Step 1: Develop CDF or CCDP Model

CDF FIRE PRA MODEL MAPPING TABLE (USE THE EVENT TREES AND FAULT TREES BELOW)				
Fire Initiating Event	**Equipment ID**	**PRA Event Identifier**	**Additional model changes are required to facilitate mapping? (Y or N)**	**Describe modeling strategy to facilitate mapping.**
%FA-1	HPI-A	HPIA_FTS	N	
%FA-1	HPI-A	HPIA_FTR	N	
%FA-1	HPI-B	HPIB_FTS	N	
%FA-1	HPI-B	HPIB_FTR	N	
%FA-1	RHR-B	RHRB_FTS	N	
%FA-1	RHR-B	RHRB_FTR	N	
%FA-1	AFW-A	AFWA-FTS	N	
%FA-1	AFW-A	AFWA-FTR	N	
%FA-1	AFW-B	AFWB-FTS	N	
%FA-1	AFW-B	AFWB-FTR	N	
%FA-1	AFW-C	AFWC-FTS	N	

CDF FIRE PRA MODEL MAPPING TABLE (USE THE EVENT TREES AND FAULT TREES BELOW)				
Fire Initiating Event	**Equipment ID**	**PRA Event Identifier**	**Additional model changes are required to facilitate mapping? (Y or N)**	**Describe modeling strategy to facilitate mapping.**
%FA-1	AFW-C	AFWC-FTR	N	
%FA-1	RCP-1	RCP1-FTT	Y	RCP fails to trip given loss of CCW
%FA-1	AOV-1 (SOV-1)	AOV-1_TO	Y	Spurious opening of PORV and failure to open PORV path
%FA-1	AOV-1 (SOV-1)	AOV-1_FTO	N	
%FA-1	AOV-2 (SOV-2)	AOV-2_FTC	Y	Failure to isolate letdown and establish flow from injection tank
%FA-1	AOV-2 (SOV-2)	AOV-2_TC	Y	Spurious closure of letdown and opening of AOV-3 lead to PORV opening
%FA-1	AOV-3 (SOV-3)	AOV-3_FTC	N	
%FA-1	AOV-3 (SOV-3)	AOV-3_TO	Y	Spurious closure of letdown and opening of AOV-3 lead to PORV opening
%FA-1	AOV-4 (SOV-4)	AOV-4_TO	Y	Spurious opening of atmospheric dump valve
%FA-1	MOV-1	MOV-1_FTO	N	

CDF FIRE PRA MODEL MAPPING TABLE (USE THE EVENT TREES AND FAULT TREES BELOW)				
Fire Initiating Event	**Equipment ID**	**PRA Event Identifier**	**Additional model changes are required to facilitate mapping? (Y or N)**	**Describe modeling strategy to facilitate mapping.**
%FA-1	MOV-2	MOV-2_FTC	N	
%FA-1	MOV-3	MOV-3_TO	Y	Containment sump flow path open
%FA-1	MOV-4	MOV-4_TO	Y	Containment sump flow path open
%FA-1	MOV-5	MOV-5_FTO	N	
%FA-1	MOV-6	MOV-6_FTO	N	
%FA-1	MOV-9	MOV-9_FTO	N	
%FA-1	MOV-10	MOV-10_FTO	N	
%FA-1	MOV-11	MOV-11_FTO	N	
%FA-1	MOV-13	MOV-13_FTC	Y	Spurious opening of PORV and failure to close PORV path
%FA-1	MOV-13	MOV-13_TC	Y	Spurious closure of PORV
%FA-1	MOV-14	MOV-14_FTO	N	
%FA-1	MOV-15	MOV-15_FTO	N	

CDF FIRE PRA MODEL MAPPING TABLE (USE THE EVENT TREES AND FAULT TREES BELOW)				
Fire Initiating Event	**Equipment ID**	**PRA Event Identifier**	**Additional model changes are required to facilitate mapping? (Y or N)**	**Describe modeling strategy to facilitate mapping.**
%FA-1	MOV-18	MOV-18_FTO	N	Insufficient flow from AFW pump C
%FA-1	LI-1	LI-1_FL	Y	Spurious instrumentation failure causes operator to prematurely switchover to recirculation
%FA-1	LI-1	LI-1_FH	Y	Operator fails to switchover to recirculation due to instrumentation failure
%FA-1	LI-2	LI-2_FL	Y	Spurious instrumentation failure causes operator to prematurely switchover to recirculation
%FA-1	LI-2	LI-2_FH	Y	Operator fails to switchover to recirculation due to instrumentation failure
%FA-1	LI-3	LI-3_FH	Y	Spurious instrumentation failure causes operator to prematurely switchover to recirculation
%FA-1	LI-4	LI-4_FH	Y	Spurious instrumentation failure causes operator to prematurely switchover to recirculation
%FA-1	LI-5	LI-5_FH	Y	Spurious instrumentation failure causes operator to fail to initiate feed and bleed

CDF FIRE PRA MODEL MAPPING TABLE (USE THE EVENT TREES AND FAULT TREES BELOW)				
Fire Initiating Event	**Equipment ID**	**PRA Event Identifier**	**Additional model changes are required to facilitate mapping? (Y or N)**	**Describe modeling strategy to facilitate mapping.**
%FA-1	LI-6	LI-6_FH	Y	Spurious instrumentation failure causes operator to fail to initiate feed and bleed
%FA-1	TI-1	TI-1_FL	Y	Failure to isolate letdown and establish flow from injection tank due to instrumentation failure
%FA-1	PT-1	PT-1_FH	Y	Spurious opening of PORV
%FA-1	PT-1	PT-1_FL	Y	Spurious safety injection signal.
%FA-1	A-1	ANN-1_FH	Y	Operator shuts down AFW pump A due to high motor temperature alarm.
%FA-1	SWGR-A	EPS-4VBUSAF-1st	N	
%FA-1	SWGR-A	EPS-4VBUSAF-2nd	N	
%FA-1	SWGR-B	EPS-4VBUSBF-1st	N	
%FA-1	SWGR-B	EPS-4VBUSBF-2nd	N	
%FA-1	SWGR-1	EPS-4VBUS1F	N	
%FA-1	SUT-1	SUTF	N	

CDF FIRE PRA MODEL MAPPING TABLE (USE THE EVENT TREES AND FAULT TREES BELOW)				
Fire Initiating Event	**Equipment ID**	**PRA Event Identifier**	**Additional model changes are required to facilitate mapping? (Y or N)**	**Describe modeling strategy to facilitate mapping.**
%FA-1	UAT-1	UATF	N	
%FA-1	EDG-A	EPS-DGAF	N	
%FA-1	EDG-B	EPS-DGBF	N	
%FA-1	LC-1	EPS-480VLC1F	N	
%FA-1	LC-A	EPS-480VLCAF	N	
%FA-1	LC-B	EPS-480VLCBF	N	
%FA-2	HPI-A	HPIA_FTS	N	
%FA-2	HPI-A	HPIA_FTR	N	
%FA-2	HPI-B	HPIB_FTS	N	
%FA-2	HPI-B	HPIB_FTR	N	
%FA-2	RHR-B	RHRB_FTS	N	
%FA-2	RHR-B	RHRB_FTR	N	
%FA-2	RCP-1	RCP1-FTT	Y	RCP fails to trip given loss of CCW

CDF FIRE PRA MODEL MAPPING TABLE (USE THE EVENT TREES AND FAULT TREES BELOW)				
Fire Initiating Event	**Equipment ID**	**PRA Event Identifier**	**Additional model changes are required to facilitate mapping? (Y or N)**	**Describe modeling strategy to facilitate mapping.**
%FA-2	AOV-2 (SOV-2)	AOV-2_FTC	Y	Failure to isolate letdown and establish flow from injection tank
%FA-2	AOV-2 (SOV-2)	AOV-2_TC	Y	Spurious closure of letdown and opening of AOV-3 lead to PORV opening
%FA-2	AOV-3 (SOV-3)	AOV-3_FTC	N	
%FA-2	AOV-3 (SOV-3)	AOV-3_TO	Y	Spurious closure of letdown and opening of AOV-3 lead to PORV opening
%FA-2	MOV-1	MOV-1_FTO	N	
%FA-2	MOV-2	MOV-2_FTC	N	
%FA-2	MOV-3	MOV-3_TO	Y	Containment sump flow path open
%FA-2	MOV-4	MOV-4_TO	Y	Containment sump flow path open
%FA-2	MOV-5	MOV-5_FTO	N	
%FA-2	MOV-6	MOV-6_FTO	N	
%FA-2	MOV-9	MOV-9_FTO	N	

CDF FIRE PRA MODEL MAPPING TABLE (USE THE EVENT TREES AND FAULT TREES BELOW)				
Fire Initiating Event	**Equipment ID**	**PRA Event Identifier**	**Additional model changes are required to facilitate mapping? (Y or N)**	**Describe modeling strategy to facilitate mapping.**
%FA-2	TI-1	TI-1_FL	Y	Failure to isolate letdown and establish flow from injection tank due to instrumentation failure
%FA-2	A-1	ANN-1_FH	Y	Operator shuts down AFW pump A due to high motor temperature alarm.
%FA-3	HPI-A	HPIA_FTS	N	
%FA-3	HPI-A	HPIA_FTR	N	
%FA-3	HPI-B	HPIB_FTS	N	
%FA-3	HPI-B	HPIB_FTR	N	
%FA-3	RHR-B	RHRB_FTS	N	
%FA-3	RHR-B	RHRB_FTR	N	
%FA-3	AFW-A	AFWA-FTS	N	
%FA-3	AFW-A	AFWA-FTR	N	
%FA-3	AFW-B	AFWB-FTS	N	

CDF FIRE PRA MODEL MAPPING TABLE (USE THE EVENT TREES AND FAULT TREES BELOW)				
Fire Initiating Event	**Equipment ID**	**PRA Event Identifier**	**Additional model changes are required to facilitate mapping? (Y or N)**	**Describe modeling strategy to facilitate mapping.**
%FA-3	AFW-B	AFWB-FTR	N	
%FA-3	AFW-C	AFWC-FTS	N	
%FA-3	AFW-C	AFWC-FTR	N	
%FA-3	RCP-1	RCP1-FTT	Y	RCP fails to trip given loss of CCW
%FA-3	AOV-1 (SOV-1)	AOV-1_TO	Y	Spurious opening of PORV and failure to open PORV path
%FA-3	AOV-1 (SOV-1)	AOV-1_FTO	N	
%FA-3	AOV-2 (SOV-2)	AOV-2_FTC	Y	Failure to isolate letdown and establish flow from injection tank
%FA-3	AOV-2 (SOV-2)	AOV-2_TC	Y	Spurious closure of letdown and opening of AOV-3 lead to PORV opening
%FA-3	AOV-3 (SOV-3)	AOV-3_FTC	N	
%FA-3	AOV-3 (SOV-3)	AOV-3_TO	Y	Spurious closure of letdown and opening of AOV-3 lead to PORV opening

CDF FIRE PRA MODEL MAPPING TABLE (USE THE EVENT TREES AND FAULT TREES BELOW)				
Fire Initiating Event	**Equipment ID**	**PRA Event Identifier**	**Additional model changes are required to facilitate mapping? (Y or N)**	**Describe modeling strategy to facilitate mapping.**
%FA-3	AOV-4 (SOV-4)	AOV-4_TO	Y	Spurious opening of atmospheric dump valve
%FA-3	MOV-1	MOV-1_FTO	N	
%FA-3	MOV-2	MOV-2_FTC	N	
%FA-3	MOV-3	MOV-3_TO	Y	Containment sump flow path open
%FA-3	MOV-4	MOV-4_TO	Y	Containment sump flow path open
%FA-3	MOV-5	MOV-5_FTO	N	
%FA-3	MOV-6	MOV-6_FTO	N	
%FA-3	MOV-9	MOV-9_FTO	N	
%FA-3	MOV-10	MOV-10_FTO	N	
%FA-3	MOV-11	MOV-11_FTO	N	
%FA-3	MOV-13	MOV-13_FTC	Y	Spurious opening of PORV and failure to open PORV path
%FA-3	MOV-13	MOV-13_TC	Y	Spurious closure of PORV

CDF FIRE PRA MODEL MAPPING TABLE (USE THE EVENT TREES AND FAULT TREES BELOW)				
Fire Initiating Event	**Equipment ID**	**PRA Event Identifier**	**Additional model changes are required to facilitate mapping? (Y or N)**	**Describe modeling strategy to facilitate mapping.**
%FA-3	MOV-14	MOV-14_FTO	N	
%FA-3	MOV-15	MOV-15_FTO	N	
%FA-3	MOV-18	MOV-18_FTO	N	Insufficient flow from AFW pump C
%FA-3	LI-1	LI-1_FL	Y	Spurious instrumentation failure causes operator to prematurely switchover to recirculation
%FA-3	LI-1	LI-1_FH	Y	Operator fails to switchover to recirculation due to instrumentation failure
%FA-3	LI-2	LI-2_FL	Y	Spurious instrumentation failure causes operator to prematurely switchover to recirculation
%FA-3	LI-2	LI-2_FH	Y	Operator fails to switchover to recirculation due to instrumentation failure
%FA-3	LI-3	LI-3_FH	Y	Spurious instrumentation failure causes operator to prematurely switchover to recirculation
%FA-3	LI-4	LI-4_FH	Y	Spurious instrumentation failure causes operator

