.880	1045.2	1188.8	1195	39549.6	550.6	400.2	4324.8	1226.3	10991.2	429.6
4.000	1040.1	1280.8	1194.7	39279.1	549.9	400.4	4328	1226.3	11000.8	429.7
4.130	1035.1	1369.6	1195.6	39023.2	549.3	400	4348	1226.5	10861.6	429.8
4.250	1027.2	1480	1195.6	38682.4	548.4	392.5	4394.4	1227.1	10097.6	428.9
4.380	1013.2	1638.4	1196.2	38130.4	546.6	382.8	4444.8	1227.9	8724.8	426.9

Table 6.2.1-21—Mass and Energy Results for the Limiting Cold Leg Pump Discharge Break
Sheet 3 of 28

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
4.500	1001.7	1796.8	1196.7	37586.4	544.8	370.9	4516.8	1229.6	7356	423.9
4.630	987.5	1957.6	1197.5	36992.8	542.9	367.2	4571.2	1230.6	6162.4	421.9
4.750	972.8	2131.2	1198.4	36296	540.7	367.9	4616	1231	5152	421.8
4.880	958.4	2304.8	1198.8	35600.8	538.4	369.1	4676	1231.2	4256.8	421.8
5.000	941.6	2481.6	1199.8	34874.4	536.1	376.1	4723.2	1230.9	3418.4	423.2
5.130	921.2	2677.6	1201	34017.6	533.3	387.8	4765.6	1229.9	2656.8	425.3
5.250	899.6	2890.4	1201.8	33037.6	529.8	392.8	4798.4	1229.1	2003.2	427.6
5.380	890.5	3072	1202.7	32312	527.4	397.7	4802.4	1228.4	1492	429
5.500	878.6	3248.8	1203.3	31654.4	526	397.8	4764	1227.6	1179.2	429.4
5.630	870.1	3370.4	1203.4	30834.4	526.3	389.1	4688.8	1227.1	1097.6	428.1
5.750	863.3	3340.8	1203.1	30290.4	529.7	374.9	4590.4	1227.7	1220	424.9
5.880	851.7	3291.2	1203.3	29848	530.7	360.9	4482.4	1228.1	1468.8	421.1
6.000	842.7	3243.2	1203.3	29413.6	531.5	349	4376	1228.8	1772	417.3
6.130	834.1	3205.6	1203	28997.6	532.7	337.6	4278.4	1229	2080	414.3
6.250	824.2	3168.8	1202.8	28528	533.8	327.1	4201.6	1229.6	2374.4	410.9
6.380	817.6	3139.2	1202.6	28077.6	535	319.9	4132.8	1230	2630.4	408.2
6.500	817.6	3117.6	1202.8	28016	535.3	314	4072	1230.3	2840.8	406.4
6.630	803.7	3095.2	1202.9	27836	533.9	309.4	4027.2	1230.4	3012.8	404.6
6.750	793.4	3156.8	1202.9	27108.8	534.4	305.2	3987.2	1230.5	3142.4	403.3

Table 6.2.1-21—Mass and Energy Results for the Limiting Cold Leg Pump Discharge Break
Sheet 4 of 28

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
6.880	784.6	3241.6	1203	26540.8	533.6	301.9	3942.4	1230.5	3228	402.1
7.000	777.8	3248	1203.5	26321.6	532.6	299.4	3907.2	1230.7	3282.4	401.2
7.130	769.7	3259.2	1203.6	26087.2	531.3	296.7	3876.8	1230.4	3305.6	400.3
7.250	762.6	3288.8	1204	25813.6	530	294.1	3844.8	1230.5	3302.4	399.4
7.380	754.9	3293.6	1204.4	25607.2	528.7	291.9	3817.6	1230.6	3283.2	398.6
7.500	745.9	3335.2	1204.4	25263.2	527.2	289.6	3791.2	1230.3	3248.8	397.8
7.630	737.3	3388	1205	24888	525.7	287.5	3764	1230.4	3201.6	397
7.750	729.5	3420	1205.6	24591.2	524.1	285.7	3740.8	1230.3	3142.4	396.4
7.880	721.2	3437.6	1205.6	24336	522.6	283.8	3719.2	1230.3	3068	395.8
8.000	711.8	3470.4	1205.9	23998.4	520.9	281.8	3696.8	1230.1	2980	395
8.130	702.7	3522.4	1206.4	23609.6	519	279.9	3673.6	1229.9	2880	394.4
8.250	693.9	3559.2	1206.7	23281.6	517.3	278.2	3650.4	1230.1	2775.2	393.8
8.380	683.2	3611.2	1207.4	22854.4	515.3	276.3	3625.6	1229.8	2668	393.2
8.500	641.2	3676	1207.6	22313.6	511.4	274.4	3596.8	1229.7	2560	392.4
8.630	639	3449.6	1208.6	22607.2	498.3	272.9	3568	1229.7	2447.2	391.7
8.750	612.9	3715.2	1210.4	21776	492.2	272.1	3544.8	1229.2	2332	391.2
8.880	582.3	4399.2	1216.9	19624.8	473.5	270.1	3522.4	1229	2217.6	390.8
9.000	569.4	4604	1218.4	18378.4	470.1	267.9	3489.6	1229	2108	390
9.130	560	4679.2	1219.2	17721.6	467.9	265	3451.2	1228.7	2015.2	389.1

Table 6.2.1-21—Mass and Energy Results for the Limiting Cold Leg Pump Discharge Break
Sheet 5 of 28

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
9.250	551.3	4676.8	1219.7	17380.8	466.1	261.2	3407.2	1228.3	1960.8	387.8
9.380	543.5	4645.6	1220	17143.2	464.3	255.9	3354.4	1228.5	1961.6	386.1
9.500	534	4614.4	1220.2	16870.4	462.4	250	3296.8	1228.3	2012	384.1
9.630	523.8	4608.8	1220.7	16440	460.2	243.9	3234.4	1228.5	2094.4	382
9.750	515.5	4639.2	1221.1	15936.8	458.3	238.2	3174.4	1228.3	2196	379.6
9.880	505.7	4664.8	1221.9	15401.6	456.2	233.8	3117.6	1228.2	2300.8	377.6
10.000	495.9	4681.6	1222.4	14883.2	454.2	229.7	3065.6	1228.3	2396	376
10.130	490.3	4697.6	1223.2	14439.2	452.4	225.3	3020.8	1228	2470.4	374.4
10.250	481.3	4703.2	1223.4	14077.6	451	221.7	2979.2	1228.2	2521.6	372.7
10.380	474.7	4716.8	1223.9	13572.8	449	218.5	2941.6	1228.3	2552.8	371.3
10.500	467.4	4724	1224.4	13165.6	447.5	215.5	2906.4	1227.9	2569.6	370.1
10.630	461.9	4726.4	1224.8	12781.6	445.9	212.9	2873.6	1227.8	2579.2	368.9
10.750	456.5	4696	1225	12640.8	444.7	210.4	2842.4	1227.9	2577.6	367.8
10.880	449.9	4672.8	1225.2	12385.6	443.3	208.2	2815.2	1227.5	2564	366.7
11.000	444.5	4687.2	1225.8	11884	441.7	206.2	2788	1227.7	2533.6	366
11.130	440	4701.6	1226	11482.4	440.7	204.5	2764.8	1227.5	2492	365
11.250	435.3	4727.2	1226.5	10892.8	439.6	202.8	2743.2	1227.3	2434.4	364.4
11.380	432.3	4759.2	1227.1	10260.8	438.7	201.4	2721.6	1227.1	2365.6	363.7
11.500	427	4813.6	1227.5	9629.6	437.8	200.3	2702.4	1226.9	2289.6	363.1

Table 6.2.1-21—Mass and Energy Results for the Limiting Cold Leg Pump Discharge Break
Sheet 6 of 28

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
11.630	422.1	4888	1228.6	8892.8	436.7	199.3	2683.2	1226.7	2208.8	362.5
11.750	419.3	4955.2	1229.3	8156	435.8	198.4	2664	1226.4	2124.8	362.1
11.880	417.4	5036.8	1230.1	7331.2	435.5	197.7	2644	1226.2	2040	361.6
12.000	420.7	5103.2	1230.4	6480	435.6	196.7	2625.6	1225.8	1952.8	361.3
12.130	420.8	5196	1230.7	5568.8	436.1	195.3	2609.6	1225.8	1863.2	360.7
12.250	425.7	5289.6	1231	4660	436.8	194.3	2595.2	1226	1768.8	360
12.380	429.8	5344.8	1230.7	3782.4	438.1	193.9	2584.8	1225.3	1660.8	359.9
12.500	428.7	5340	1230.2	3092	438.7	194.3	2574.4	1225.4	1536.8	359.6
12.630	413.6	5231.2	1230	3012	436.3	195.6	2562.4	1225.1	1391.2	360
12.750	394.9	5048.8	1230.4	3376.8	431.7	196.6	2551.2	1224.1	1234.4	360.4
12.880	375.9	4854.4	1230.9	3830.4	426.6	197.7	2539.2	1224.1	1068.8	360.7
13.000	359.8	4662.4	1231.2	4297.6	421.7	200.5	2524	1223	897.6	361.2
13.130	344.8	4453.6	1230.7	4812.8	417.3	202.6	2509.6	1222.3	728	362.2
13.250	331.7	4268.8	1230.7	5411.2	412.8	206.8	2492.8	1221.8	556.8	363.7
13.380	321.9	4092.8	1230.4	5982.4	409.4	211.4	2476.8	1220.3	392	364.3
13.500	313.5	3919.2	1229.1	6529.6	406.4	214.1	2451.2	1219.6	249.6	366.7
13.630	302.7	3772	1229.1	7044	403.1	215.6	2410.4	1218.3	136.8	366.5
13.750	294.6	3636	1228.7	7476.8	399.9	214	2368	1217.1	74.4	367.7
13.880	288.1	3504.8	1227.6	7794.4	397.3	211.2	2324.8	1216.8	48	366.7

Table 6.2.1-21—Mass and Energy Results for the Limiting Cold Leg Pump Discharge Break
Sheet 7 of 28

