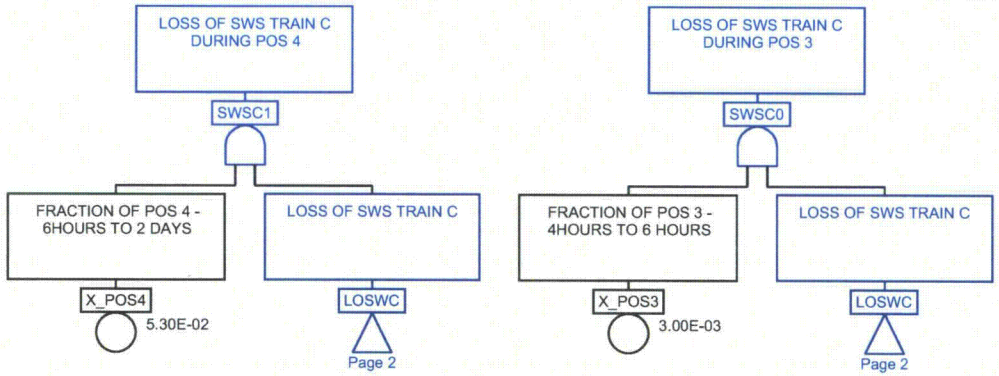
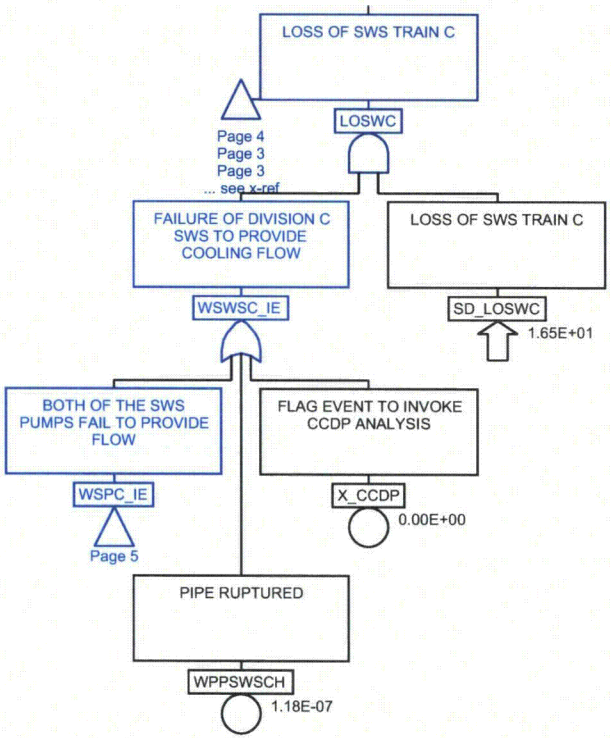


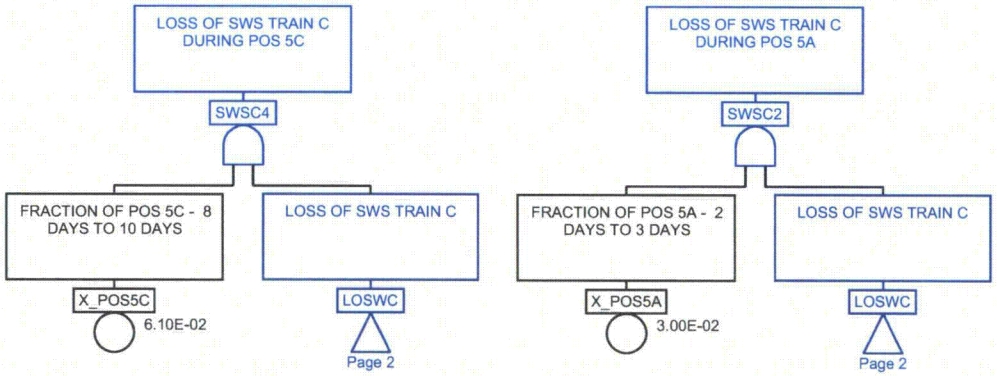
1 2 3 4

Figure G-25 Loss of SWS C Initiating Event Logic



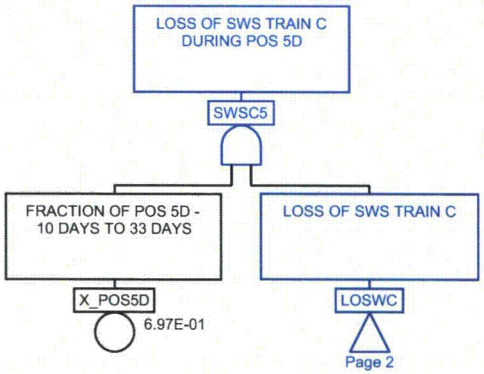
1 2

Figure G-25 Loss of SWS C Initiating Event Logic



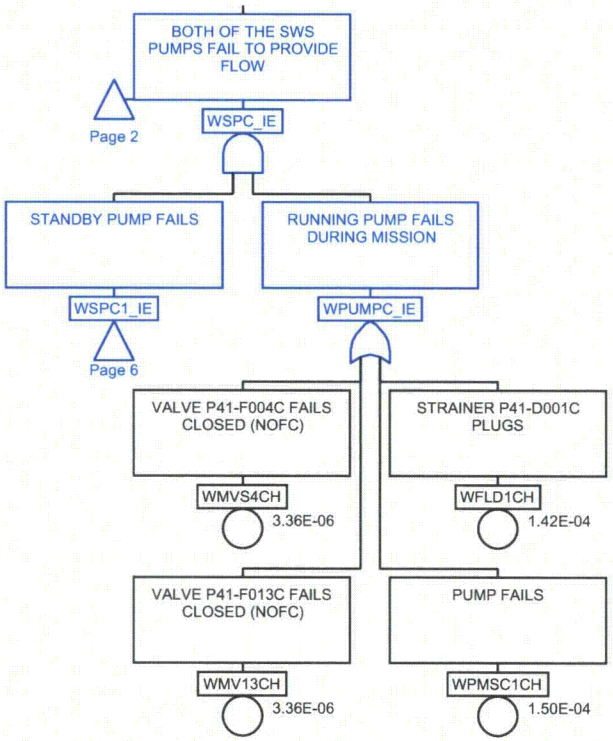
1 2 3 4

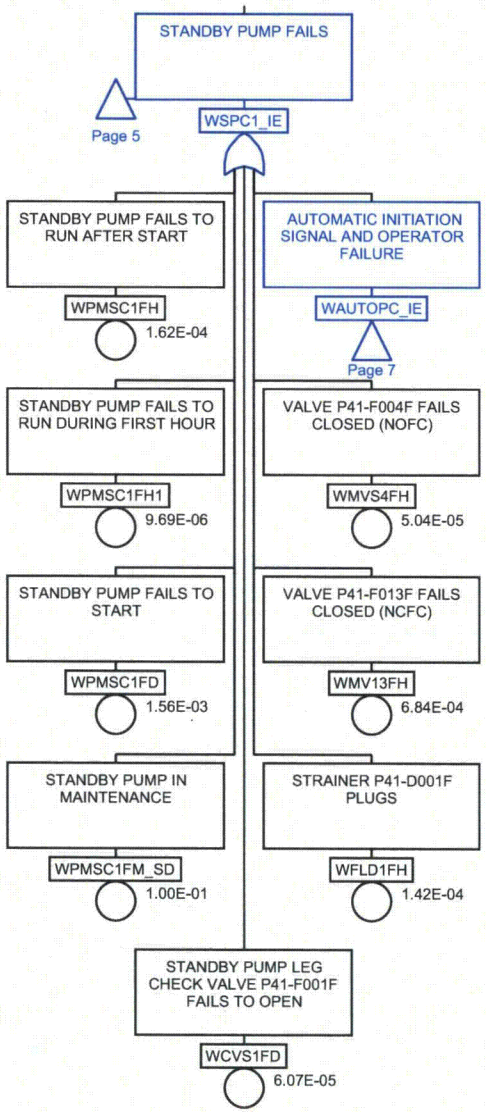
Figure G-25 Loss of SWS C Initiating Event Logic



1 2

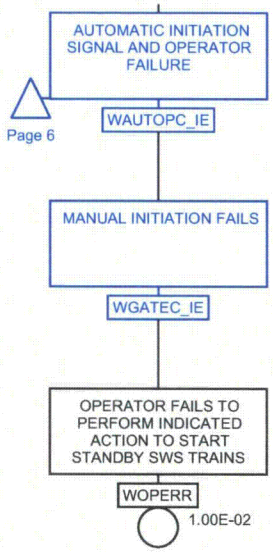
Figure G-25 Loss of SWS C Initiating Event Logic


BOTH OF THE SWS PUMPS FAIL TO PROVIDE FLOW
Page 2
WSPC_IE
STANDBY PUMP FAILS
RUNNING PUMP FAILS DURING MISSION
WSPC1_IE
Page 6
WPUMPC_IE
VALVE P41-F004C FAILS CLOSED (NOFC)
STRAINER P41-D001C PLUGS
WMVS4CH
3.36E-06
WFLD1CH
1.42E-04
VALVE P41-F013C FAILS CLOSED (NOFC)
PUMP FAILS
WMV13CH
3.36E-06
WPMSC1CH
1.50E-04



1 2

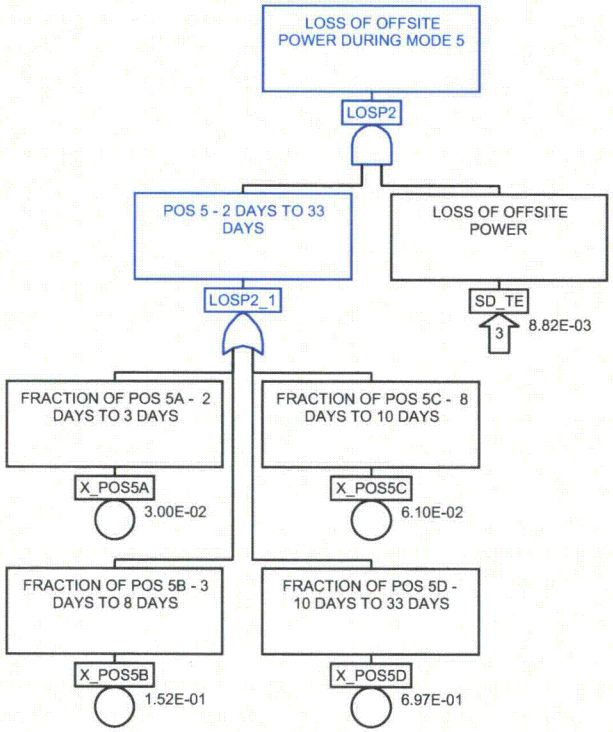
Figure G-25 Loss of SWS C Initiating Event Logic

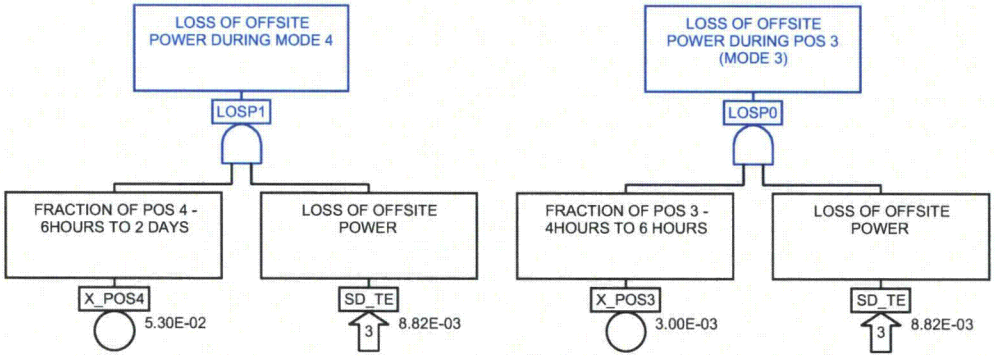


1

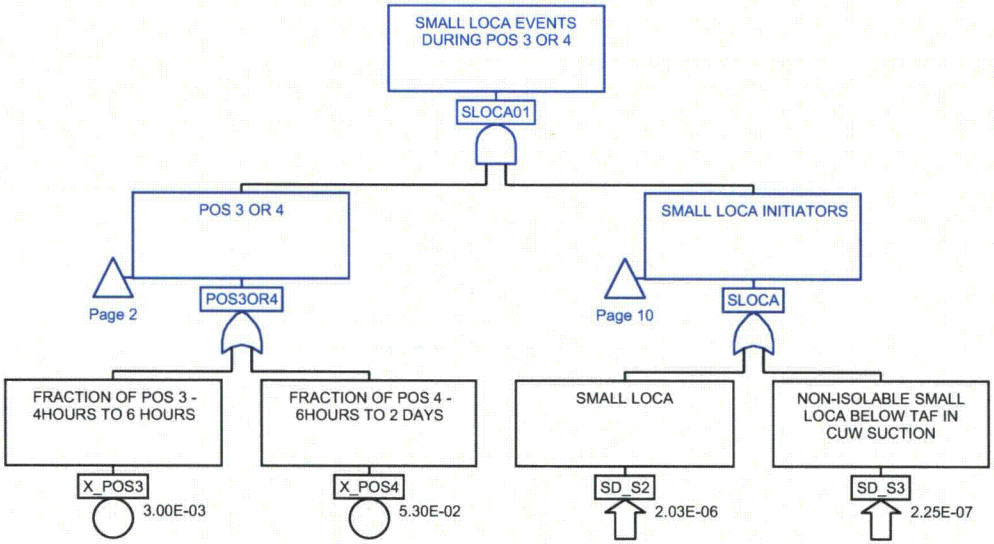
Figure G-25 Loss of SWS C Initiating Event Logic

Name	Page	Zone	Name	Page	Zone
LOSWC	1	2			
LOSWC	1	4			
LOSWC	2	2			
LOSWC	3	2			
LOSWC	3	4			
LOSWC	4	2			
SD_LOSWC	2	3			
SWSC0	1	4			
SWSC1	1	2			
SWSC2	3	4			
SWSC4	3	2			
SWSC5	4	2			
WAUTOPC_IE	6	2			
WAUTOPC_IE	7	1			
WCVS1FD	6	2			
WFLD1CH	5	3			
WFLD1FH	6	2			
WGATEC_IE	7	1			
WMV13CH	5	2			
WMV13FH	6	2			
WMVS4CH	5	2			
WMVS4FH	6	2			
WOPERR	7	1			
WPMSC1CH	5	3			
WPMSC1FD	6	1			
WPMSC1FH	6	1			
WPMSC1FH1	6	1			
WPMSC1FM_SD	6	1			
WPPSWSCH	2	2			
WPUMPC_IE	5	2			
WSPC1_IE	5	1			
WSPC1_IE	6	2			
WSPC_IE	2	1			
WSPC_IE	5	2			
WSWSC_IE	2	2			
X_CCDP	2	2			
X_POS3	1	3			
X_POS4	1	1			
X_POS5A	3	3			
X_POS5C	3	1			
X_POS5D	4	1			


LOSS OF OFFSITE POWER DURING MODE 5
LOSP2
POS 5 - 2 DAYS TO 33 DAYS
LOSS OF OFFSITE POWER
LOSP2_1
SD_TE
3
8.82E-03
FRACTION OF POS 5A - 2 DAYS TO 3 DAYS
FRACTION OF POS 5C - 8 DAYS TO 10 DAYS
X_POS5A
3.00E-02
X_POS5C
6.10E-02
FRACTION OF POS 5B - 3 DAYS TO 8 DAYS
FRACTION OF POS 5D - 10 DAYS TO 33 DAYS
X_POS5B
1.52E-01
X_POS5D
6.97E-01

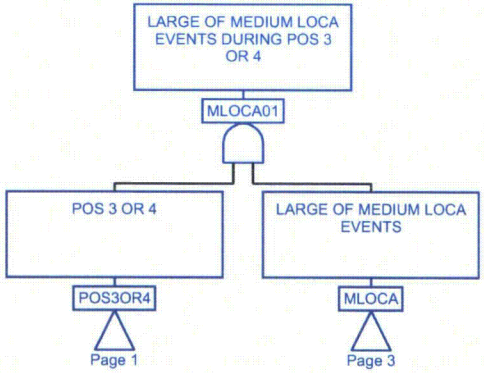

LOSS OF OFFSITE POWER DURING MODE 4
LOSP1
FRACTION OF POS 4 - 6HOURS TO 2 DAYS
LOSS OF OFFSITE POWER
X_POS4
5.30E-02
SD_TE
3
8.82E-03
LOSS OF OFFSITE POWER DURING POS 3 (MODE 3)
LOSP0
FRACTION OF POS 3 - 4HOURS TO 6 HOURS
LOSS OF OFFSITE POWER
X_POS3
3.00E-03
SD_TE
3
8.82E-03

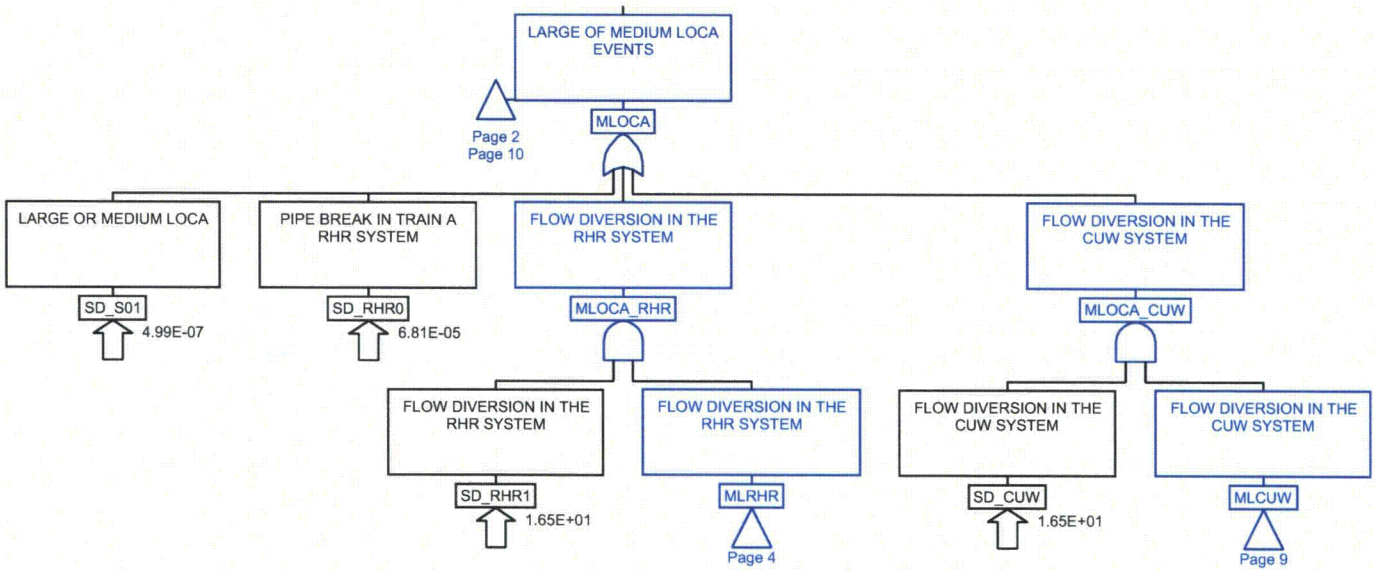
Name	Page	Zone	Name	Page	Zone	
LOSP0	2	4				Shutdown Probabilistic Risk Assessment
LOSP1	2	2				
LOSP2	1	2				
LOSP2_1	1	2				
SD_TE	1	3				
SD_TE	2	2				
SD_TE	2	4				
X_POS3	2	3				
X_POS4	2	1				
X_POS5A	1	1				
X_POS5B	1	1				
X_POS5C	1	2				
X_POS5D	1	2				

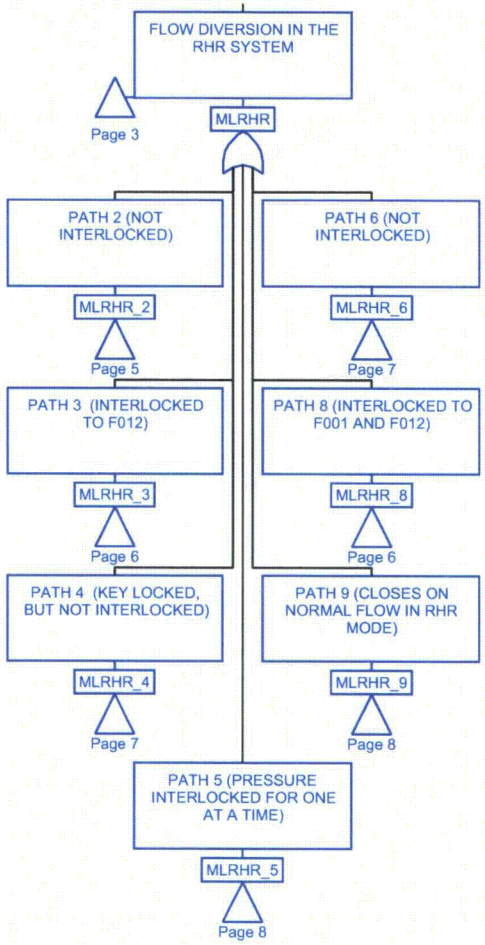


1 2 3 4

Figure G-27 LOCA Initiating Event Logic

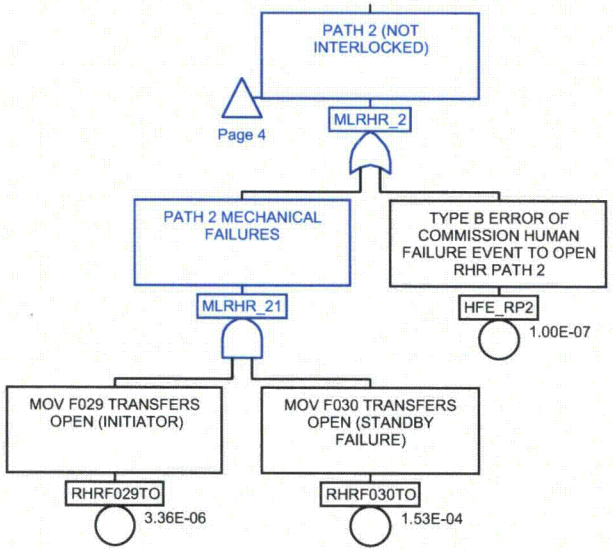

LARGE OF MEDIUM LOCA EVENTS DURING POS 3 OR 4
MLOCA01
POS 3 OR 4
LARGE OF MEDIUM LOCA EVENTS
POS3OR4
MLOCA
Page 1
Page 3

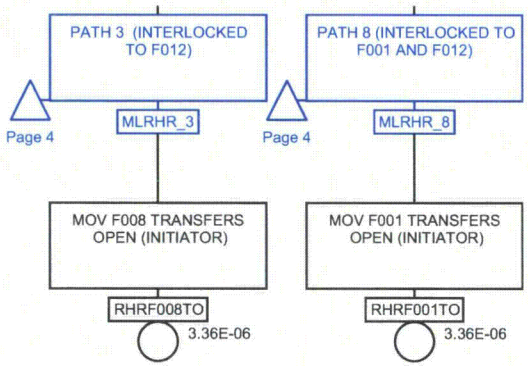

LARGE OF MEDIUM LOCA EVENTS
Page 2
Page 10
MLOCA
LARGE OR MEDIUM LOCA
PIPE BREAK IN TRAIN A RHR SYSTEM
FLOW DIVERSION IN THE RHR SYSTEM
FLOW DIVERSION IN THE CUW SYSTEM
SD_S01
4.99E-07
SD_RHR0
6.81E-05
MLOCA_RHR
MLOCA_CUW
FLOW DIVERSION IN THE RHR SYSTEM
FLOW DIVERSION IN THE RHR SYSTEM
FLOW DIVERSION IN THE CUW SYSTEM
FLOW DIVERSION IN THE CUW SYSTEM
SD_RHR1
1.65E+01
MLRHR
Page 4
SD_CUW
1.65E+01
MLCUW
Page 9

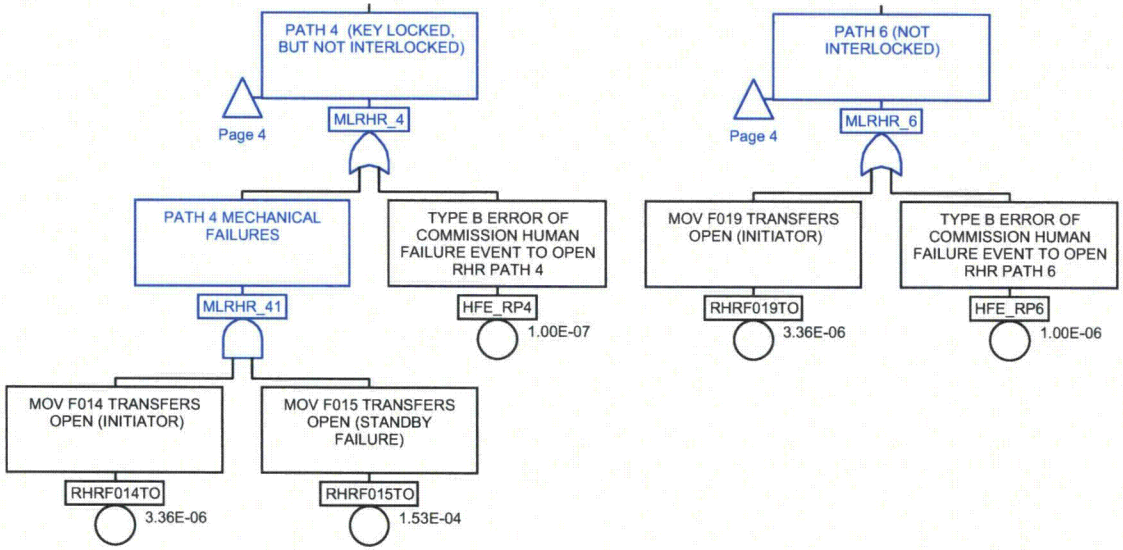


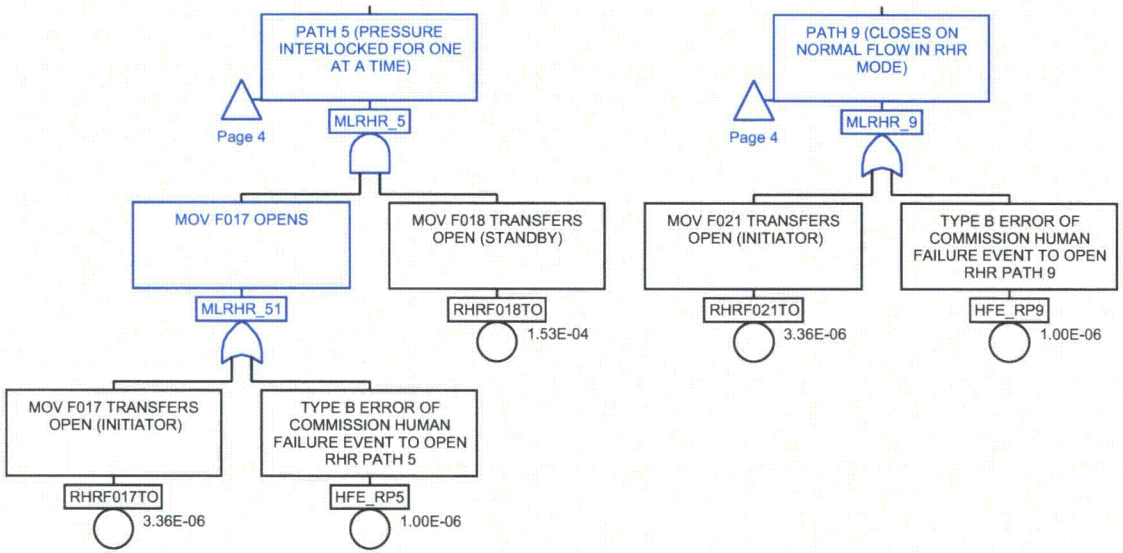
1 2

Figure G-27 LOCA Initiating Event Logic


PATH 2 (NOT INTERLOCKED)
Page 4
MLRHR_2
PATH 2 MECHANICAL FAILURES
TYPE B ERROR OF COMMISSION HUMAN FAILURE EVENT TO OPEN RHR PATH 2
MLRHR_21
HFE_RP2
1.00E-07
MOV F029 TRANSFERS OPEN (INITIATOR)
MOV F030 TRANSFERS OPEN (STANDBY FAILURE)
RHRF029TO
3.36E-06
RHRF030TO
1.53E-04