CDF FIRE PRA MODEL MAPPING TABLE (USE THE EVENT TREES AND FAULT TREES BELOW)				
Fire Initiating Event	**Equipment ID**	**PRA Event Identifier**	**Additional model changes are required to facilitate mapping? (Y or N)**	**Describe modeling strategy to facilitate mapping.**
				to prematurely switchover to recirculation
%FA-3	LI-5	LI-5_FH	Y	Spurious instrumentation failure causes operator to fail to initiate feed and bleed
%FA-3	LI-6	LI-6_FH	Y	Spurious instrumentation failure causes operator to fail to initiate feed and bleed
%FA-3	TI-1	TI-1_FL	Y	Failure to isolate letdown and establish flow from injection tank due to instrumentation failure
%FA-3	PT-1	PT-1_FH	Y	Spurious opening of PORV
%FA-3	PT-1	PT-1_FL	Y	Spurious safety injection signal.
%FA-3	A-1	ANN-1_FH	Y	Operator shuts down AFW pump A due to high motor temperature alarm.
%FA-3	SWGR-A	EPS-4VBUSAF-1st	N	
%FA-3	SWGR-A	EPS-4VBUSAF-2nd	N	
%FA-3	SWGR-B	EPS-4VBUSBF-1st	N	

CDF FIRE PRA MODEL MAPPING TABLE (USE THE EVENT TREES AND FAULT TREES BELOW)				
Fire Initiating Event	**Equipment ID**	**PRA Event Identifier**	**Additional model changes are required to facilitate mapping? (Y or N)**	**Describe modeling strategy to facilitate mapping.**
%FA-3	SWGR-B	EPS-4VBUSBF-2nd	N	
%FA-3	SWGR-1	EPS-4VBUS1F	N	
%FA-3	SUT-1	SUTF	N	
%FA-3	UAT-1	UATF	N	
%FA-3	EDG-A	EPS-DGAF	N	
%FA-3	EDG-B	EPS-DGBF	N	
%FA-3	LC-1	EPS-480VLC1F	N	
%FA-3	LC-A	EPS-480VLCAF	N	
%FA-3	LC-B	EPS-480VLCBF	N	
%FA-3	INV-A	EPS-120VBUSAINVF	N	
%FA-3	INV-B	EPS-120VBUSBINVF	Y	Required for instrumentation
%FA-4A				
%FA-4A				

CDF FIRE PRA MODEL MAPPING TABLE (USE THE EVENT TREES AND FAULT TREES BELOW)				
Fire Initiating Event	**Equipment ID**	**PRA Event Identifier**	**Additional model changes are required to facilitate mapping? (Y or N)**	**Describe modeling strategy to facilitate mapping.**
%FA-4A				
%FA-4A				
%FA-4A				
%FA-4A				
%FA-4B				
%FA-4B				
%FA-4B				
%FA-4B				
%FA-4B				
%FA-4B				
%FA-4B				
%FA-4B				
%FA-4B				

CDF FIRE PRA MODEL MAPPING TABLE (USE THE EVENT TREES AND FAULT TREES BELOW)				
Fire Initiating Event	**Equipment ID**	**PRA Event Identifier**	**Additional model changes are required to facilitate mapping? (Y or N)**	**Describe modeling strategy to facilitate mapping.**
%FA-4B				
%FA-5				
%FA-6				
%FA-7				
%FA-7				
%FA-7				
%FA-7				
%FA-7				
%FA-7				
%FA-7				
%FA-7				
%FA-7				
%FA-7				
%FA-7				

CDF FIRE PRA MODEL MAPPING TABLE (USE THE EVENT TREES AND FAULT TREES BELOW)				
Fire Initiating Event	**Equipment ID**	**PRA Event Identifier**	**Additional model changes are required to facilitate mapping? (Y or N)**	**Describe modeling strategy to facilitate mapping.**
%FA-7				
%FA-7				
%FA-8A				
%FA-8A				
%FA-8B				
%FA-8B				
%FA-9	RHR-B	RHRB_FTS	N	
%FA-9	RHR-B	RHRB_FTR	N	
%FA-9	AFW-A	AFWA-FTS	N	
%FA-9	AFW-A	AFWA-FTR	N	
%FA-9	AFW-B	AFWB-FTS	N	
%FA-9	AFW-B	AFWB-FTR	N	
%FA-9	AOV-1 (SOV-1)	AOV-1_TO	Y	Spurious opening of PORV and failure to open

CDF FIRE PRA MODEL MAPPING TABLE (USE THE EVENT TREES AND FAULT TREES BELOW)				
Fire Initiating Event	**Equipment ID**	**PRA Event Identifier**	**Additional model changes are required to facilitate mapping? (Y or N)**	**Describe modeling strategy to facilitate mapping.**
				PORV path
%FA-9	AOV-1 (SOV-1)	AOV-1_FTO	N	
%FA-9	AOV-2 (SOV-2)	AOV-2_FTC	Y	Failure to isolate letdown and establish flow from injection tank
%FA-9	AOV-2 (SOV-2)	AOV-2_TC	Y	Spurious closure of letdown and opening of AOV-3 lead to PORV opening
%FA-9	AOV-3 (SOV-3)	AOV-3-FTC	N	
%FA-9	AOV-3 (SOV-3)	AOV-3_TO	Y	Spurious closure of letdown and opening of AOV-3 lead to PORV opening
%FA-9	AOV-4 (SOV-4)	AOV-4_TO	Y	Spurious opening of atmospheric dump valve
%FA-9	MOV-1	MOV-1_FTO	N	
%FA-9	MOV-2	MOV-2_FTC	N	
%FA-9	MOV-3	MOV-3_TO	Y	Containment sump flow path open
%FA-9	MOV-4	MOV-4_TO	Y	Containment sump flow path open

CDF FIRE PRA MODEL MAPPING TABLE (USE THE EVENT TREES AND FAULT TREES BELOW)				
Fire Initiating Event	**Equipment ID**	**PRA Event Identifier**	**Additional model changes are required to facilitate mapping? (Y or N)**	**Describe modeling strategy to facilitate mapping.**
%FA-9	MOV-7	MOV-7_TO	Y	Interfacing Systems LOCA at RCS/RHR Interface (2 MOVs in series)
%FA-9	MOV-8	MOV-8_TO	Y	Interfacing Systems LOCA at RCS/RHR Interface (2 MOVs in series)
%FA-9	MOV-9	MOV-9_FTO	N	
%FA-9	MOV-10	MOV-10_FTO	N	
%FA-9	MOV-11	MOV-11_FTO	N	
%FA-9	MOV-13	MOV-13_FTC	Y	Spurious opening of PORV and failure to open PORV path
%FA-9	MOV-13	MOV-13_TC	Y	Spurious closure of PORV
%FA-9	TI-1	TI-1_FL	Y	Failure to isolate letdown and establish flow from injection tank due to instrumentation failure
%FA-9	A-1	ANN-1_FH	Y	Operator shuts down AFW pump A due to high motor temperature alarm.

CDF FIRE PRA MODEL MAPPING TABLE (USE THE EVENT TREES AND FAULT TREES BELOW)				
Fire Initiating Event	**Equipment ID**	**PRA Event Identifier**	**Additional model changes are required to facilitate mapping? (Y or N)**	**Describe modeling strategy to facilitate mapping.**
%FA-9	SWGR-B	EPS-4VBUSBF-1st	N	
%FA-9	SWGR-B	EPS-4VBUSBF-2nd	N	
%FA-9	MCC-A1	EPS-480VMCCA1F	N	
%FA-9	MCC-B1	EPS-480VMCCB1F	N	
%FA-9	BC-A	EPS-BCAF	N	
%FA-9	BC-B	EPS-BCBF	N	
%FA-9	INV-A	EPS-120VBUSAINVF	N	
%FA-9	INV-B	EPS-120VBUSBINVF	Y	Required for instrumentation
%FA-9	VITAL-A	EPS-120VBUSAF	N	
%FA-9	VITAL-B	EPS-120VBUSBF	Y	Required for instrumentation
%FA-10	HPI-A	HPIA_FTS	N	
%FA-10	HPI-A	HPIA_FTR	N	
%FA-10	AFW-A	AFWA-FTS	N	

CDF FIRE PRA MODEL MAPPING TABLE (USE THE EVENT TREES AND FAULT TREES BELOW)				
Fire Initiating Event	**Equipment ID**	**PRA Event Identifier**	**Additional model changes are required to facilitate mapping? (Y or N)**	**Describe modeling strategy to facilitate mapping.**
%FA-10	AFW-A	AFWA-FTR	N	
%FA-10	AOV-1 (SOV-1)	AOV-1_FTO	N	
%FA-10	MOV-1	MOV-1_FTO	N	
%FA-10	MOV-3	MOV-3_TO	Y	Containment sump flow path open
%FA-10	SWGR-A	EPS-4VBUSAF-1st	N	
%FA-10	EDG-A	EPS-DGAF	N	
%FA-10	EDG-B	EPS-DGBF	N	
%FA-10	LC-A	EPS-480VLCAF	N	
%FA-10	SST-A	EPS-480VLCAF	N	
%FA-10	MCC-A1	EPS-480VMCCA1F	N	
%FA-10	BC-A	EPS-BCAF	N	
%FA-10	BAT-A	EPA-BATA	N	
%FA-10	DC BUS-A	EPS-125VDCBUSAF	N	

CDF FIRE PRA MODEL MAPPING TABLE (USE THE EVENT TREES AND FAULT TREES BELOW)				
Fire Initiating Event	**Equipment ID**	**PRA Event Identifier**	**Additional model changes are required to facilitate mapping? (Y or N)**	**Describe modeling strategy to facilitate mapping.**
%FA-10	PNL-A	EPS-125VDCPNLAF	N	
%FA-10	INV-A	EPS-120VBUSAINVF	N	
%FA-10	VITAL-A	EPS-120VBUSAF	N	
%FA-11	HPI-B	HPIB_FTS	N	
%FA-11	HPI-B	HPIB_FTR	N	
%FA-11	RHR-B	RHRB_FTS	N	
%FA-11	RHR-B	RHRB_FTR	N	
%FA-11	AFW-B	AFWB-FTS	N	
%FA-11	AFW-B	AFWB-FTR	N	
%FA-11	AOV-4 (SOV-4)	AOV-4_TO	Y	Spurious opening of atmospheric dump valve
%FA-11	MOV-2	MOV-2_FTC	N	
%FA-11	MOV-4	MOV-4_TO	Y	Containment sump flow path open
%FA-11	MOV-11	MOV-11_FTO	N	

CDF FIRE PRA MODEL MAPPING TABLE (USE THE EVENT TREES AND FAULT TREES BELOW)				
Fire Initiating Event	**Equipment ID**	**PRA Event Identifier**	**Additional model changes are required to facilitate mapping? (Y or N)**	**Describe modeling strategy to facilitate mapping.**
%FA-11	SWGR-B	EPS-4VBUSBF-1st	N	
%FA-11	SWGR-B	EPS-4VBUSBF-2nd	N	
%FA-11	LC-B	EPS-480VLCBF	N	
%FA-11	SST-B	EPS-480VLCBF	N	
%FA-11	MCC-B1	EPS-480VMCCB1F	N	
%FA-11	BC-B	EPS-BCBF	N	
%FA-11	BAT-B	EPA-BATB	N	
%FA-11	DC BUS-B	EPS-125VDCBUSBF	N	
%FA-11	PNL-B	EPS-125VDCPNLBF	N	
%FA-11	INV-B	EPS-120VBUSBINVF	Y	Required for instrumentation
%FA-11	VITAL-B	EPS-120VBUSBF	Y	Required for instrumentation
%FA-12	AFW-C	AFWC-FTS	N	
%FA-12	AFW-C	AFWC-FTR	N	

CDF FIRE PRA MODEL MAPPING TABLE (USE THE EVENT TREES AND FAULT TREES BELOW)				
Fire Initiating Event	**Equipment ID**	**PRA Event Identifier**	**Additional model changes are required to facilitate mapping? (Y or N)**	**Describe modeling strategy to facilitate mapping.**
%FA-12	RCP-1	RCP1-FTT	Y	RCP fails to trip given loss of CCW
%FA-12	AOV-4 (SOV-4)	AOV-4_TO	Y	Spurious opening of atmospheric dump valve
%FA-12	COMP-1	COMP1_FTR	N	Failure of instrument air
%FA-12	MOV-5	MOV-5_FTO	N	
%FA-12	MOV-6	MOV-6_FTO	N	
%FA-12	MOV-7	MOV-7_TO	Y	Interfacing Systems LOCA at RCS/RHR Interface (2 MOVs in series)
%FA-12	MOV-8	MOV-8_TO	Y	Interfacing Systems LOCA at RCS/RHR Interface (2 MOVs in series)
%FA-12	MOV-10	MOV-10_FTO	N	
%FA-12	MOV-11	MOV-11_FTO	N	
%FA-12	MOV-14	MOV-14_FTO	N	
%FA-12	MOV-15	MOV-15_FTO	N	