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
14.000	282.6	3381.6	1227	8039.2	395.1	207.7	2284.8	1216.4	41.6	362.3
14.130	277.5	3280	1226.5	8200.8	393.1	204.3	2248	1215.9	40.8	362.4
14.250	272.5	3207.2	1225.8	8292.8	391.3	201.3	2212.8	1215.9	39.2	360
14.380	268.3	3149.6	1225.9	8309.6	389.7	198.7	2182.4	1216.1	38.4	360
14.500	264	3098.4	1225.5	8309.6	388.1	196.2	2156	1215.4	37.6	362.6
14.630	260.1	3052.8	1225.3	8283.2	386.6	194.1	2129.6	1215.4	35.2	355.5
14.750	256.3	3007.2	1225.2	8260.8	385.2	192.2	2104	1214.8	28.8	355.6
14.880	252.4	2964.8	1224.8	8227.2	383.7	190.2	2076	1215	20.8	352.3
15.000	248.2	2922.4	1224.9	8194.4	382.2	188.1	2048.8	1214.4	12.8	362.5
15.130	244.1	2879.2	1224.8	8188	380.6	185.7	2019.2	1214.8	8	352
15.250	240.1	2835.2	1224.4	8197.6	379.1	183.1	1991.2	1214.4	5.6	365.7
15.380	236.3	2788.8	1224.2	8215.2	377.5	180.3	1964	1214	7.2	346.7
15.500	232.9	2746.4	1224.3	8224.8	376.1	177.5	1937.6	1213.6	11.2	354.3
15.630	229.6	2706.4	1223.9	8216.8	374.7	174.5	1912.8	1213.6	18.4	347.8
15.750	226.3	2664.8	1223.5	8220.8	373.3	171.7	1889.6	1213.4	27.2	342.4
15.880	223	2616	1223.4	8262.4	372	169.1	1866.4	1213.8	34.4	347.9
16.000	219.8	2560.8	1223	8336.1	370.6	166.7	1844.8	1213.4	40	344
16.130	216.9	2508	1222.4	8396.8	369.2	164.7	1824	1212.9	42.4	344.2
16.250	214.2	2461.6	1222	8421.6	367.9	162.8	1802.4	1213.2	41.6	343.8

Table 6.2.1-21—Mass and Energy Results for the Limiting Cold Leg Pump Discharge Break
Sheet 8 of 28

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
16.380	211.6	2420	1221.6	8434.4	366.8	161.3	1782.4	1213	38.4	342.5
16.500	208.8	2380	1221	8420.8	365.6	159.8	1762.4	1212.5	32.8	338.5
16.630	206.2	2344.8	1220.8	8380.8	364.4	158.4	1741.6	1212.2	24.8	347.1
16.750	203.4	2304	1220.5	8357.6	363.1	157.1	1720.8	1212	18.4	328.7
16.880	200.8	2261.6	1220	8344.8	361.9	155.7	1700	1211.6	10.4	338.5
17.000	198.4	2216.8	1219.8	8357.6	360.7	153.6	1675.2	1212.6	3.2	400
17.130	196.1	2180	1219	8366.4	359.6	151.3	1646.4	1214.9	5.6	308.6
17.250	193.6	2144	1218.7	8345.6	358.4	148.9	1617.6	1220.1	10.4	369.2
17.380	191.3	2112.8	1218.4	8322.4	357.3	147.2	1596.8	1220.4	12.8	340
17.500	189	2076.8	1218.4	8313.6	356.2	145.5	1580	1219.6	11.2	351.4
17.630	186.7	2042.4	1217.5	8305.6	355	143.2	1556.8	1223.1	15.2	347.4
17.750	184.3	2007.2	1217.6	8292.8	353.9	141.2	1528.8	1227.2	11.2	340
17.880	180.7	1980	1217.5	8291.2	352.5	139.2	1500.8	1230.4	3.2	340
18.000	221.3	1647.2	1209.8	7944	369.3	137.1	1476	1232	0	340
18.130	215	1608	1208.8	7776	370.6	135	1453.6	1232.8	0	340
18.250	217.4	1566.4	1208.2	7849.6	369.6	132.9	1430.4	1234.2	0	340
18.380	211.3	1530.4	1207.7	7874.4	368.6	131.1	1409.6	1234.8	0	340
18.500	213.2	1496.8	1207.5	7878.4	367.5	129.1	1390.4	1234.1	0	340
18.630	206.9	1464.8	1207.3	7869.6	366.5	127.7	1375.2	1231.1	0.8	80

Table 6.2.1-21—Mass and Energy Results for the Limiting Cold Leg Pump Discharge Break
Sheet 9 of 28

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
18.750	207.4	1430.4	1206.8	7844	365.8	126.1	1360	1229.1	0	80
18.880	204.3	1399.2	1207	7876.8	364.3	124.3	1342.4	1228.8	0	80
19.000	202.3	1365.6	1206.1	7919.2	363	122.7	1324	1230.6	0	80
19.130	200.9	1335.2	1205.5	7942.4	361.9	120.7	1303.2	1233	0	80
19.250	194	1296	1205	8079.2	360.3	118.5	1276.8	1236.9	0	80
19.380	197	1230.4	1204.8	8129.6	357.7	117.2	1257.6	1239.6	0	80
19.500	192.3	1244	1205	8170.4	358.7	114.7	1237.6	1239.7	0	80
19.630	190.4	1168.8	1203.6	8230.4	355	113.7	1220	1237.4	0.8	40
19.750	188.8	1202.4	1204.8	8031.2	356.3	111.8	1211.2	1231.9	2.4	333.3
19.880	183.3	1135.2	1203.6	8021.6	352.5	110.2	1196.8	1227.9	8.8	334.5
20.000	184.7	1148.4	1203.5	7954.8	353.1	108	1189.2	1228.4	12.4	329
20.130	176.2	1100.8	1203.1	7828.8	350	106.4	1153.6	1234.2	13.6	322.4
20.250	178.7	1118.4	1204	7716.8	350.7	104.1	1129.6	1240.4	6.4	320
20.380	167.9	1068.8	1202.1	7687.2	347.3	102.2	1100	1242.2	0	320
20.500	173.7	1060	1203	7638.4	347	100.1	1081.6	1245.1	0	320
20.630	161.3	1032.8	1201.6	7580.8	344.8	98	1054.4	1245.2	0	320
20.750	168.3	996.8	1202.2	7553.6	342.9	96.5	1040.8	1244.9	0	320
20.880	159.1	999.2	1201.2	7463.2	342.3	94	1014.4	1244.6	0	320
21.000	161.8	928.8	1200.8	7483.2	338.2	92.7	996.8	1247.8	0	320

Table 6.2.1-21—Mass and Energy Results for the Limiting Cold Leg Pump Discharge Break
Sheet 10 of 28

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
21.130	155.7	956.8	1200.8	7339.2	339.6	89.5	969.6	1248	0	320
21.250	151.3	870.4	1200.3	7404.8	333.9	88.7	948.8	1249.8	0	320
21.380	151.4	899.2	1199.6	7328	336.1	86	928	1251	0	320
21.500	141.8	848.8	1199.1	7399.2	332.3	85.6	896.8	1249.5	0	320
21.630	146.5	781.6	1198.4	7370.4	328.2	84.9	886.4	1250.8	0	320
21.750	140.6	824.8	1198.6	7208	330.7	83.3	852	1249.7	0	320
21.880	129.3	737.6	1197.7	7368.8	325.1	83	831.2	1247.4	0	320
22.000	139.5	719.2	1197.6	7376.8	325	82.2	819.2	1247.7	0	320
22.130	132.1	733.6	1197.5	7283.2	325.3	81.1	787.2	1247.9	0	320
22.250	127	633.6	1194.2	7378.4	319.8	81.1	773.6	1248.1	0	320
22.380	132.8	657.6	1196.3	7549.6	323	80.2	764.8	1245.6	0.8	120
22.500	123.9	644.8	1195.9	7515.6	322.1	79.5	754.8	1241	0.8	220
22.630	129.9	571.2	1194.8	7515.2	318.2	79.3	744.8	1225.4	3.2	270
22.750	126.6	600	1195.9	7604.8	320.9	78.7	741.6	1215.5	6.4	285
22.880	118.2	540.8	1193.6	7565.6	316.6	78.6	730.4	1211.5	9.6	290
23.000	127.4	533.6	1193.6	7655.2	317.2	78.3	728.8	1210.2	12	285.3
23.130	121	545.6	1194.4	7560.8	317.6	77.8	712.8	1207.5	14.4	275.6
23.250	113.8	486.4	1192.8	7568	312.7	77.9	710.4	1205.6	16.8	281.9
23.380	123.2	489.6	1194.2	7525.6	313.9	77.4	707.2	1204.8	17.6	287.3

Table 6.2.1-21—Mass and Energy Results for the Limiting Cold Leg Pump Discharge Break
Sheet 11 of 28

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
23.500	115.9	504.8	1192.1	7474.4	314.4	77	686.4	1205.2	18.4	274.8
23.630	110.7	448.8	1192.9	7697.6	309.4	77.1	681.6	1205.4	16	292
23.750	107.1	410.4	1190.8	7908.8	305.8	76.9	676.8	1210.6	14.4	268.9
23.880	105.8	395.2	1190.1	7914.4	302.5	76.6	668	1211.1	11.2	291.4
24.000	104.2	394.4	1191.7	7684.8	300.4	76.4	658.4	1213	11.2	268.6
24.130	102.5	394.4	1189.3	7474.4	298.6	76.2	650.4	1213.6	9.6	296.7
24.250	101.1	392	1190.7	7280.8	297	75.9	642.4	1213.5	9.6	280
24.380	99.8	390.4	1188	7101.6	295.7	75.6	632.8	1214.5	9.6	263.3
24.500	98.5	385.6	1190.7	6944	294.5	75.2	620	1215.6	8	304
24.630	97.3	380	1187.9	6833.6	293.4	75	609.6	1216.9	8	276
24.750	95.9	370.4	1189.5	6755.2	292.2	74.7	597.6	1221.1	6.4	260
24.880	94.5	357.6	1187.8	6726.4	290.7	74.4	580.8	1230.1	3.2	260
25.000	93.1	342.4	1188.8	6728	289.2	74	561.6	1242.3	0	260
25.130	91.8	328	1186.7	6726.4	287.7	73.7	544.8	1250.4	0	260
25.250	90.3	312.8	1189.2	6718.4	286.1	73.3	528.8	1254.3	0	260
25.380	88.9	299.2	1187.2	6698.4	284.4	72.9	513.6	1258.9	0	260
25.500	87.6	286.4	1187.9	6653.6	282.7	72.6	503.2	1258	0	260
25.630	87	280	1188.3	6503.2	281.5	72.3	492	1258.3	0	260
25.750	80	252.8	1185.1	6176	280	71.9	479.2	1258	0	260