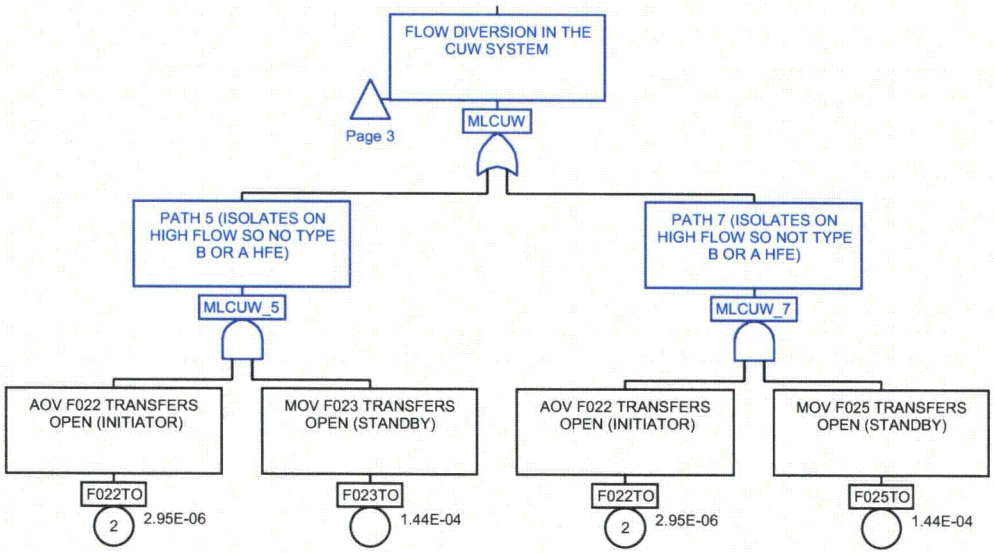

PATH 3 (INTERLOCKED TO F012)
Page 4
MLRHR_3
MOV F008 TRANSFERS OPEN (INITIATOR)
RHRF008TO
3.36E-06
PATH 8 (INTERLOCKED TO F001 AND F012)
Page 4
MLRHR_8
MOV F001 TRANSFERS OPEN (INITIATOR)
RHRF001TO
3.36E-06


PATH 4 (KEY LOCKED, BUT NOT INTERLOCKED)
Page 4
MLRHR_4
PATH 4 MECHANICAL FAILURES
TYPE B ERROR OF COMMISSION HUMAN FAILURE EVENT TO OPEN RHR PATH 4
MLRHR_41
HFE_RP4
1.00E-07
MOV F014 TRANSFERS OPEN (INITIATOR)
MOV F015 TRANSFERS OPEN (STANDBY FAILURE)
RHRF014TO
3.36E-06
RHRF015TO
1.53E-04
PATH 6 (NOT INTERLOCKED)
Page 4
MLRHR_6
MOV F019 TRANSFERS OPEN (INITIATOR)
TYPE B ERROR OF COMMISSION HUMAN FAILURE EVENT TO OPEN RHR PATH 6
RHRF019TO
3.36E-06
HFE_RP6
1.00E-06



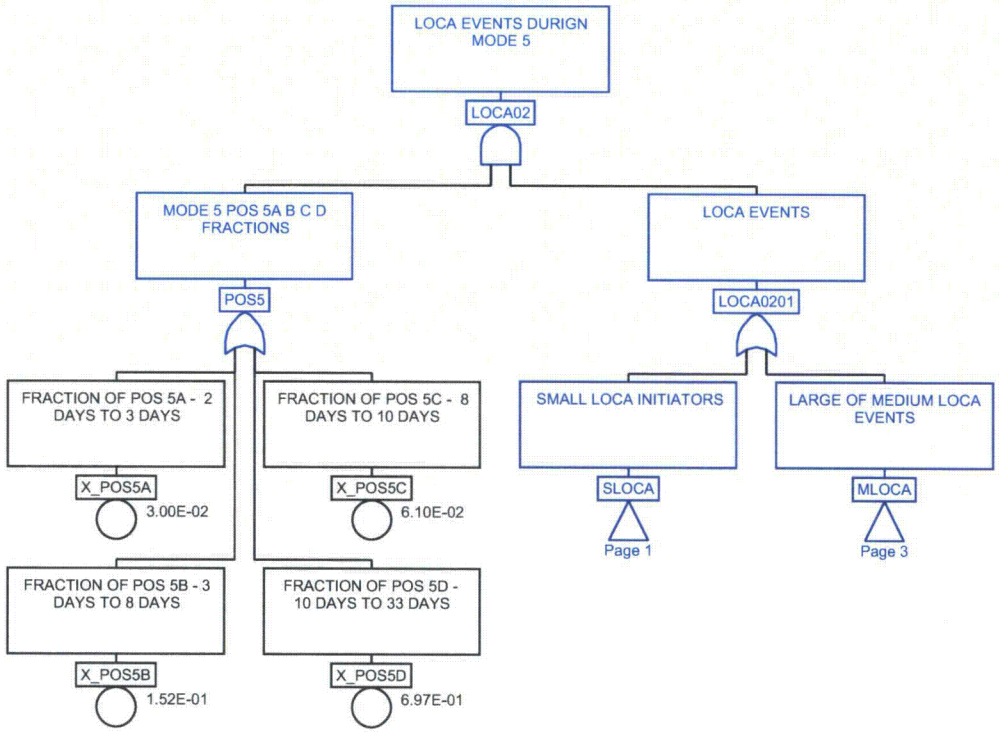
1 2 3 4

Figure G-27 LOCA Initiating Event Logic



1 2 3 4

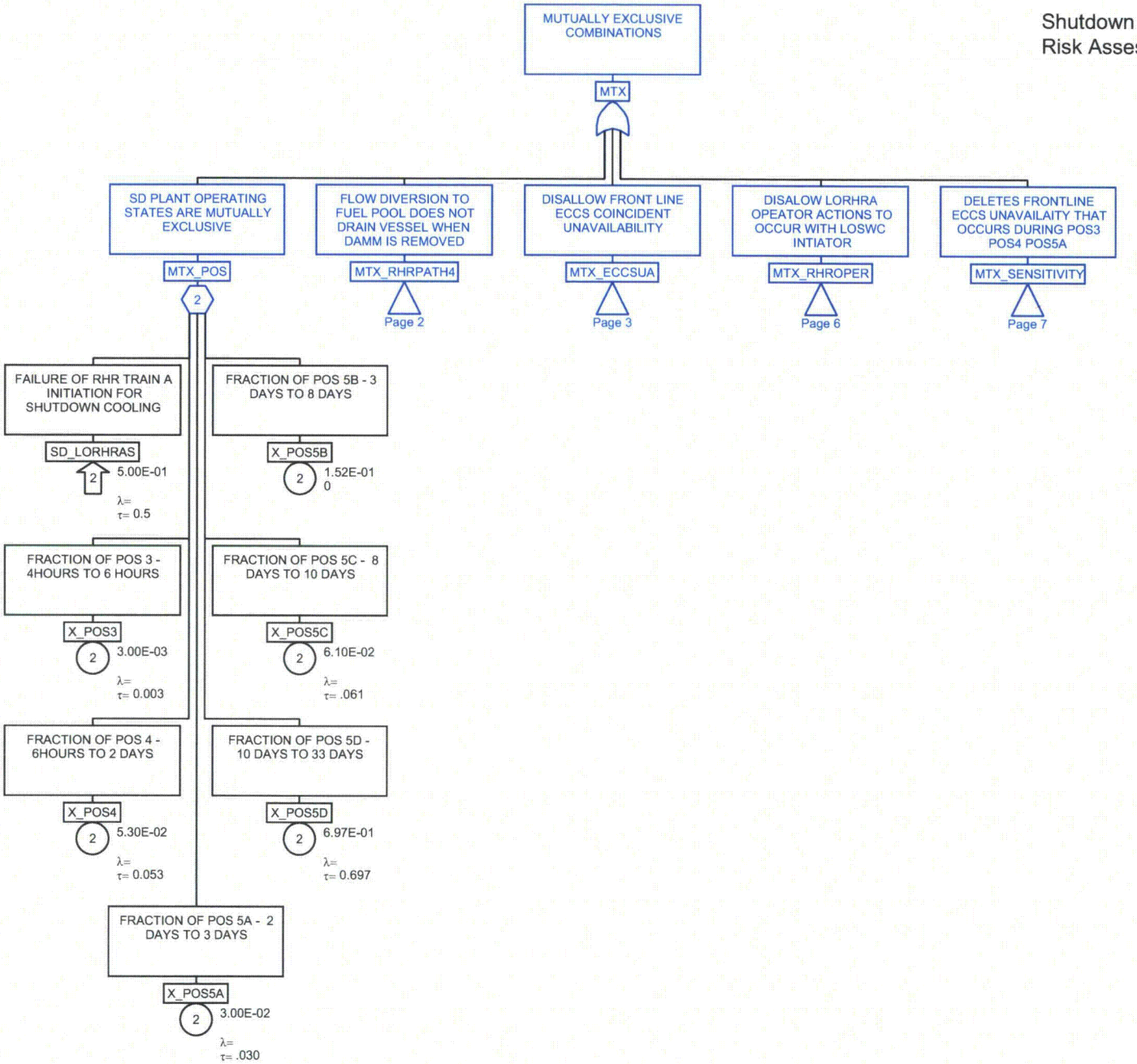
Figure G-27 LOCA Initiating Event Logic



1 2 3 4

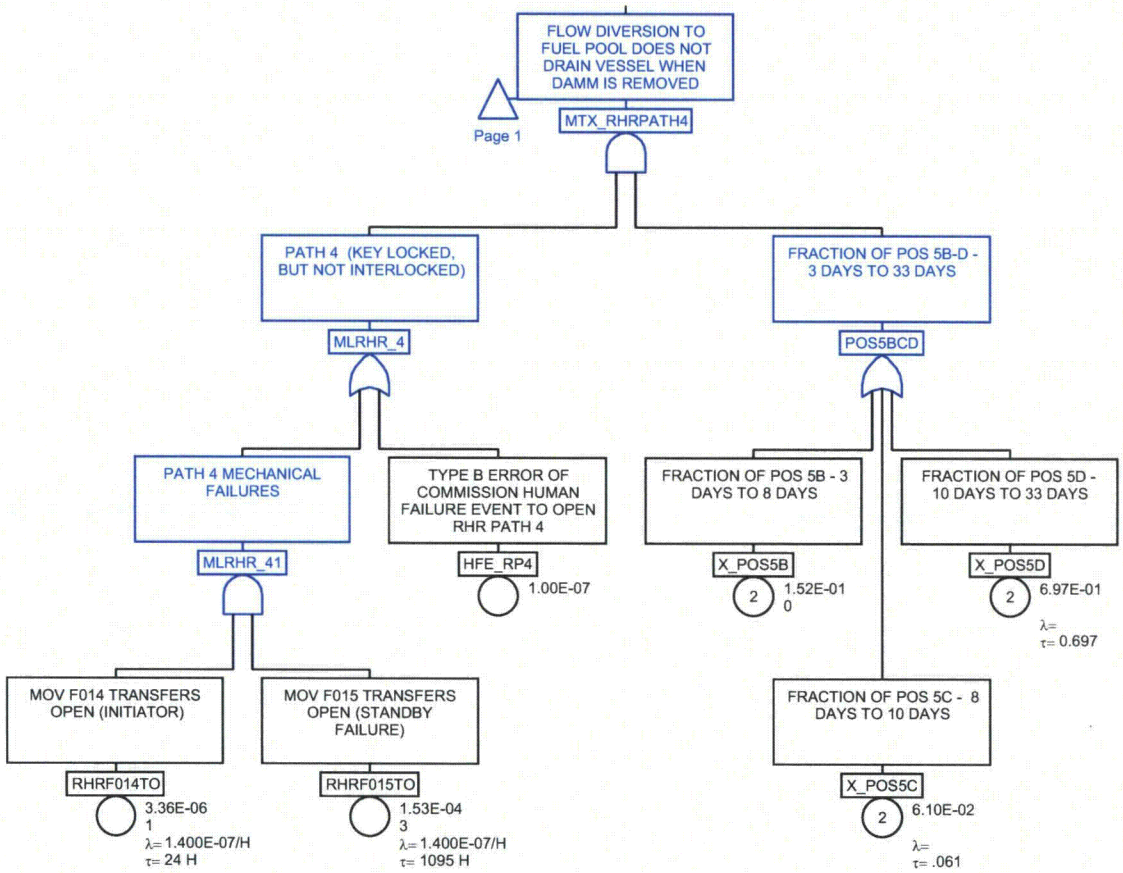
Figure G-27 LOCA Initiating Event Logic

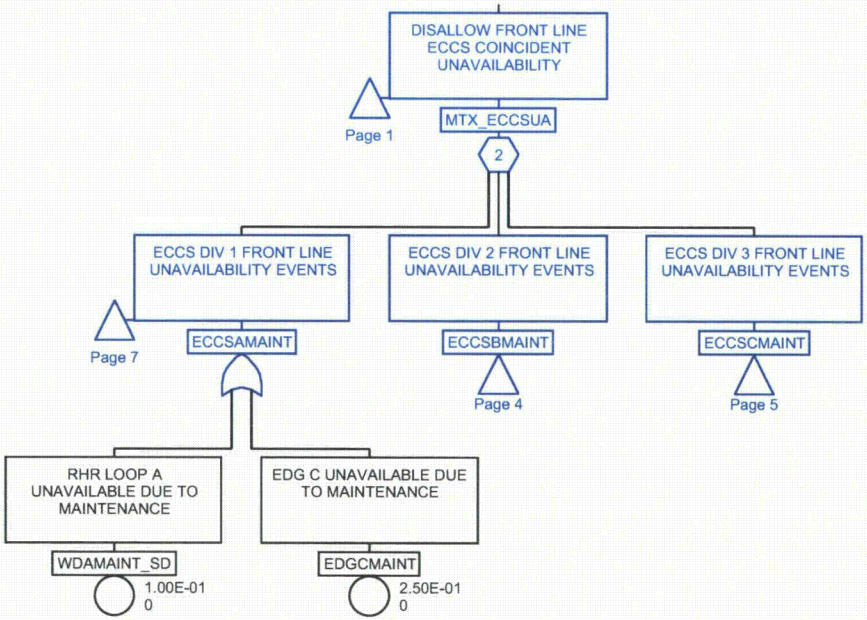
Name	Page	Zone	Name	Page	Zone	
F022TO	9	1	RHRF014TO	7	1	Shutdown Probabilistic Risk Assessment
F022TO	9	3	RHRF015TO	7	2	
F023TO	9	2	RHRF017TO	8	1	
F025TO	9	4	RHRF018TO	8	3	
HFE_RP2	5	3	RHRF019TO	7	4	
HFE_RP4	7	3	RHRF021TO	8	4	
HFE_RP5	8	2	RHRF029TO	5	1	
HFE_RP6	7	5	RHRF030TO	5	2	
HFE_RP9	8	5	SD_CUW	3	5	
LOCA02	10	3	SD_RHR0	3	2	
LOCA0201	10	4	SD_RHR1	3	3	
MLCUW	3	6	SD_S01	3	1	
MLCUW	9	3	SD_S2	1	3	
MLCUW_5	9	2	SD_S3	1	4	
MLCUW_7	9	4	SLOCA	1	4	
MLOCA	2	2	SLOCA	10	3	
MLOCA	3	3	SLOCA01	1	3	
MLOCA	10	4	X_POS3	1	1	
MLOCA01	2	2	X_POS4	1	2	
MLOCA_CUW	3	5	X_POS5A	10	1	
MLOCA_RHR	3	3	X_POS5B	10	1	
MLRHR	3	4	X_POS5C	10	2	
MLRHR	4	2	X_POS5D	10	2	
MLRHR_2	4	1				
MLRHR_2	5	2				
MLRHR_21	5	2				
MLRHR_3	4	1				
MLRHR_3	6	1				
MLRHR_4	4	1				
MLRHR_4	7	2				
MLRHR_41	7	2				
MLRHR_5	4	2				
MLRHR_5	8	2				
MLRHR_51	8	2				
MLRHR_6	4	2				
MLRHR_6	7	4				
MLRHR_8	4	2				
MLRHR_8	6	2				
MLRHR_9	4	2				
MLRHR_9	8	4				
POS3OR4	1	2				
POS3OR4	2	1				
POS5	10	2				
RHRF001TO	6	2				
RHRF008TO	6	1				



1 2 3 4 5

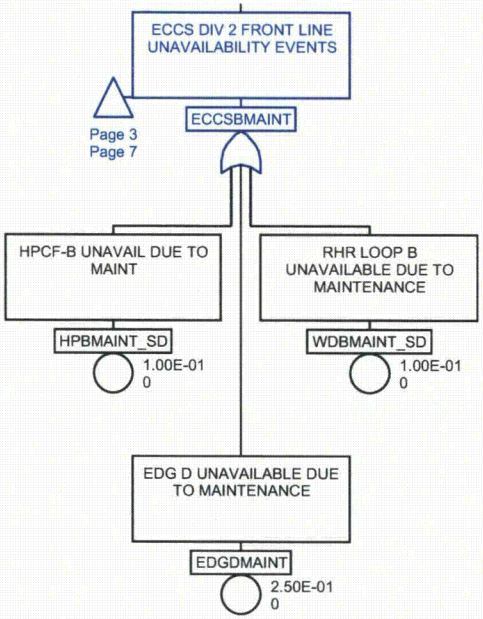
Figure G-28 Mutually Excluxive Combinations Logic


FLOW DIVERSION TO FUEL POOL DOES NOT DRAIN VESSEL WHEN DAMM IS REMOVED
Page 1
MTX_RHRPATH4
PATH 4 (KEY LOCKED, BUT NOT INTERLOCKED)
MLRHR_4
FRACTION OF POS 5B-D - 3 DAYS TO 33 DAYS
POS5BCD
PATH 4 MECHANICAL FAILURES
MLRHR_41
TYPE B ERROR OF COMMISSION HUMAN FAILURE EVENT TO OPEN RHR PATH 4
HFE_RP4
1.00E-07
FRACTION OF POS 5B - 3 DAYS TO 8 DAYS
X_POS5B
2
1.52E-01
0
FRACTION OF POS 5D - 10 DAYS TO 33 DAYS
X_POS5D
2
6.97E-01
λ=
τ= 0.697
MOV F014 TRANSFERS OPEN (INITIATOR)
RHRF014TO
3.36E-06
1
λ= 1.400E-07/H
τ= 24 H
MOV F015 TRANSFERS OPEN (STANDBY FAILURE)
RHRF015TO
1.53E-04
3
λ= 1.400E-07/H
τ= 1095 H
FRACTION OF POS 5C - 8 DAYS TO 10 DAYS
X_POS5C
2
6.10E-02
λ=
τ= .061



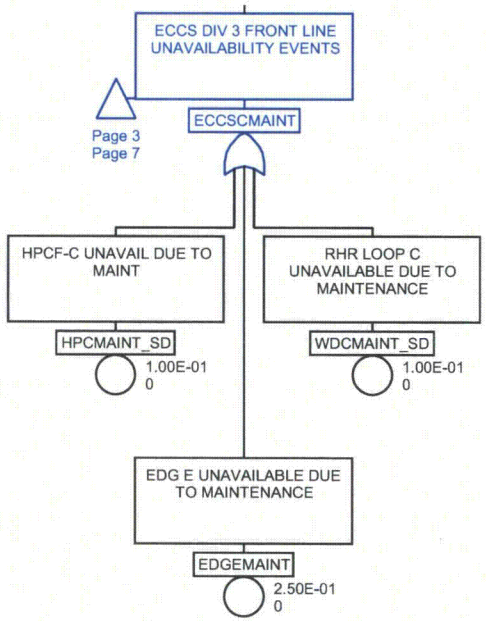
1 2 3

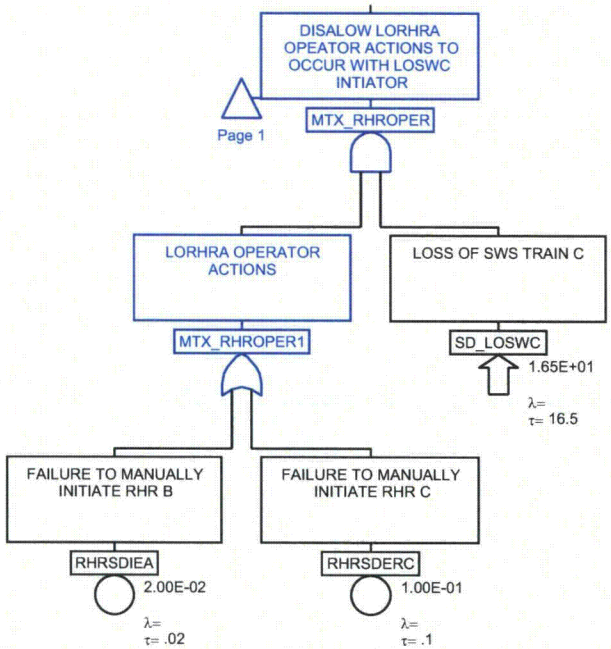
Figure G-28 Mutually Excluxive Combinations Logic



1 2

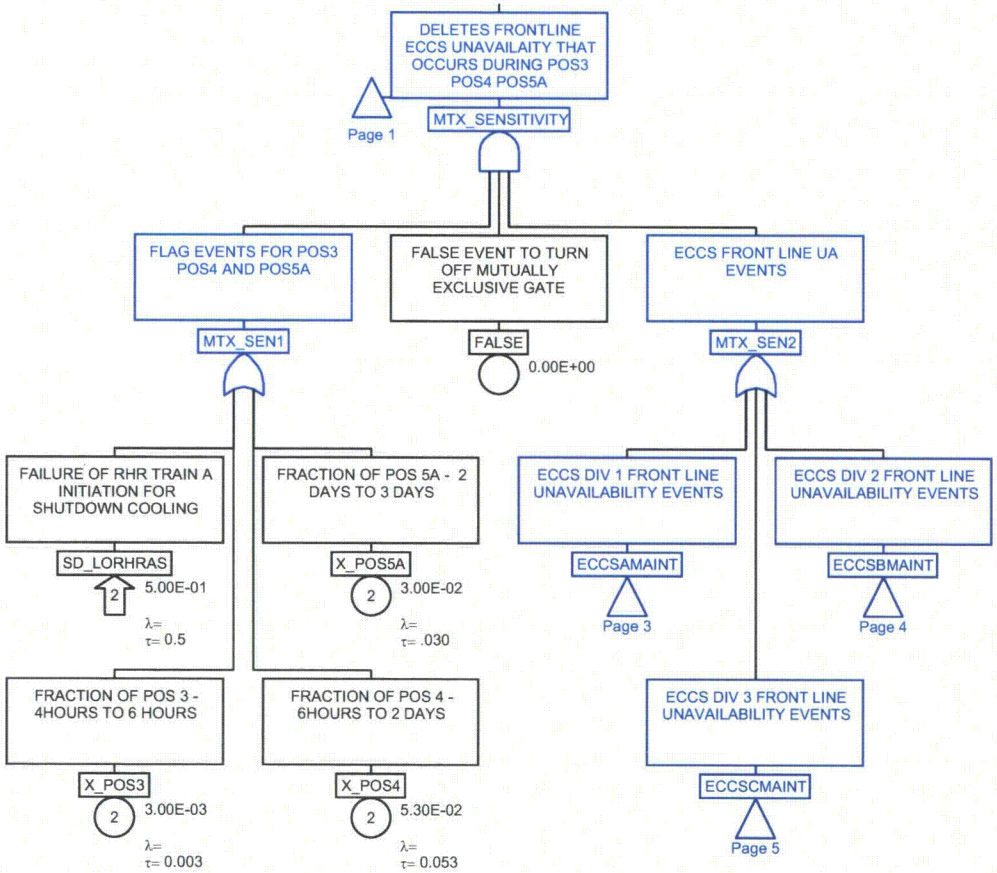
Figure G-28 Mutually Excluxive Combinations Logic