CDF FIRE PRA MODEL MAPPING TABLE (USE THE EVENT TREES AND FAULT TREES BELOW)				
Fire Initiating Event	**Equipment ID**	**PRA Event Identifier**	**Additional model changes are required to facilitate mapping? (Y or N)**	**Describe modeling strategy to facilitate mapping.**
%FA-12	MOV-18	MOV-18_FTO	N	
%FA-12	LI-1	LI-1_FL	Y	Spurious instrumentation failure causes operator to prematurely switchover to recirculation
%FA-12	LI-2	LI-1_FH	Y	Operator fails to switchover to recirculation due to instrumentation failure
%FA-12	LI-2	LI-2_FL	Y	Spurious instrumentation failure causes operator to prematurely switchover to recirculation
%FA-12	LI-2	LI-2_FH	Y	Operator fails to switchover to recirculation due to instrumentation failure
%FA-12	LI-3	LI-3_FH	Y	Spurious instrumentation failure causes operator to prematurely switchover to recirculation
%FA-12	LI-4	LI-4_FH	Y	Spurious instrumentation failure causes operator to prematurely switchover to recirculation
%FA-12	SWGR-A	EPS-4VBUSAF-1st	N	

CDF FIRE PRA MODEL MAPPING TABLE (USE THE EVENT TREES AND FAULT TREES BELOW)				
Fire Initiating Event	**Equipment ID**	**PRA Event Identifier**	**Additional model changes are required to facilitate mapping? (Y or N)**	**Describe modeling strategy to facilitate mapping.**
%FA-12	SWGR-A	EPS-4VBUSAF-2nd	N	
%FA-12	SWGR-B	EPS-4VBUSBF-1st	N	
%FA-12	SWGR-B	EPS-4VBUSBF-2nd	N	
%FA-12	SWGR-1	EPS-4VBUS1F	N	
%FA-12	SUT-1	SUTF	N	
%FA-12	UAT-1	UATF	N	
%FA-12	EDG-A	EPS-DGAF	N	
%FA-12	EDG-B	EPS-DGBF	N	
%FA-12	LC-1	EPS-480VLC1F	N	
%FA-12	SST-1	EPS-480VLC1XTF	N	
%FA-12	MCC-1	EPS-480VMCC1F	Y	Required to trip the RCP.
%FA-12	BC-1	EPS-BC1F	Y	Required to trip the RCP.
%FA-12	BAT-1	EPS-SB	Y	Required to trip the RCP.

CDF FIRE PRA MODEL MAPPING TABLE (USE THE EVENT TREES AND FAULT TREES BELOW)				
Fire Initiating Event	**Equipment ID**	**PRA Event Identifier**	**Additional model changes are required to facilitate mapping? (Y or N)**	**Describe modeling strategy to facilitate mapping.**
%FA-12	DC BUS-1	EPS-125VNSDCBUSF	Y	Required to trip the RCP.
%FA-13	LI-1	LI-1_FL	Y	Spurious instrumentation failure causes operator to prematurely switchover to recirculation
%FA-13	LI-1	LI-1_FH	Y	Operator fails to switchover to recirculation due to instrumentation failure
%FA-13	LI-2	LI-2_FL	Y	Spurious instrumentation failure causes operator to prematurely switchover to recirculation
%FA-13	LI-2	LI-2_FH	Y	Operator fails to switchover to recirculation due to instrumentation failure
%FA-13	SWGR-A	EPS-4VBUSAF-1st	N	
%FA-13	SWGR-B	EPS-4VBUSBF-2nd	N	
%FA-13	SWGR-1	EPS-4VBUS1F	N	
%FA-13	SUT-1	SUTF	N	

CDF FIRE PRA MODEL MAPPING TABLE (USE THE EVENT TREES AND FAULT TREES BELOW)				
Fire Initiating Event	**Equipment ID**	**PRA Event Identifier**	**Additional model changes are required to facilitate mapping? (Y or N)**	**Describe modeling strategy to facilitate mapping.**
%FA-13	UAT-1	UATF	N	
%FA-15	BAT-1	EPS-SB	Y	Required to trip the RCP.

Step 2: Develop LERF or CLERP Model

LERF FIRE PRA MODEL MAPPING TABLE (USE THE EVENT TREES AND FAULT TREES BELOW)				
Fire Initiating Event	**Equipment ID**	**PRA Event Identifier**	**Additional model changes are required to facilitate mapping? (Y or N)**	**Describe modeling strategy to facilitate mapping.**
%FA-?				
%FA-?				
%FA-?				
%FA-?				
%FA-?				
%FA-?				
%FA-?				