Table 6.2.1-21—Mass and Energy Results for the Limiting Cold Leg Pump Discharge Break
Sheet 12 of 28

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
25.880	88.8	200.8	1180.9	6168	283.2	71.2	462.4	1257.4	0	260
26.000	99.6	247.2	1190.2	7485.6	296.4	70.3	431.2	1253.4	0	260
26.130	92	258.4	1187.4	6671.2	297.1	70.2	405.6	1249.1	0.8	40
26.250	86.5	224.8	1184.6	6318.4	290.6	70.4	417.6	1247.8	0	40
26.380	82.2	195.2	1183.6	6680.8	284	70.3	416	1254.2	0	40
26.500	79.2	169.6	1183	7064	275.5	70.1	410.4	1253.3	0	40
26.630	77	152.8	1184.1	7208	269.8	69.9	400	1259.4	0	40
26.750	75.8	144	1185.3	7275.2	266.5	69.7	389.6	1260.9	0	40
26.880	75.4	141.6	1183.7	7148	265.2	69.5	384.8	1255.6	0	40
27.000	75.2	144	1176.9	6892.8	265.1	69.3	379.2	1252.3	0	40
27.130	74.7	144.8	1182.3	6631.2	265	69.1	373.6	1241.6	0.8	80
27.250	74.1	144	1181.8	6416	264.4	68.9	367.2	1235	0.8	280
27.380	73.6	141.6	1187.3	6268.8	263.7	68.8	362.4	1235.7	1.6	320
27.500	73.3	140.8	1177.7	6132	263.2	68.8	360.8	1234.8	2.4	253.3
27.630	73.2	138.4	1186.6	6009.6	263.2	68.6	356.8	1235.2	1.6	320
27.750	73	137.6	1178.1	5918.4	263.4	68.5	350.4	1234.5	1.6	300
27.880	72.7	133.6	1185.1	5912	263.3	68.3	344.8	1229.5	2.4	253.3
28.000	72.4	128.8	1182.6	5952	263	68.2	340.8	1225.5	4.8	260
28.130	71.8	123.2	1179.7	6049.6	262.1	68.1	340.8	1217.8	8.8	261.8

Table 6.2.1-21—Mass and Energy Results for the Limiting Cold Leg Pump Discharge Break
Sheet 13 of 28

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
28.250	71.4	117.6	1179.9	6150.4	261.1	68.1	340	1211.9	11.2	282.9
28.380	70.9	112	1182.9	6217.6	260.2	68	339.2	1212.5	12.8	265
28.500	70.4	108	1181.6	6278.4	259.1	68	336	1213.1	10.4	276.9
28.630	69.9	104	1185.2	6304	258	67.9	332	1219.9	7.2	262.2
28.750	69.4	101.6	1182.4	6327.2	256.8	67.9	324.8	1229.6	3.2	320
28.880	69	99.2	1186.5	6313.6	256	67.8	320.8	1236.3	2.4	240
29.000	68.5	98.4	1179.8	6259.2	255.2	67.7	315.2	1237.4	1.6	240
29.130	67.8	56	1188.6	5226.4	252.1	67.7	313.6	1234.3	1.6	260
29.250	74	79.2	1176.6	5440	255.1	67.5	312.8	1228	3.2	290
29.380	76.8	84	1191.6	8519.2	270.3	67.2	300.8	1217.4	7.2	262.2
29.500	74.3	86.4	1182.2	8248.8	276.4	67.4	301.6	1214.9	10.4	270.8
29.630	79	78.4	1172.2	6872.8	277.2	67.7	321.6	1210.7	14.4	275.6
29.750	83.1	90.4	1183	9381.6	283.2	67.8	332	1209.6	16	264
29.880	76	96	1192	7462.4	282.9	68.1	344	1208.4	16	272
30.0	82.7	110.5	1177.8	7080.8	282.4	67.7	344.3	1208.6	15.2	271.8
32.5	66.4	97	1186.1	7069.3	263.7	67	327.6	1217.1	9.2	272.4
35.0	67	59.2	1197.1	5303.7	246.8	64.8	251.2	1245.7	1.6	268.1
37.5	51.7	14.8	1180.9	3092.3	235.8	56.6	94.4	1275.6	0	268.1
40.0	28.8	0	1180.9	0	235.8	51.6	0	1275.6	0	268.1

Table 6.2.1-21—Mass and Energy Results for the Limiting Cold Leg Pump Discharge Break
Sheet 14 of 28

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
42.5	33.9	0.2	1455	116.5	214.7	45.2	0	1275.6	0	268.1
45.0	25.4	0	1455	17.1	211.1	43.4	0	1275.6	0	268.1
47.5	50.5	0	1455	18.4	207	49.7	0	1275.6	0	268.1
50.0	59.6	0.6	1221.7	203.7	207.5	62.4	35.8	1394.6	0	268.1
52.5	59.1	8.8	1194.9	1154.4	214.7	62.2	109	1279.6	0	268.1
55.0	61.9	11.2	1185.7	2884.9	214.8	62.6	165.2	1256.7	0.1	380
57.5	59.8	6.5	1180	3837.6	214.9	62.6	156	1258.6	0.4	265
60.0	66.8	76.4	1201.9	3051.5	234.6	63	171.8	1259.5	0.1	210
62.5	66.2	267	1213.3	1013	267.6	62.8	205.9	1241.5	1.5	268.7
65.0	65.3	263.4	1246	798.6	267.7	62.6	205.3	1236.4	4.4	264.8
67.5	63.8	270.1	1199.6	398.8	267.3	62.2	174	1256.7	1.1	261.8
70.0	63.2	239.5	1221.8	242.4	266.5	61.9	148.7	1275.1	0	261.8
72.5	63	226	1210.2	209	265.9	61.8	139.8	1276.8	0	261.8
75.0	63	232.6	1214.2	182.5	265.9	61.7	142.1	1276.2	0	261.8
77.5	63.3	239.4	1213.5	209.8	265.9	61.7	146.2	1276.3	0	261.8
80.0	62.5	224.2	1223.2	262.4	265.8	61.4	141.8	1276.2	0	261.8
82.5	61.8	174.4	1237	214.2	263	61.1	114.1	1278.9	0	261.8
85.0	61.9	140.8	1213	268.8	262.2	61.1	106.4	1280.7	0	261.8
87.5	62.8	213.4	1211.2	396.9	265.6	61.2	143.9	1273.6	0	261.8

Table 6.2.1-21—Mass and Energy Results for the Limiting Cold Leg Pump Discharge Break
Sheet 15 of 28

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
90.0	61.2	157.8	1224.5	472.6	262.4	60.8	118.2	1272.5	0	261.8
92.5	60.9	129.8	1232.1	334.1	257.2	60.6	94.3	1280.1	0	261.8
95.0	60.8	92.6	1226.2	307.4	249.8	60.4	77.8	1282.9	0	261.8
97.5	60.3	67.2	1208.3	270.7	253.1	60.3	68.7	1284.7	0	261.8
100.0	61.9	157.1	1208.5	241.5	261.6	60.7	112	1280.2	0	261.8
102.5	61.6	184.8	1209.1	201.7	263.6	60.6	122.1	1272.2	0	261.8
105.0	61.4	215.5	1209.7	229.8	264.7	60.6	134.4	1265	0	261.8
107.5	61.4	183.3	1213.2	157.2	263.4	60.6	116.6	1268.5	0	261.8
110.0	61.7	210.2	1213.6	182.2	264.4	60.7	130.2	1264.7	0	261.8
112.5	62	185.3	1210.9	206.7	263.5	60.8	124.4	1264.2	0	261.8
115.0	61.3	221.1	1215.9	199.3	264.9	60.6	137	1260.5	0	261.8
117.5	61.4	175.9	1222	157.8	263.3	60.7	112.1	1272.9	0	261.8
120.0	61.6	197.7	1213.2	176	264.1	60.8	123.1	1269	0	261.8
122.5	61.7	194.3	1214.1	160	263.9	60.8	121.6	1267.7	0	261.8
125.0	62.1	222	1214.4	188.1	264.8	60.9	135.8	1271.2	0	261.8
127.5	62.2	195.3	1210.8	218.4	264.2	60.9	126.6	1273.9	0	261.8
130.0	62.6	208.5	1213.4	539.2	265.6	61	144.6	1272.9	0	261.8
132.5	61	148.5	1227.8	374.6	262.1	60.7	111	1273.7	0	261.8
135.0	62	169.7	1207.2	242.3	263.3	60.9	110.8	1276.3	0	261.8

Table 6.2.1-21—Mass and Energy Results for the Limiting Cold Leg Pump Discharge Break
Sheet 16 of 28

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
137.5	61.3	206.4	1212	201.6	264.7	60.9	129.5	1271.6	0	261.8
140.0	62.6	198	1208.7	264.4	264.6	61.1	127.2	1273.4	0	261.8
142.5	61.8	191.8	1208.6	230.2	264.4	60.9	124.5	1261.9	0	261.8
145.0	62.4	206.3	1209	235	264.8	61.1	127.8	1268.9	0	261.8
147.5	62	195.3	1210.1	237.3	264.4	61	129.4	1252.2	0	261.8
150.0	62.5	215.6	1209.5	246.6	265.1	61.2	133	1266	0	261.8
155.0	62.3	195.1	1207.7	261.1	264.7	61.2	126.5	1254.9	0.1	140
160.0	62.5	201.5	1209.5	228.4	264.7	61.2	128.8	1254.2	0	140
165.0	62.4	201.8	1209	236	264.9	61.3	131	1236.4	0.5	270
170.0	62.3	200.4	1208.1	224.9	264.8	61.3	131.4	1223.9	2.1	270
175.0	62	194.4	1211.5	177.6	264.5	61.2	121.8	1245	0.4	242.5
180.0	61.8	179.6	1211.4	163.8	263.9	61.2	109.8	1260.6	0	242.5
185.0	61.9	172.4	1211.2	158.6	263.6	61.3	111	1231.9	0.2	265
190.0	61.8	181.8	1202.5	157.9	264.1	61.3	111.3	1257.9	0	265
195.0	61.6	150.6	1209.8	136	262.3	61.2	93.8	1267.7	0	265
200.0	61.5	132.7	1209.6	123.8	260.4	61.2	85.9	1266.3	0	265
205.0	61.4	116.9	1207.7	112.1	258.2	61.2	75.8	1273.5	0	265
210.0	61.9	126.4	1209.1	125.3	259.7	61.4	82.2	1272.9	0	265
215.0	61.6	143.9	1208.3	147.5	262.2	61.3	93.7	1262.2	0	265