ECCS DIV 3 FRONT LINE UNAVAILABILITY EVENTS
ECCSCMAINT
Page 3
Page 7
HPCF-C UNAVAIL DUE TO MAINT
RHR LOOP C UNAVAILABLE DUE TO MAINTENANCE
HPCMAINT_SD
1.00E-01
0
WDCMAINT_SD
1.00E-01
0
EDG E UNAVAILABLE DUE TO MAINTENANCE
EDGEMAINT
2.50E-01
0



1 2

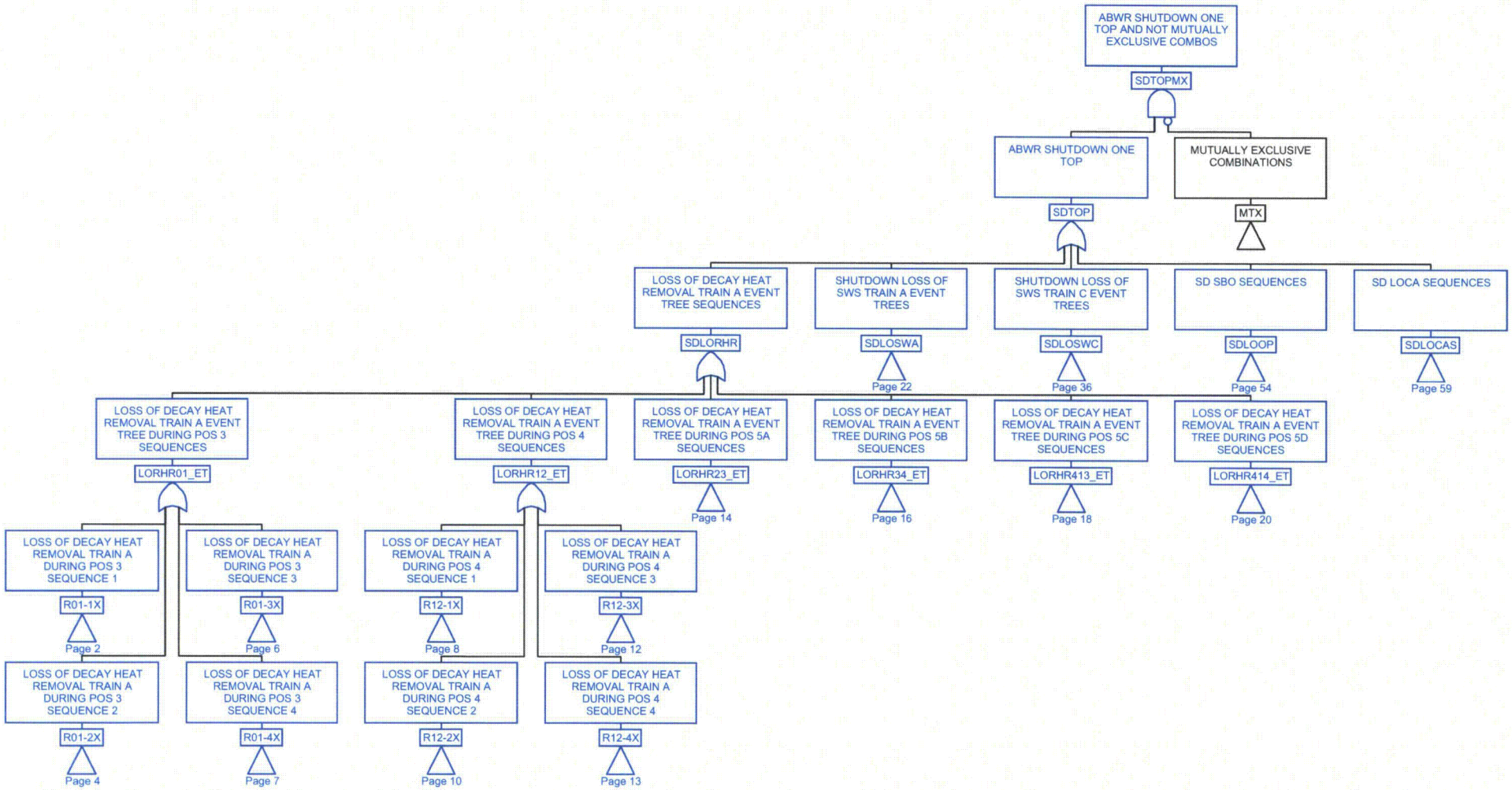
Figure G-28 Mutually Excluxive Combinations Logic



1 2 3 4

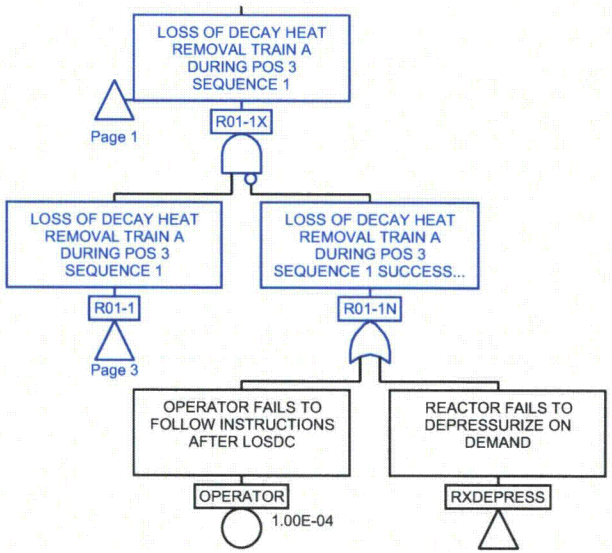
Figure G-28 Mutually Exclusive Combinations Logic

Name	Page	Zone	Name	Page	Zone	
ECCSAMAINT	3	2	X_POS5A	1	2	Shutdown Probabilistic Risk Assessment
ECCSAMAINT	7	3	X_POS5A	7	2	
ECCSBMAINT	3	3	X_POS5B	1	2	
ECCSBMAINT	4	2	X_POS5B	2	4	
ECCSBMAINT	7	4	X_POS5C	1	2	
ECCSCMAINT	3	4	X_POS5C	2	4	
ECCSCMAINT	5	2	X_POS5D	1	2	
ECCSCMAINT	7	4	X_POS5D	2	5	
EDGCMAINT	3	2				
EDGDMAINT	4	2				
EDGEMAINT	5	2				
FALSE	7	3				
HFE_RP4	2	3				
HPBMAINT_SD	4	1				
HPCMAINT_SD	5	1				
MLRHR_4	2	2				
MLRHR_41	2	2				
MTX	1	4				
MTX_ECCSUA	1	4				
MTX_ECCSUA	3	3				
MTX_POS	1	2				
MTX_RHROPER	1	5				
MTX_RHROPER	6	2				
MTX_RHROPER1	6	2				
MTX_RHRPATH4	1	3				
MTX_RHRPATH4	2	3				
MTX_SEN1	7	2				
MTX_SEN2	7	4				
MTX_SENSITIVITY	1	6				
MTX_SENSITIVITY	7	3				
POS5BCD	2	4				
RHRF014TO	2	1				
RHRF015TO	2	2				
RHRSDERC	6	2				
RHRSDIEA	6	1				
SD_LORHRAS	1	1				
SD_LORHRAS	7	1				
SD_LOSWC	6	3				
WDAMAINT_SD	3	1				
WDBMAINT_SD	4	2				
WDCMAINT_SD	5	2				
X_POS3	1	1				
X_POS3	7	1				
X_POS4	1	1				
X_POS4	7	2				



1 2 3 4 5 6 7 8

Figure G-29 Top Logic and Sequence Logic


LOSS OF DECAY HEAT REMOVAL TRAIN A DURING POS 3 SEQUENCE 1
Page 1
R01-1X
LOSS OF DECAY HEAT REMOVAL TRAIN A DURING POS 3 SEQUENCE 1
R01-1
Page 3
LOSS OF DECAY HEAT REMOVAL TRAIN A DURING POS 3 SEQUENCE 1 SUCCESS...
R01-1N
OPERATOR FAILS TO FOLLOW INSTRUCTIONS AFTER LOSDC
OPERATOR
1.00E-04
REACTOR FAILS TO DEPRESSURIZE ON DEMAND
RXDEPRESS

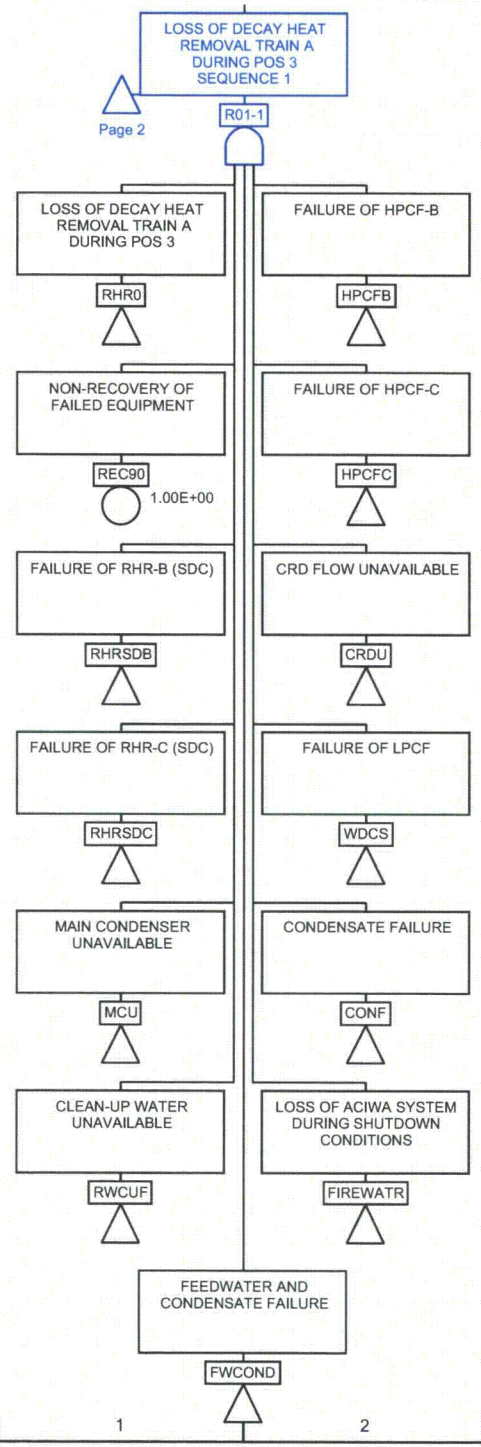
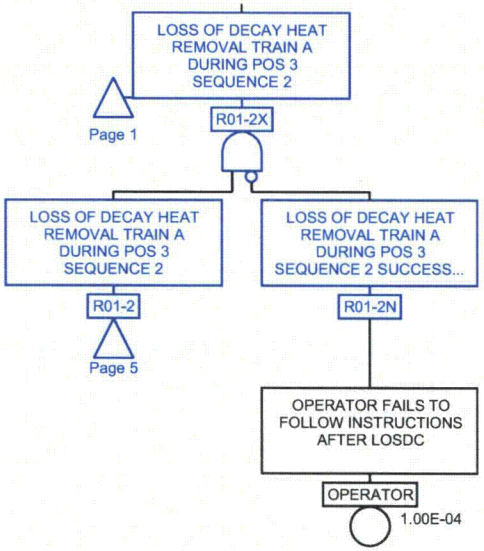


Figure G-29 Top Logic and Sequence Logic


LOSS OF DECAY HEAT REMOVAL TRAIN A DURING POS 3 SEQUENCE 2
Page 1
R01-2X
LOSS OF DECAY HEAT REMOVAL TRAIN A DURING POS 3 SEQUENCE 2
R01-2
Page 5
LOSS OF DECAY HEAT REMOVAL TRAIN A DURING POS 3 SEQUENCE 2 SUCCESS...
R01-2N
OPERATOR FAILS TO FOLLOW INSTRUCTIONS AFTER LOSDC
OPERATOR
1.00E-04

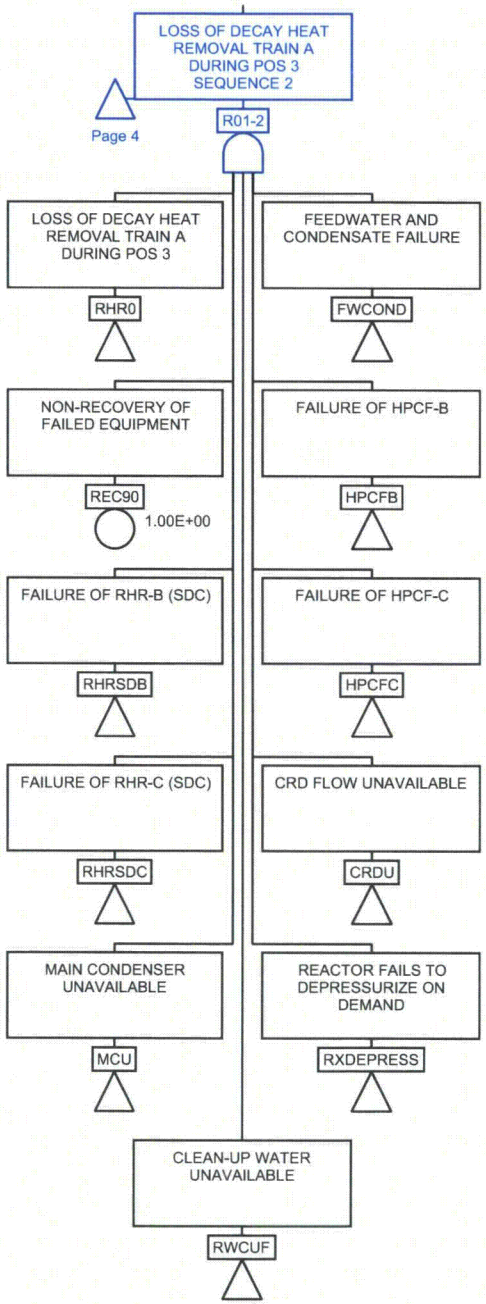


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Figure G-29 Top Logic and Sequence Logic

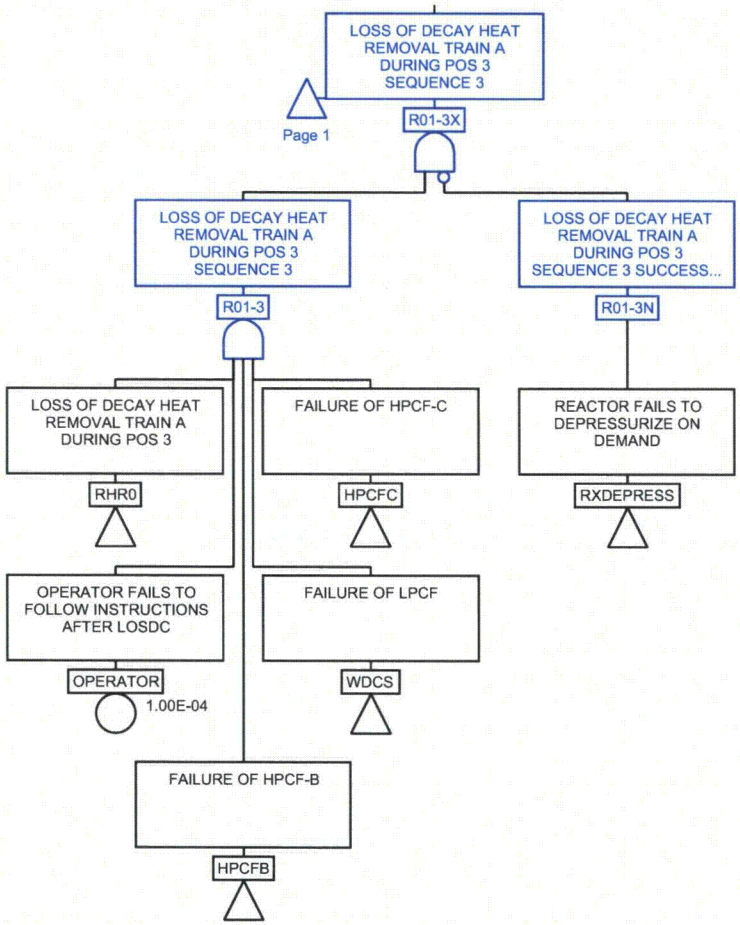

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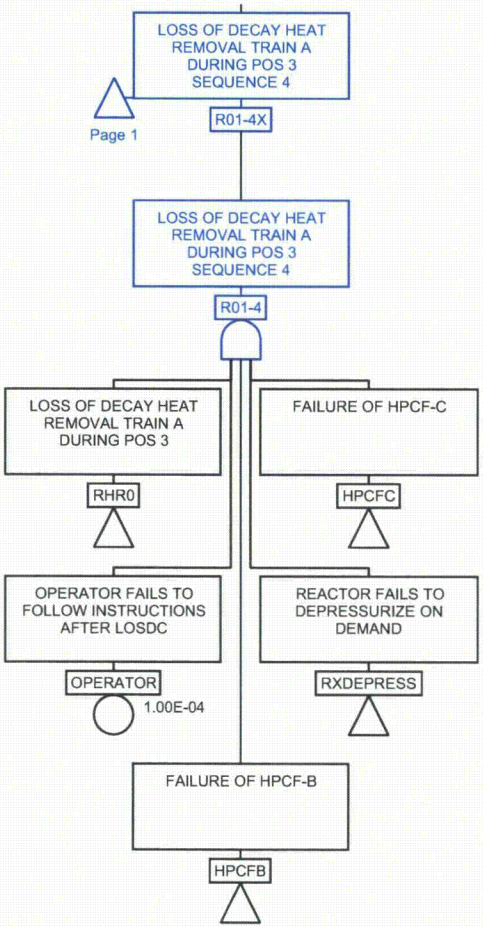
Figure G-29 Top Logic and Sequence Logic


LOSS OF DECAY HEAT REMOVAL TRAIN A DURING POS 3 SEQUENCE 4
R01-4X
Page 1
LOSS OF DECAY HEAT REMOVAL TRAIN A DURING POS 3 SEQUENCE 4
R01-4
LOSS OF DECAY HEAT REMOVAL TRAIN A DURING POS 3
RHR0
FAILURE OF HPCF-C
HPCFC
OPERATOR FAILS TO FOLLOW INSTRUCTIONS AFTER LOSDC
OPERATOR
1.00E-04
REACTOR FAILS TO DEPRESSURIZE ON DEMAND
RXDEPRESS
FAILURE OF HPCF-B
HPCFB

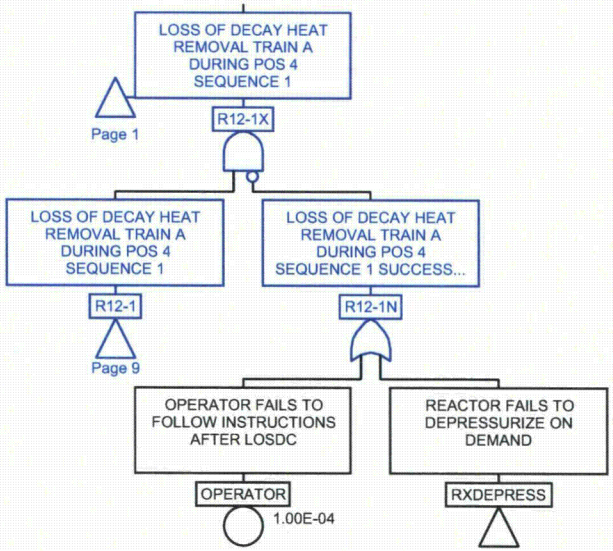


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Figure G-29 Top Logic and Sequence Logic

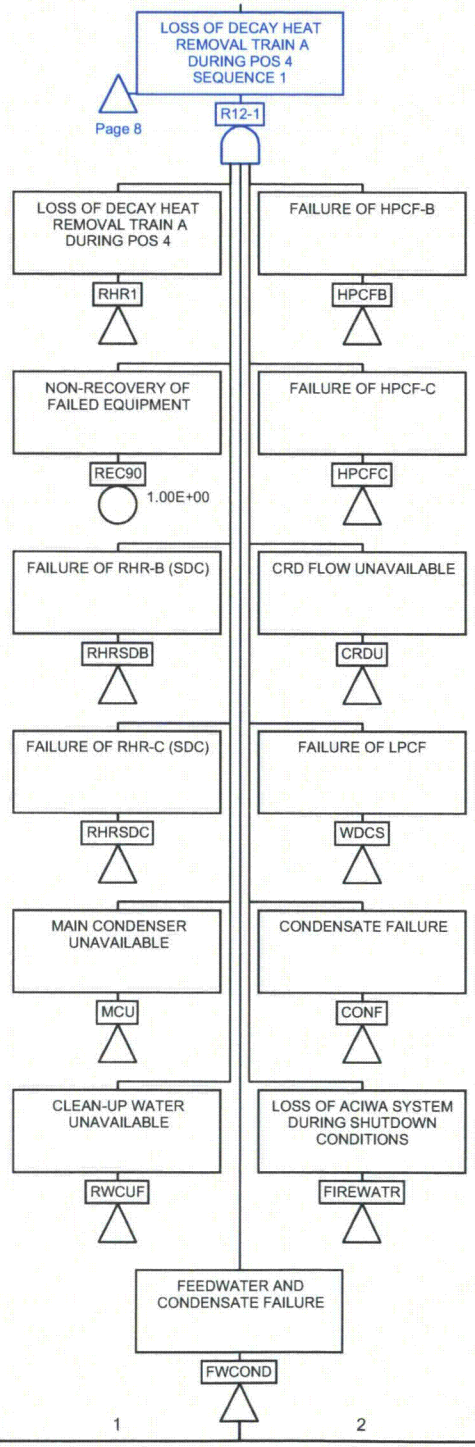

Figure G-29 Top Logic and Sequence Logic

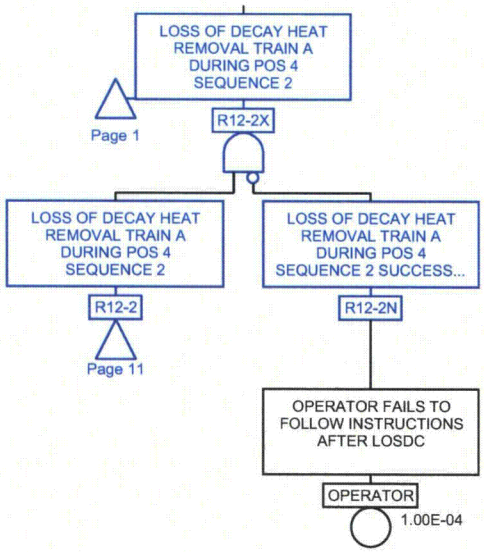

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Figure G-29 Top Logic and Sequence Logic

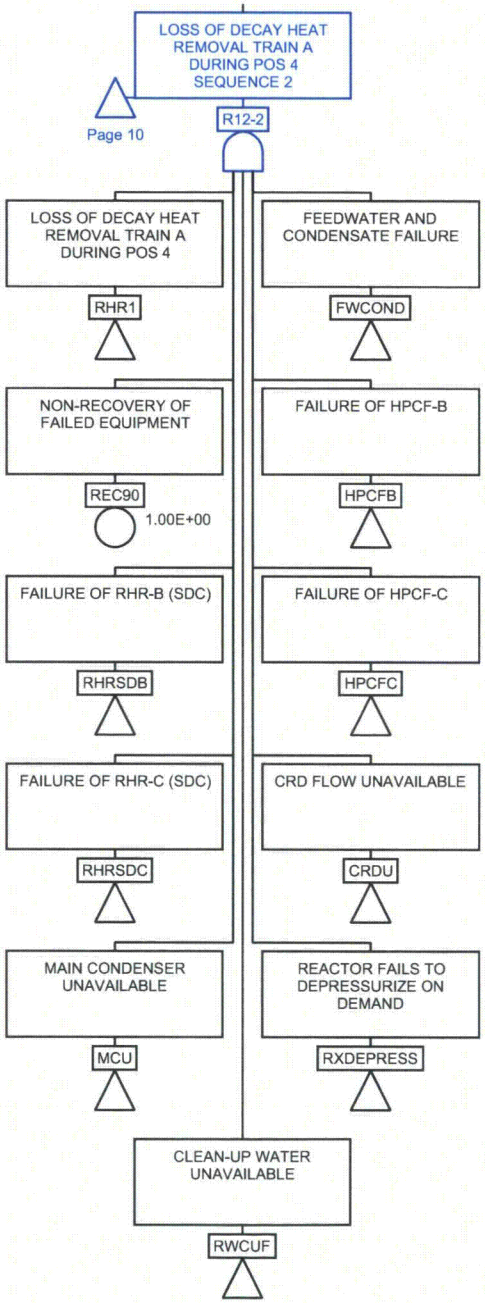

Figure G-29 Top Logic and Sequence Logic

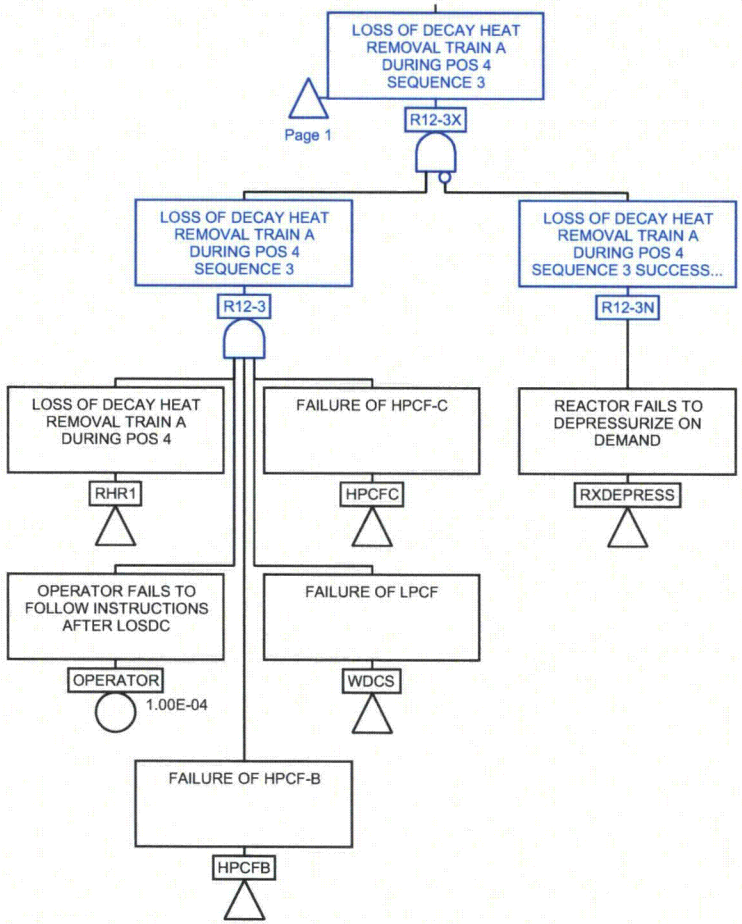

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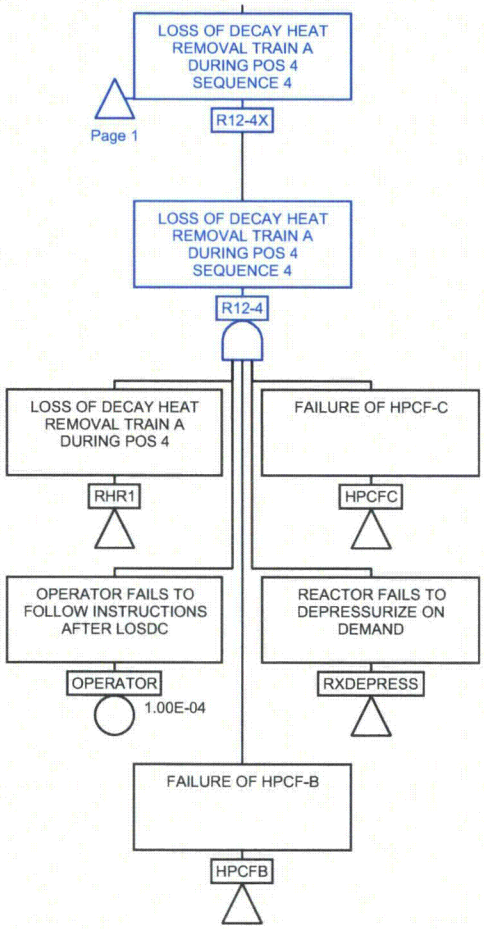
Figure G-29 Top Logic and Sequence Logic