Task 5 model changes

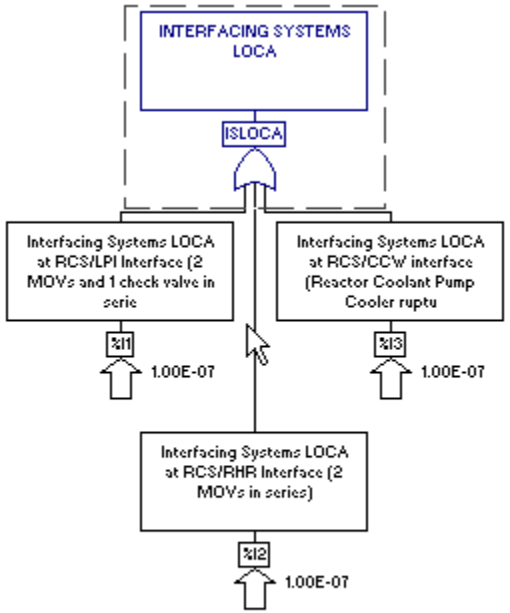

Figure 1: Gate ISLOCA – Before

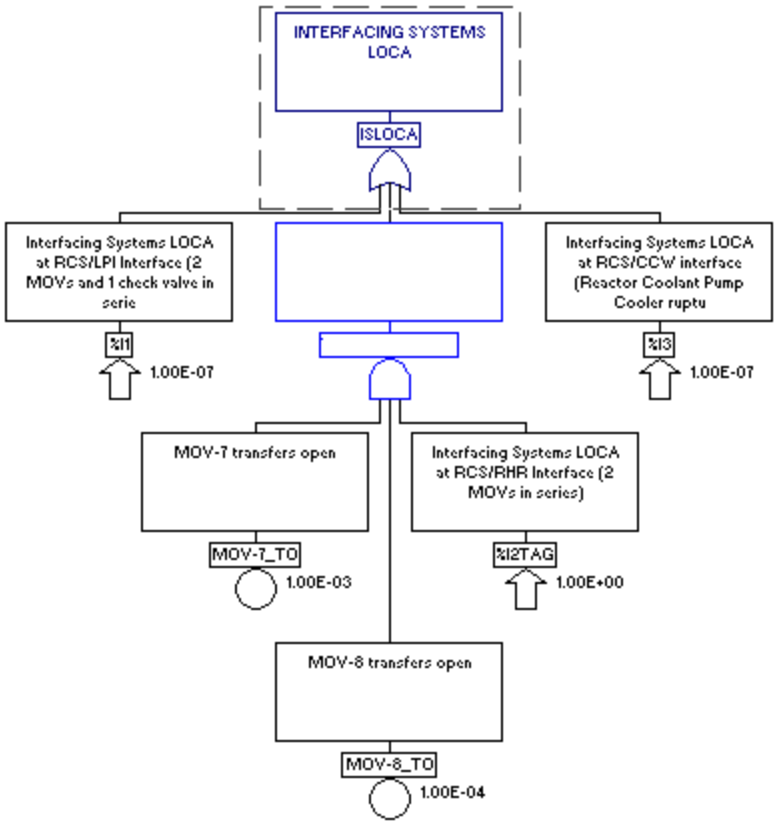

Figure 2: Gate ISLOCA – After

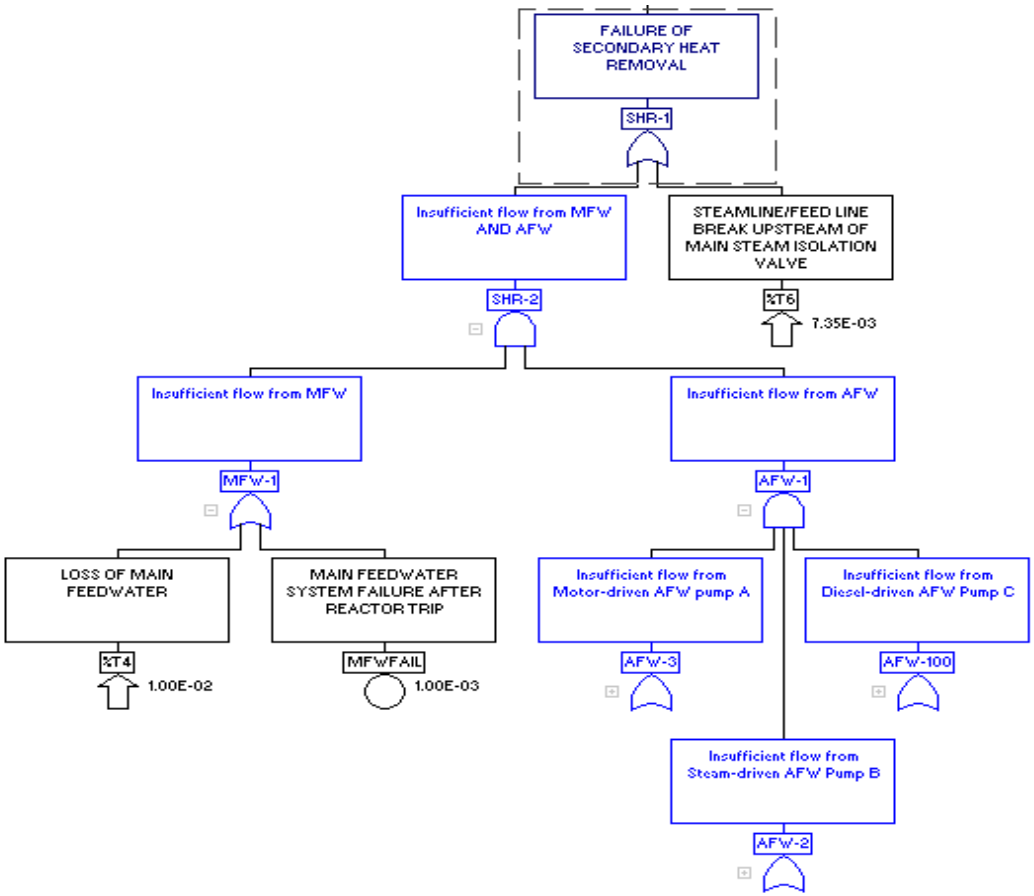

Figure 3: Gate SHR-1 - Before

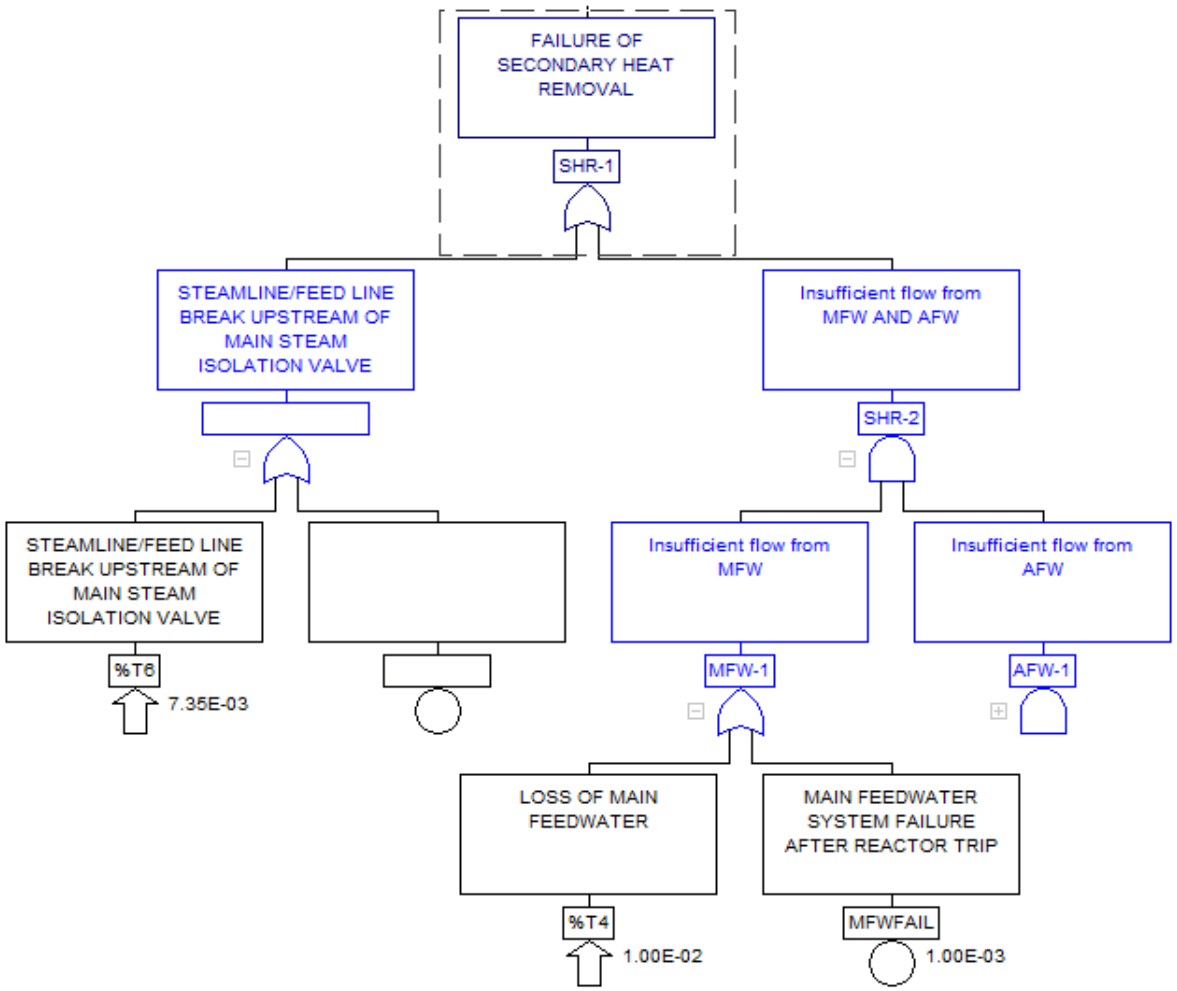

Figure 4: Gate SHR-1 - After

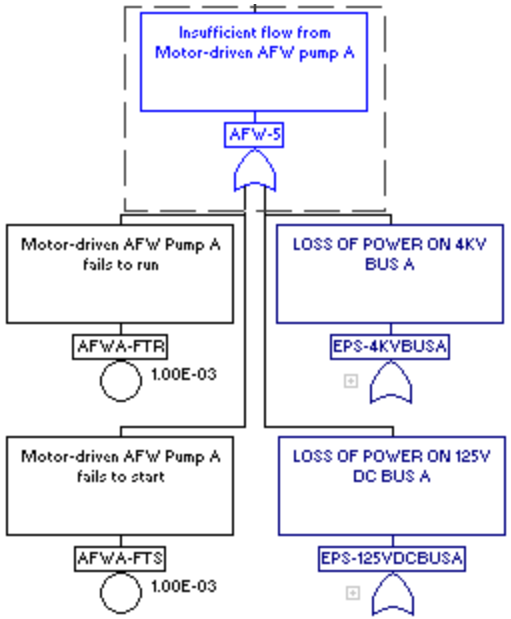

Figure 5: Gate AFW-5 - Before

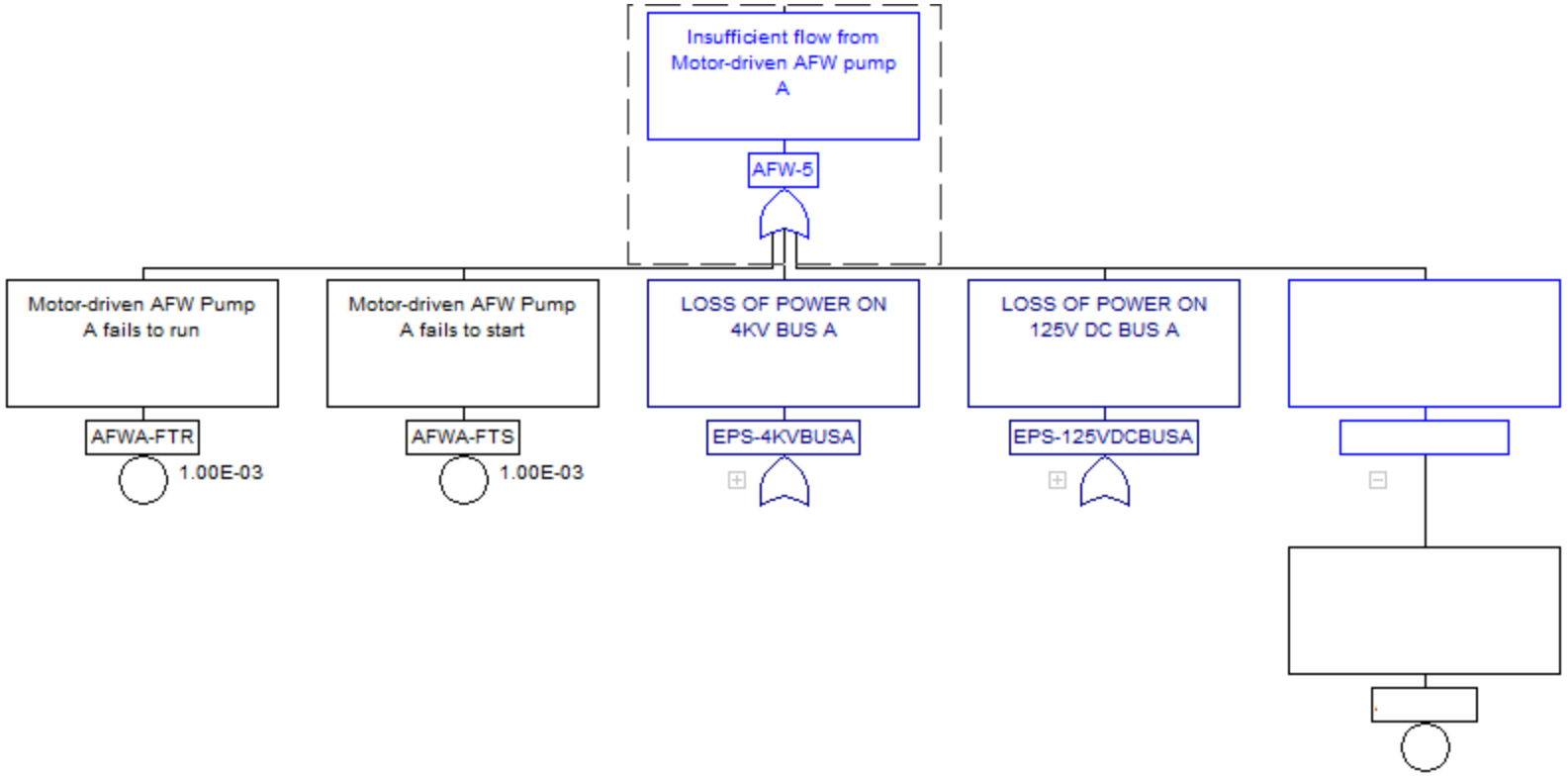

Figure 6: Gate AFW-5 - After

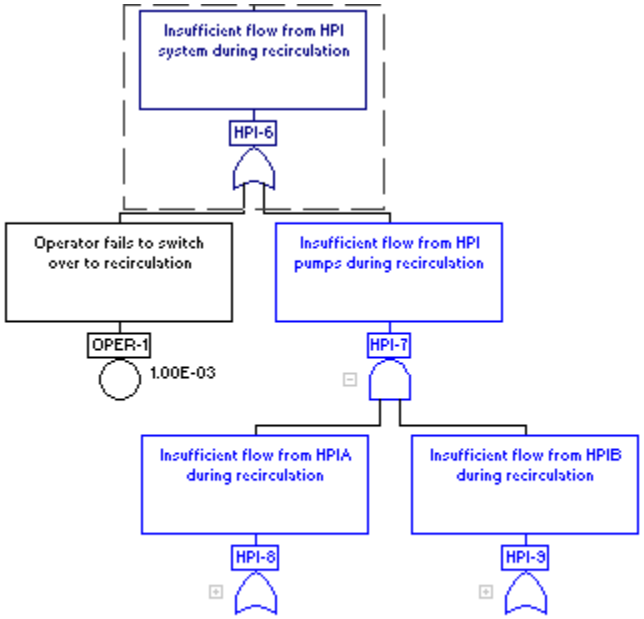

Figure 7: Gate HPI-6 - Before

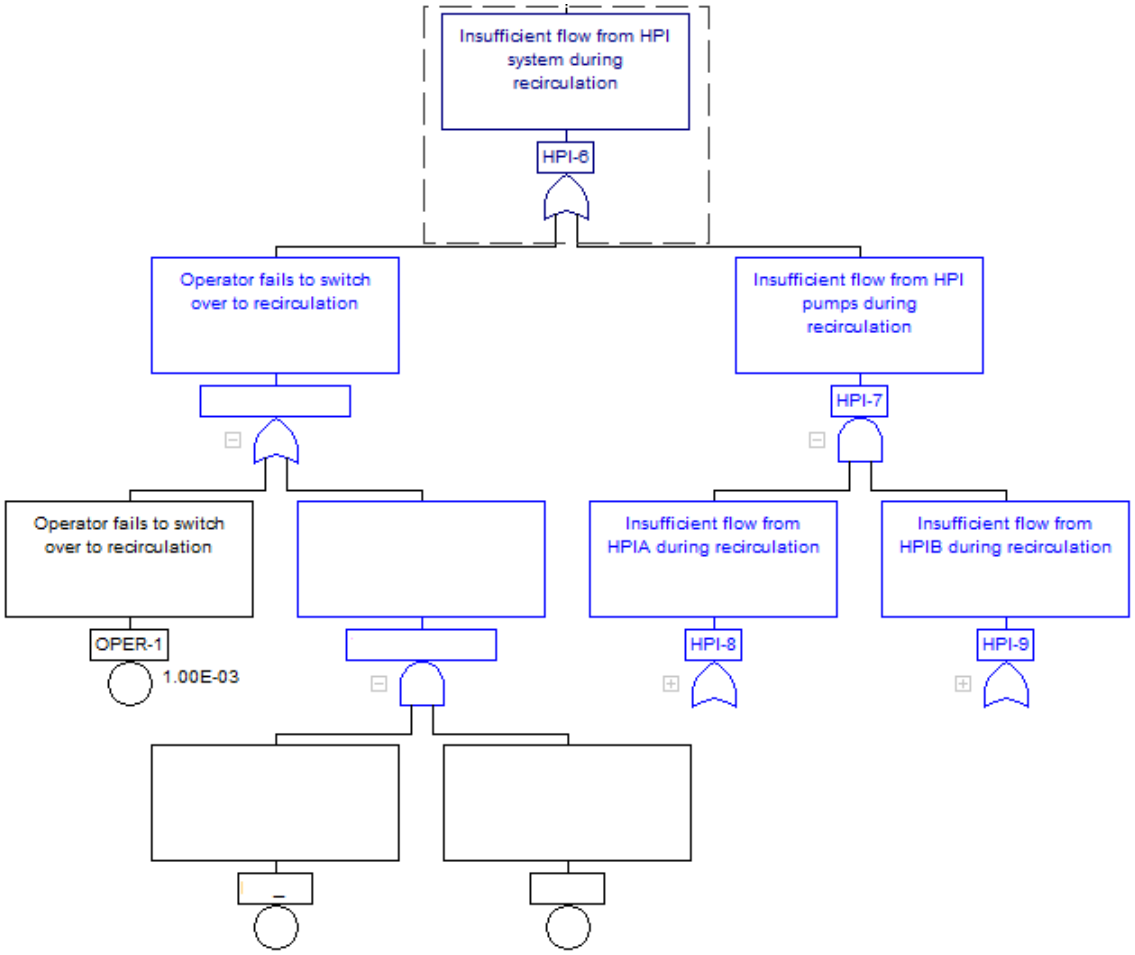

Figure 8: Gate HPI-6 - After

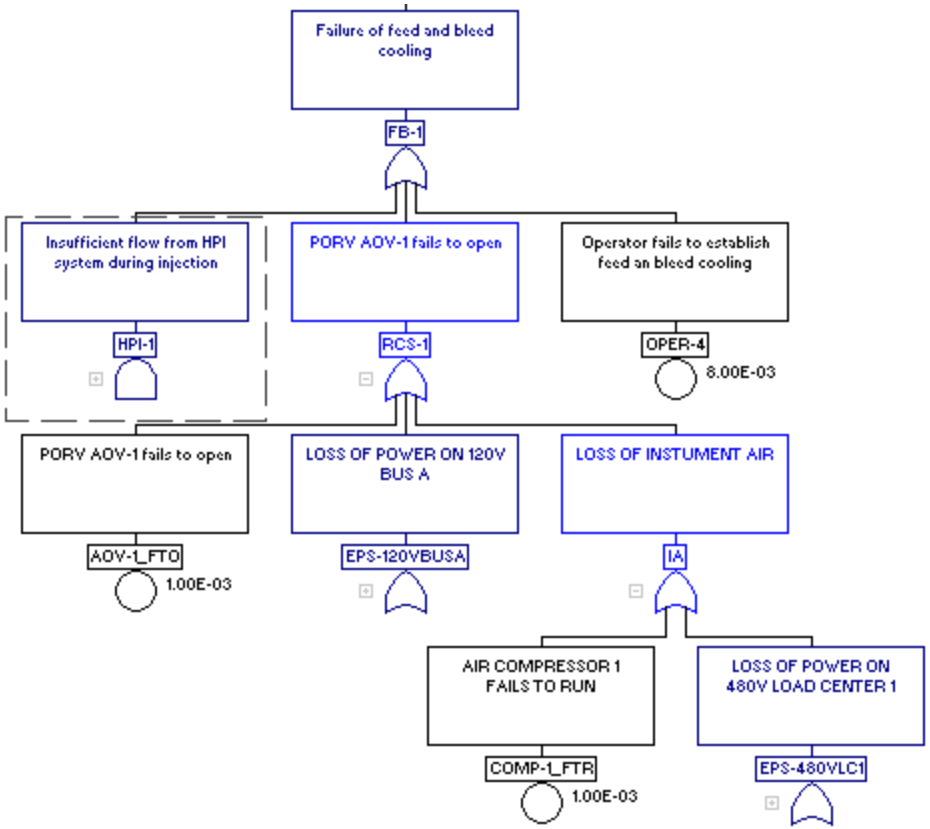

Figure 9: Gate FB-1 - Before

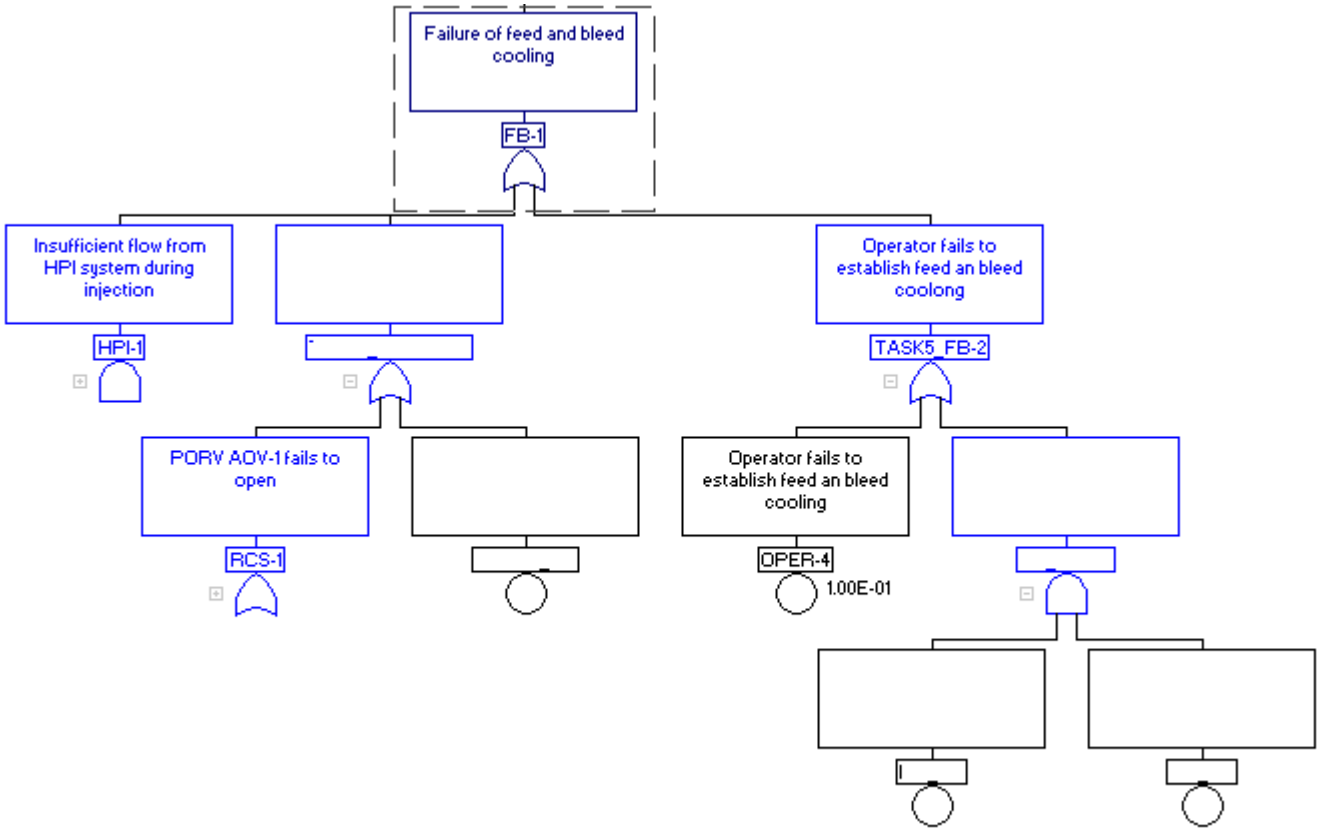