Table 6.2.1-21—Mass and Energy Results for the Limiting Cold Leg Pump Discharge Break
Sheet 17 of 28

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
220.0	61.8	125	1207.4	121.3	259.7	61.4	81.1	1268.6	0	265
225.0	61.6	126.9	1208.3	122.5	259.9	61.4	82.8	1266.8	0	265
230.0	61.7	123.9	1208	119.5	259.6	61.4	80.9	1268.2	0	265
235.0	61.6	121.9	1208.6	117.9	259.4	61.3	79.6	1266.5	0	265
240.0	61.5	120.1	1208	115.7	259.2	61.4	78.7	1267.4	0	265
245.0	61.6	122	1208.7	118.7	259.4	61.4	79.8	1267.4	0	265
250.0	61.7	117.2	1208.2	113.4	258.7	61.4	77.7	1267	0	265
255.0	61.8	114.2	1205.9	135.1	258.9	61.5	78.2	1268.4	0	265
260.0	61.7	123	1205.7	143.7	259.9	61.5	81.8	1265.3	0	265
265.0	61.9	118.3	1204.6	149	259.3	61.6	78.5	1268.2	0	265
270.0	61.6	119.3	1206.1	141.7	259.4	61.5	79.9	1263	0	265
275.0	61.9	114.8	1204.3	144.7	258.7	61.6	76.7	1268	0	265
280.0	61.7	112.6	1206.2	114	258.6	61.5	74.8	1266.3	0	265
285.0	61.7	99	1204.8	102.3	256.2	61.6	67.6	1269.6	0	265
290.0	61.7	104.6	1206.1	105.9	257.1	61.6	70.3	1269	0	265
295.0	61.7	95	1204.4	95.7	256.6	61.6	65.8	1269.3	0	265
300.0	61.9	91.6	1203.7	94.1	256.3	61.7	64.4	1269.4	0	265
305.0	62	124.2	1206.6	145.6	261.1	61.7	84.8	1266.9	0	265
310.0	62.2	125.4	1205.5	151.8	260.6	61.8	83.2	1268.1	0	265

Table 6.2.1-21—Mass and Energy Results for the Limiting Cold Leg Pump Discharge Break
Sheet 18 of 28

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
315.0	62	128.2	1208.9	122.4	260.4	61.7	84.4	1255.5	0	265
320.0	61.9	118.8	1207.4	114.5	259	61.8	78.6	1262.9	0	265
325.0	62	117.4	1207.9	114.5	258.6	61.8	77	1266.7	0	265
330.0	62	120.2	1206.9	121.6	259.4	61.8	77.6	1265.2	0	265
335.0	62.1	121.6	1208.1	118.6	259.5	61.8	77.5	1265.3	0	265
340.0	62.1	124.1	1208.7	116.6	259.7	61.9	78.5	1265.5	0	265
345.0	62.2	128.2	1209.1	119.4	260.3	61.9	80.3	1264.1	0	265
350.0	62.2	125.1	1209.1	114.1	259.9	61.9	78.9	1260.1	0	265
355.0	62.1	120	1207.9	111.4	259	61.9	76.1	1263.3	0	265
360.0	62.1	110.6	1207.4	103.6	257.6	61.9	70.3	1266	0	265
365.0	62.1	106.1	1206.9	101.9	256.8	61.9	68.1	1266.2	0	265
370.0	62.3	113.8	1207.4	110	258.1	62	70.4	1265.1	0	265
375.0	62.4	133.2	1209.3	123.9	261.3	62	82.6	1253.3	0	265
380.0	62.4	135.1	1210.2	121.1	261.3	62	84.2	1256.3	0	265
385.0	62.3	130.6	1209.5	116.5	260.8	62.1	80.7	1260.1	0	265
390.0	62.4	124.7	1209.3	112.8	259.6	62.1	77.2	1260.6	0	265
395.0	62.3	121.1	1208.2	110.8	259.2	62.1	74.1	1260.5	0	265
400.0	62.3	118.9	1208.4	110.2	259.1	62.1	72	1261	0	265
410.0	62.5	136.4	1210.1	122	261.5	62.2	82.4	1260.2	0	265

Table 6.2.1-21—Mass and Energy Results for the Limiting Cold Leg Pump Discharge Break
Sheet 19 of 28

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
420.0	62.4	119.6	1208.4	106.9	259	62.2	73	1260.5	0	265
430.0	62.5	89.2	1204.1	85.8	255.5	62.4	54.6	1265.1	0	265
440.0	62.7	114.5	1207.6	107.9	259	62.4	66.2	1255.6	0	265
450.0	63	119.9	1208.3	110	259.5	62.7	70.9	1240.2	0	265
460.0	63	139.3	1218	245.8	262.8	62.7	85.5	1244.1	0.1	210
470.0	63.2	118.2	1225.9	240.7	259.1	62.9	76	1258	0	210
480.0	63	116.2	1231.1	210.9	259.7	62.9	73.7	1260.6	0	210
490.0	63.1	86.9	1243.6	94.2	257.4	62.9	54.3	1261	0	210
500.0	63.2	99	1208.9	176	259.2	63.1	61.5	1247.9	0	210
510.0	63.5	107.2	1205.2	205.3	258	63.2	65.8	1246.7	0	210
520.0	63.8	127.6	1205.7	204.7	261.5	63.4	72.8	1256.8	0	210
530.0	64.7	148	1223.2	443.2	263	63.6	101.9	1232.5	0.5	258
540.0	64.3	152	1218.6	392.9	264.1	63.7	102.6	1258	0	258
550.0	64.1	153.8	1204.1	245.3	265.4	63.7	93.4	1254.8	0	258
560.0	64.3	132.1	1210	204.6	262.1	63.8	78.4	1255.8	0	258
570.0	64.1	112.9	1209.5	206.1	259.5	63.8	67.9	1260	0	258
580.0	64.3	114	1205.5	226.8	259.9	64	69	1258.4	0	258
590.0	64.3	113.9	1203.2	180.9	260.2	64	70.2	1224.3	0.7	271.4
600.0	64.2	101	1208.2	195.4	258.8	64.1	63.2	1235.5	0.5	246

Table 6.2.1-21—Mass and Energy Results for the Limiting Cold Leg Pump Discharge Break
Sheet 20 of 28

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
610.0	64.3	87.4	1204.7	182.1	257.6	64.2	53.2	1258.1	0	246
620.0	64.4	71.3	1200.7	127.2	255.6	64.3	45	1260	0	246
630.0	64.5	64.6	1198.7	124.9	256.1	64.4	42	1260.7	0	246
640.0	64.7	80.9	1201.4	152.7	256.6	64.6	47	1258.2	0	246
650.0	65.3	103.5	1212.3	297	258.4	64.9	65.8	1240.5	0	246
660.0	65.6	127.1	1214.2	512.1	262.5	65	87.8	1253.9	0.1	190
670.0	65.5	129.7	1218.3	471.7	261.9	65.1	91.7	1235.2	0.6	250
680.0	65.6	129.9	1203.9	302.1	263.3	65.2	81.8	1228	0.6	243.3
690.0	65.4	120.4	1203.4	182	262.2	65.2	71.1	1241	0.1	260
700.0	65.2	91.3	1220.8	139.6	256.6	65.3	53.8	1257.6	0	260
710.0	65.4	74.7	1199.9	166.1	257.6	65.4	45.7	1255.3	0	260
720.0	65.6	70.6	1200.1	115.7	256.9	65.5	42.2	1257.6	0	260
730.0	65.9	77.5	1206.2	201	255.9	65.8	49	1256.6	0	260
740.0	66.3	104.6	1215.5	499.1	258.5	65.9	75.8	1254.4	0	260
750.0	66.3	126.2	1226.9	476.6	262.3	66.1	87.2	1254.4	0	260
760.0	66.7	124.5	1227.6	423.4	261.3	66.2	85	1253.5	0	260
770.0	66.7	125.3	1217	346.7	261.1	66.3	83.5	1254	0	260
780.0	66.4	109.5	1203.8	200.9	259.8	66.3	68.9	1253.1	0	260
790.0	66.5	80.7	1207.4	133.8	258.7	66.4	47.3	1254.8	0	260

Table 6.2.1-21—Mass and Energy Results for the Limiting Cold Leg Pump Discharge Break
Sheet 21 of 28

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
800.0	66.7	78.1	1219.9	220.1	256.3	66.5	46.3	1253.6	0	260
810.0	67	95.8	1231.2	500.6	246	66.6	67.1	1255	0	260
820.0	67	100	1232	340	247.1	66.6	63.2	1252.8	0	260
830.0	66.7	98.7	1230.3	313.3	247.7	66.7	67.1	1253.9	0	260
840.0	66.7	70.7	1199.7	132.7	258.2	66.7	44.6	1253	0	260
850.0	66.8	64.4	1198.9	112.8	258.8	66.7	39.1	1254.2	0	260
860.0	66.9	67.1	1196.7	106.5	259.3	66.8	41.3	1255.4	0	260
870.0	67.3	91.1	1219	336.5	254	67.1	58.6	1251.4	0	260
880.0	67.8	109.6	1222.8	791.9	259	67.1	97	1221.8	1.3	269.2
890.0	67.6	111.4	1226.3	542.9	258.3	67.2	93.1	1219.4	1.6	265.6
900.0	68.1	112.5	1223.1	637.8	262.5	67.3	94.9	1220.5	5.4	271.1
910.0	67.6	111	1230.2	339.2	258.1	67.3	82	1233.8	1.1	279.1
920.0	67.2	99.6	1225.7	156.5	258.8	67.2	78.1	1212.7	3.8	266.3
930.0	67.3	66.7	1228.4	58.3	258.9	67.2	51.5	1246.4	0	266.3
940.0	67.8	62.4	1219.1	267.5	254	67.3	47.3	1248.5	0	266.3
950.0	67.8	93.5	1225.3	514.9	254.1	67.6	72.9	1231.4	0.5	252
960.0	67.8	104.7	1224	632.8	252.1	67.7	80.1	1219.6	3.9	267.2
970.0	68	117.8	1218.9	753.6	259.4	67.7	120.8	1203.5	4.5	271.3
980.0	67.6	98	1226.9	157.9	255.3	67.6	78.4	1230.8	0	271.3