LOSS OF DECAY HEAT REMOVAL TRAIN A DURING POS 4 SEQUENCE 4
R12-4X
Page 1
LOSS OF DECAY HEAT REMOVAL TRAIN A DURING POS 4 SEQUENCE 4
R12-4
LOSS OF DECAY HEAT REMOVAL TRAIN A DURING POS 4
RHR1
FAILURE OF HPCF-C
HPCFC
OPERATOR FAILS TO FOLLOW INSTRUCTIONS AFTER LOSDC
OPERATOR
1.00E-04
REACTOR FAILS TO DEPRESSURIZE ON DEMAND
RXDEPRESS
FAILURE OF HPCF-B
HPCFB

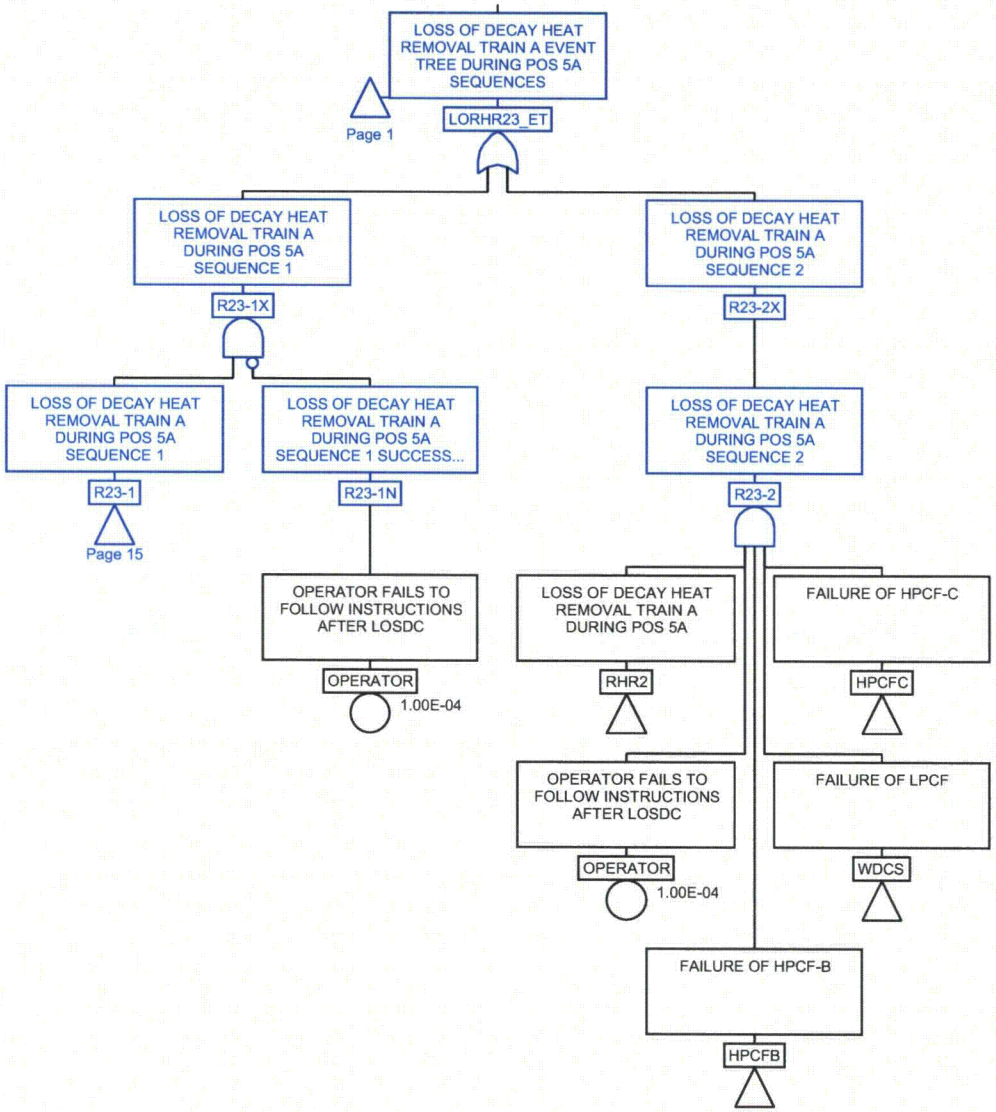


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Figure G-29 Top Logic and Sequence Logic

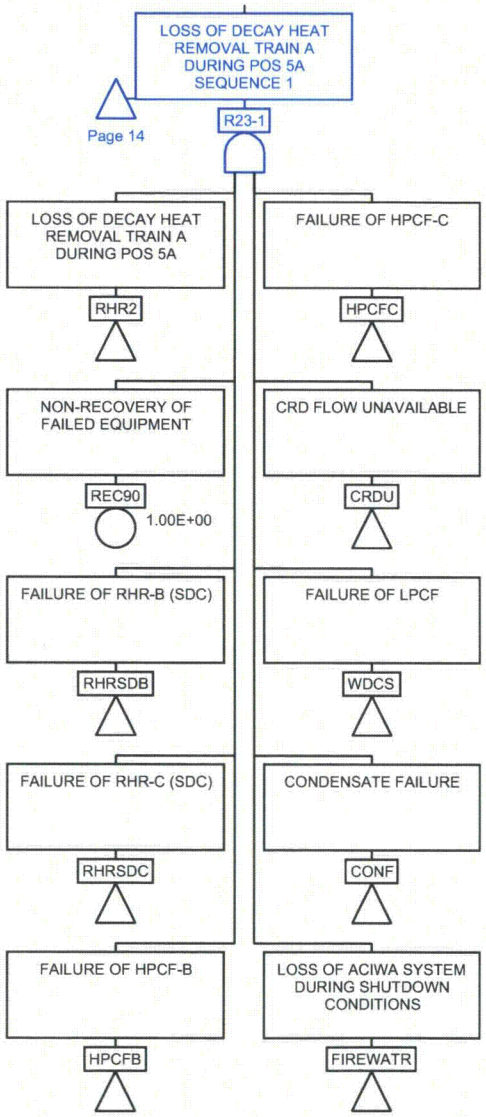

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Figure G-29 Top Logic and Sequence Logic

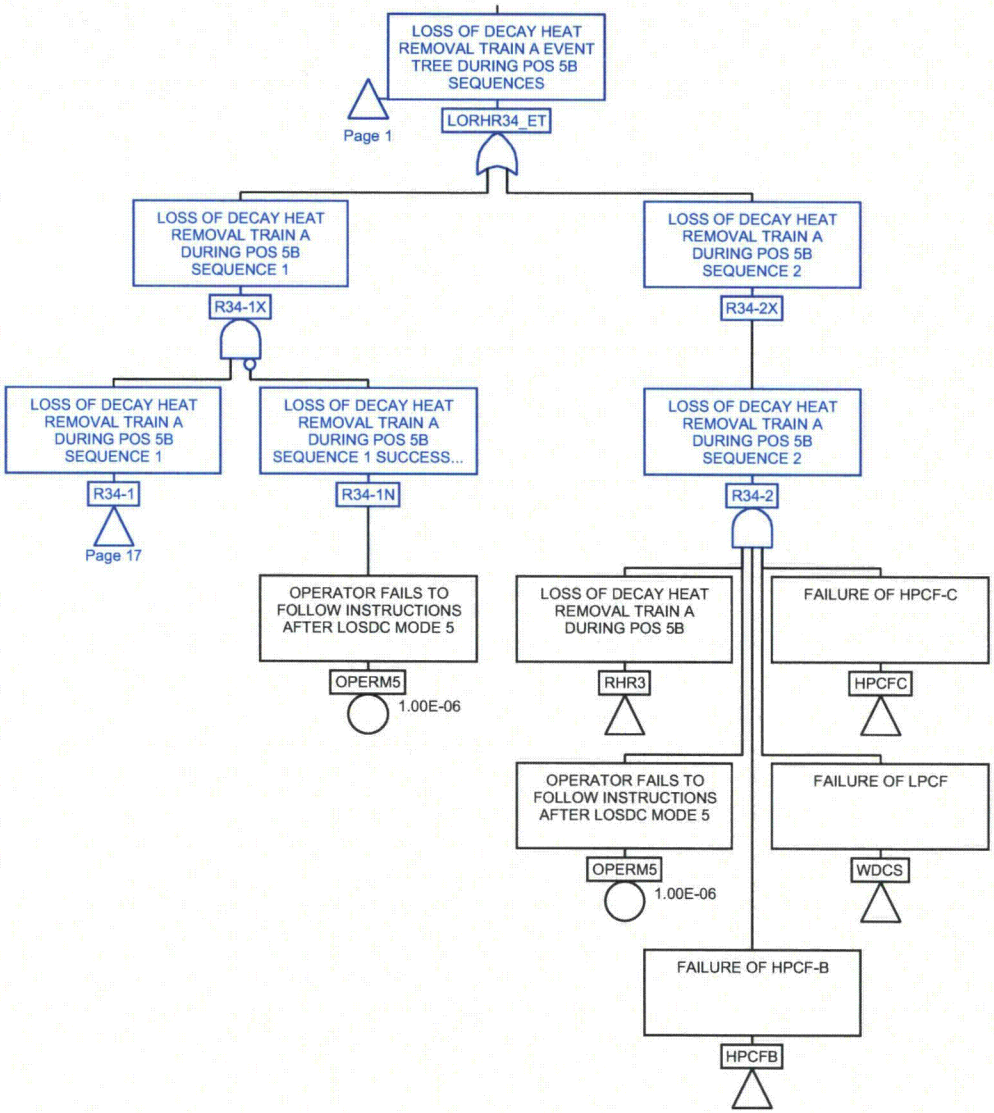

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Figure G-29 Top Logic and Sequence Logic

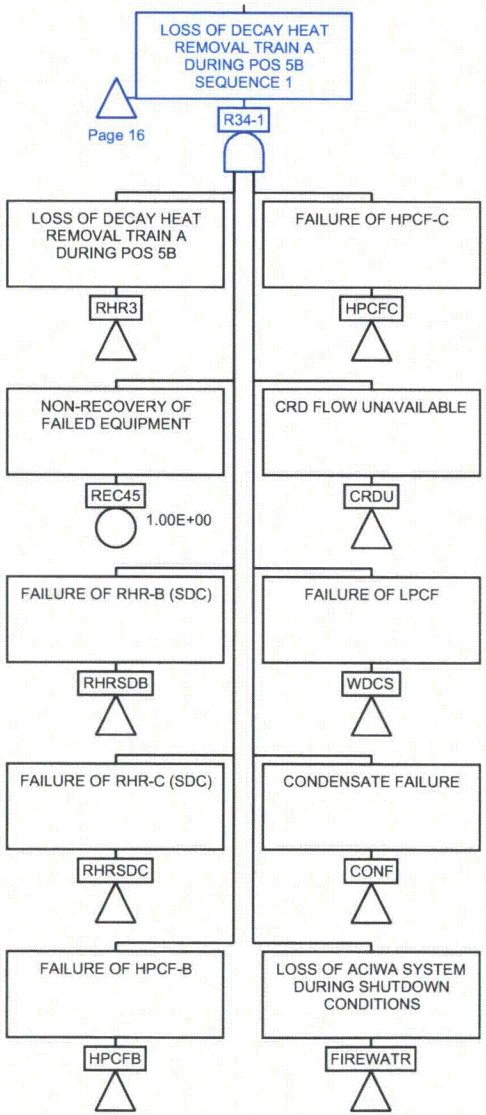

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Figure G-29 Top Logic and Sequence Logic

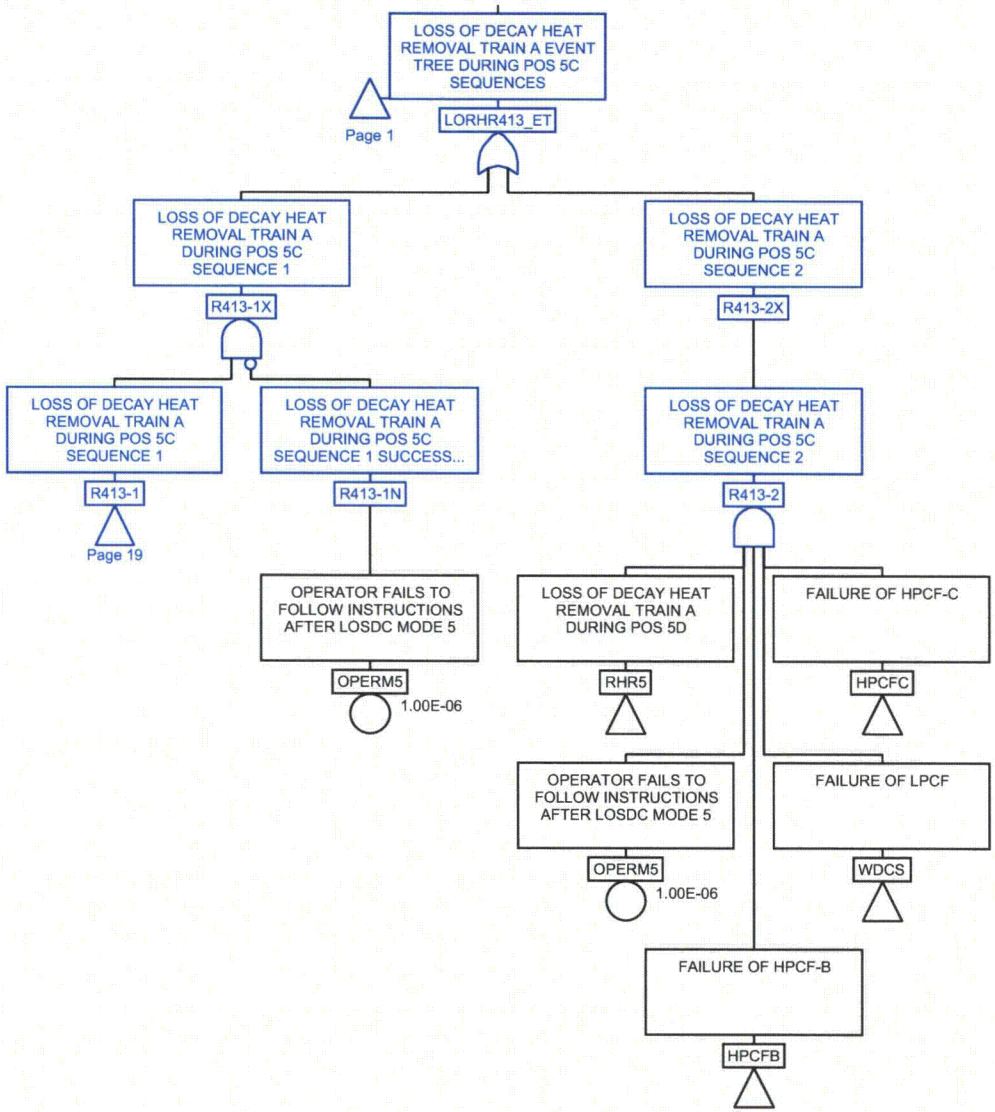

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Figure G-29 Top Logic and Sequence Logic

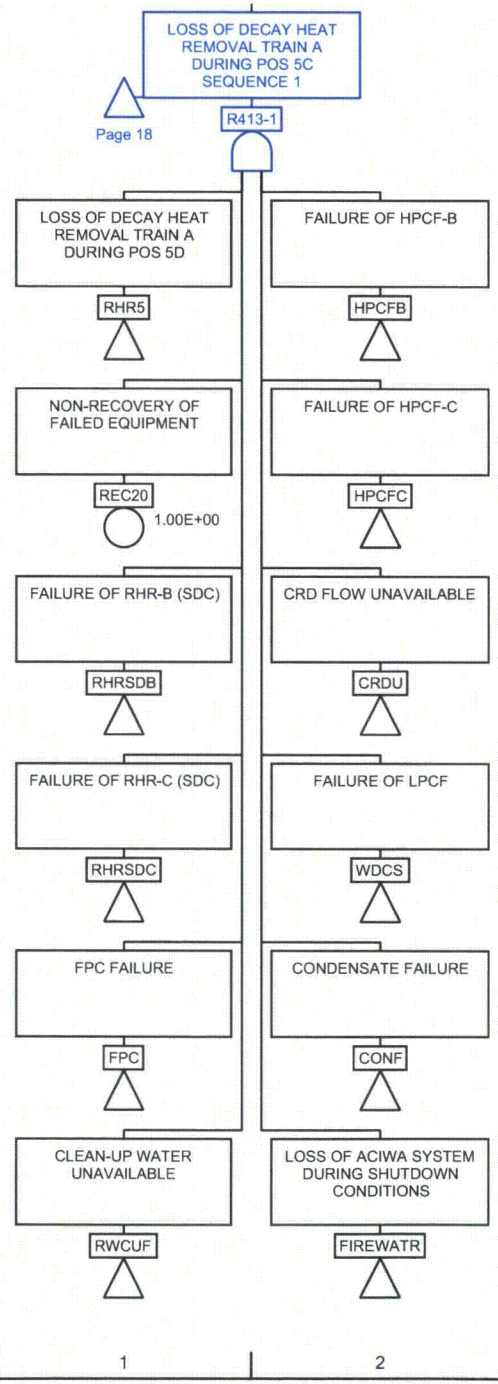

Figure G-29 Top Logic and Sequence Logic

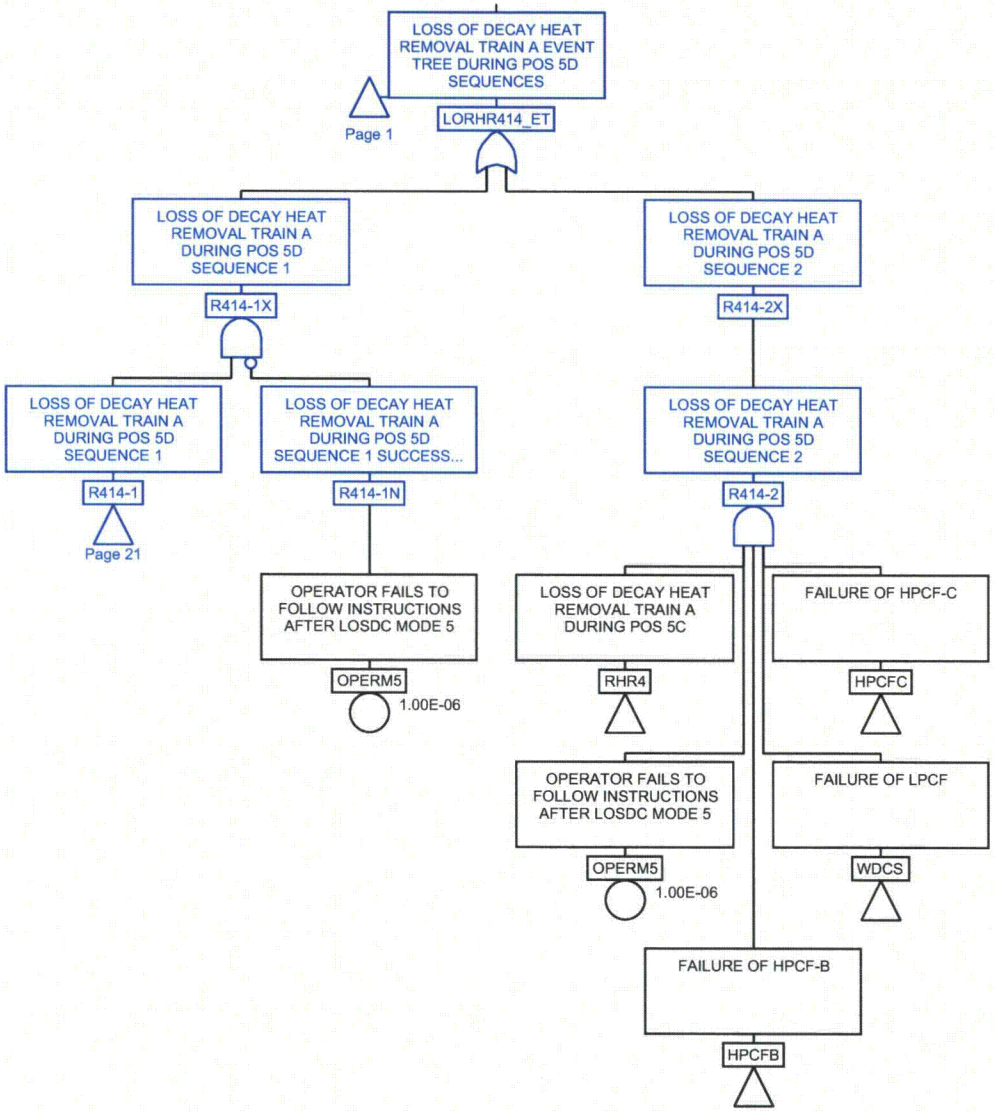

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Figure G-29 Top Logic and Sequence Logic