Figure 10: Gate FB-1 - After

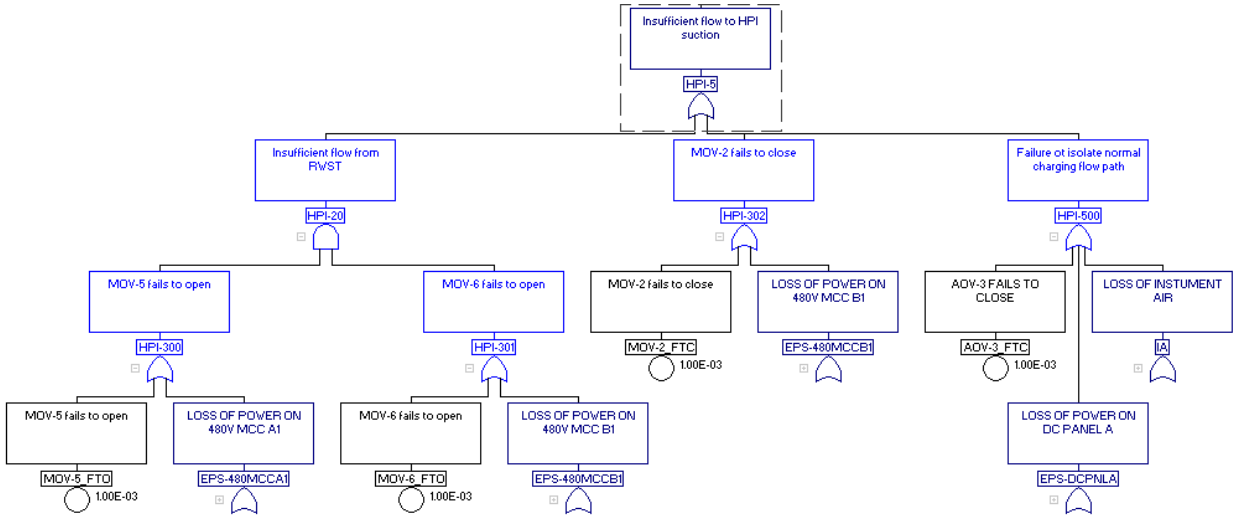

Figure 11: Gate HPI-5 - Before

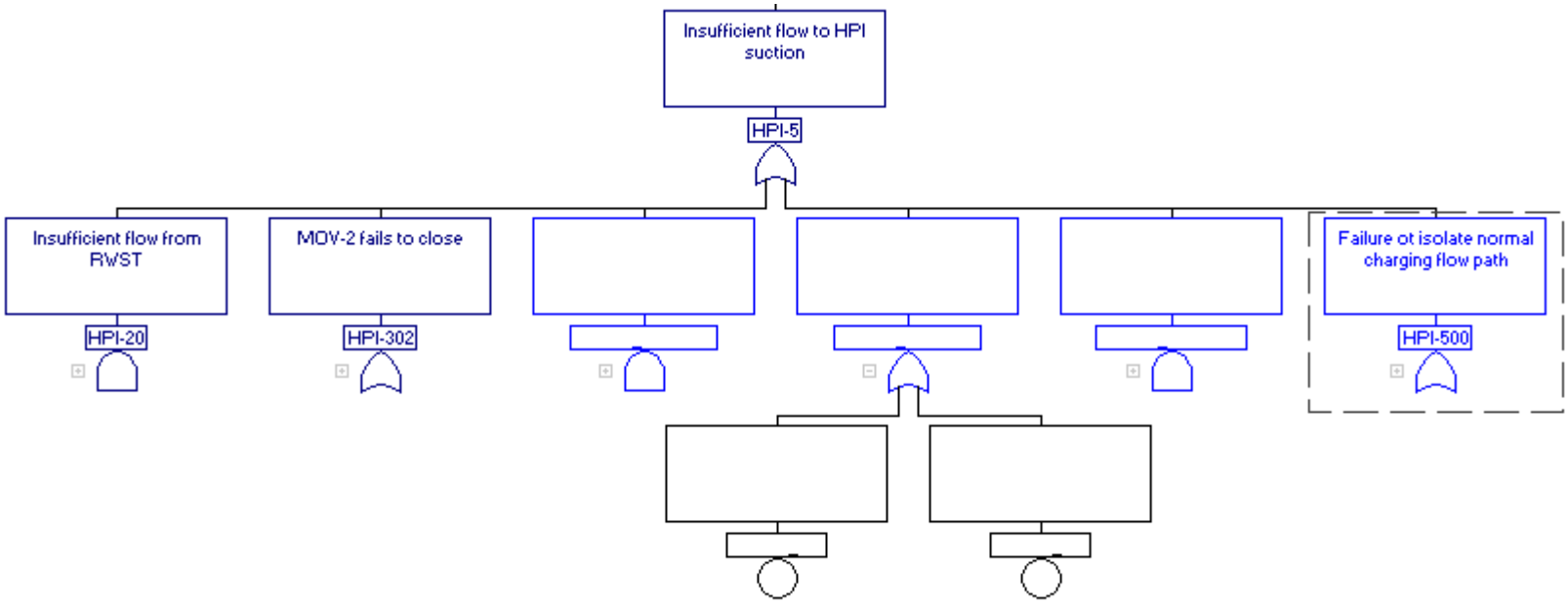

Figure 12: Gate HPI-5 - After Sheet 1

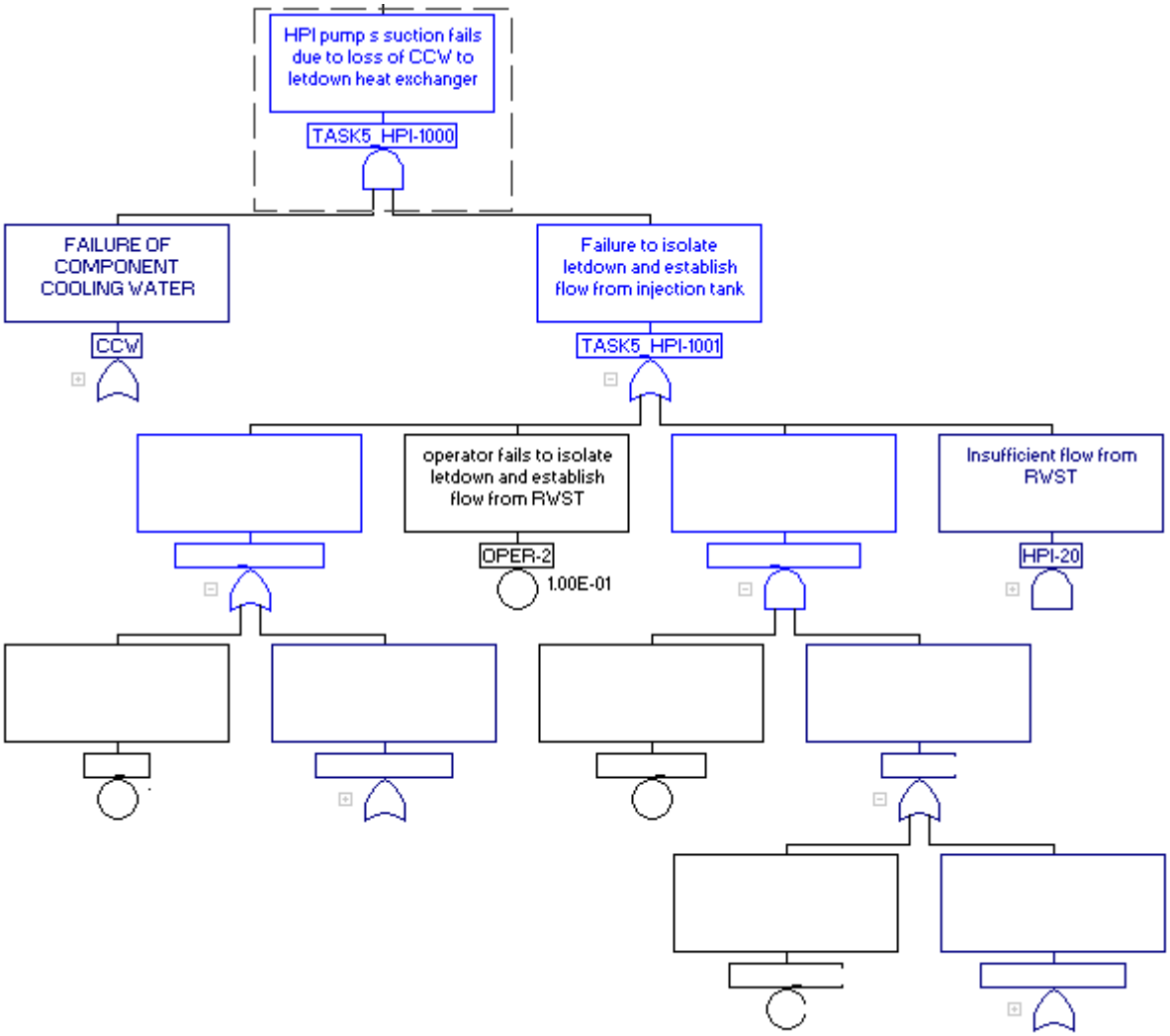

Figure 13: Gate HPI-5 - After Sheet 2

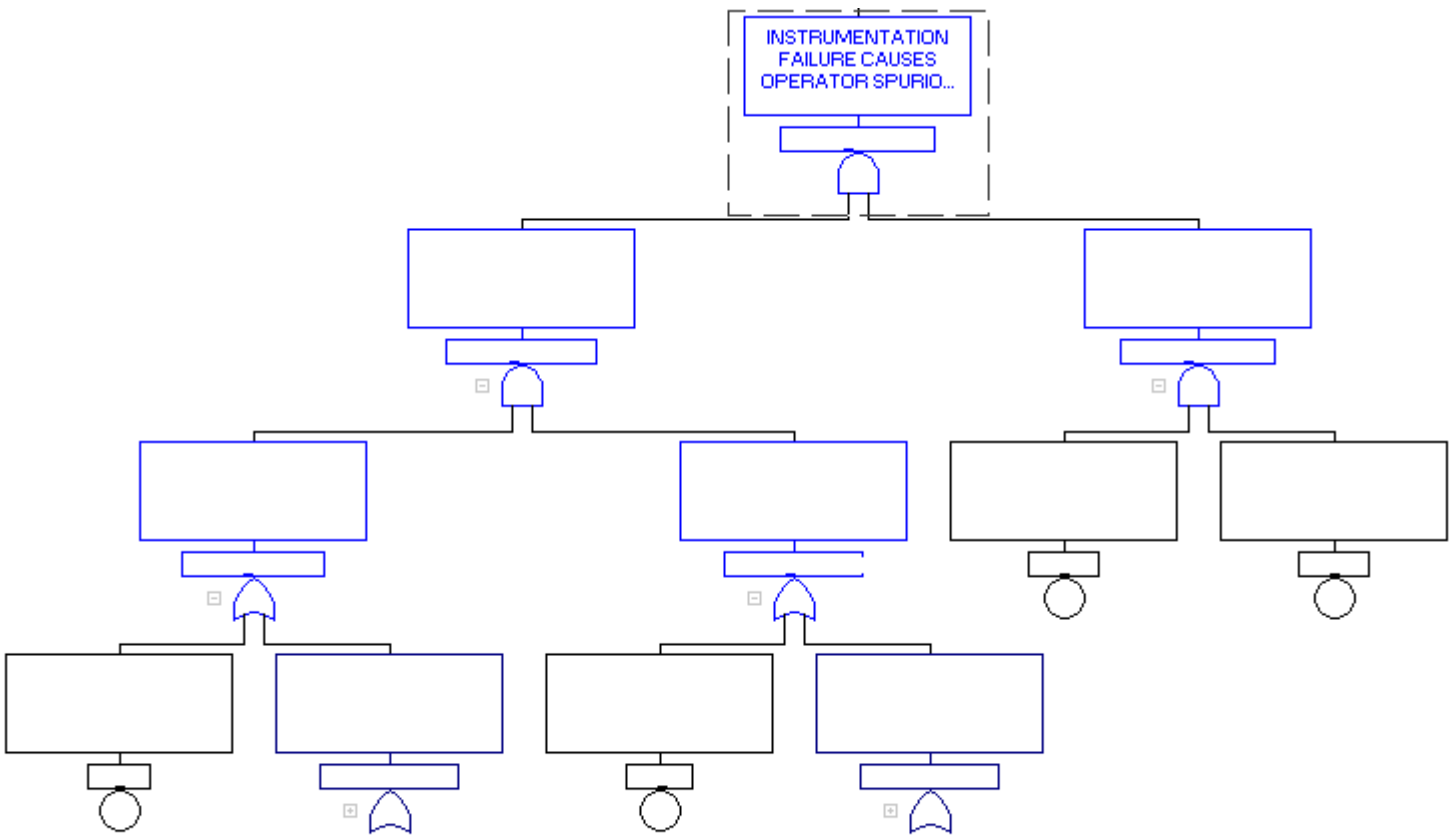

Figure 14: Gate HPI-5 - After Sheet 3

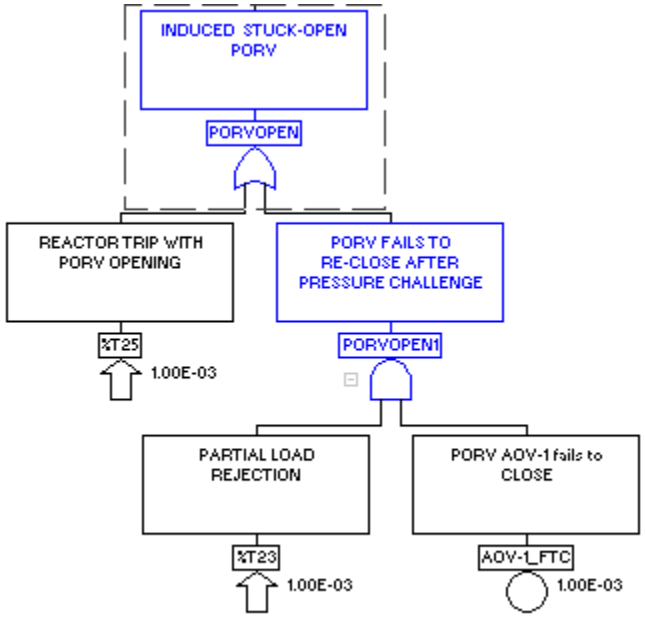

Figure 15: Gate PORVOPEN - Before

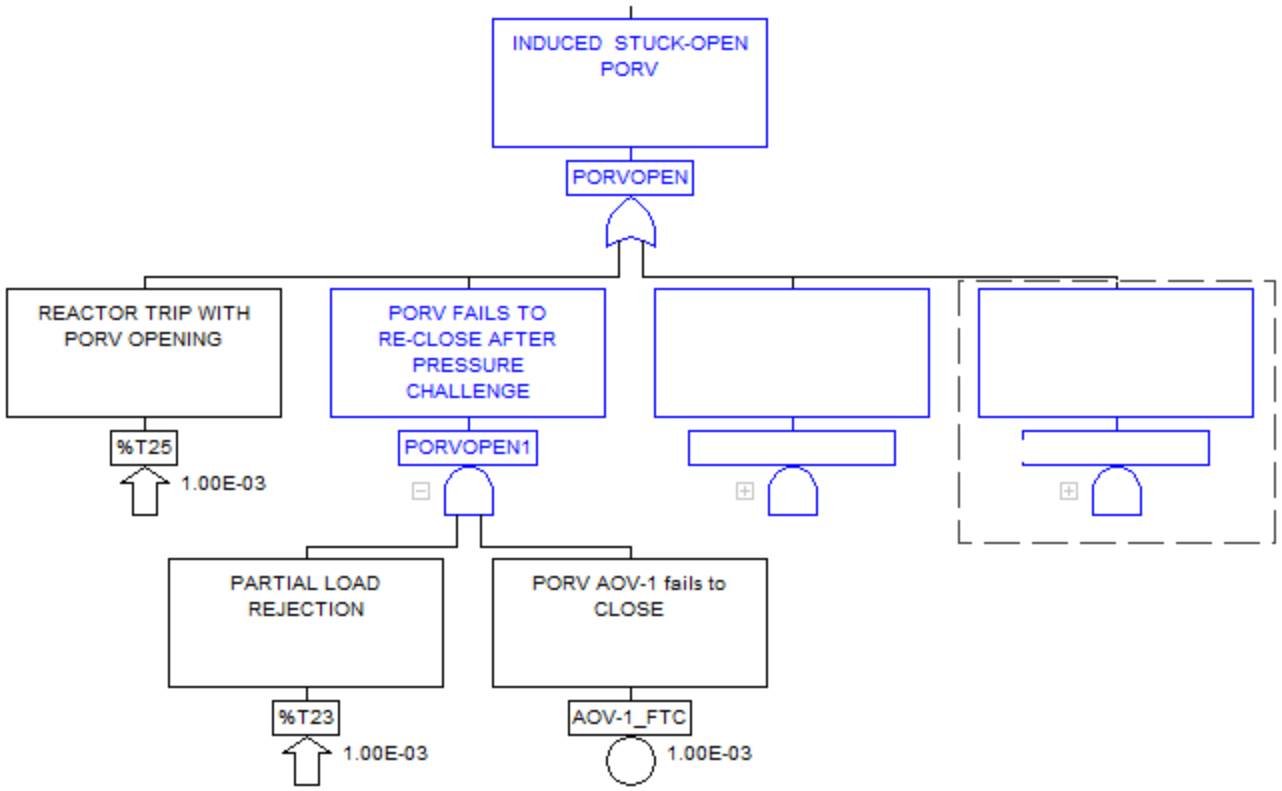

Figure 16: Gate PORVOPEN - After Sheet 1

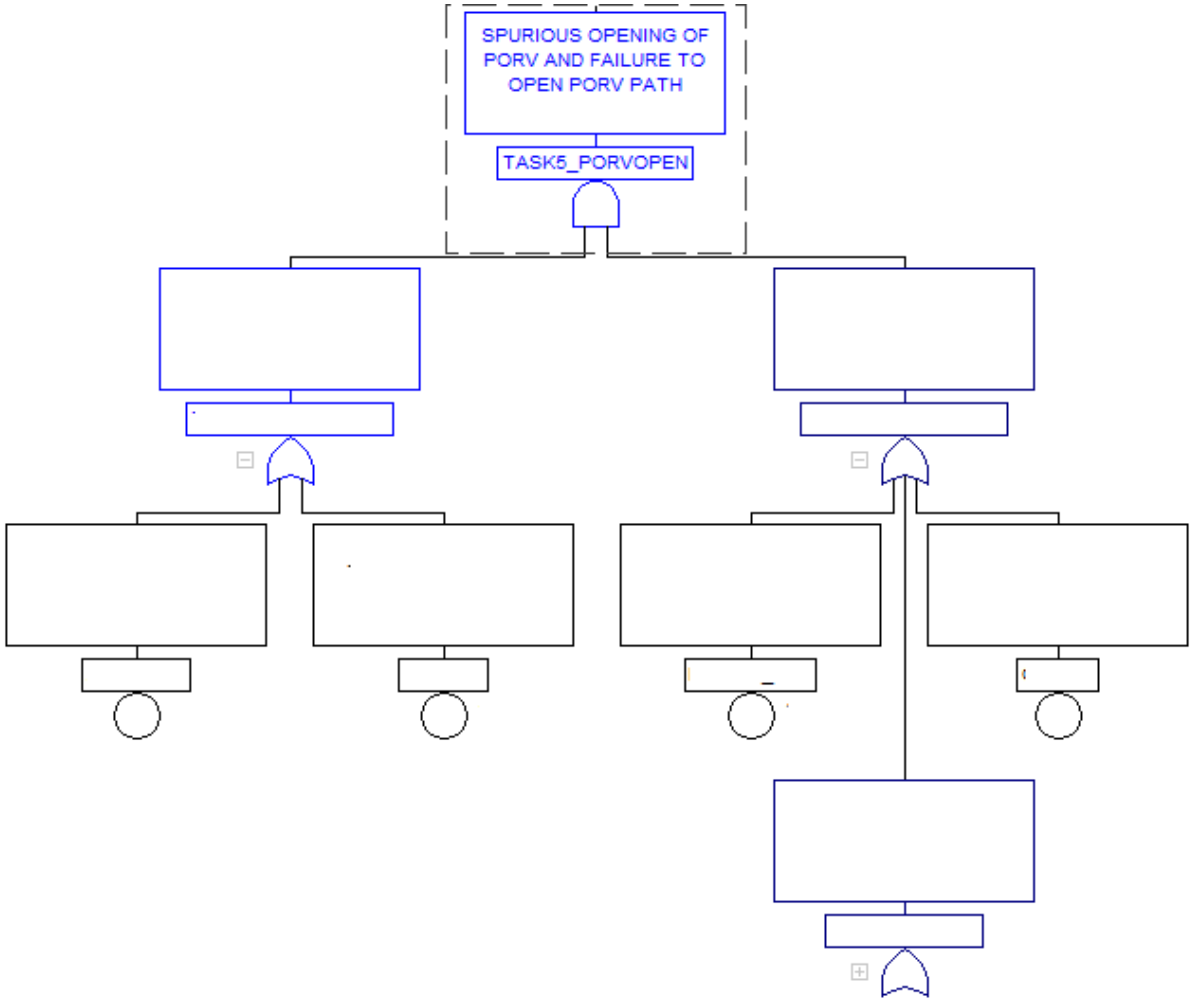

Figure 17: Gate PORVOPEN - After Sheet 2

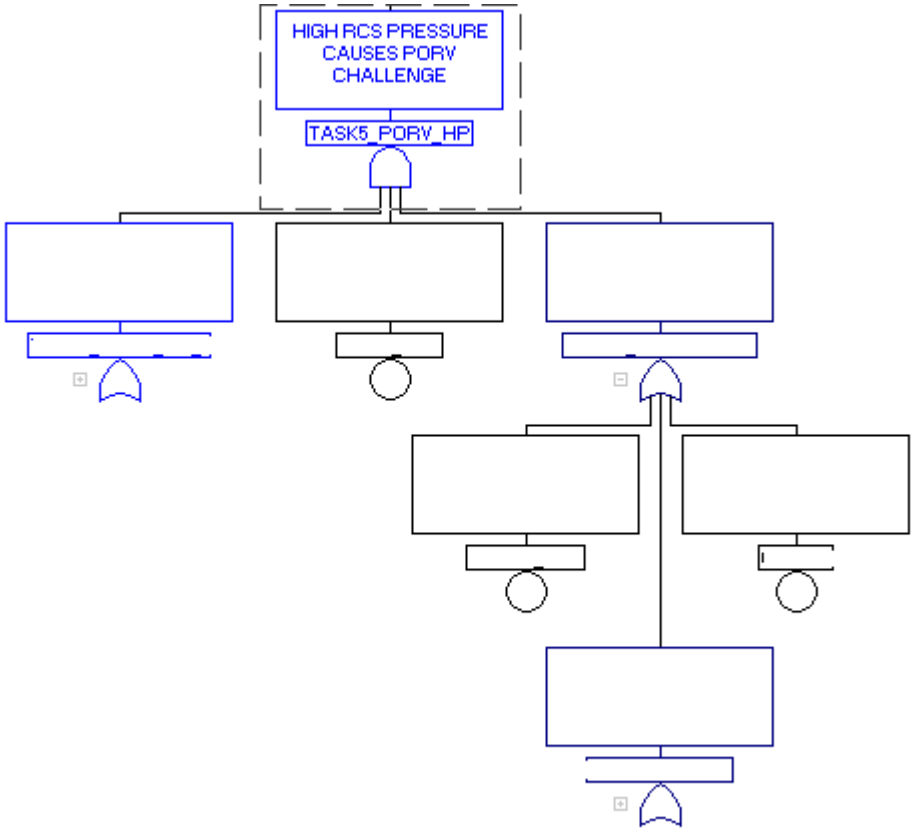

Figure 18: Gate PORVOPEN - After Sheet 3

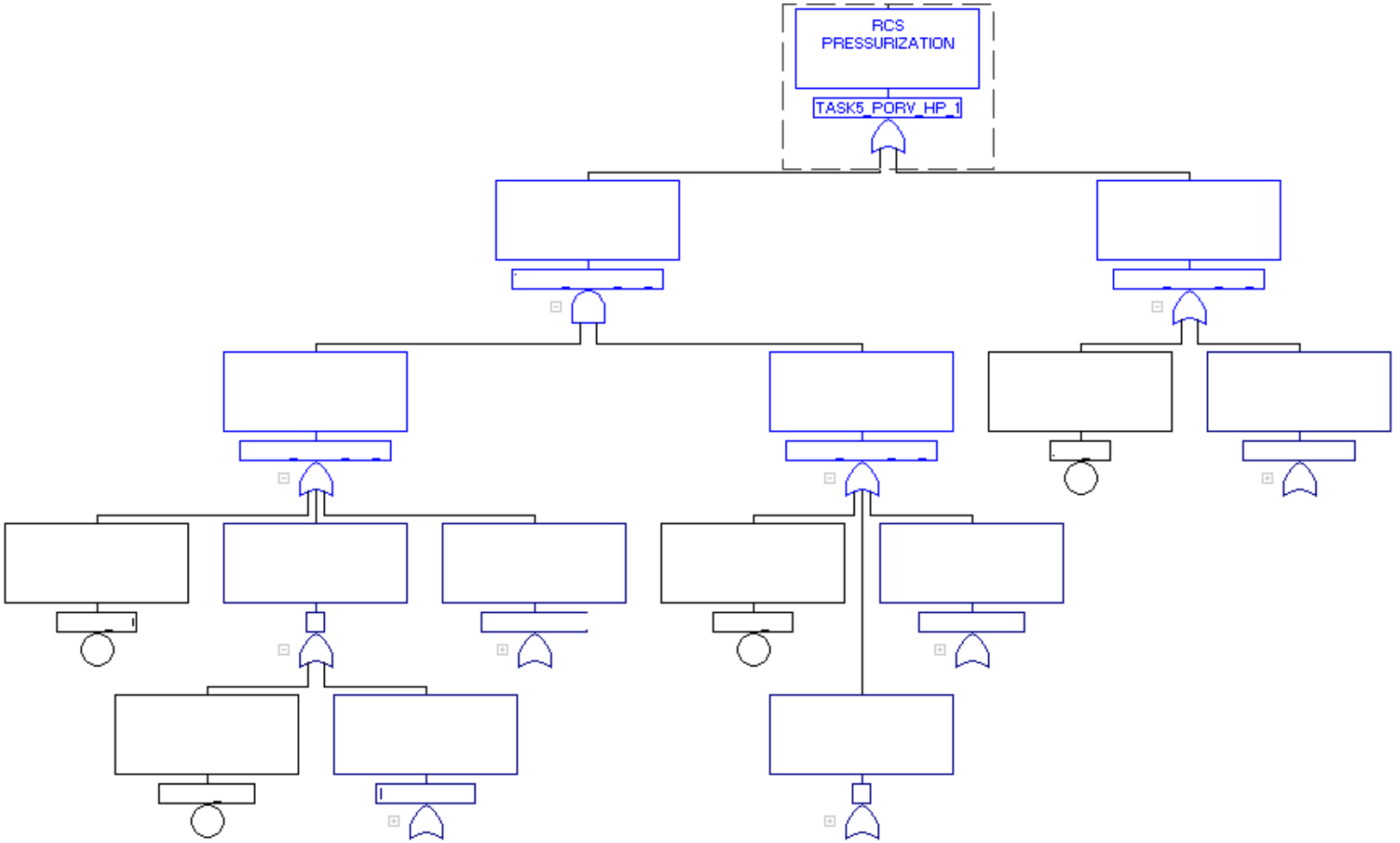