Table 6.2.1-21—Mass and Energy Results for the Limiting Cold Leg Pump Discharge Break
Sheet 22 of 28

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
990.0	67.7	63.3	1223.3	77	257.3	67.7	66.4	1227.8	0	271.3
1000	67.7	48.5	1220.2	54.7	259.1	67.7	57.2	1231.2	0	271.3
1010	67.6	40.8	1218.4	50.6	259.1	67.7	51.3	1233.5	0	271.3
1020	67.7	47.7	1203.9	63.4	258.6	67.7	48.9	1230.2	0	271.3
1030	67.7	47.6	1194.7	80.5	260.2	67.7	44.1	1232.9	0	271.3
1040	67.7	54.7	1196.2	65.5	259.6	67.7	38.5	1235.6	0	271.3
1050	68	63.6	1208.3	143.6	254.6	67.8	38.3	1233.9	0	271.3
1060	68	85.6	1224.5	453.2	242.9	67.8	58.4	1223.8	0	271.3
1070	67.9	85.2	1223.8	604.7	246.6	67.9	84.8	1195.9	10.6	271.7
1080	67.8	80	1220.7	334.2	256.9	67.8	66.8	1222	0.1	140
1090	68	76.6	1221.9	240.5	248.7	67.8	71.3	1208.5	0.2	330
1100	67.8	62.3	1205.9	133.3	254.2	67.8	53.5	1219.7	0	330
1110	67.8	56.4	1194.4	101.7	261.2	67.8	45.3	1223.4	0	330
1120	67.9	49	1193.9	114.9	260.9	67.8	38.3	1224.9	0	330
1130	67.9	54.1	1196	128.3	262.9	67.8	36.5	1225	0	330
1140	68.1	76.7	1221.9	309.3	243.9	68	46.7	1223.7	0	330
1150	68.4	80.5	1221.3	644.8	250	67.9	63.7	1188.6	33.5	270.6
1160	68.3	89.2	1220.3	493.4	255.9	67.9	67.9	1200.5	39	270.9
1170	68.1	95.5	1221.5	379.9	258.3	68	67.2	1189.1	48.8	271

Table 6.2.1-21—Mass and Energy Results for the Limiting Cold Leg Pump Discharge Break
Sheet 23 of 28

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
1180	68.2	82.7	1223	251.7	255.8	68	64.5	1197.9	19.5	270.7
1190	68.7	81.7	1224.3	230.9	253	68	61.9	1184.1	55.9	270.7
1200	68.1	73.2	1222.4	114.2	255.8	68	57.5	1202.3	0.2	275
1250	66.1	50.5	1212.8	83.9	255.9	68	43.4	1197.1	4.4	268.6
1300	68.1	64	1195.8	378.4	249.7	68	46.9	1188.6	44	270.6
1350	68.1	53.9	1193.2	215.6	250.6	68.1	52.4	1184.4	28.6	271.2
1400	68.1	61.4	1196.4	272.5	243.9	68.1	47.4	1188.4	26.9	271.3
1450	68.2	60.3	1196.7	215.2	234.8	68.1	41.2	1185.8	23.8	270.8
1500	68.2	61.3	1197.1	230	227.1	68.1	38.9	1182.8	26.8	271
1550	68.1	60.3	1196.2	240.6	222.7	68.2	36.3	1184	35.6	270.9
1600	68.3	60.6	1195.2	245.3	219.6	68.2	35.7	1182.5	27.8	270.9
1650	68.3	58.1	1194.8	248.5	217.6	68.2	35.5	1182.5	27	270.9
1700	68.3	54.6	1194.2	261.9	215.4	68.3	37.7	1184	26.8	271
1750	68.4	54.5	1194.8	253.9	206	68.3	34.6	1183.3	20.3	270.5
1800	68.4	54	1193.9	274.1	212.5	68.3	31.7	1181.8	29.8	270.7
1850	68.4	49.3	1192.9	255.3	207	68.3	35	1184.1	31.5	271
1900	68.4	49.8	1192.7	266.4	205.1	68.4	30.3	1182.1	21.7	271.5
1950	68.5	38	1192	244.1	226.9	68.4	34.4	1181.3	46.6	271.3
2000	68.4	39.9	1191.9	306.2	203	68.4	37.8	1182.8	29	271.2

Table 6.2.1-21—Mass and Energy Results for the Limiting Cold Leg Pump Discharge Break
Sheet 24 of 28

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
2050	68.4	34.7	1190.5	259.9	214.1	68.4	33.5	1182.6	34.2	271.3
2100	68.4	39.2	1190.2	285.3	215.4	68.3	32.7	1181.7	39.5	271.4
2150	68.3	33.4	1188.3	271.6	210.6	68.3	37.6	1183.1	34.5	271.1
2200	68.3	34.2	1190.6	284.8	214.2	68.3	36	1182.6	38.8	271
2250	67.9	35.5	1189.6	285.6	204.3	68.2	34.7	1183.5	32.3	271.3
2300	68.3	34.6	1190.7	275.7	208	68.1	34.2	1183.7	36.2	271
2350	68	17.9	1192.7	222	238.1	68.1	34.9	1181.4	40.6	270.7
2400	68	20.4	1189.5	405.3	222.9	68	31.2	1183.5	39	271.2
2450	68	28.6	1189.8	223.7	196.2	68	32.3	1182.9	18.5	270.5
2500	68	33.3	1187.4	337.7	204.9	67.9	37.7	1181	48.2	270.5
2550	67.9	31.2	1187.5	289.6	197.1	67.9	36.5	1183.2	27.2	270.4
2600	67.9	31	1186.9	276.6	194.8	67.9	33.8	1181.9	31.8	270.6
2650	67.9	32.6	1188.2	296.5	191.5	67.8	32.6	1182.4	37	270.5
2700	67.8	33.7	1188.3	299.2	194.3	67.8	31.7	1180.6	34.2	270.3
2750	67.8	30.8	1190.3	265.7	191.1	67.7	30.2	1183.4	31	270.8
2800	67.7	33	1188.5	297.7	190.4	67.7	27.5	1181.2	29.6	270.5
2850	67.7	33.4	1187.5	298.6	189.5	67.6	26.1	1179.9	28.1	270
2900	67.7	35.3	1187.9	302.6	190.2	67.6	23.6	1180.9	22.4	270.1
2950	67.6	35.8	1188.8	301.7	188.1	67.6	23.3	1184	19.2	270

Table 6.2.1-21—Mass and Energy Results for the Limiting Cold Leg Pump Discharge Break
Sheet 25 of 28

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
3000	67.6	34.3	1190	290.3	187.9	67.5	24	1182.3	22.8	270.9
3050	67.5	34.5	1187.5	300.7	188	67.4	23.9	1182.4	26.6	269.9
3100	67.4	32.6	1187.3	285.1	185.5	67.3	24.7	1183.7	27.9	270.6
3150	67.3	34.9	1187.9	318.2	185.4	67.2	23.2	1183.3	25.9	270.2
3200	67.1	28.3	1185	221.3	190	67.1	29.2	1180.4	46.1	270.2
3250	67.1	29.8	1185	252.5	176	67	27.5	1179.3	47.9	270.1
3300	66.9	30.8	1186	311.5	179.2	66.9	26.9	1181.4	55.8	269.9
3350	66.9	18.2	1185	405.8	193.4	66.8	29.8	1181.5	48.1	269.5
3400	66.2	6.7	1191.2	359.8	219.8	66.7	29.7	1180.2	26.5	269.1
3450	66.6	6.1	1180.3	376	228.2	66.6	27.4	1183	0.5	268
3500	66.7	14.7	1180.6	260.9	212.3	66.5	26.8	1181.7	12.6	269.8
3550	66.4	18.3	1194.3	327	216.4	66.4	27.1	1179.3	36.2	269.3
3600	66.4	30.7	1191.4	423.4	228.1	66.3	23.5	1179.2	19.2	269.6
3620	Note 3	38.7	1179.4	217.7	268.8	-	-	-	-	-
3640	Note 3	39	1179.5	216.5	268.9	-	-	-	-	-
3660	Note 3	39.1	1179.5	216.3	269	-	-	-	-	-
3680	Note 3	39.2	1179.5	216.2	269	-	-	-	-	-
3700	Note 3	39.2	1179.5	216.2	269	-	-	-	-	-
4100	Note 3	36.6	1179.3	216.7	268.3	-	-	-	-	-

Table 6.2.1-21—Mass and Energy Results for the Limiting Cold Leg Pump Discharge Break
Sheet 26 of 28

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
4300	Note 3	36.7	1179.2	217	267.9	-	-	-	-	-
4700	Note 3	34.7	1179	217.7	267.2	-	-	-	-	-
5101	Note 3	33.9	1178.8	218.2	266.7	-	-	-	-	-
5301	Note 3	33.6	1178.8	218.3	266.4	-	-	-	-	-
6301	Note 3	31.6	1178.4	219.2	265.2	-	-	-	-	-
7302	Note 3	29.9	1178.2	219.8	264.4	-	-	-	-	-
8302	Note 3	29	1178	220.2	263.8	-	-	-	-	-
9303	Note 3	28	1177.9	220.5	263.3	-	-	-	-	-
10304	Note 3	27.3	1177.8	220.8	263	-	-	-	-	-
11305	Note 3	26.8	1177.7	220.9	262.8	-	-	-	-	-
12305	Note 3	26.1	1177.7	221.2	262.7	-	-	-	-	-
13306	Note 3	25.3	1177.7	221.6	262.6	-	-	-	-	-
14306	Note 3	24	1177.6	222.4	262.4	-	-	-	-	-
15307	Note 3	14.1	1177.4	227.4	261.8	-	-	-	-	-
16308	Note 3	13.2	1177	227.9	260.3	-	-	-	-	-
17308	Note 3	12.3	1176.6	228.5	259	-	-	-	-	-
18309	Note 3	11.5	1176.3	229	257.8	-	-	-	-	-
19310	Note 3	10.7	1175.9	229.4	256.6	-	-	-	-	-
20310	Note 3	9.9	1175.6	229.8	255.5	-	-	-	-	-