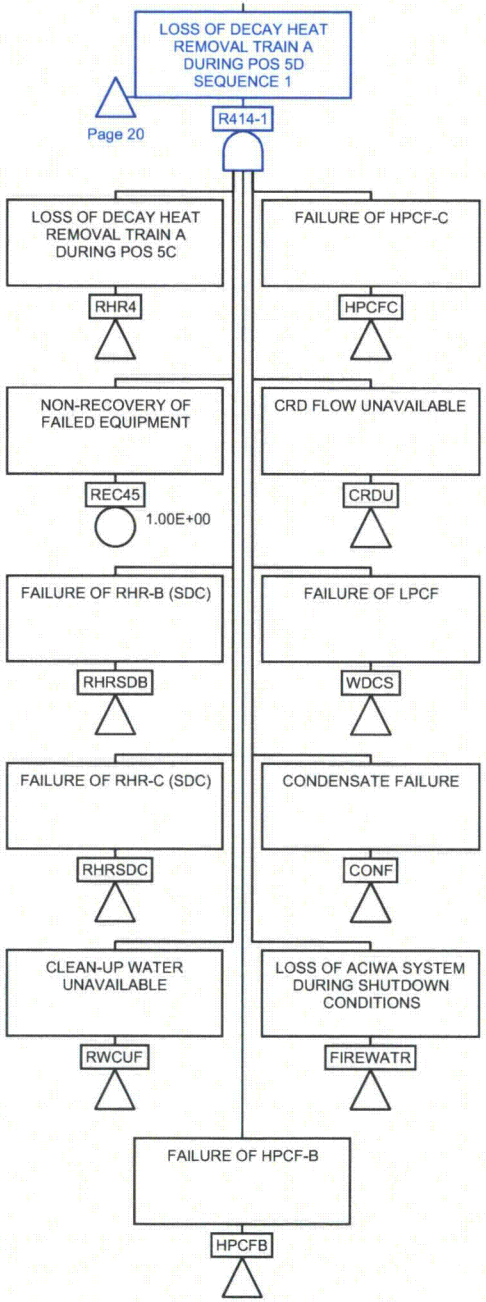
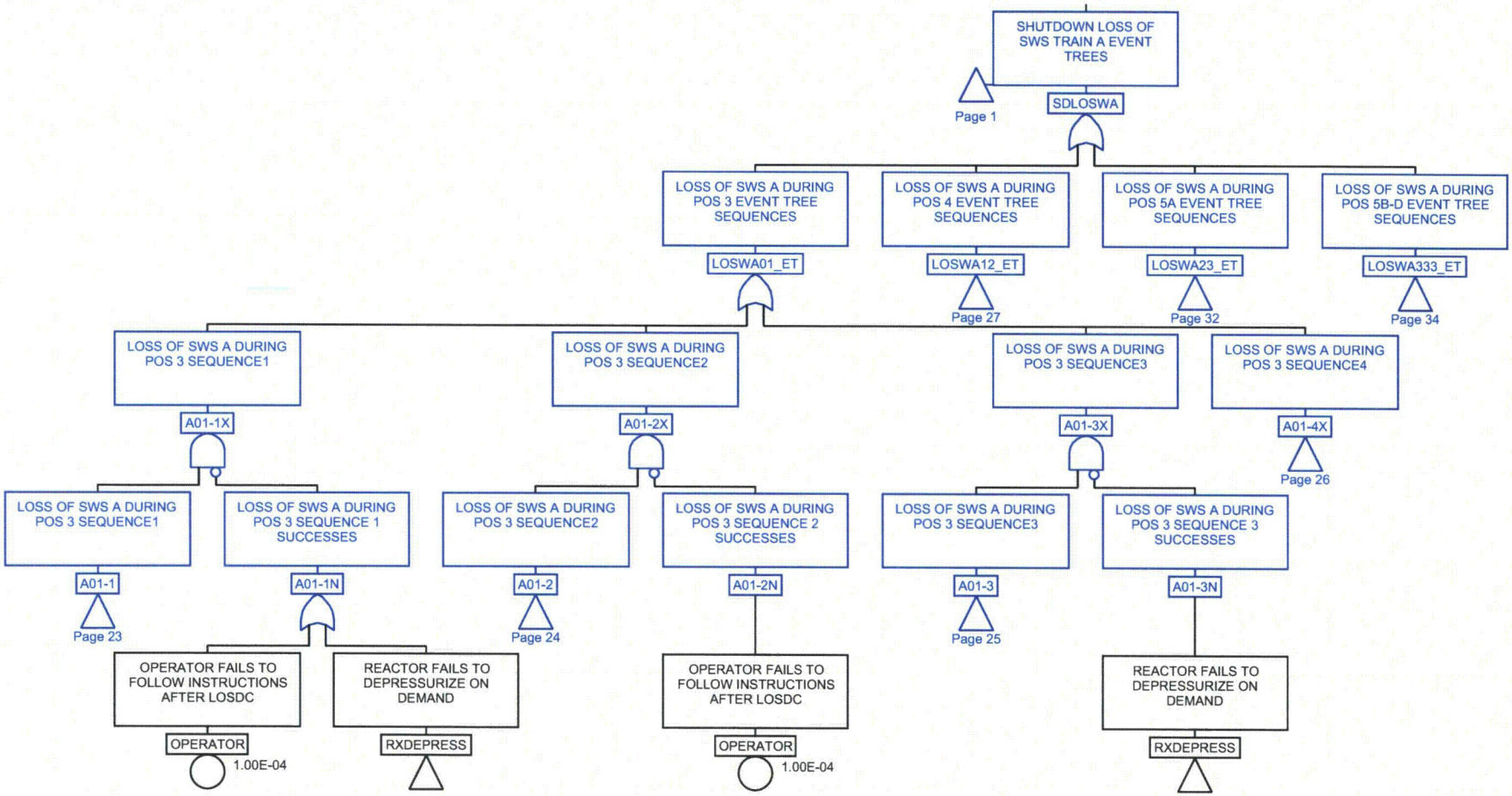
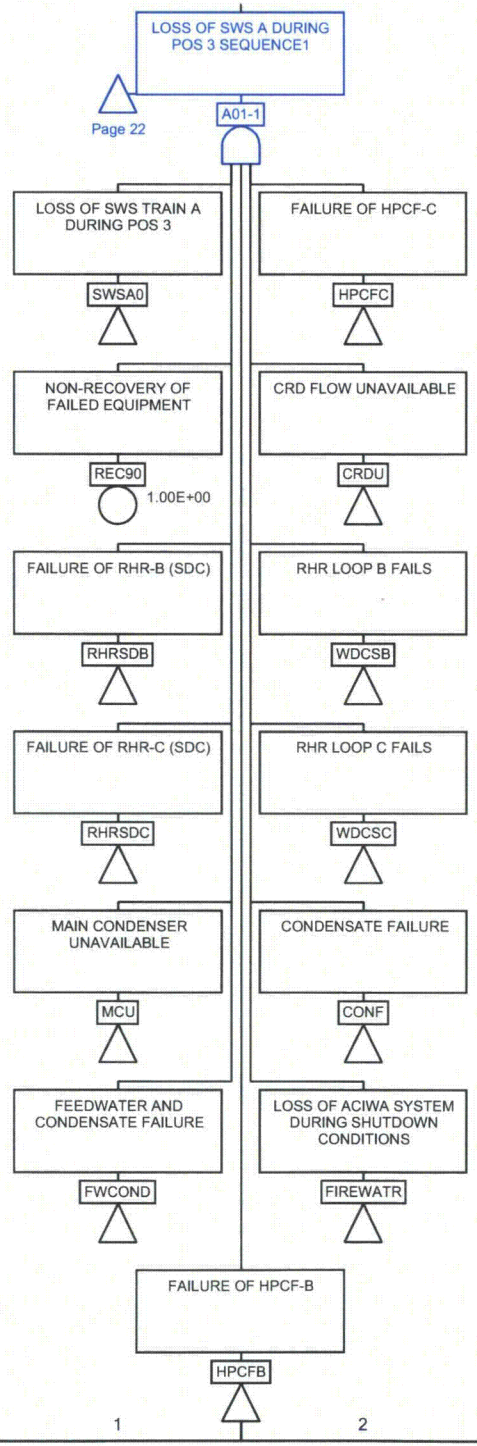


Figure G-29 Top Logic and Sequence Logic



1 2 3 4 5 6 7

Figure G-29 Top Logic and Sequence Logic


LOSS OF SWS A DURING POS 3 SEQUENCE1
Page 22
A01-1
LOSS OF SWS TRAIN A DURING POS 3
SWSA0
FAILURE OF HPCF-C
HPCFC
NON-RECOVERY OF FAILED EQUIPMENT
REC90
1.00E+00
CRD FLOW UNAVAILABLE
CRDU
FAILURE OF RHR-B (SDC)
RHRSDB
RHR LOOP B FAILS
WDCSB
FAILURE OF RHR-C (SDC)
RHRSDC
RHR LOOP C FAILS
WDCSC
MAIN CONDENSER UNAVAILABLE
MCU
CONDENSATE FAILURE
CONF
FEEDWATER AND CONDENSATE FAILURE
FWCOND
LOSS OF ACIWA SYSTEM DURING SHUTDOWN CONDITIONS
FIREWATR
FAILURE OF HPCF-B
HPCFB
1
2

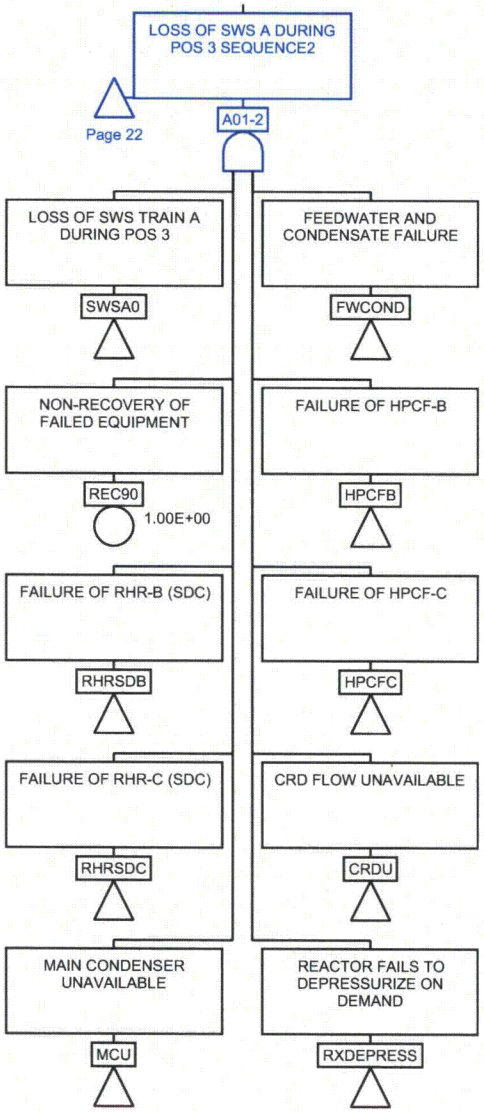


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Figure G-29 Top Logic and Sequence Logic

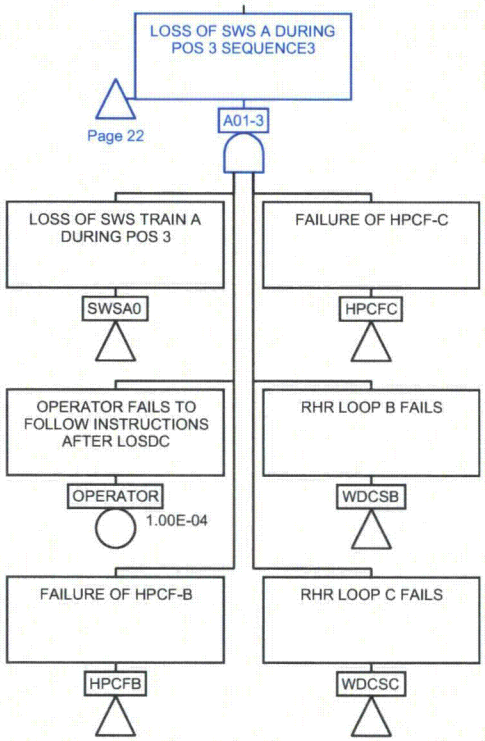

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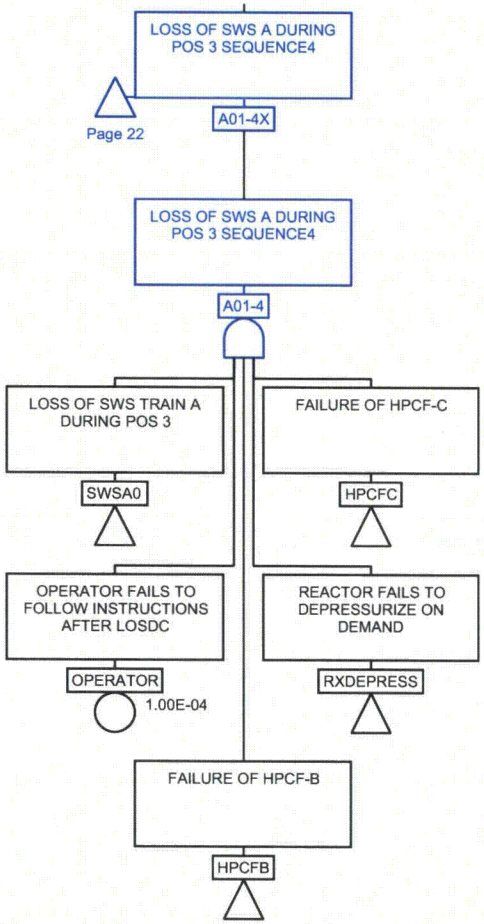
Figure G-29 Top Logic and Sequence Logic


LOSS OF SWS A DURING POS 3 SEQUENCE4
Page 22
A01-4X
LOSS OF SWS A DURING POS 3 SEQUENCE4
A01-4
LOSS OF SWS TRAIN A DURING POS 3
SWSA0
FAILURE OF HPCF-C
HPCFC
OPERATOR FAILS TO FOLLOW INSTRUCTIONS AFTER LOSDC
OPERATOR
1.00E-04
REACTOR FAILS TO DEPRESSURIZE ON DEMAND
RXDEPRESS
FAILURE OF HPCF-B
HPCFB

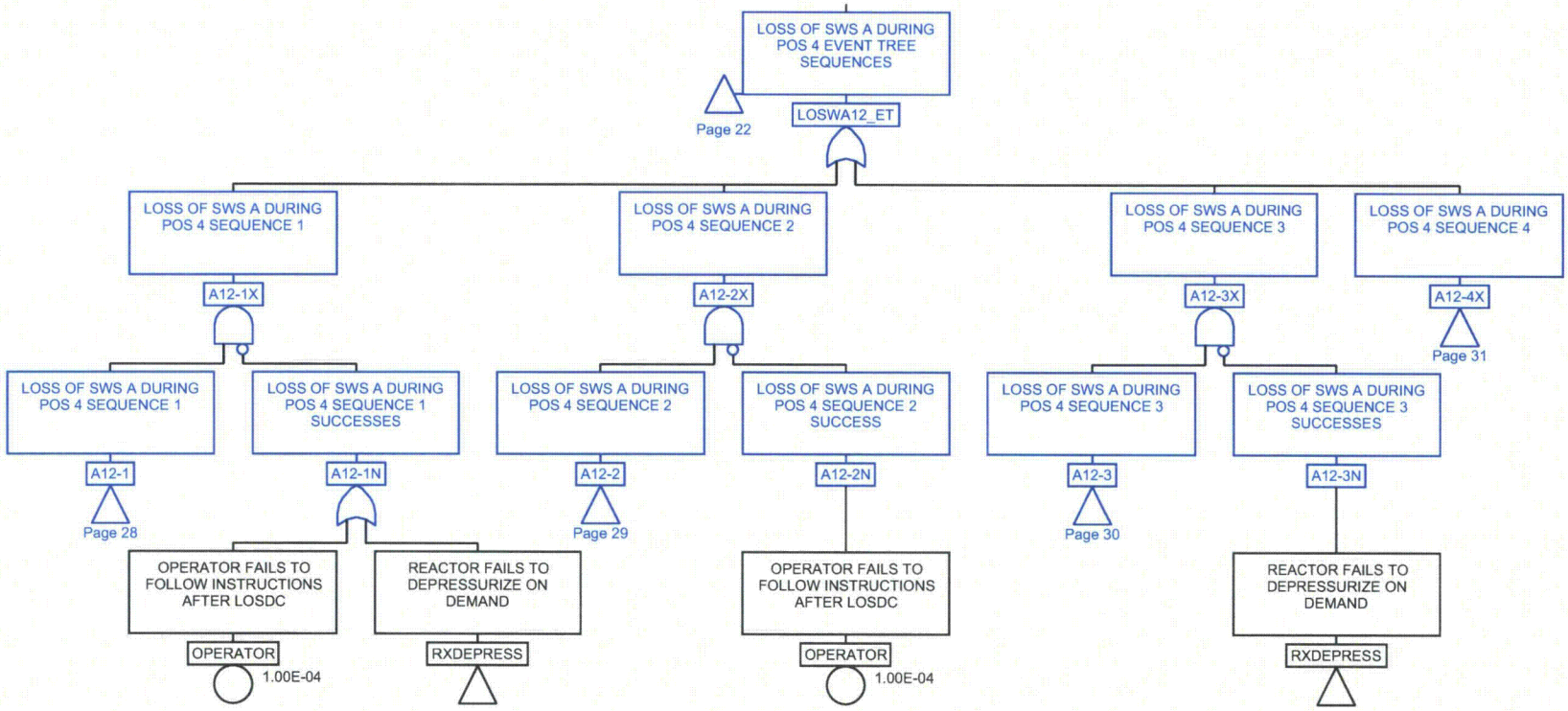


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Figure G-29 Top Logic and Sequence Logic

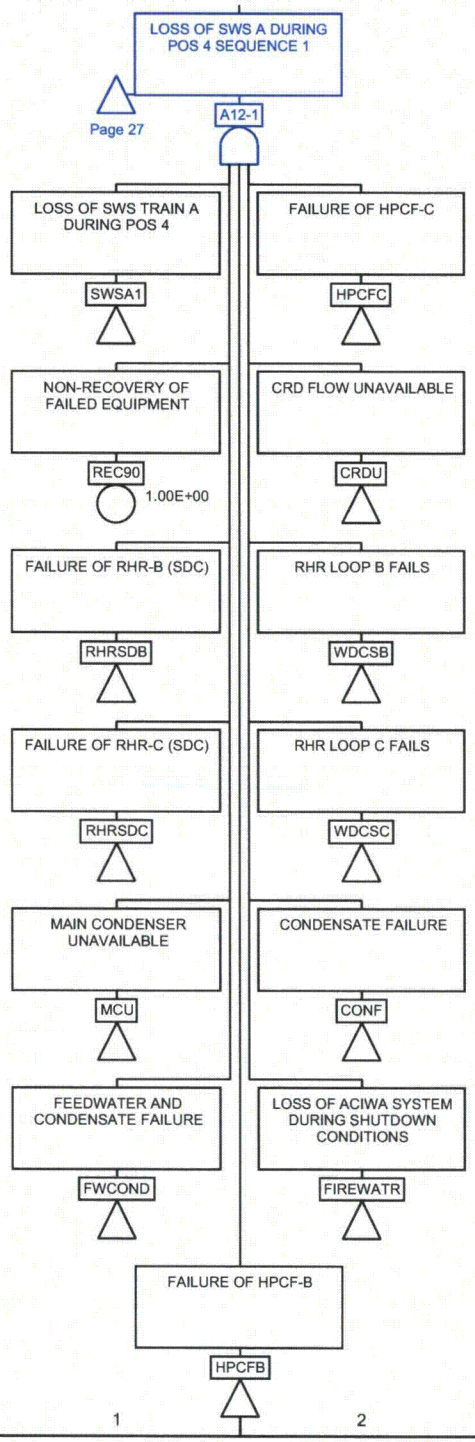
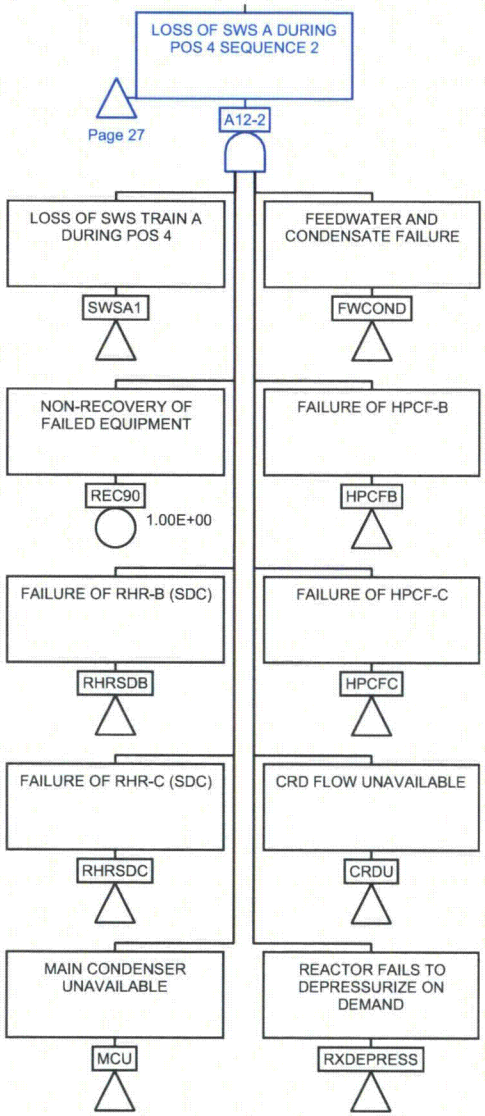
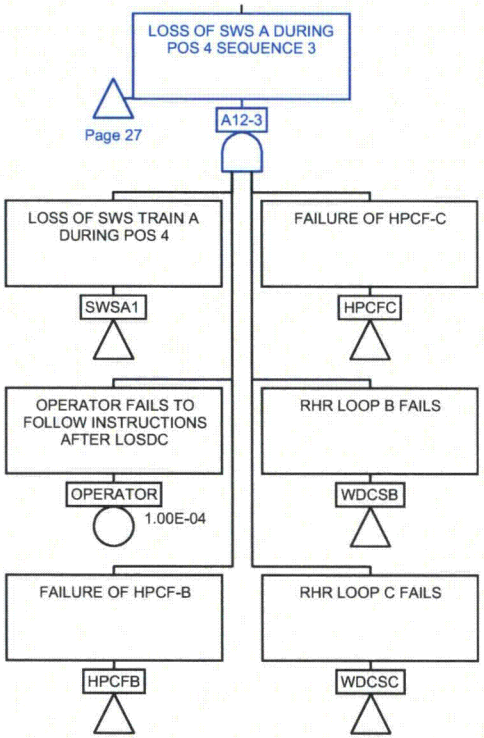


Figure G-29 Top Logic and Sequence Logic


LOSS OF SWS A DURING POS 4 SEQUENCE 2
Page 27
A12-2
LOSS OF SWS TRAIN A DURING POS 4
SWSA1
FEEDWATER AND CONDENSATE FAILURE
FWCOND
NON-RECOVERY OF FAILED EQUIPMENT
REC90
1.00E+00
FAILURE OF HPCF-B
HPCFB
FAILURE OF RHR-B (SDC)
RHRSDB
FAILURE OF HPCF-C
HPCFC
FAILURE OF RHR-C (SDC)
RHRSDC
CRD FLOW UNAVAILABLE
CRDU
MAIN CONDENSER UNAVAILABLE
MCU
REACTOR FAILS TO DEPRESSURIZE ON DEMAND
RXDEPRESS
1
2


LOSS OF SWS A DURING POS 4 SEQUENCE 3
Page 27
A12-3
LOSS OF SWS TRAIN A DURING POS 4
SWSA1
FAILURE OF HPCF-C
HPCFC
OPERATOR FAILS TO FOLLOW INSTRUCTIONS AFTER LOSDC
OPERATOR
1.00E-04
RHR LOOP B FAILS
WDCSB
FAILURE OF HPCF-B
HPCFB
RHR LOOP C FAILS
WDCSC

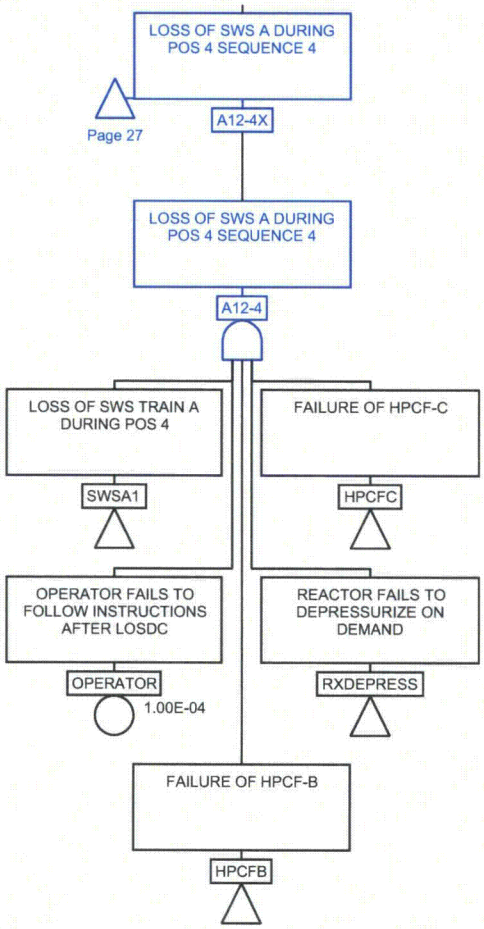


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Figure G-29 Top Logic and Sequence Logic

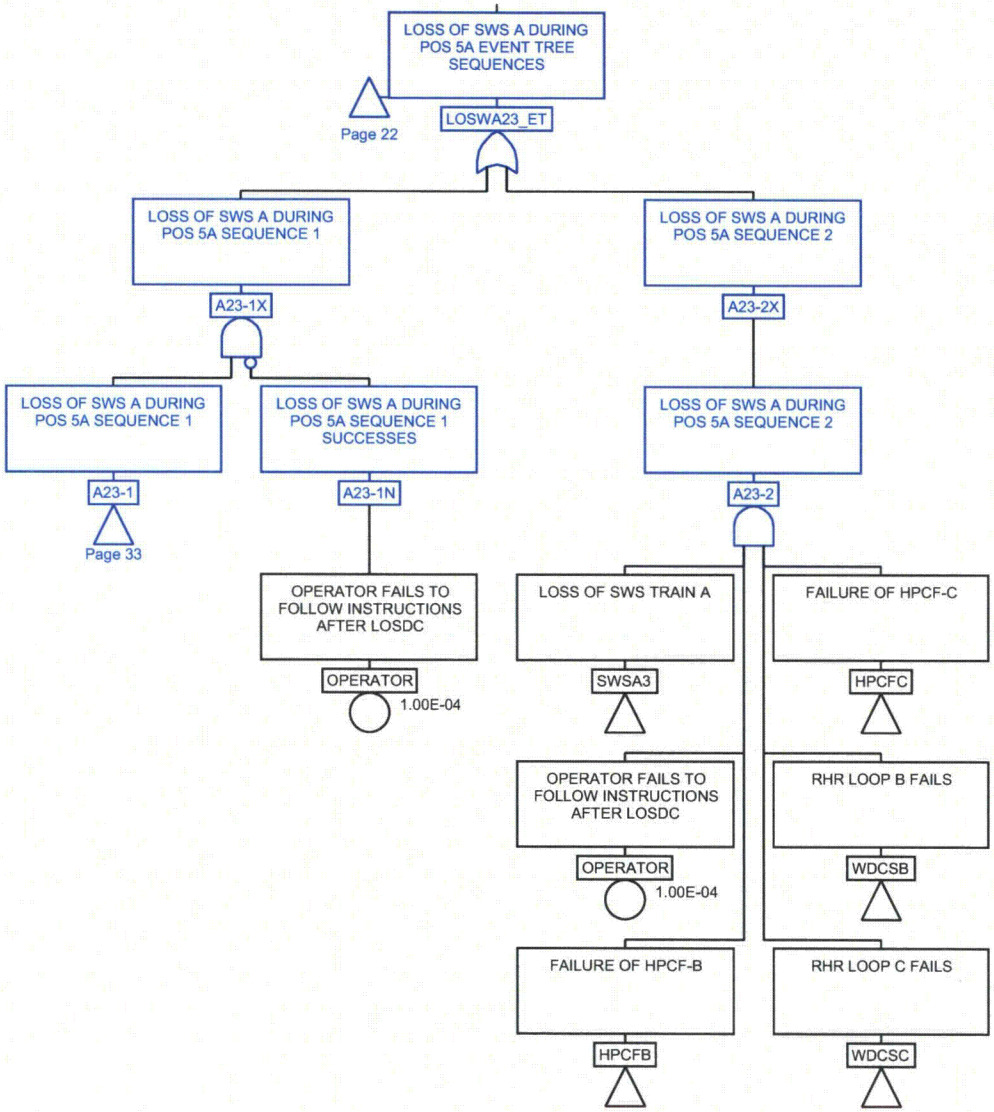

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Figure G-29 Top Logic and Sequence Logic