Figure 19: Gate PORVOPEN - After Sheet 4

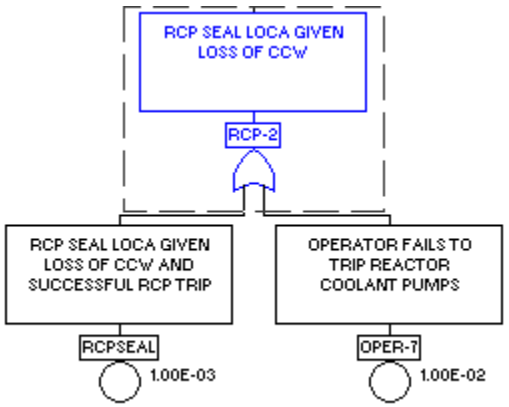

Figure 20: Gate RCP-2 - Before

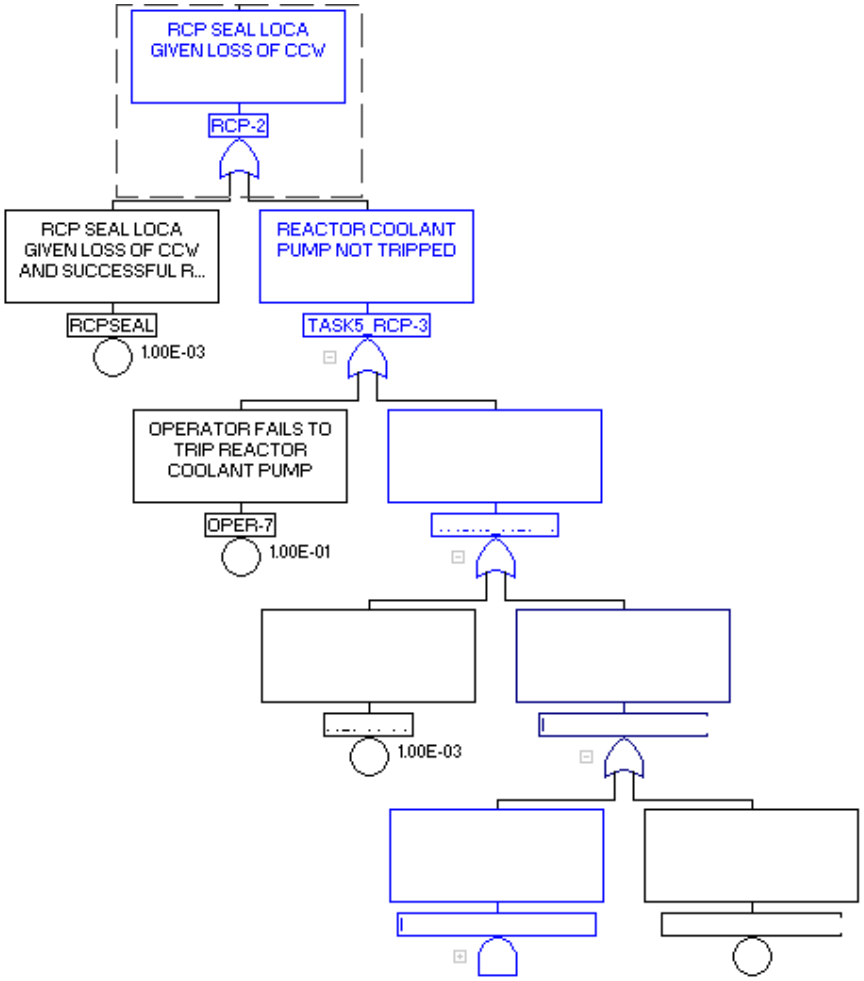

Figure 21A: Gate RCP-2 – After (1 of 2)

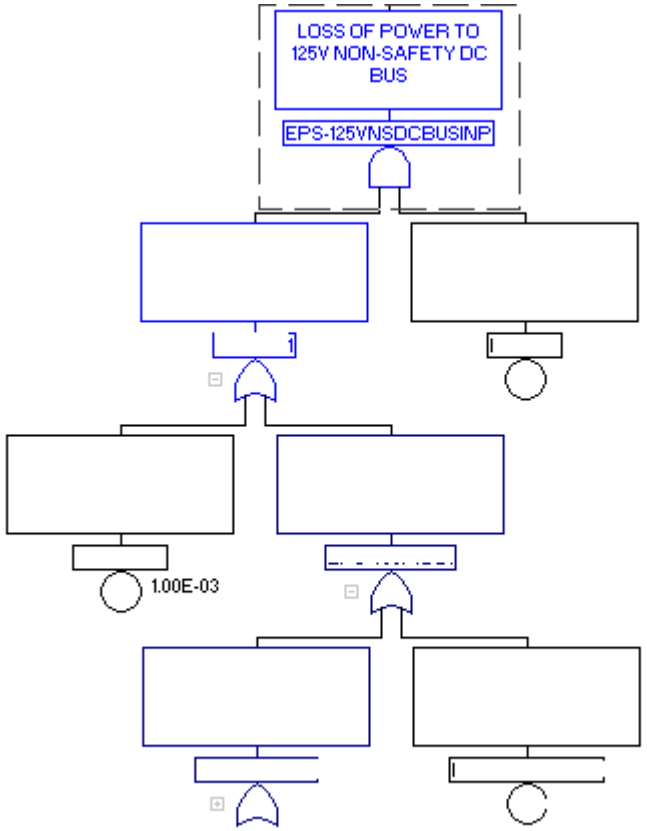

Figure 21B: Gate RCP-2 – After (2 of 2)

Task 5 Inputs

Table 1: Target Equipment Loss Report

Equipment ID	Equipment Description	Equipment Type	Location	Desired Position/ Status	Target Loss Locations
HPI-A	High pressure safety injection pump A	Pump	Aux Bldg. El. 0 Ft	On	1, 2, 3, 10
HPI-B	High pressure safety injection pump B	Pump	Aux Bldg. El. 0 Ft	On	1, 2, 3, 11
RHR-B	Residual heat removal pump B	Pump	Aux Bldg. El. -20 Ft	On	1, 2, 3, 4A, 9, 11
AFW-A	Motor-driven AFW pump A	Pump	Aux Bldg. EL. 0 Ft	On	1, 3, 4B, 9, 10
AFW-B	Steam-driven AFW pump B	Pump	Aux Bldg. EL. 0 Ft	On	1, 3, 4B, 9, 11
AFW-C	Diesel-driven AFW pump C	Pump	Turbine Bldg. El. 0 Ft	On	1, 3, 12
RCP-1	Reactor coolant pump 1	Pump	Containment	Off	1, 2, 3, 7, 12
COMP-1	Instrument air compressor	Compressor	Turbine Bldg. El. 0 Ft	Cycle	12
AOV-1 (SOV-1)	Power operated relief valve	AOV	Containment	Closed	1, 3, 7, 9
				Open	1, 3, 7, 9, 10
AOV-2 (SOV-2)	Letdown isolation valve	AOV	Aux Bldg. El. 0 Ft	Closed	1, 2, 3, 9
AOV-3 (SOV-3)	Charging pump injection valve	AOV	Aux Bldg. El. 0 Ft	Closed	1, 2, 3, 9
AOV-4 (SOV-4)	Atmospheric dump valve	AOV	Turbine Bldg. El. 0 Ft	Closed	1,3,4B,9,11,12