Table 6.2.1-21—Mass and Energy Results for the Limiting Cold Leg Pump Discharge Break
Sheet 27 of 28

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
21311	Note 3	9.5	1175.3	230.1	254.4	-	-	-	-	-
22312	Note 3	9	1175	230.4	253.4	-	-	-	-	-
23312	Note 3	8.6	1174.7	230.6	252.4	-	-	-	-	-
24313	Note 3	8.2	1174.4	230.9	251.5	-	-	-	-	-
25314	Note 3	7.7	1174.2	231.1	250.6	-	-	-	-	-
26314	Note 3	7.3	1173.9	231.4	249.7	-	-	-	-	-
27315	Note 3	6.9	1173.6	231.6	248.9	-	-	-	-	-
28316	Note 3	6.5	1173.4	231.8	248	-	-	-	-	-
29316	Note 3	6.1	1173.1	232	247.2	-	-	-	-	-
30317	Note 3	5.7	1172.9	232.2	246.4	-	-	-	-	-
32318	Note 3	5.3	1172.4	232.5	244.8	-	-	-	-	-
34320	Note 3	4.8	1172	232.7	243.4	-	-	-	-	-
36321	Note 3	4.4	1171.5	233	242	-	-	-	-	-
38322	Note 3	3.9	1171.1	233.2	240.7	-	-	-	-	-
41324	Note 3	3.3	1170.5	233.6	238.9	-	-	-	-	-
44326	Note 3	2.9	1170	233.8	237.2	-	-	-	-	-
47328	Note 3	2.5	1169.5	234	235.6	-	-	-	-	-
50330	Note 3	2	1169.1	234.3	234.2	-	-	-	-	-
53332	Note 3	1.8	1168.6	234.4	232.8	-	-	-	-	-

Table 6.2.1-21—Mass and Energy Results for the Limiting Cold Leg Pump Discharge Break
Sheet 28 of 28

Time (s)	Reactor Vessel Side of the Break					SG Side of the Break				
	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)	Upstream Pressure (psia)	Average Steam Mass Flow (lb_m/s)	Average Steam Enthalpy (BTU/lb_m)	Average Liquid Mass Flow (lb_m/s)	Average Liquid Enthalpy (BTU/lb_m)
56334	Note 3	1.5	1168.2	234.6	231.6	-	-	-	-	-
59336	Note 3	1.2	1167.9	234.7	230.5	-	-	-	-	-
62338	Note 3	0.9	1167.5	234.9	229.4	-	-	-	-	-
65340	Note 3	0.7	1167.2	235	228.5	-	-	-	-	-
68343	Note 3	0.5	1166.9	235.1	227.6	-	-	-	-	-
71345	Note 3	0.3	1166.7	235.2	226.8	-	-	-	-	-
76349	Note 3	0	1166.2	235.4	225.5	-	-	-	-	-
81352	Note 3	0	1165.4	235.4	223.1	-	-	-	-	-
86356	Note 3	0	1164.7	235.4	220.8	-	-	-	-	-
86400	Note 3	0	1164.7	235.4	220.8	-	-	-	-	-

Notes:

1. Tabulated values are produced by averaging the instantaneous mass and energy releases at discrete times.

2. The code transition from RELAP5/MOD2-B&W to GOTHIC results occurs at 3600 seconds. Post 3600 seconds, the mass and energy results were calculated internally by the GOTHIC code.

3. The RCS upstream pressure equal to containment pressure over this interval.

Table 6.2.1-22—Input Summary for Mass and Energy Release

Parameter	Value
RCS Conditions	
Core Power	4612 MWt
Decay Heat	1.2*ANS71 (plus actinides)
Core Inlet Temperature	565.5°F
Total RCS Flow Rate	498932 gpm
Pressurizer	
PZR Liquid Level	59.7 span%
IRWST	
Liquid Temperature	122°F
Safety Injection Accumulators	
Liquid Volume	1236 – 1324.3 ft^3
Total Volume	1942.5 ft^3
Pressure	653 – 682 psia
Liquid Temperature	90.5°F

Table 6.2.1-23—Containment Energy Distribution for Cold Leg Pump Suction Break Energy (BTU)
Sheet 1 of 2

	Prior to LOCA (t=0 sec)	Peak Pressure (t=30 sec)	End of Reflood (t=150 sec)	GOTHIC Transition (t=1200 sec)	1 hr into recirculation	1 day into recirculation
Reactor Coolant Internal Energy	4.004E+08	2.081E+07	3.931E+07	4.130E+07	4.563E+07	3.750E+07
Accumulator Coolant Internal Energy	4.712E+07	3.278E+07	1.604E+05	1.604E+05	1.604E+05	1.604E+05
Energy Stored in RV internals	N/A (included in Pressurizer, Primary Piping, Valves and Pumps)					
Energy Stored in Core	2.933E+07	9.384E+06	3.167E+06	2.391E+06	3.699E+08 [1]	0.000E+00
Energy Generated During Shutdown from Decay Heat	0.000E+00	2.617E+05	3.756E+07	1.692E+08	3.721E+08	3.492E+09
Energy Stored in Pressurizer, Primary Piping, Valves, and Pumps	1.579E+08	1.443E+08	1.268E+08	9.469E+07	Included in Energy Stored in Core	
Energy Stored in SG Metals	1.291E+08	1.294E+08	1.265E+08	1.089E+08	Included in Energy Stored in Core	
Secondary Coolant Internal Energy in SG	2.529E+08	3.209E+08	3.400E+08	2.871E+08	Included in Energy Stored in Core	
Energy Content in RCB Atmosphere	3.060E+07	3.748E+08	3.538E+08	3.494E+08	3.948E+08	1.350E+08
Energy Content in RCB and Internals	0.000E+00 [2]	2.425E+07	7.813E+07	2.188E+08	3.847E+08	1.341E+09
Energy Content of Recirculation Intake Water (IRWST)	2.831E+08	3.729E+08	4.444E+08	5.445E+08	6.040E+08	6.007E+08
Energy Content of BWST Water	N/A (See Energy Content of Recirculation Intake Water (IRWST))					
Energy Removed by LHSI Heat Exchangers	N/A (For prior to long term transition see ΔQ of ECCS source)				6.090E+07 [3]	2.968E+09
Energy Removed by Reactor Containment Building Fan Coolers	N/A to U.S. EPR					
SIS Pump Energy	0.000E+00	1.718E+02	1.720E+05	1.676E+06	5.112E+06	1.237E+08
RCP Energy	0.000E+00	8.617E+04	8.617E+04	8.617E+04	8.617E+04	8.617E+04

Table 6.2.1-23—Containment Energy Distribution for Cold Leg Pump Suction Break Energy (BTU)
Sheet 2 of 2

	Prior to LOCA (t=0 sec)	Peak Pressure (t=30 sec)	End of Reflood (t=150 sec)	GOTHIC Transition (t=1200 sec)	1 hr into recirculation	1 day into recirculation
ΔQ of ECCS Source	0.000E+00	4.498E+01	1.302E+06	2.560E+07	2.560E+07	2.560E+07 [4]
Accumulator Nitrogen	0.000E+00	1.919E+06	1.919E+06	1.919E+06	1.919E+06	1.919E+06
Main Feedwater	0.000E+00	7.032E+07	1.141E+08	1.298E+08	1.298E+08	1.298E+08
Energy Balance						
Initial energy, Btu	1.330E+09	1.330E+09	1.330E+09	1.330E+09	1.330E+09	1.330E+09
Sum of Energy Added	0.000E+00	7.258E+07	1.539E+08	3.027E+08	5.090E+08	3.747E+09
Total 1	1.330E+09	1.403E+09	1.484E+09	1.633E+09	1.839E+09	5.078E+09
Final energy, Btu	1.330E+09	1.430E+09	1.512E+09	1.647E+09	1.799E+09	2.114E+09
Sum of Energy Removed	0.000E+00	4.498E+01	1.302E+06	2.560E+07	8.649E+07	2.994E+09
Total 2	1.330E+09	1.430E+09	1.514E+09	1.673E+09	1.886E+09	5.109E+09
Difference	0.000E+00	-2.656E+07	-2.933E+07	-3.986E+07	-4.626E+07	-3.075E+07

Notes:

1. This is the total sensible energy left in RCS metal and SG secondary side at 3600s.
2. The initial energy content in RCB and Internals is assumed to be zero.
3. LHSI heat exchanger heat removal after long term transition.
4. This is heat removed by RHR system prior to long term transition. It should be added to heat removed after transition (see Note 3) for total LHSI heat exchanger heat removal in 24 hours.

Table 6.2.1-24—MSLB Mass and Energy Release Data
Sheet 1 of 9

Time (s)	Break Mass Flow Rate (lb_m/s)	Break Energy[1] (BTU/lb_m)
0.0	0.0	0.
0.002	5133.5	1130.8
1.0	9204.2	1227.2
2.0	11085.5	1229.5
3.0	12675.0	1226.5
4.0	13040.0	1224.9
5.0	13510.0	1221.0
6.0	13386.0	1212.0
7.0	12469.0	1212.6
8.0	11415.0	1218.1
9.0	10530.0	1216.3
10.0	9861.0	1214.8
11.0	9166.0	1214.5
12.0	8527.0	1214.9
13.0	8002.0	1215.1
14.0	7615.0	1215.6
15.0	7336.0	1216.5
16.0	7123.0	1217.6
17.0	6970.0	1218.2
18.0	6856.0	1218.6
19.0	6679.0	1219.3
20.0	6293.0	1220.9
21.0	5749.0	1222.8
22.0	5204.0	1225.0
23.0	4680.0	1226.9
24.0	4171.0	1228.0
25.0	3755.0	1229.0
26.0	3343.0	1229.4
27.0	2844.0	1229.6
28.0	2508.0	1228.9
29.0	2214.0	1229.0