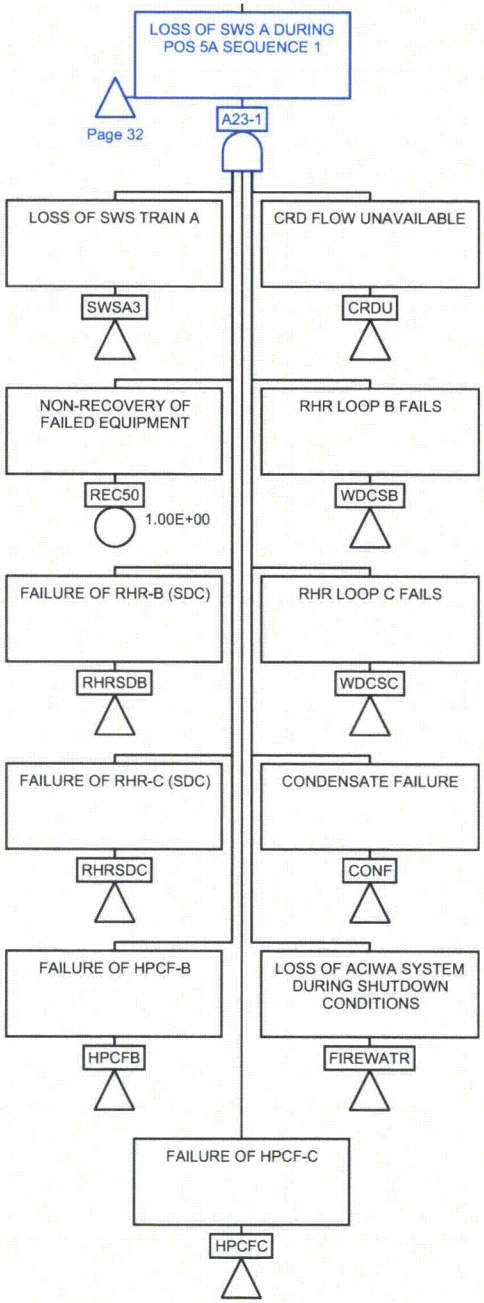
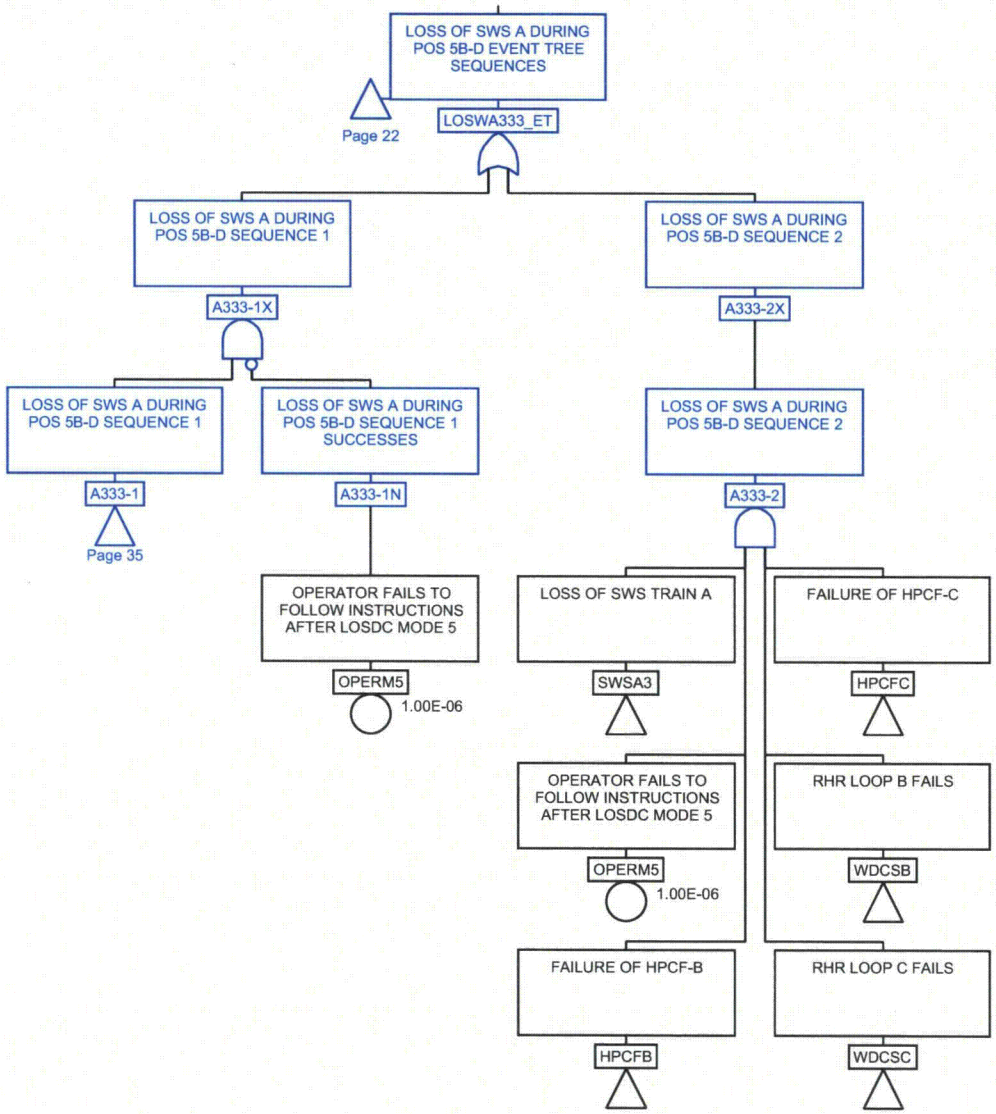


Figure G-29 Top Logic and Sequence Logic


LOSS OF SWS A DURING POS 5B-D EVENT TREE SEQUENCES
LOSWA333_ET
Page 22
LOSS OF SWS A DURING POS 5B-D SEQUENCE 1
A333-1X
LOSS OF SWS A DURING POS 5B-D SEQUENCE 2
A333-2X
LOSS OF SWS A DURING POS 5B-D SEQUENCE 1
A333-1
Page 35
LOSS OF SWS A DURING POS 5B-D SEQUENCE 1 SUCCESSES
A333-1N
LOSS OF SWS A DURING POS 5B-D SEQUENCE 2
A333-2
OPERATOR FAILS TO FOLLOW INSTRUCTIONS AFTER LOSDC MODE 5
OPERM5
1.00E-06
LOSS OF SWS TRAIN A
SWSA3
FAILURE OF HPCF-C
HPCFC
OPERATOR FAILS TO FOLLOW INSTRUCTIONS AFTER LOSDC MODE 5
OPERM5
1.00E-06
RHR LOOP B FAILS
WDCSB
FAILURE OF HPCF-B
HPCFB
RHR LOOP C FAILS
WDCSC

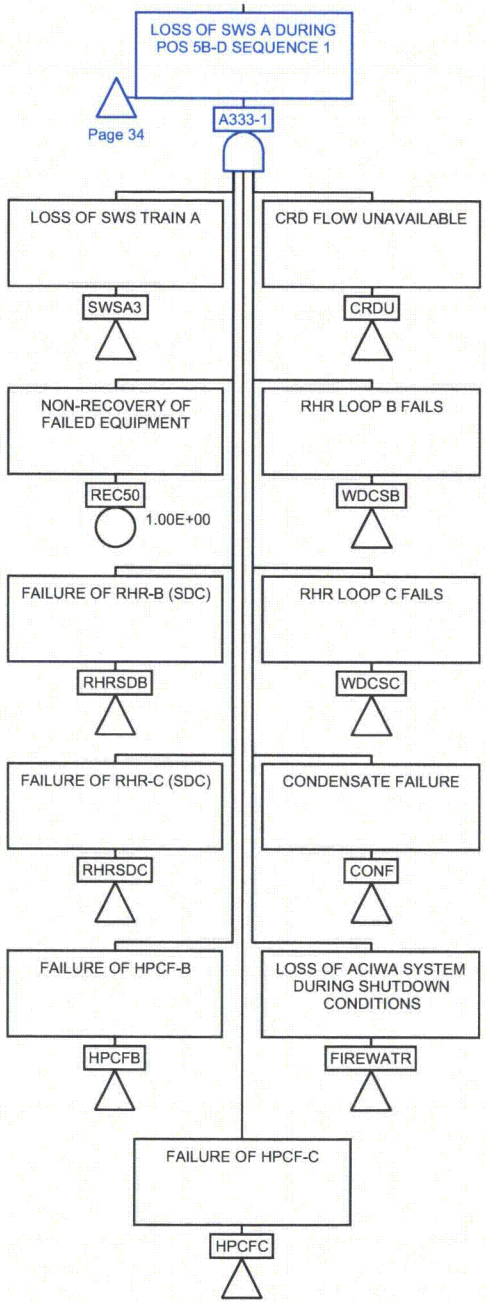
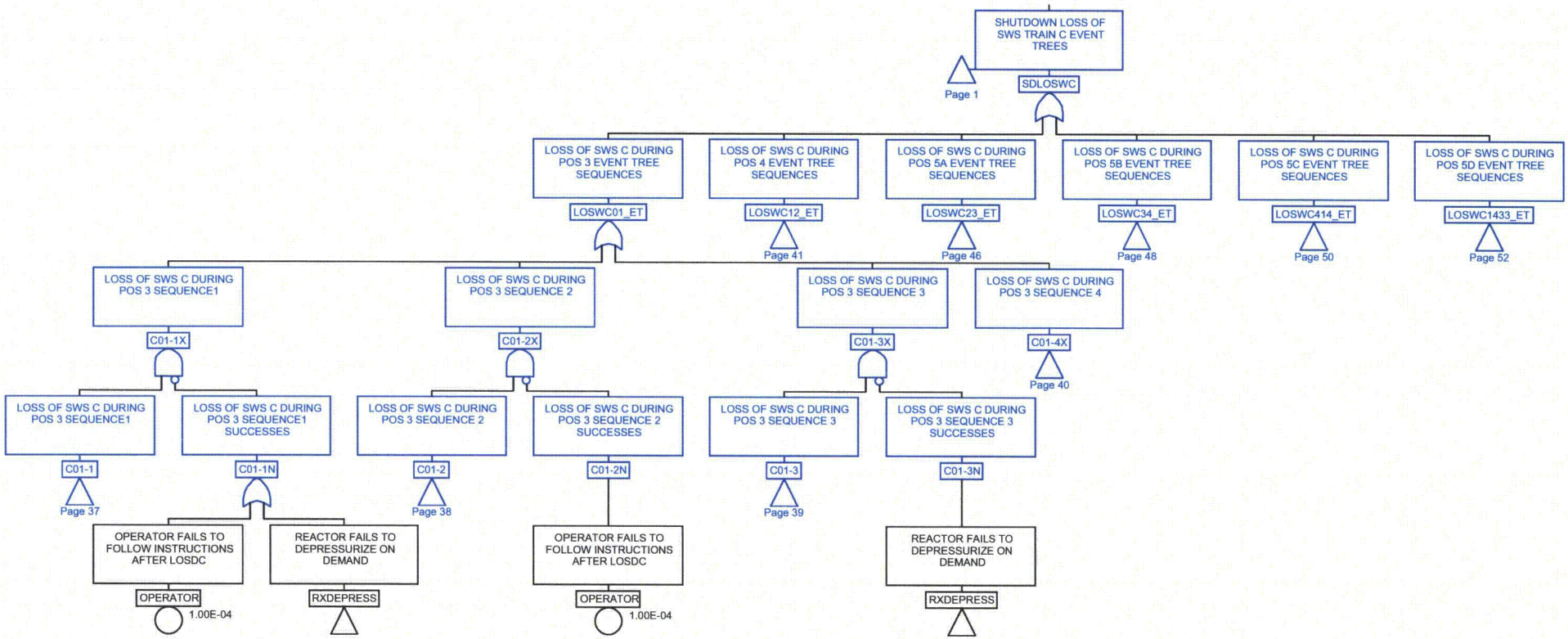


Figure G-29 Top Logic and Sequence Logic



1 2 3 4 5 6 7 8 9

Figure G-29 Top Logic and Sequence Logic

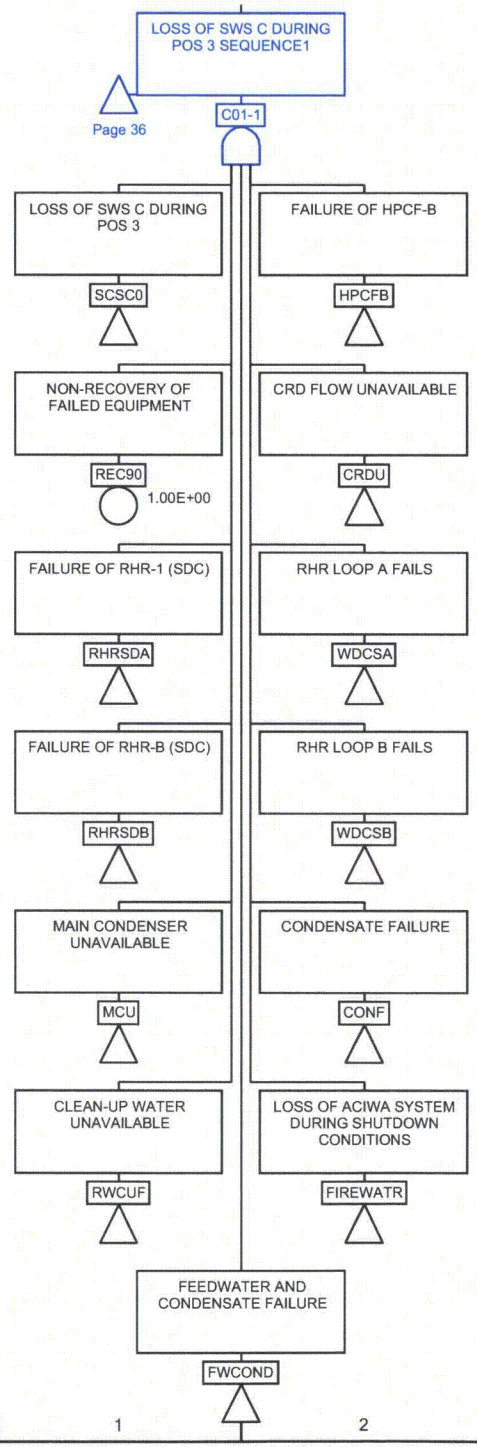


Figure G-29 Top Logic and Sequence Logic

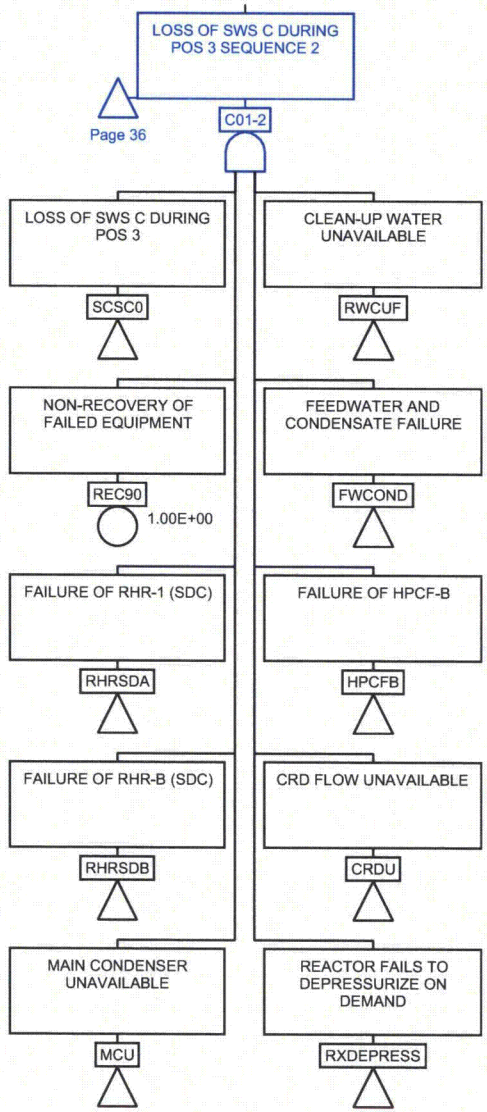


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Figure G-29 Top Logic and Sequence Logic

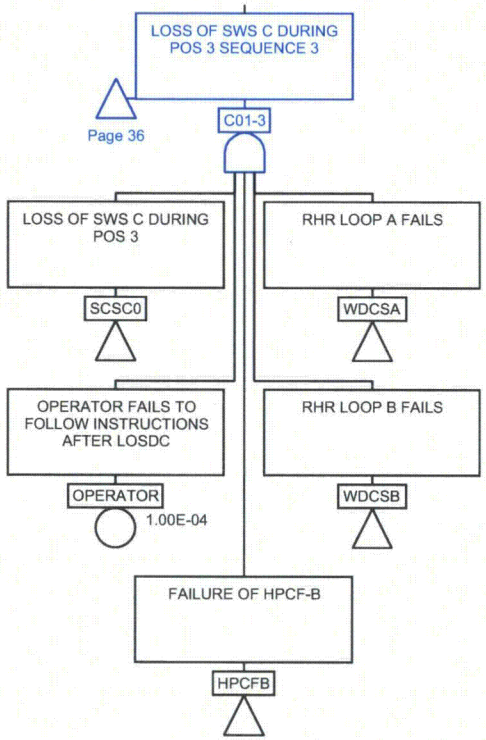

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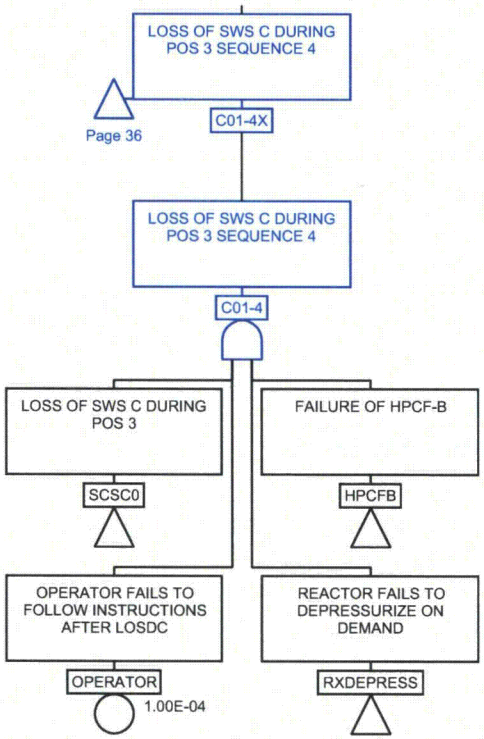
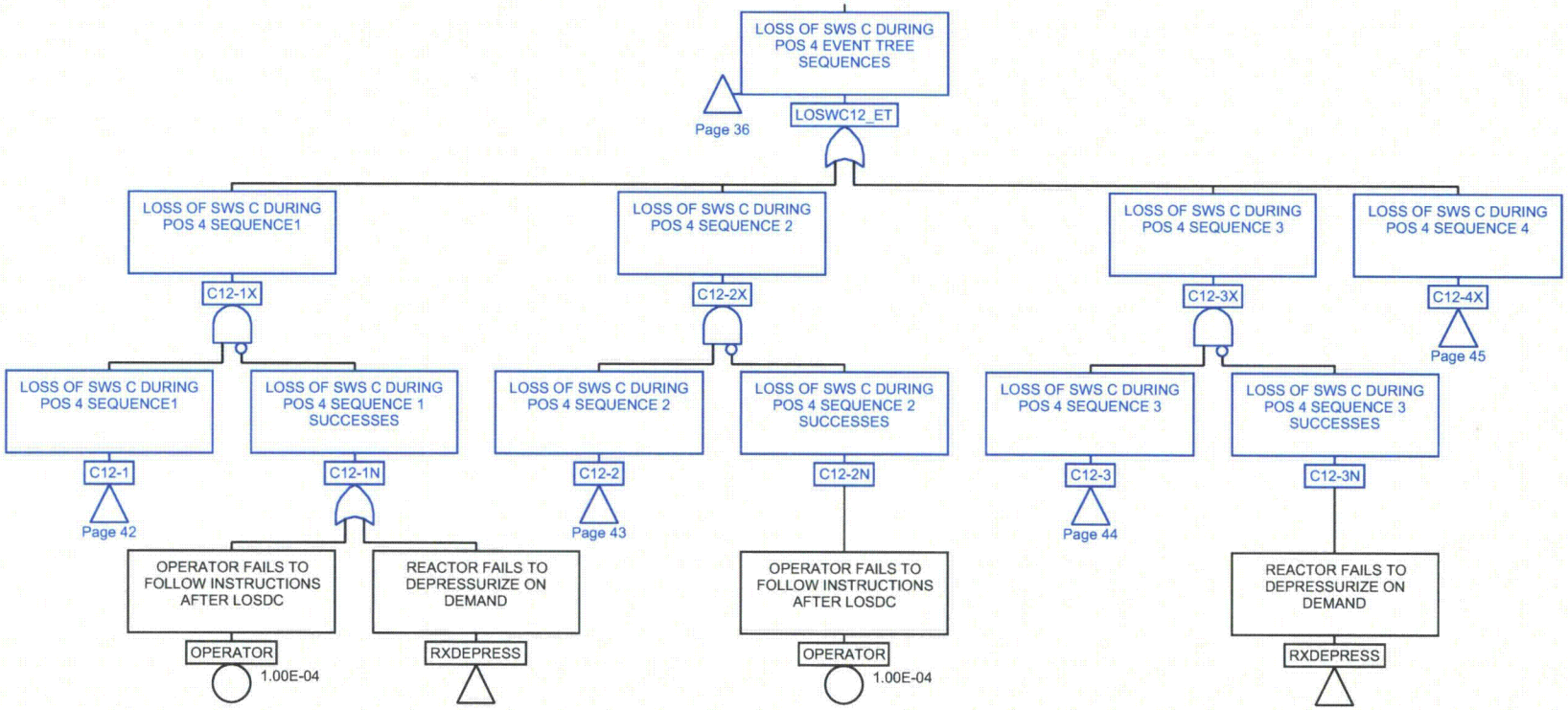
Figure G-29 Top Logic and Sequence Logic


LOSS OF SWS C DURING POS 3 SEQUENCE 4
Page 36
C01-4X
LOSS OF SWS C DURING POS 3 SEQUENCE 4
C01-4
LOSS OF SWS C DURING POS 3
SCSC0
FAILURE OF HPCF-B
HPCFB
OPERATOR FAILS TO FOLLOW INSTRUCTIONS AFTER LOSDC
OPERATOR
1.00E-04
REACTOR FAILS TO DEPRESSURIZE ON DEMAND
RXDEPRESS



1 2 3 4 5 6

Figure G-29 Top Logic and Sequence Logic

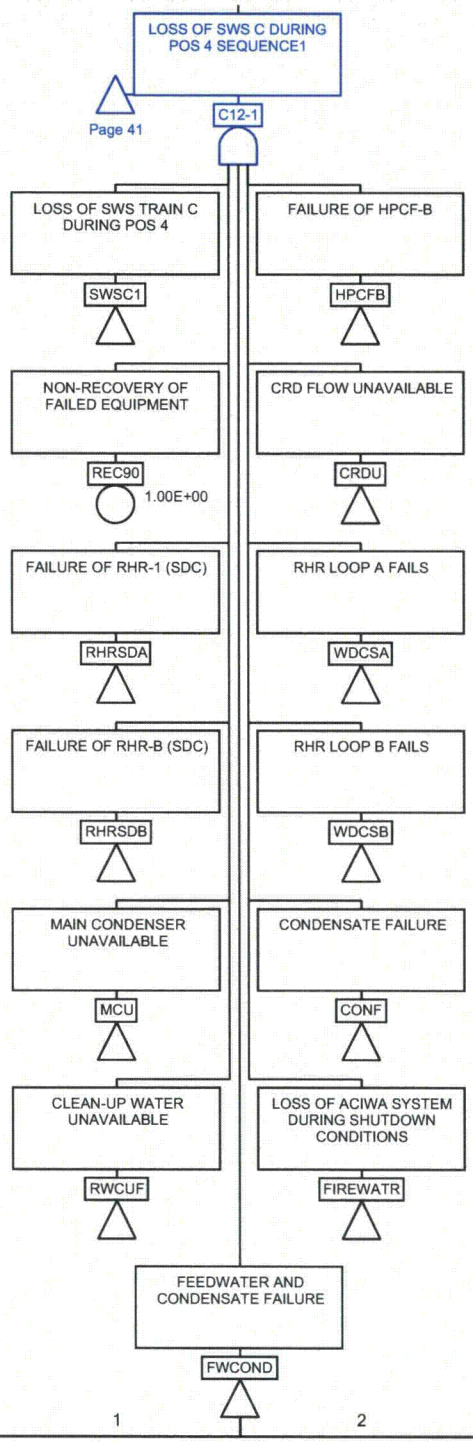


Figure G-29 Top Logic and Sequence Logic

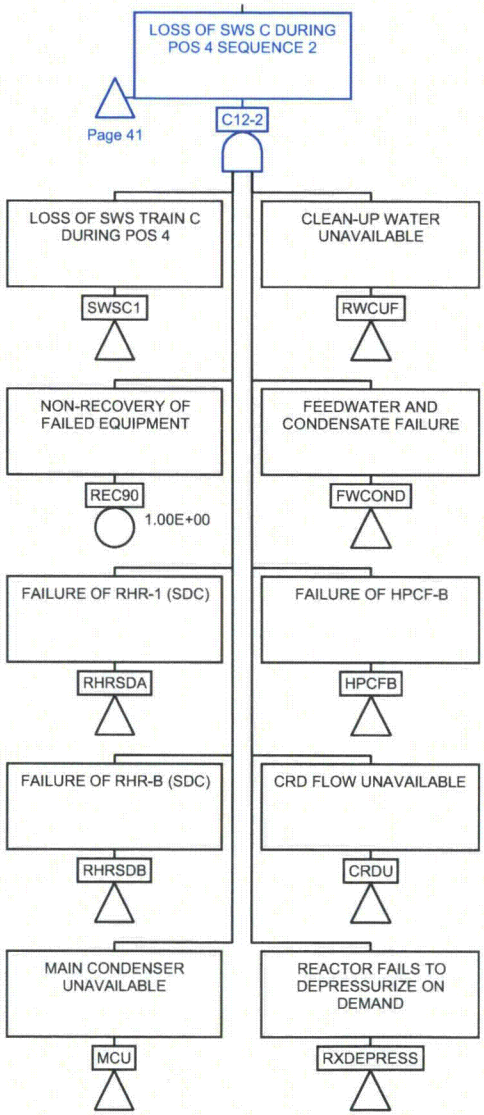


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Figure G-29 Top Logic and Sequence Logic