Equipment ID	Equipment Description	Equipment Type	Location	Desired Position/ Status	Target Loss Locations
MOV-1	HPI discharge valve	MOV	Aux Bldg. El. 0 Ft	Open	1, 2, 3, 9, 10
MOV-2	VCT isolation valve	MOV	Aux Bldg. El. 0 Ft	Closed	1, 2, 3, 9, 11
MOV-3	Cont. sump recirc. valve	MOV	Aux Bldg. El. -20 Ft	Open/ Closed	1, 2, 3, 4A, 9, 10
MOV-4	Cont. sump recirc. valve	MOV	Aux Bldg. El. -20 Ft	Open/ Closed	1, 2, 3, 4A, 9, 11
MOV-5	RWST isolation valve	MOV	Aux Bldg. El. 0 Ft	Open	1, 2, 3, 12
MOV-6	RWST isolation valve	MOV	Aux Bldg. El. 0 Ft	Open	1, 2, 3, 12
MOV-7	RHR inboard suction valve	MOV	Containment	Closed	4A,7,9,12
MOV-8	RHR outboard suction valve	MOV	Aux Bldg. El. -20 Ft	Closed	4A,9,12
MOV-9	HPI discharge valve	MOV	Aux Bldg. El. 0 Ft	Open	1,2,3,,9
MOV-10	AFW pump A discharge valve	MOV	Aux Bldg. EL. 0 Ft	Open	1,3,4B,9,12
MOV-11	AFW pump B discharge valve	MOV	Aux Bldg. EL. 0 Ft	Open	1,3,4B,9,11,12
MOV-13	PORV block valve	MOV	Containment	Open/ Closed	1, 3, 7, 9
MOV-14	AFW pump B turbine steam line isolation valve	MOV	Turbine Bldg. El. 0 Ft	Open	1, 3, 4B, 12
MOV-15	AFW pump B steam inlet throttle valve	MOV	Turbine Bldg. El. 0 Ft	Throttled	1, 3, 4B, 12
MOV-18	AFW pump C discharge valve	MOV	Turbine Bldg. El. 0 Ft	Open	1, 3, 12
LI-1	RWST level	Instrument	Yard	Available	1, 3, 12, 13

Equipment ID	Equipment Description	Equipment Type	Location	Desired Position/ Status	Target Loss Locations
LI-2	RWST level	Instrument	Yard	Available	1, 3, 12, 13
LI-3	Cont. sump level	Instrument	Containment	Available	1, 3, 7, 12
LI-4	Cont. sump level	Instrument	Containment	Available	1, 3, 7, 12
LI-5	SG secondary level	Instrument	Containment	Available	1, 3, 7
LI-6	SG secondary level	Instrument	Containment	Available	1, 3, 7
TI-1	Letdown heat exchanger outlet temperature	Instrument	Aux Bldg El. 0 Ft	Available	1, 2, 3, 9
PT-1	RCS pressure	Instrument	Containment	Available	1, 3, 7
A-1	AFW motor high temperature	Annunciator	SWG Access Room	Non spurious	1, 2, 3, 9, 4B
SWGR-A	Train A 4160 V switchgear	Switchgear	Switchgear Room A	Energized from SUT-1	1, 3, 10, 12, 13
				Energized from EDG-A	1, 3, 8A, 10, 12
SWGR-B	Train B 4160 V switchgear	Switchgear	Switchgear Room B	Energized from SUT-1	1, 3, 9, 11, 12, 13
				Energized from EDG-B	1, 3, 8B, 9, 11, 12
SWGR-1	Non-safety 4160 V switchgear	Switchgear	Turbine Bldg. El. 0ft	Energized	1, 3, 12, 13
SUT-1	Startup transformer	Transformer	Yard	Energized	1, 3, 12, 13
UAT-1	Auxiliary transformer	Transformer	Yard	Energized	1, 3, 12, 13
EDG-A	Train A emergency diesel generator	Diesel Generator	DG Bldg.	On	1, 3, 8A, 10, 12

Equipment ID	Equipment Description	Equipment Type	Location	Desired Position/ Status	Target Loss Locations
EDG-B	Train B emergency diesel generator	Diesel Generator	DG Bldg.	On	1, 3, 8B, 10, 12
LC-1	Non-safety 480 V load center	Load Center	Turbine Bldg. El. 0 ft	Energized	1, 3, 12
LC-A	Train A 480 V load center	Load Center	Switchgear Room A	Energized	1, 3,10
LC-B	Train B 480 V load center	Load Center	Switchgear Room B	Energized	1, 3, 11
SST-1	Non-safety station service transformer	Transformer	Turbine Bldg. El. 0 F	Energized	12
SST-A	Train A station service transformer	Transformer	Switchgear Room A	Energized	10
SST-B	Train B station service transformer	Transformer	Switchgear Room B	Energized	11
MCC-1	Non-safety 480 V motor control center	Motor Control Center	Turbine Bldg El. 0 Ft	Energized	12
MCC-A1	Train A 480 V motor control center	Motor Control Center	SWG Access Room	Energized	9, 10
MCC-B1	Train B 480 V motor control center	Motor Control Center	SWG Access Room	Energized	9, 11
BC-1	Non-safety battery charger	Battery Charger	Turbine Bldg El. 0 Ft	Energized	12
BC-A	Train A battery charger	Battery Charger	Switchgear Room A	Energized	9, 10
BC-B	Train B battery charger	Battery Charger	Switchgear Room B	Energized	9, 11
BAT-1	Non-safety battery	Battery	Turbine Bldg El. 0 Ft	Available	12, 15
BAT-A	Train A battery	Battery	Battery Room A	Available	5, 10
BAT-B	Train B battery	Battery	Battery Room B	Available	6, 11

Equipment ID	Equipment Description	Equipment Type	Location	Desired Position/ Status	Target Loss Locations
DC BUS-1	Non-safety 250 VDC bus	DC Bus	Turbine Bldg El. 0 Ft	Energized	12
DC BUS-A	Train A 125 VDC bus	DC Bus	Switchgear Room A	Energized	10
DC BUS-B	Train B 125 VDC bus	DC Bus	Switchgear Room B	Energized	11
PNL-A	Train A 125 VDC panel	Panel board	Switchgear Room A	Energized	10
PNL-B	Train B 125 VDC panel	Panel board	Switchgear Room B	Energized	11
INV-A	Train A inverter	Inverter	Switchgear Room A	Energized	3, 9, 10
INV-B	Train B inverter	Inverter	Switchgear Room B	Energized	3, 9, 11
VITAL-A	Train A 120 VAC vital bus	120VAC Bus	SWG Access Room	Energized	9, 10
VITAL-B	Train B 120 VAC vital bus	120VAC Bus	SWG Access Room	Energized	9, 11

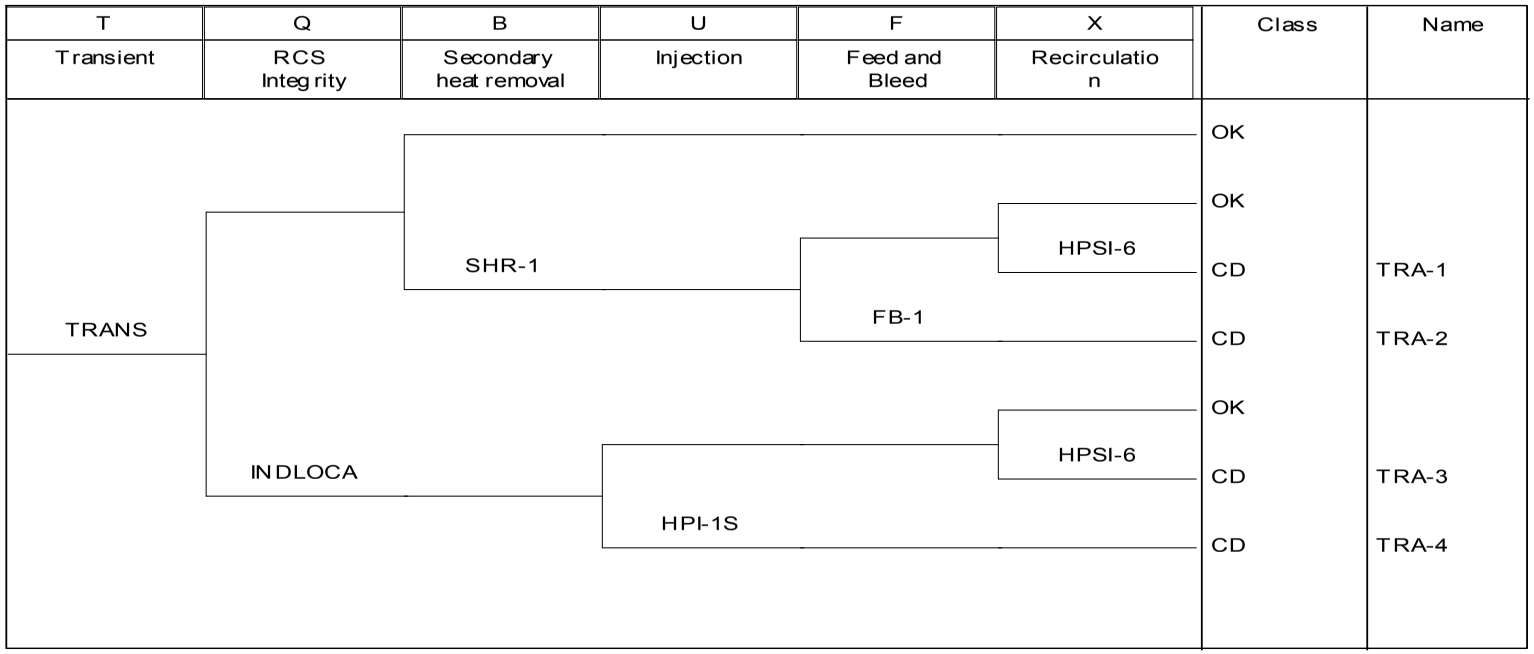

Figure 22: Transient Event Tree

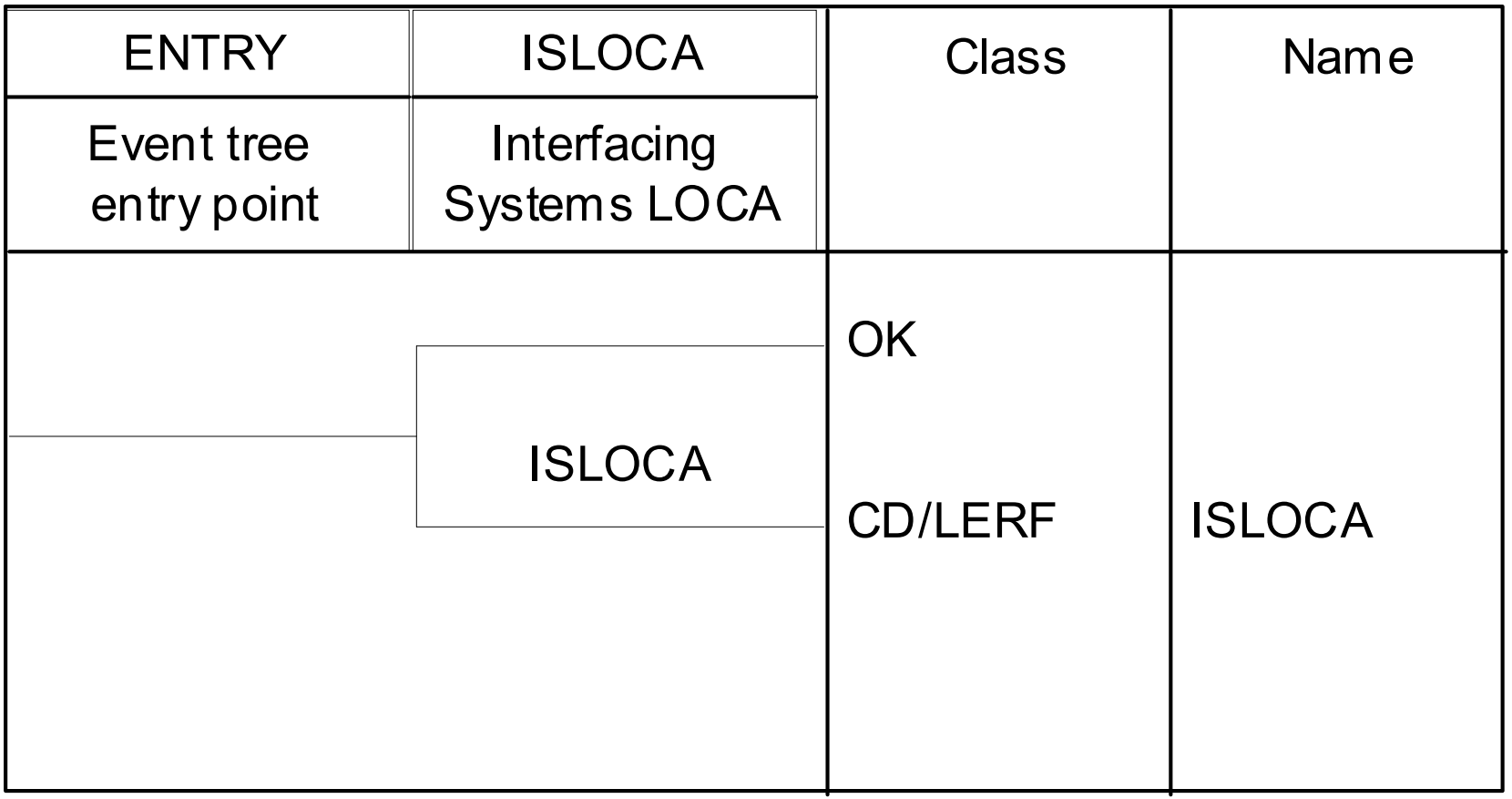

Figure 23: ISLOCA Event Tree