

Table 1. Initial conditions at 82% reactor power (Equilibrium conditions before initiation of the plant event)

Parameters	Sensor posit.	Value
Reactor Power, MW	N_{RP}	2460
Electrical power, MW	N_{TG}	820
Primary Side Pressure, kgf/cm^2	YC10P20	161.2
MSH Pressure, kgf/cm^2	RC12P03	60.93
Reactor vessel pressure difference, kgf/cm^2		3.984
Pumps Heads kgf/cm^2 RCP#1 RCP#2 RCP#3 RCP#4		6.21 6.2 6.1 6.25
Flow Rate in loops, t/h: Loop #1; Loop #2 Loop #3 Loop #4		16060 15840 15620 16120
Cold Legs Temperature, °C: Cold Leg#1 Temperature Cold Leg#2 Temperature Cold Leg#3 Temperature Cold Leg#4 Temperature	YA12-T24 YA22-T24 YA32-T24 YA42-T24	284.8 284.7 285.1 284.6
Hot Legs Temperature, °C: Hot Leg#1 Temperature Hot Leg#2 Temperature Hot Leg#3 Temperature Hot Leg#4 Temperature	YA11-T24 YA21-T24 YA31-T24 YA41-T24	310.6 310.1 311.3 310.2
Temperature Under the Reactor Vessel Cover, °C	YC00T01	320.0
Steam Temperature in the Pressurizer, °C	YP10T01	344.2
Pressurizer vessel temperature, °C	YP10T05	343.0
SG Water Level, cm	YB10-40L11/19	210/245
SG Pressure, kgf/cm^2	YB10-40P10	62
Control rods level, cm		296

Table 2. List of events for trip of one main coolant pump at KNPP

Time	Events
00:00:00 hr (22:13:16 hr)	Switching off MCP#3 (6YD30D01)
00:00:00 hr	RPLC switched on
00:00:28 hr	RPLC switched off
00:00:28 hr	Control group #10 elevation – 251.0 cm
00:00:30 hr	Cold leg #3 Temperature YA32 –283.3°
00:00:38 hr	Stabilization of reactor pressure difference - 2.382 kgf/cm ²
00:00:38 hr	MCP Head #1 (YD10D01) – 5.12 kgf/cm ² MCP Head #2 (YD20D01) – 4.96 kgf/cm ² MCP Head #4 (YD40D01) – 5.17 kgf/cm ²
00:00:38 hr	Reactor Power N _{RP} 2073 MW
00: 00:38 hr	Primary Side Pressure - 160.2 kgf/cm ²
00:00:42 hr	Pump Head of MCP #3 - YD30D01- 1.9 kgf/cm ²
00:00:50 hr	Cold legs Temperature: Loop #1 YA12 –285.7 °C Loop #2 YA22 –285.7 °C Loop #3 YA32 –283.3 °C Loop #4 YA42 –285.3 °C Hot legs Temperature: Loop #1 YA11 –312.2 °C Loop #2 YA21 –310.6 °C Loop #3 YA31 –303.8 °C Loop #4 YA41 –311.2 °C
00:01:03 hr	Control group #10 elevation - 263 cm
00:01:12 hr	Cold legs Temperature, °C Loop #1 YA12 –286.5 °C Loop #2 YA22 –284.2 °C Loop #3 YA32 –284.3 °C Loop #4 YA42 –286.1 °C Hot legs Temperatures, °C Loop #1 YA11 –313.3 °C Loop #2 YA21 –307.0 °C Loop #3 YA31 –284.6 °C Loop #4 YA41 –312.2 °C
00:01:34 hr	Stabilization of Reactor Power at level 2041 MW
00:03:00 hr	Hot leg #3 Temperature (YA31) –276.8 °C
00:15:00 hr	END of transient