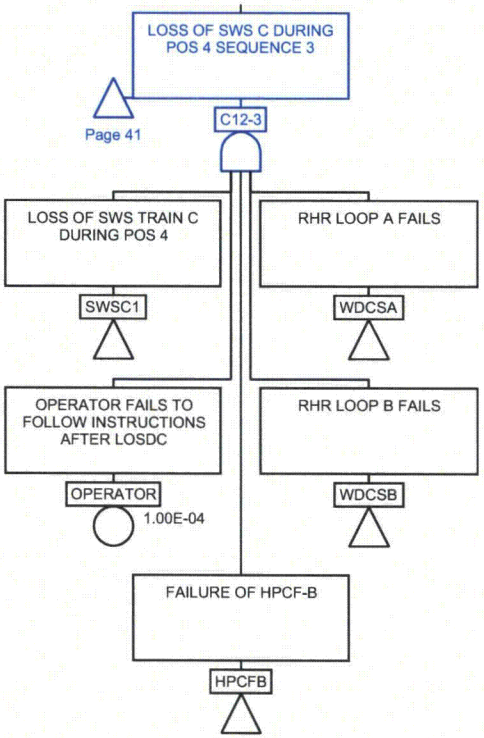

Figure G-29 Top Logic and Sequence Logic

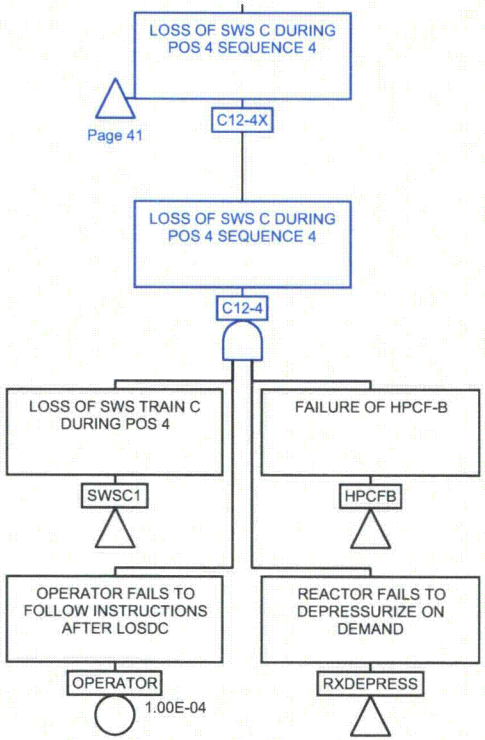

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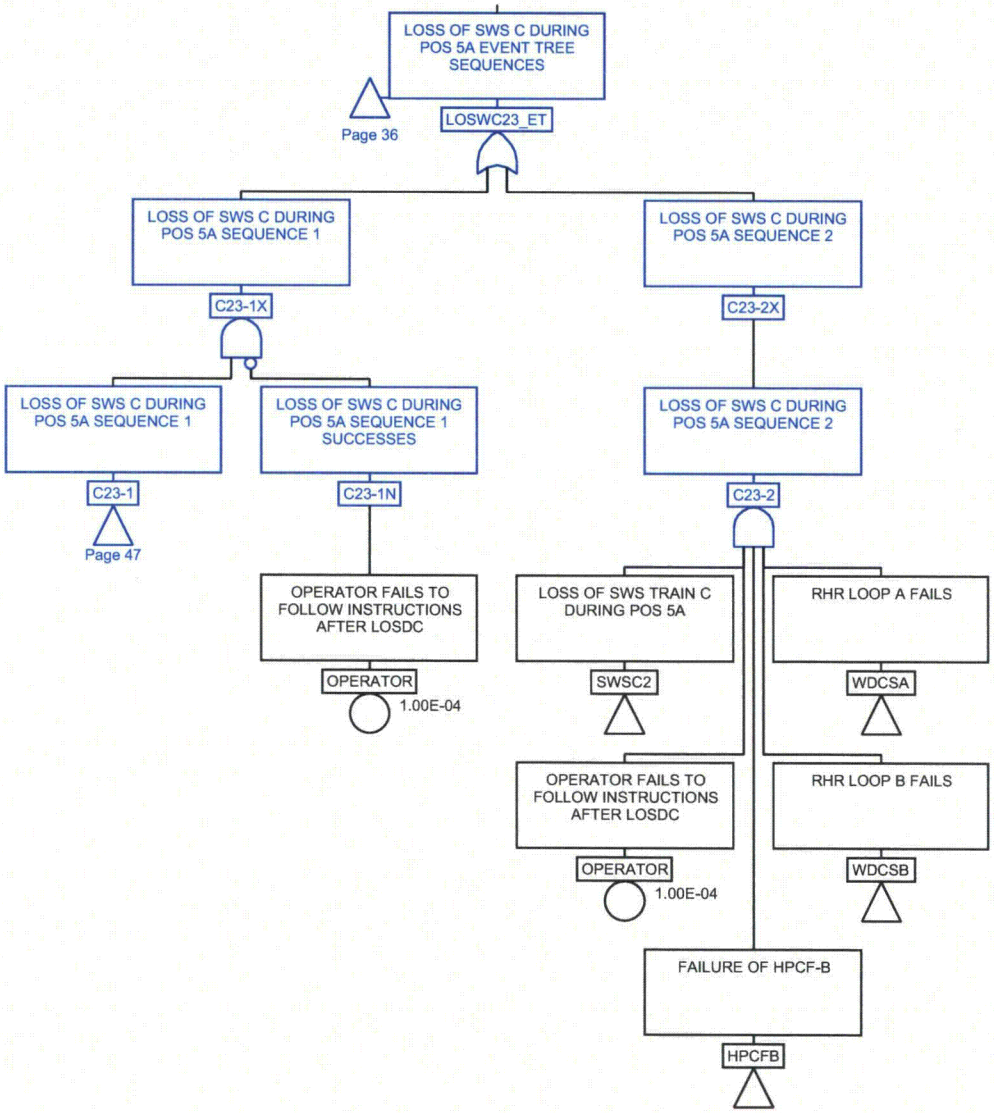
Figure G-29 Top Logic and Sequence Logic



1 2 3 4

Figure G-29 Top Logic and Sequence Logic

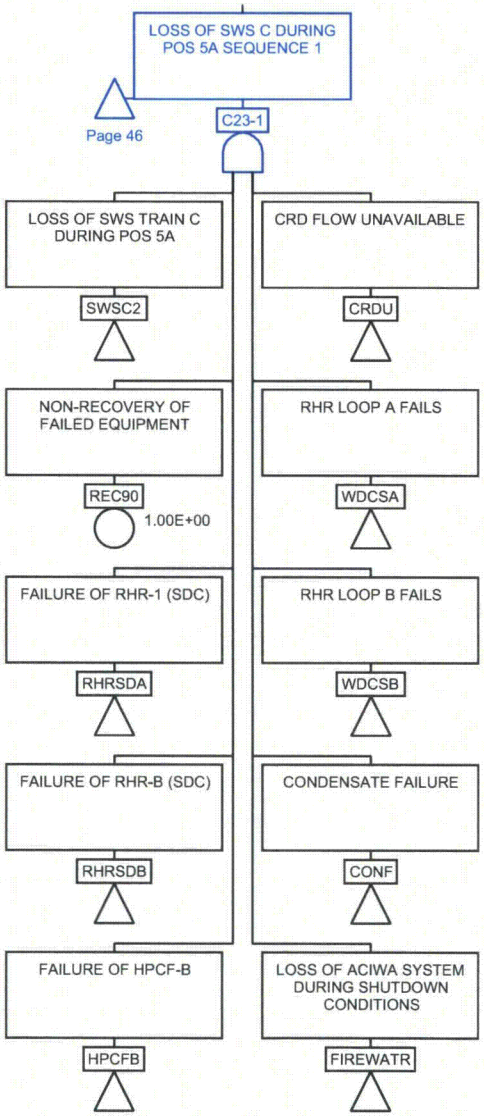


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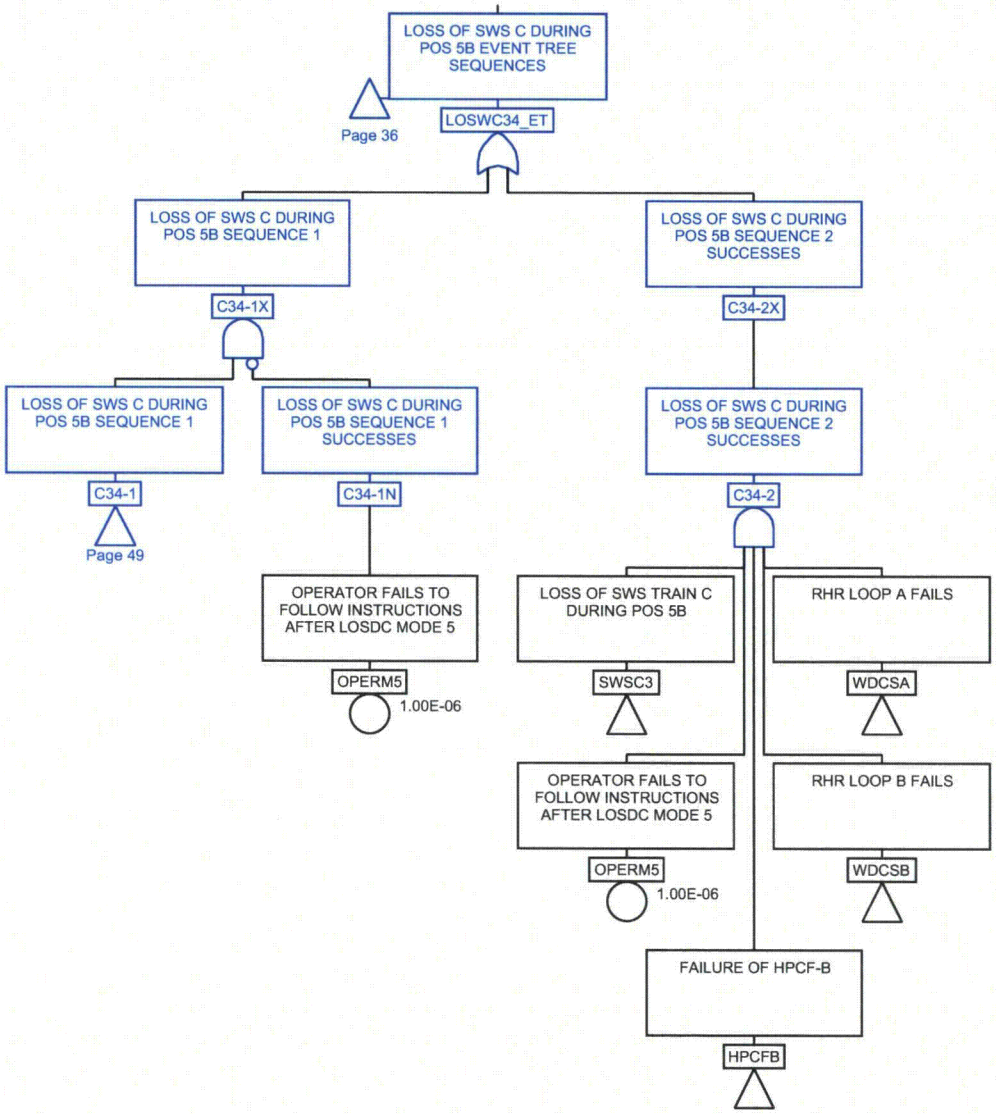
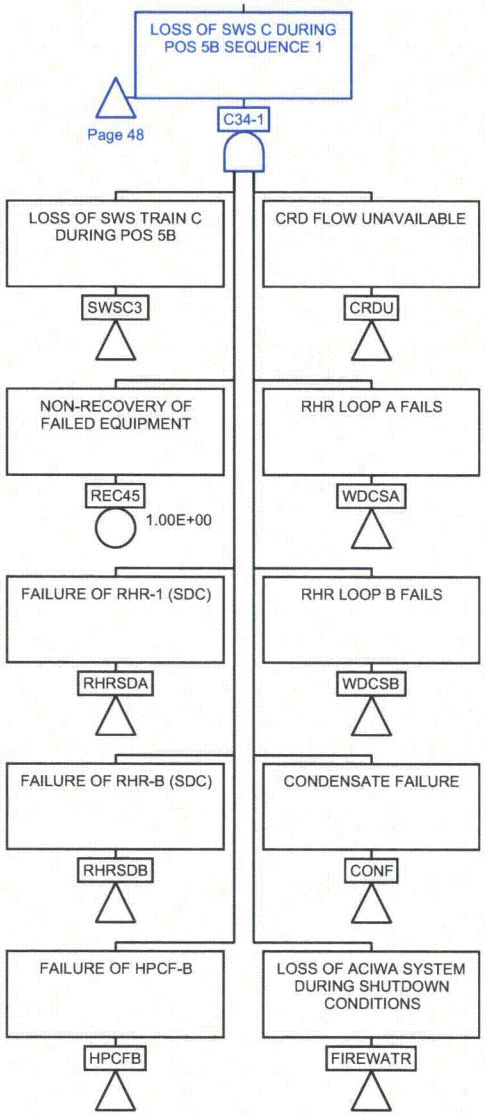
Figure G-29 Top Logic and Sequence Logic



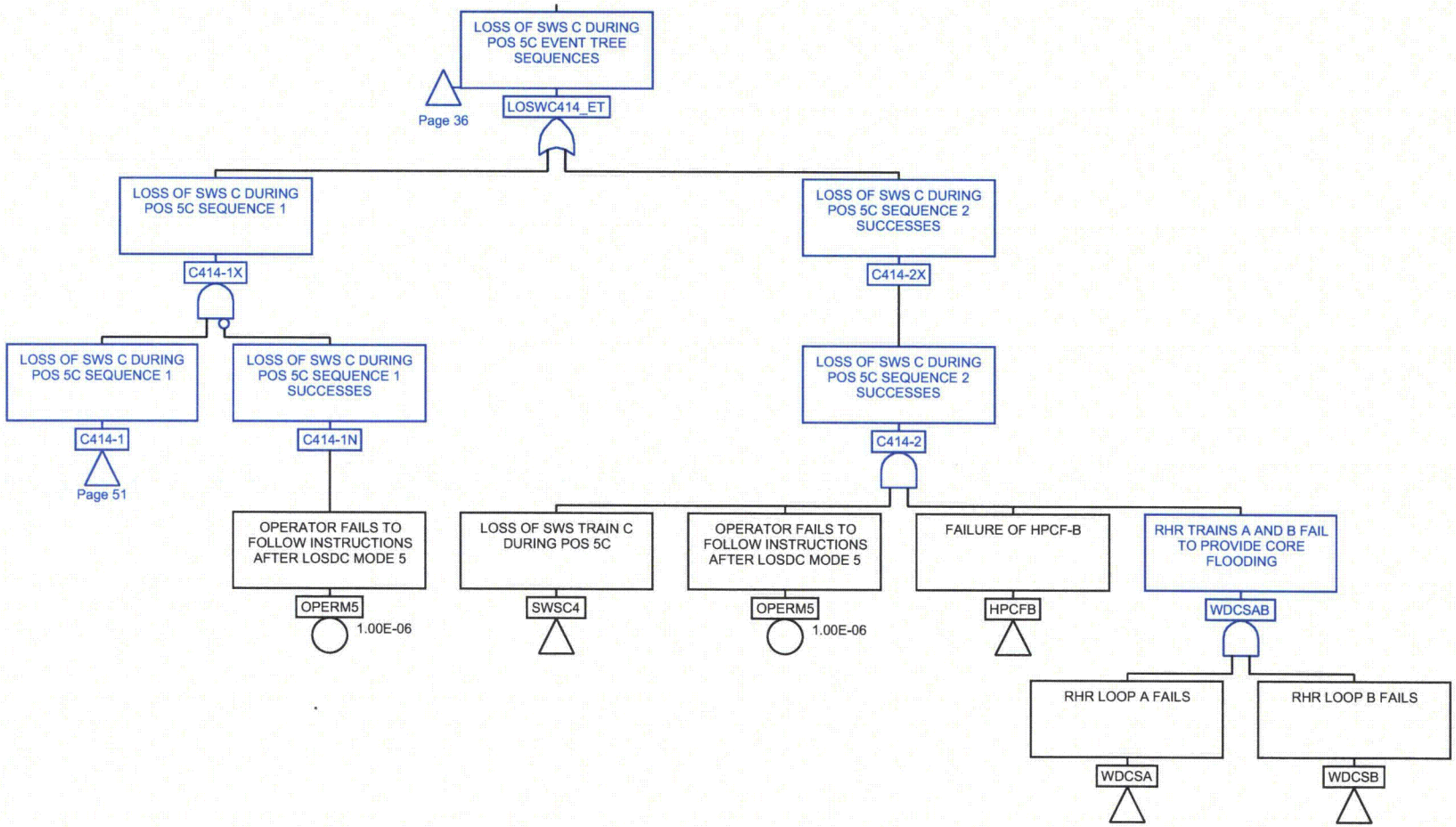
1 2 3 4

Figure G-29 Top Logic and Sequence Logic



1 2

Figure G-29 Top Logic and Sequence Logic



1 2 3 4 5 6

Figure G-29 Top Logic and Sequence Logic

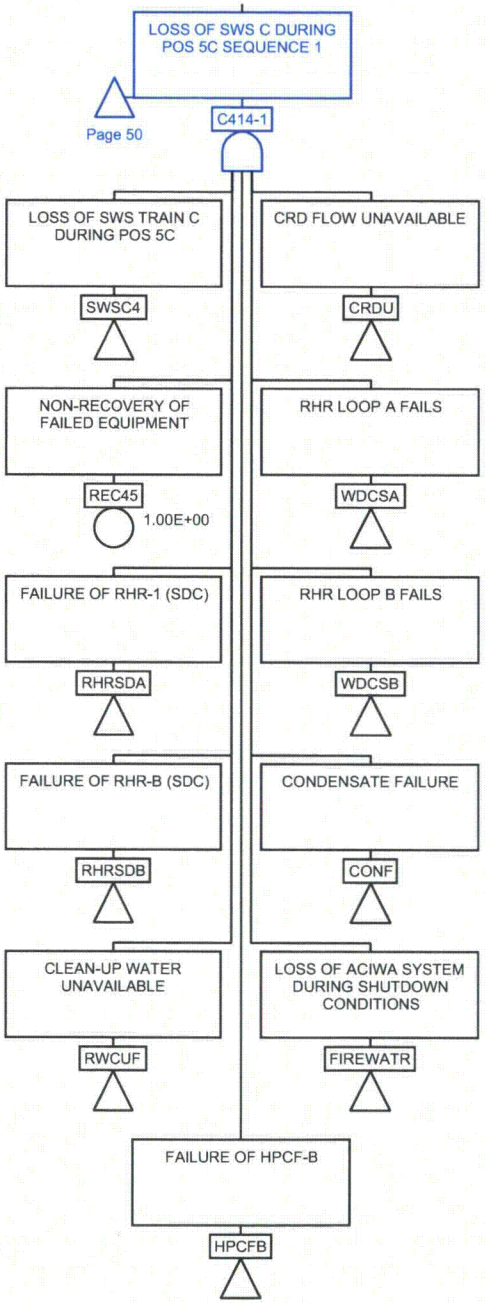
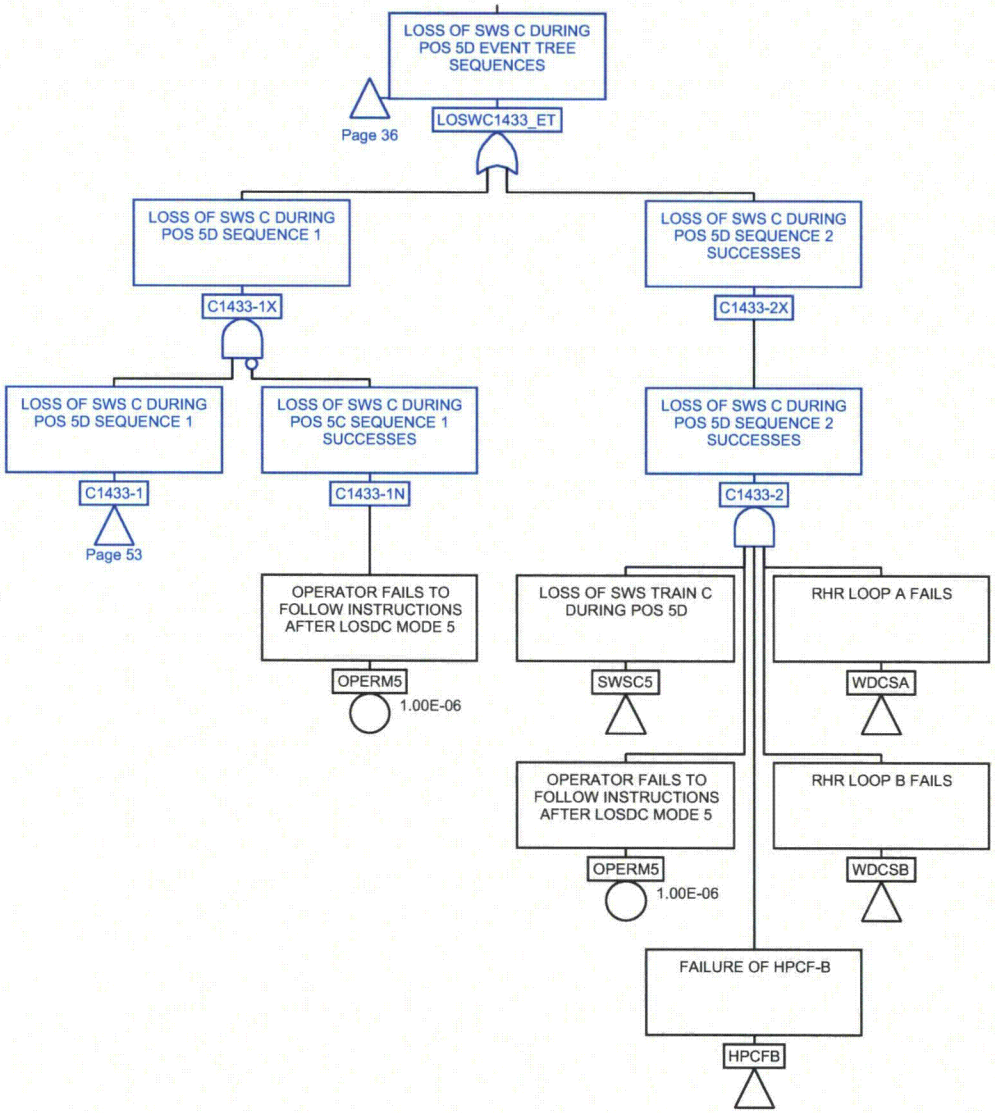


Figure G-29 Top Logic and Sequence Logic



1 2 3 4

Figure G-29 Top Logic and Sequence Logic

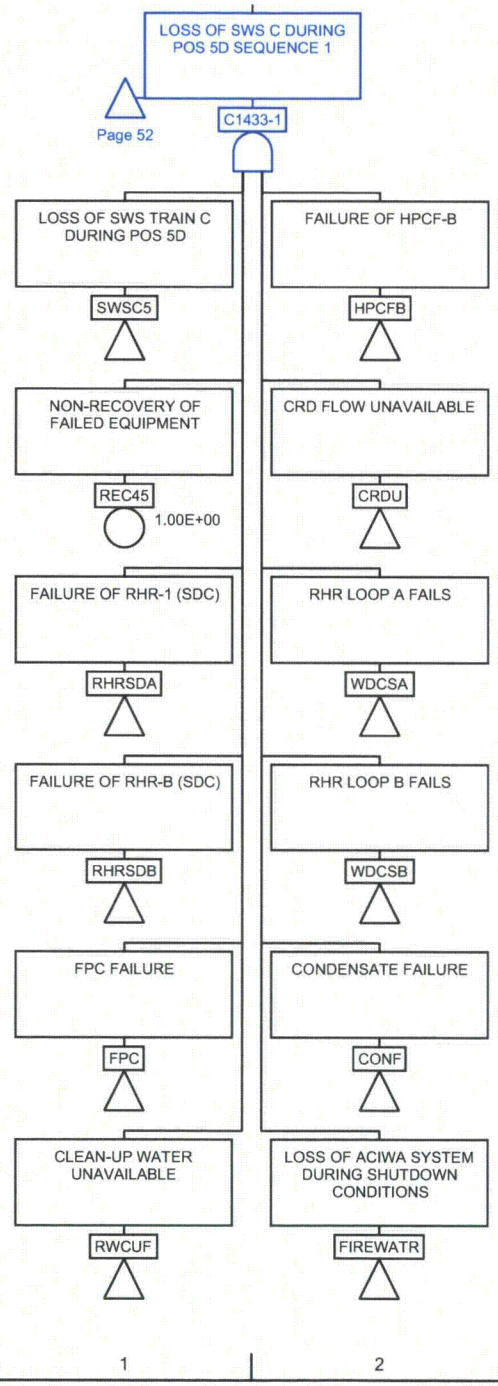
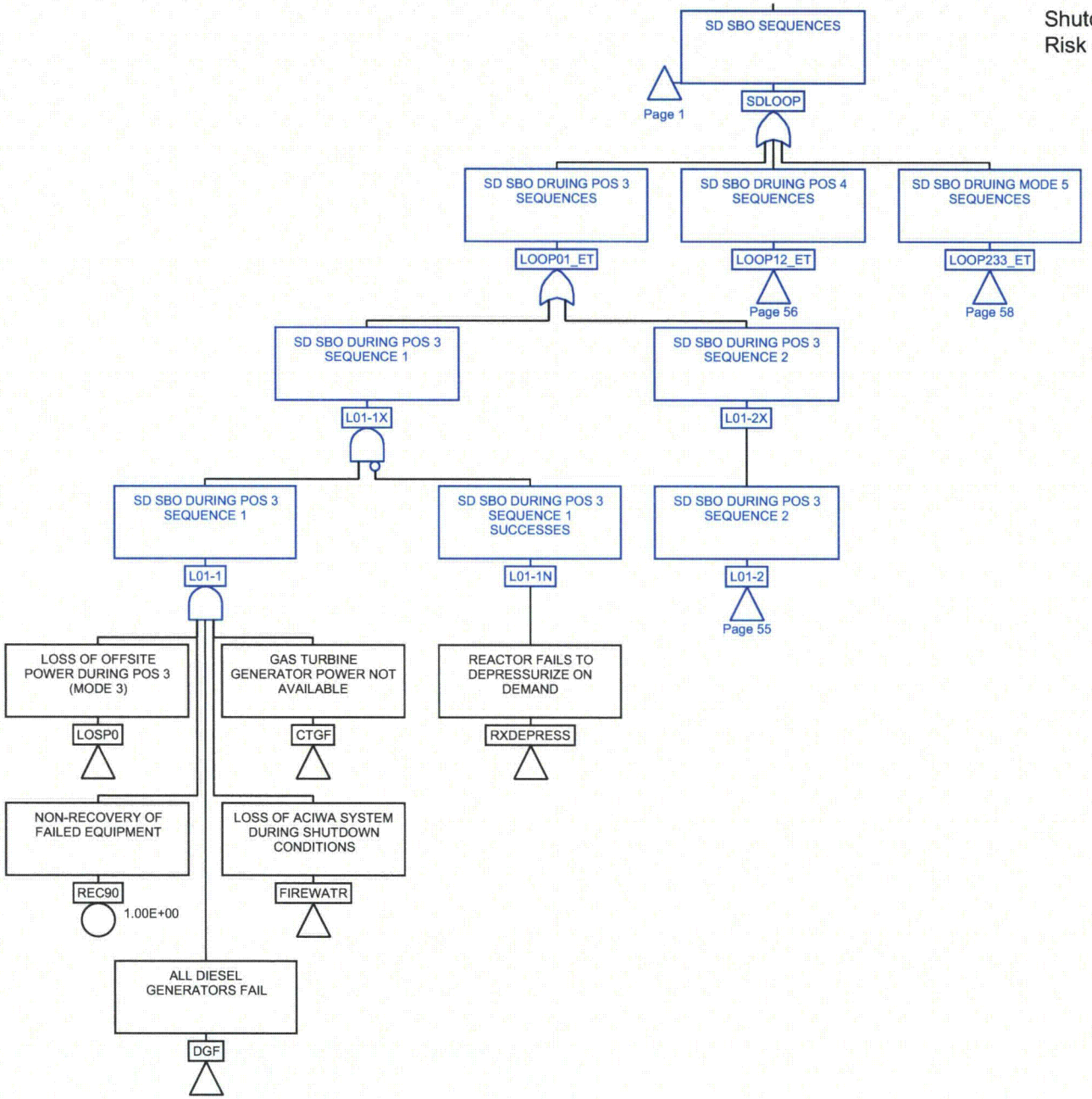
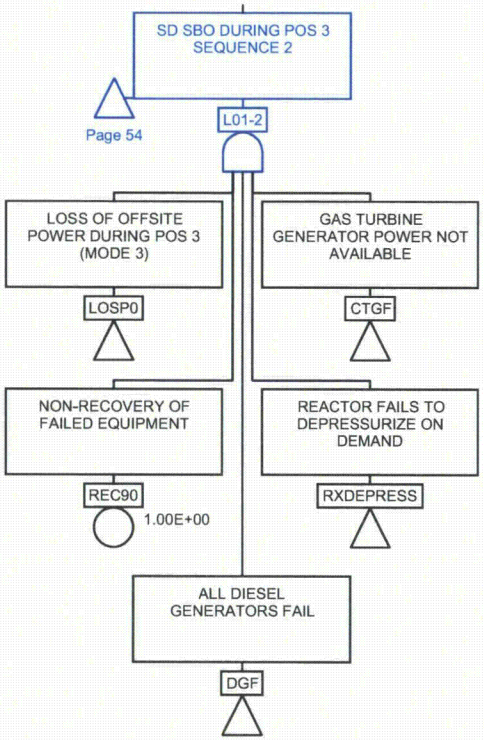