Table 6.2.1-24—MSLB Mass and Energy Release Data
Sheet 2 of 9

Time (s)	Break Mass Flow Rate (lb_m/s)	Break Energy[1] (BTU/lb_m)
30.0	1985.0	1228.2
31.0	1789.0	1227.5
32.0	1580.0	1226.0
33.0	1394.0	1225.3
34.0	1242.0	1223.8
35.0	1137.0	1222.5
36.0	1082.0	1221.8
37.0	1041.0	1221.9
38.0	983.0	1221.8
39.0	929.0	1221.7
40.0	876.0	1221.5
41.0	830.0	1220.5
42.0	787.0	1222.4
43.0	747.0	1220.9
44.0	705.0	1224.1
45.0	664.0	1221.4
46.0	625.0	1222.4
47.0	591.0	1221.7
48.0	561.0	1222.8
49.0	533.0	1223.3
50.0	509.0	1226.4
52.0	475.5	1224.0
54.0	427.5	1226.9
56.0	410.0	1226.8
58.0	417.0	1230.2
60.0	430.5	1230.0
62.0	452.0	1227.9
64.0	470.0	1227.7
66.0	481.5	1226.4
68.0	479.0	1224.4
70.0	466.0	1225.3
72.0	443.0	1224.6

Table 6.2.1-24—MSLB Mass and Energy Release Data
Sheet 3 of 9

Time (s)	Break Mass Flow Rate (lb_m/s)	Break Energy[1] (BTU/lb_m)
74.0	413.5	1223.7
76.0	375.0	1222.7
78.0	336.5	1221.4
80.0	312.0	1222.8
82.0	313.5	1223.3
84.0	322.0	1222.1
86.0	325.0	1221.5
88.0	322.5	1221.7
90.0	308.5	1218.8
92.0	278.5	1219.0
94.0	273.0	1219.8
96.0	292.5	1222.2
98.0	310.5	1223.8
100.0	320.5	1221.5
105.0	276.8	1216.0
110.0	221.0	1215.4
115.0	200.8	1214.1
120.0	178.4	1219.7
125.0	154.2	1217.9
130.0	130.4	1223.9
135.0	112.2	1226.4
140.0	99.6	1224.9
145.0	90.2	1219.5
150.0	82.8	1222.2
155.0	76.4	1225.1
160.0	70.6	1223.8
165.0	64.2	1227.4
170.0	58.8	1227.9
175.0	49.4	1226.7
180.0	42.8	1229.0
185.0	39.6	1227.3
190.0	34.2	1239.8

Table 6.2.1-24—MSLB Mass and Energy Release Data
Sheet 4 of 9

Time (s)	Break Mass Flow Rate (lb_m/s)	Break Energy[1] (BTU/lb_m)
195.0	28.8	1243.1
200.0	24.4	1254.1
205.0	21.8	1256.9
210.0	19.8	1262.6
215.0	18.2	1252.8
220.0	16.6	1265.1
225.0	15.2	1263.2
230.0	14.0	1257.1
235.0	12.8	1250.0
240.0	11.8	1254.2
245.0	11.0	1254.6
250.0	9.8	1265.3
255.0	9.2	1260.9
260.0	8.4	1261.9
265.0	3.8	1210.5
270.0	1.2	1333.3
275.0	1.6	1250.0
280.0	2.0	1200.0
285.0	2.2	1363.6
290.0	2.6	1230.8
295.0	3.0	1200.0
300.0	2.8	1285.7
305.0	3.0	1266.7
310.0	3.0	1266.7
315.0	3.0	1266.7
320.0	3.2	1187.5
325.0	2.8	1357.1
330.0	3.2	1187.5
335.0	2.8	1285.7
340.0	2.8	1214.3
345.0	2.6	1307.7
350.0	2.4	1333.3

Table 6.2.1-24—MSLB Mass and Energy Release Data
Sheet 5 of 9

Time (s)	Break Mass Flow Rate (lb_m/s)	Break Energy[1] (BTU/lb_m)
355.0	2.6	1153.9
360.0	2.2	1363.6
365.0	2.2	1272.7
370.0	2.2	1272.7
375.0	2.2	1181.8
380.0	2.0	1200.0
385.0	1.8	1333.3
390.0	1.8	1222.2
395.0	1.6	1375.0
400.0	1.6	1250.0
405.0	1.6	1250.0
410.0	1.4	1285.7
415.0	1.4	1285.7
420.0	1.4	1285.7
425.0	1.2	1333.3
430.0	1.2	1333.3
435.0	1.2	1166.7
440.0	1.2	1166.7
445.0	1.0	1400.0
450.0	1.0	1400.0
455.0	1.0	1200.0
460.0	1.0	1200.0
465.0	1.0	1200.0
470.0	0.8	1500.0
475.0	1.0	1000.0
480.0	0.8	1500.0
485.0	0.8	1250.0
490.0	0.8	1250.0
495.0	0.8	1250.0
500.0	0.6	1666.7
510.0	0.8	1250.0
520.0	0.7	1285.7

Table 6.2.1-24—MSLB Mass and Energy Release Data
Sheet 6 of 9

Time (s)	Break Mass Flow Rate (lb_m/s)	Break Energy[1] (BTU/lb_m)
530.0	0.8	1125.0
540.0	0.7	1428.6
550.0	0.7	1285.7
560.0	0.6	1333.3
570.0	0.7	1142.9
580.0	0.6	1333.3
590.0	0.8	1375.0
600.0	0.6	1166.7
610.0	0.6	1333.3
620.0	0.5	1400.0
630.0	0.5	1200.0
640.0	0.5	1400.0
650.0	0.6	1333.3
660.0	0.5	1400.0
670.0	0.5	1200.0
680.0	0.5	1200.0
690.0	0.4	1250.0
700.0	0.5	1200.0
710.0	0.4	1500.0
720.0	0.4	1500.0
730.0	0.5	1000.0
740.0	0.4	1500.0
750.0	0.4	1250.0
760.0	0.4	1250.0
770.0	0.4	1250.0
780.0	0.4	1250.0
790.0	0.3	1666.7
800.0	0.4	1250.0
810.0	0.4	1250.0
820.0	0.3	1666.7
830.0	0.4	1000.0
840.0	0.3	1333.3

Table 6.2.1-24—MSLB Mass and Energy Release Data
Sheet 7 of 9

Time (s)	Break Mass Flow Rate (lb_m/s)	Break Energy[1] (BTU/lb_m)
850.0	0.4	1250.0
860.0	0.3	1333.3
870.0	0.3	1333.3
880.0	0.3	1333.3
890.0	0.3	1333.3
900.0	0.4	1250.0
910.0	0.3	1333.3
920.0	0.3	1333.3
930.0	0.5	1400.0
940.0	0.5	1200.0
950.0	0.3	1000.0
960.0	0.2	1500.0
970.0	0.2	1500.0
980.0	0.2	1500.0
990.0	0.2	1000.0
1000.0	0.2	1500.0
1010.0	0.2	1500.0
1020.0	0.2	1000.0
1030.0	0.2	1500.0
1040.0	0.2	1000.0
1050.0	0.2	1500.0
1060.0	0.1	2000.0
1070.0	0.2	1500.0
1080.0	0.2	1000.0
1090.0	0.2	1500.0
1100.0	0.2	1000.0
1110.0	0.2	1500.0
1120.0	0.2	1000.0
1130.0	0.2	1500.0
1140.0	0.2	1000.0
1150.0	0.2	1500.0
1160.0	0.1	2000.0

Table 6.2.1-24—MSLB Mass and Energy Release Data
Sheet 8 of 9

Time (s)	Break Mass Flow Rate (lb_m/s)	Break Energy[1] (BTU/lb_m)
1170.0	0.2	1500.0
1180.0	0.2	1000.0
1190.0	0.2	1500.0
1200.0	0.2	1000.0
1210.0	0.2	1000.0
1220.0	0.1	3000.0
1230.0	0.2	1000.0
1240.0	0.2	1000.0
1250.0	0.2	1500.0
1260.0	0.1	2000.0
1270.0	0.2	1000.0
1280.0	0.2	1500.0
1290.0	0.2	1000.0
1300.0	0.2	1000.0
1310.0	0.2	1500.0
1320.0	0.1	2000.0
1330.0	0.2	1000.0
1340.0	0.2	1500.0
1350.0	0.2	1000.0
1360.0	0.1	2000.0
1370.0	0.2	1500.0
1380.0	0.2	1000.0
1390.0	0.1	2000.0
1400.0	0.2	1000.0
1410.0	0.2	1000.0
1420.0	0.1	3000.0
1430.0	0.2	1000.0
1440.0	0.2	1000.0
1450.0	0.2	1500.0
1460.0	0.1	2000.0
1470.0	0.2	1000.0
1480.0	0.2	1000.0

Table 6.2.1-24—MSLB Mass and Energy Release Data
Sheet 9 of 9

Time (s)	Break Mass Flow Rate (lb_m/s)	Break Energy[1] (BTU/lb_m)
1490.0	0.2	1500.0
1500.0	0.1	2000.0
1510.0	0.2	1000.0
1520.0	0.1	2000.0
1530.0	0.2	1000.0
1540.0	0.2	1000.0
1550.0	0.1	2000.0
1560.0	0.2	1500.0
1570.0	0.2	1000.0
1580.0	0.1	2000.0
1590.0	0.2	1000.0
1600.0	0.2	1000.0
1610.0	0.1	2000.0
1620.0	0.2	1500.0
1630.0	0.1	2000.0
1640.0	0.2	1000.0
1650.0	0.2	1000.0
1660.0	0.1	2000.0
1670.0	0.2	1000.0
1680.0	0.1	2000.0
1690.0	0.2	1000.0
1700.0	0.2	1000.0
1710.0	0.1	2000.0
1720.0	0.2	1500.0
1730.0	0.1	2000.0
1740.0	0.2	1000.0
1750.0	0.2	1000.0
1760.0	0.1	2000.0
1770.0	0.2	1000.0
1780.0	0.1	2000.0
1790.0	0.2	1000.0
1800.0	0.1	2000.0

Note:

1. The Average Liquid Enthalpy is reported for completeness. Since the Average Liquid Mass Flow Rate is zero, the liquid enthalpy is not considered in the analysis.

Table 6.2.1-25—MSLB Reactor Trip and Isolation Signal Summary
Sheet 1 of 6

100% Power										
	DEG		1.0 ft^2		0.7 ft^2		0.52 ft^2		0.3 ft^2	
	Function	Time (sec)	Function	Time (sec)	Function	Time (sec)	Function	Time (sec)	Function	Time (sec)
Reactor Trip	SG ΔP	0.7	HCP	7.2	HCP	9.5	HCP	12.2	HCP	19.5
Main Steam Isolation	SG ΔP	0.7	HCP	7.4	HCP	9.8	HCP	12.4	HCP	19.7
MFW Isolation	SG ΔP	0.9	HCP	7.4	HCP	9.8	HCP	12.4	HCP	19.7
Foil Opens Faulted SG	Press. and Temp.	0.01	Press. and Temp.	0.02	Press. and Temp.	0.04	Press. and Temp.	0.2	Press. and Temp.	0.9
Foil Opens Intact SG	Press. and Temp.	0.3	Temp.	50.7	Temp.	60.4	Temp.	70.9	Temp.	324.4
80% Power										
	DEG		1.0 ft^2		0.7 ft^2		0.52 ft^2		0.3 ft^2	
	Function	Time (sec)	Function	Time (sec)	Function	Time (sec)	Function	Time (sec)	Function	Time (sec)
Reactor Trip	SG ΔP	0.7	HCP	8.8	HCP	11.6	HCP	14.9	HCP	24.1
Main Steam Isolation	SG ΔP	0.7	HCP	9.0	HCP	11.8	HCP	15.1	HCP	24.3
MFW Isolation	SG ΔP	0.9	HCP	9.0	HCP	11.8	HCP	15.1	HCP	24.3
Foil Opens Faulted SG	Press. and Temp.	0.01	Press. and Temp.	0.03	Press. and Temp.	0.04	Press. and Temp.	0.2	Press. and Temp.	0.9
Foil Opens Intact SG	Press. and Temp.	0.3	Temp.	51.3	Temp.	61.5	Temp.	72.1	Temp.	333.1

Table 6.2.1-25—MSLB Reactor Trip and Isolation Signal Summary
Sheet 2 of 6

60% Power										
	DEG		1.0 ft^2		0.7 ft^2		0.52 ft^2		0.3 ft^2	
	Function	Time (sec)	Function	Time (sec)	Function	Time (sec)	Function	Time (sec)	Function	Time (sec)
Reactor Trip	SG ΔP	0.7	HCP	8.7	HCP	11.6	HCP	15.0	HCP	24.5
Main Steam Isolation	SG ΔP	0.7	HCP	8.9	HCP	11.8	HCP	15.2	HCP	24.7
MFW Isolation	SG ΔP	0.9	HCP	8.9	HCP	11.8	HCP	15.2	HCP	24.7
Foil Opens Faulted SG	Press. and Temp.	0.01	Press. and Temp.	0.03	Press. and Temp.	0.04	Press. and Temp.	0.2	Press. and Temp.	0.8
Foil Opens Intact SG	Press. and Temp.	0.3	Temp.	50.7	Temp.	60.7	Temp.	72.8	Temp.	343.8
50% Power										
	DEG		1.0 ft^2		0.7 ft^2		0.52 ft^2		0.3 ft^2	
	Function	Time (sec)	Function	Time (sec)	Function	Time (sec)	Function	Time (sec)	Function	Time (sec)
Reactor Trip	SG ΔP	0.7	HCP	8.7	HCP	11.8	HCP	15.2	HCP	25.0
Main Steam Isolation	SG ΔP	0.7	HCP	8.9	HCP	12.0	HCP	15.4	HCP	25.2
MFW Isolation	SG ΔP	0.9	HCP	8.9	HCP	12.0	HCP	15.4	HCP	25.2
Foil Opens Faulted SG	Press. and Temp.	0.01	Press. and Temp.	0.03	Press. and Temp.	0.04	Press. and Temp.	0.2	Press. and Temp.	0.8
Foil Opens Intact SG	Press. and Temp.	0.3	Temp.	50.2	Temp.	60.2	Temp.	74.0	Temp.	343.9

Table 6.2.1-25—MSLB Reactor Trip and Isolation Signal Summary
Sheet 3 of 6

40% Power										
	DEG		1.0 ft^2		0.7 ft^2		0.52 ft^2		0.3 ft^2	
	Function	Time (sec)	Function	Time (sec)	Function	Time (sec)	Function	Time (sec)	Function	Time (sec)
Reactor Trip	SG ΔP	0.7	HCP	8.8	HCP	12.0	HCP	15.5	HCP	25.7
Main Steam Isolation	SG ΔP	0.7	HCP	9.0	HCP	12.2	HCP	15.7	HCP	25.9
MFW Isolation	SG ΔP	0.8	HCP	9.0	HCP	12.2	HCP	15.7	HCP	25.9
Foil Opens Faulted SG	Press. and Temp.	0.01	Press. and Temp.	0.03	Press. and Temp.	0.04	Press. and Temp.	0.2	Press. and Temp.	0.8
Foil Opens Intact SG	Press. and Temp.	0.3	Temp.	49.8	Temp.	60.9	Temp.	72.9	Temp.	346.9
	3.0 ft^2		1.72 ft^2							
	Function	Time (sec)	Function	Time (sec)						
Reactor Trip	SG ΔP	0.9	HCP	5.4						
Main Steam Isolation	SG ΔP	0.9	HCP	5.6						
MFW Isolation	SG ΔP	1.2	HCP	5.6						
Foil Opens Faulted SG	Press. and Temp.	0.01	Press. and Temp.	0.01						
Foil Opens Intact SG	Press. and Temp.	0.3	Temp.	12.2						

Table 6.2.1-25—MSLB Reactor Trip and Isolation Signal Summary
Sheet 4 of 6

20% Power										
	DEG		1.0 ft^2		0.7 ft^2		0.52 ft^2		0.3 ft^2	
	Function	Time (sec)	Function	Time (sec)	Function	Time (sec)	Function	Time (sec)	Function	Time (sec)
Reactor Trip	SG ΔP	0.8	HCP	8.7	HCP	11.8	HCP	15.6	HCP	26.5
Main Steam Isolation	SG ΔP	0.8	HCP	8.9	HCP	12.0	HCP	15.9	HCP	26.7
MFW Isolation	SG ΔP	1.0	HCP	8.9	HCP	12.0	HCP	15.9	HCP	26.7
Foil Opens Faulted SG	Press. and Temp.	0.01	Press. and Temp.	0.03	Press. and Temp.	0.04	Press. and Temp.	0.2	Press. and Temp.	0.8
Foil Opens Intact SG	Press. and Temp.	0.3	Temp.	49.2	Temp.	58.9	Temp.	77.3	Temp.	348.8
	8.25 ft^2		4.12 ft^2		3.00 ft^2		1.72 ft^2			
	Function	Time (sec)	Function	Time (sec)	Function	Time (sec)	Function	Time (sec)		
Reactor Trip	SG ΔP	0.8	SG ΔP	0.9	SG ΔP	0.9	HCP	4.7		
Main Steam Isolation	SG ΔP	0.8	SG ΔP	0.9	SG ΔP	0.9	HCP	4.9		
MFW Isolation	SG ΔP	1.0	SG ΔP	1.1	SG ΔP	1.3	HCP	4.9		
Foil Opens Faulted SG	Press. and Temp	0.01	Press. and Temp	0.001	Press. and Temp	0.01	Press. and Temp	0.01		
Foil Opens Intact SG	Press. and Temp	0.3	Press. and Temp	0.3	Press. and Temp	0.3	Press. and Temp	8.4		

Table 6.2.1-25—MSLB Reactor Trip and Isolation Signal Summary
Sheet 5 of 6

0% Power										
	DEG		1.0 ft^2		0.7 ft^2		0.52 ft^2		0.3 ft^2	
	Function	Time (sec)	Function	Time (sec)	Function	Time (sec)	Function	Time (sec)	Function	Time (sec)
Reactor Trip	SG ΔP	0.8	HCP	8.0	HCP	10.9	HCP	14.9	HCP	26.3
Main Steam Isolation	SG ΔP	0.8	HCP	8.2	HCP	11.1	HCP	15.1	HCP	26.5
MFW Isolation	SG ΔP	1.0	HCP	8.2	HCP	11.1	HCP	15.1	HCP	26.5
Foil Opens Faulted SG	Press. and Temp.	0.01	Press. and Temp.	0.03	Press. and Temp.	0.04	Press. and Temp.	0.2	Press. and Temp.	0.8
Foil Opens Intact SG	Press. and Temp.	0.3	Temp.	45.2	Temp.	53.0	Temp.	61.8	Temp.	349.6
	0.2 ft^2		0.15 ft^2		0.1 ft^2		0.01 ft^2		0.005 ft^2	
	Function	Time (sec)	Function	Time (sec)	Function	Time (sec)	Function	Time (sec)	Function	Time (sec)
Reactor Trip	HCP	41.3	HCP	56.0	HCP	85.2	HCP	1270.0	Did Not Occur	-
Main Steam Isolation	HCP	41.6	HCP	56.2	HCP	85.4	HCP	1270.2	Did Not Occur	-
MFW Isolation	HCP	41.6	HCP	56.2	HCP	85.4	HCP	1270.2	Did Not Occur	-
Foil Opens Faulted SG	Press. and Temp.	1.4	Press. and Temp.	1.9	Press. and Temp.	2.8	Press. and Temp.	24.5	Press. and Temp.	42.0
Foil Opens Intact SG	Temp.	368.4	Temp.	386.9	Temp.	427.8	Did Not Occur	-	Did Not Occur	-

Table 6.2.1-25—MSLB Reactor Trip and Isolation Signal Summary
Sheet 6 of 6

	8.25 ft^2		4.12 ft^2		3.00 ft^2		1.72 ft^2	
	Function	**Time (sec)**	**Function**	**Time (sec)**	**Function**	**Time (sec)**	**Function**	**Time (sec)**
Reactor Trip	SG ΔP	0.8	SG ΔP	0.9	SG ΔP	0.9	SG ΔP	4.7
Main Steam Isolation	SG ΔP	0.8	SG ΔP	0.9	SG ΔP	0.9	SG ΔP	4.9
MFW Isolation	SG ΔP	1.0	SG ΔP	1.1	SG ΔP	1.3	SG ΔP	4.9
Foil Opens Faulted SG	Press. and Temp	0.004	Press. and Temp	0.004	Press. and Temp	0.004	Press. and Temp	0.01
Foil Opens Intact SG	Press. and Temp	0.3	Press. and Temp	0.3	Press. and Temp	0.3	Press. and Temp	3.3

Next File