Figure G-29 Top Logic and Sequence Logic



1 2 3 4 5

Figure G-29 Top Logic and Sequence Logic



1 2

Figure G-29 Top Logic and Sequence Logic

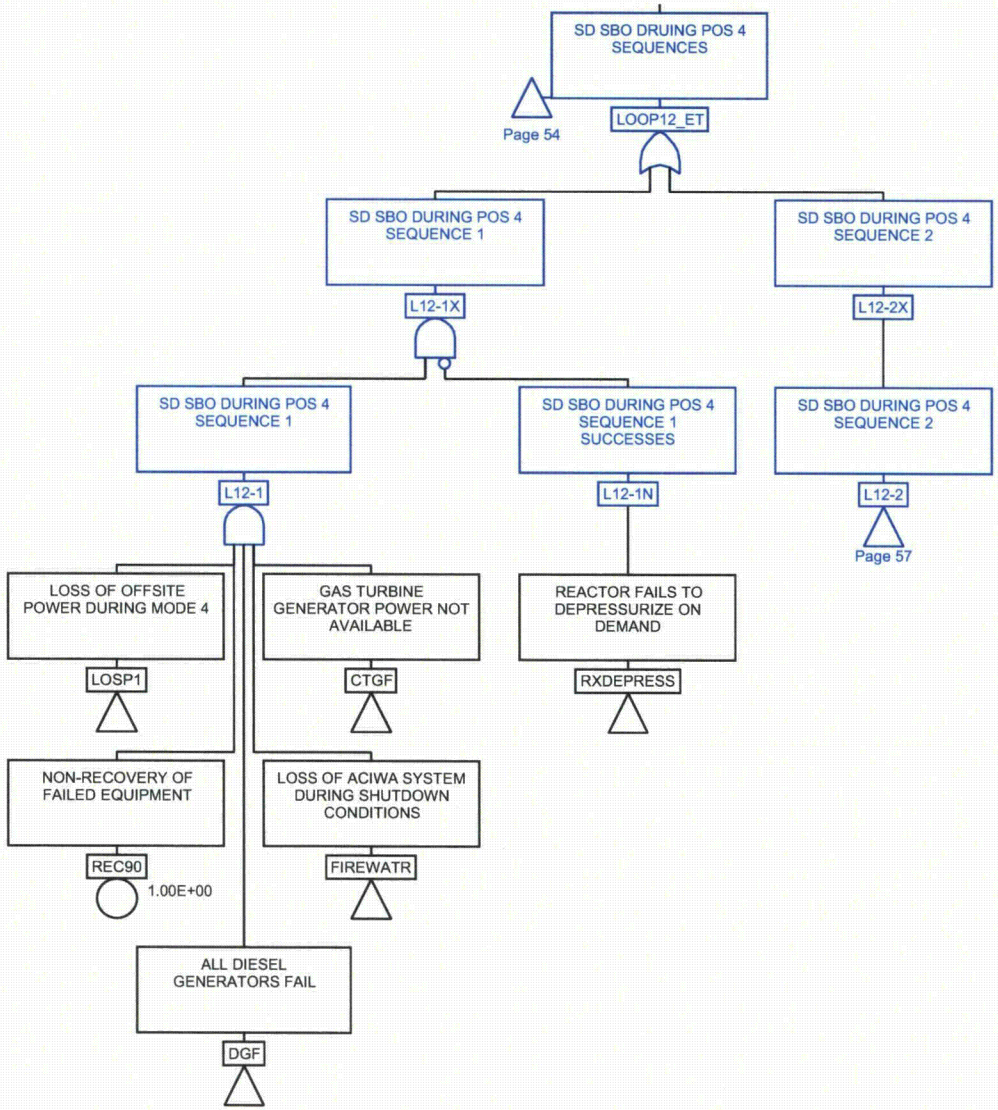


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Figure G-29 Top Logic and Sequence Logic

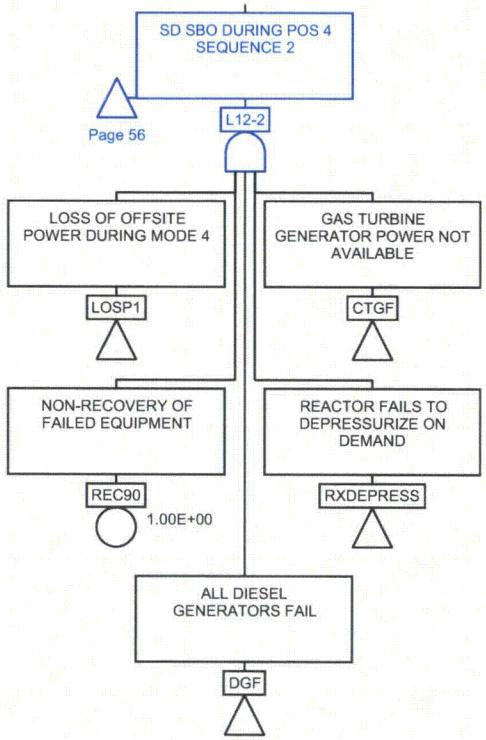

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Figure G-29 Top Logic and Sequence Logic

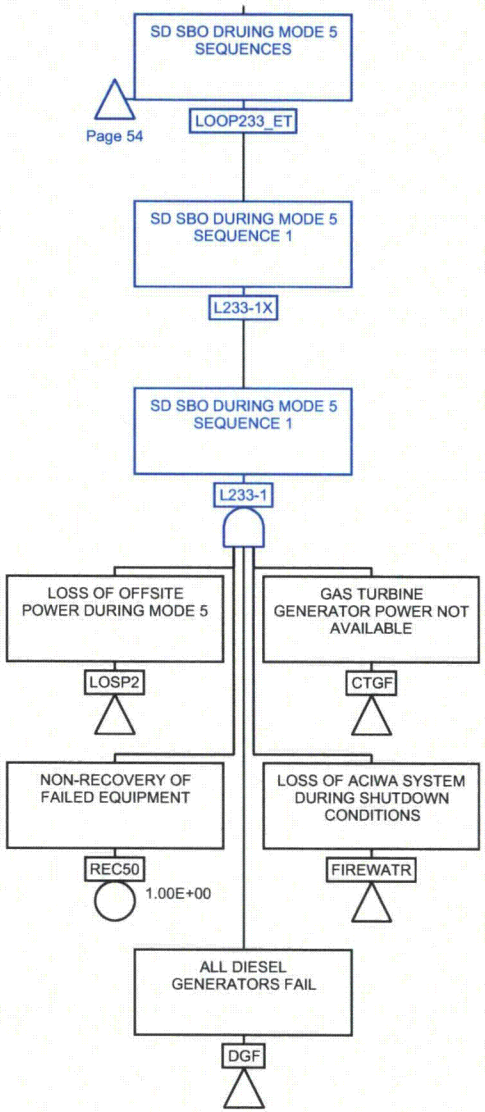

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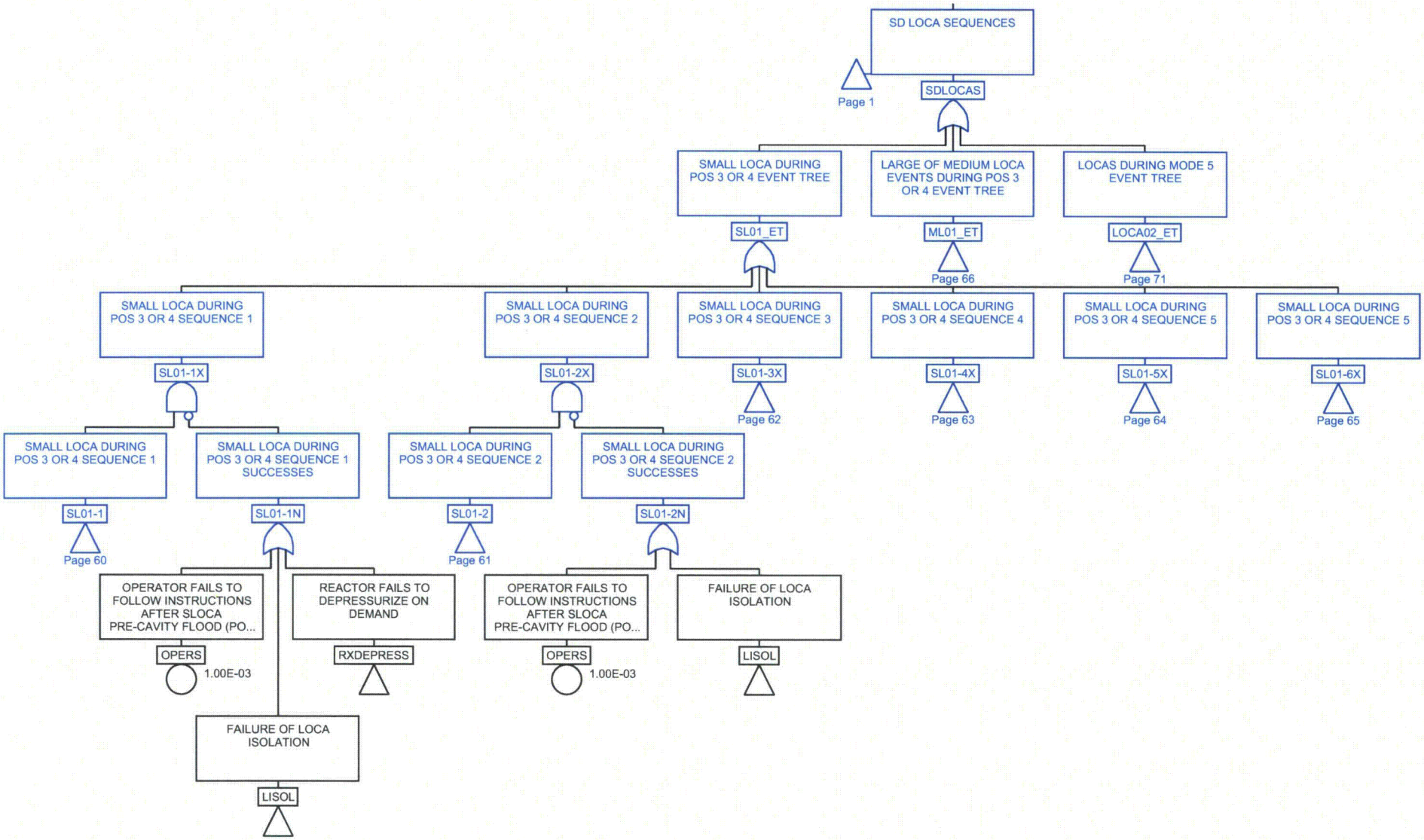
Figure G-29 Top Logic and Sequence Logic



1 2 3 4 5 6 7

Figure G-29 Top Logic and Sequence Logic

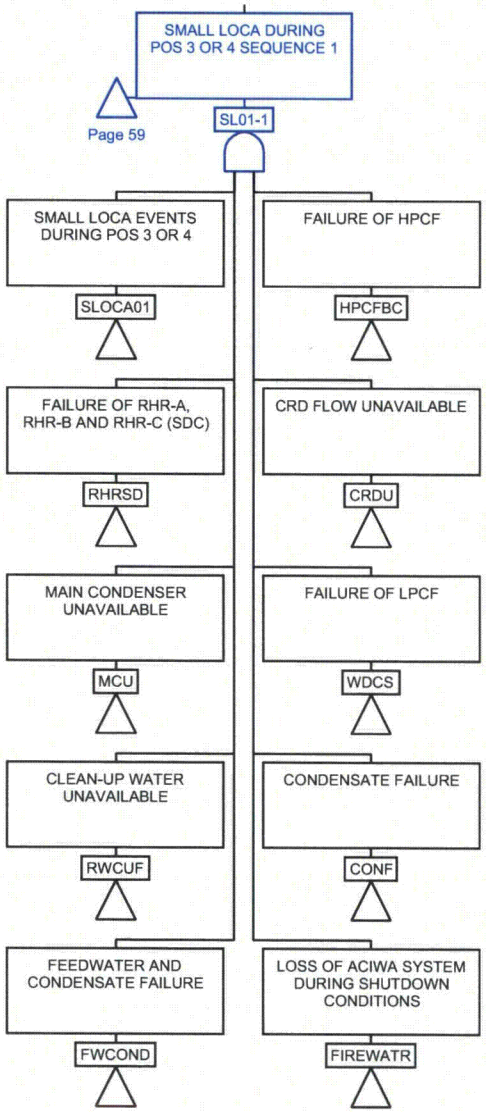


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Figure G-29 Top Logic and Sequence Logic

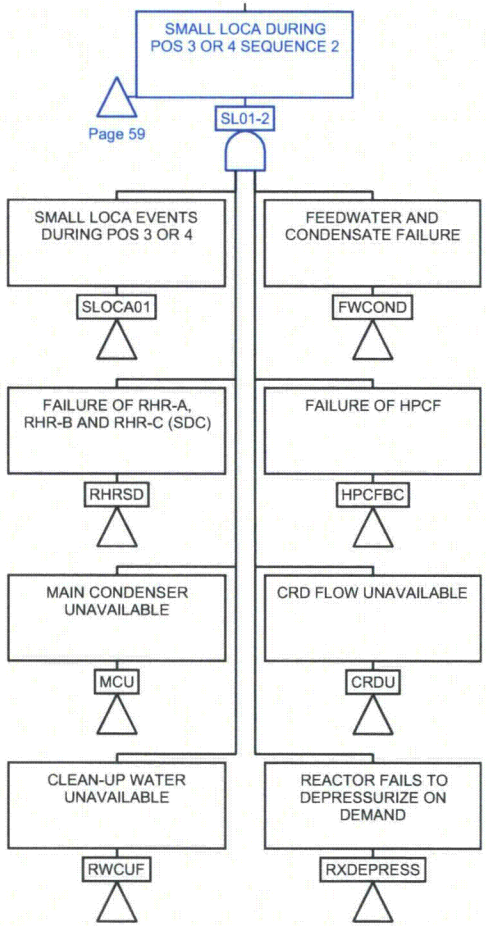

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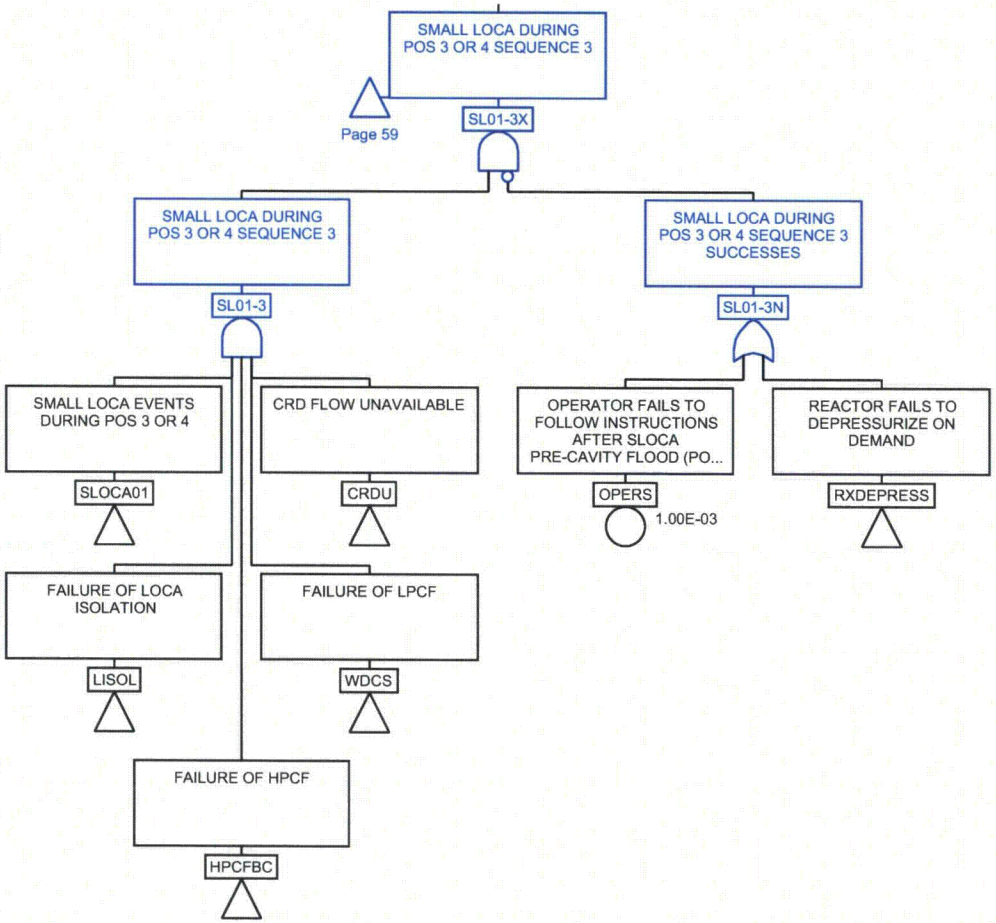
Figure G-29 Top Logic and Sequence Logic



1 2 3 4

Figure G-29 Top Logic and Sequence Logic

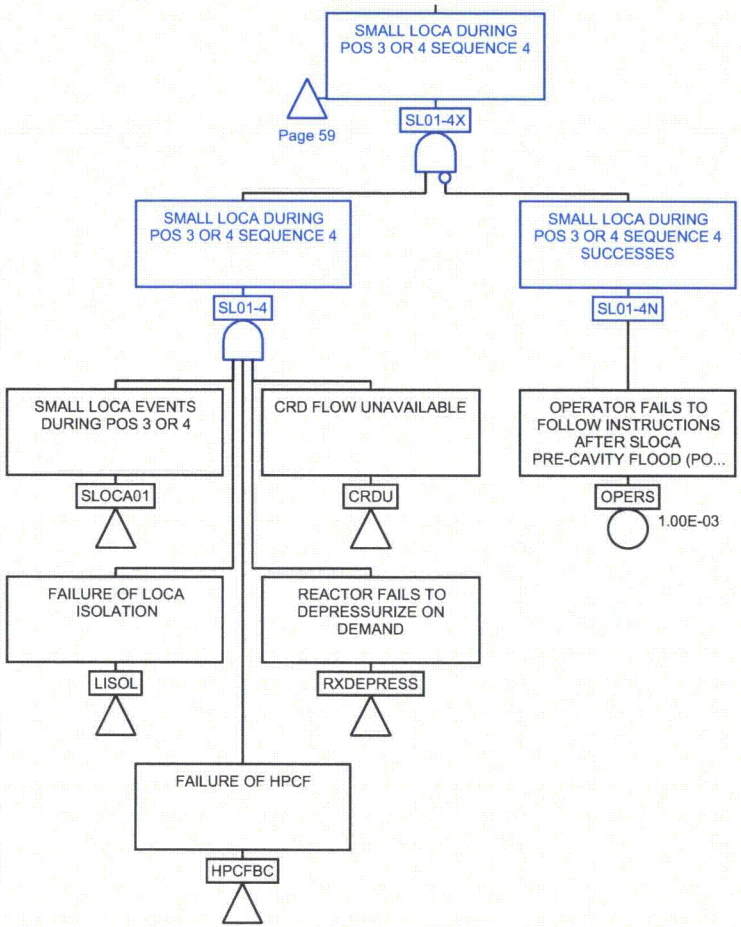


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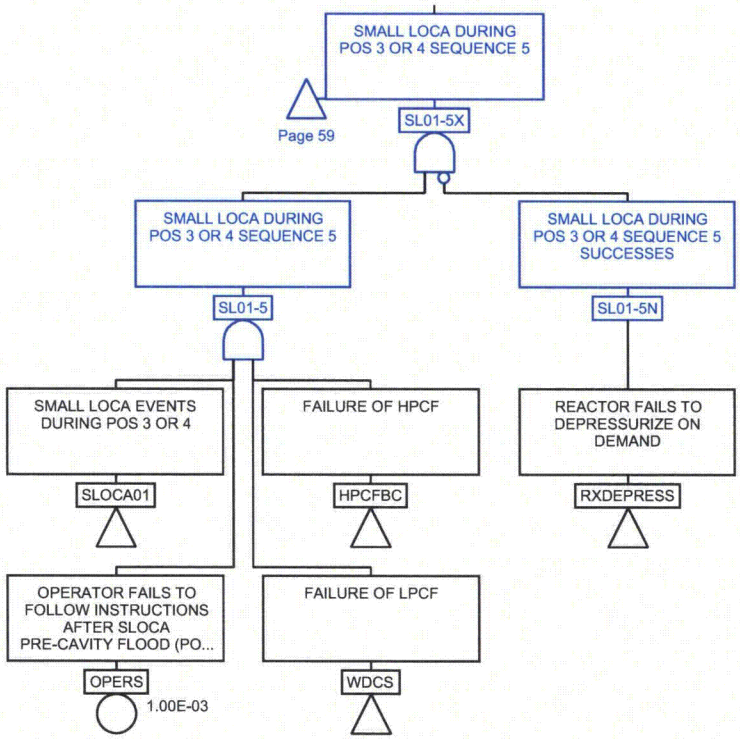
Figure G-29 Top Logic and Sequence Logic


SMALL LOCA DURING POS 3 OR 4 SEQUENCE 5
Page 59
SL01-5X
SMALL LOCA DURING POS 3 OR 4 SEQUENCE 5
SMALL LOCA DURING POS 3 OR 4 SEQUENCE 5 SUCCESSES
SL01-5
SL01-5N
SMALL LOCA EVENTS DURING POS 3 OR 4
FAILURE OF HPCF
REACTOR FAILS TO DEPRESSURIZE ON DEMAND
SLOCA01
HPCFBC
RXDEPRESS
OPERATOR FAILS TO FOLLOW INSTRUCTIONS AFTER SLOCA PRE-CAVITY FLOOD (PO...
FAILURE OF LPCF
OPERS
1.00E-03
WDCS

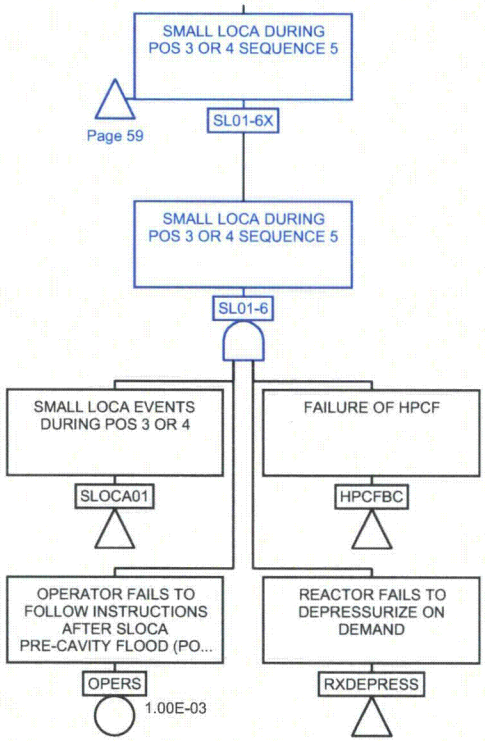


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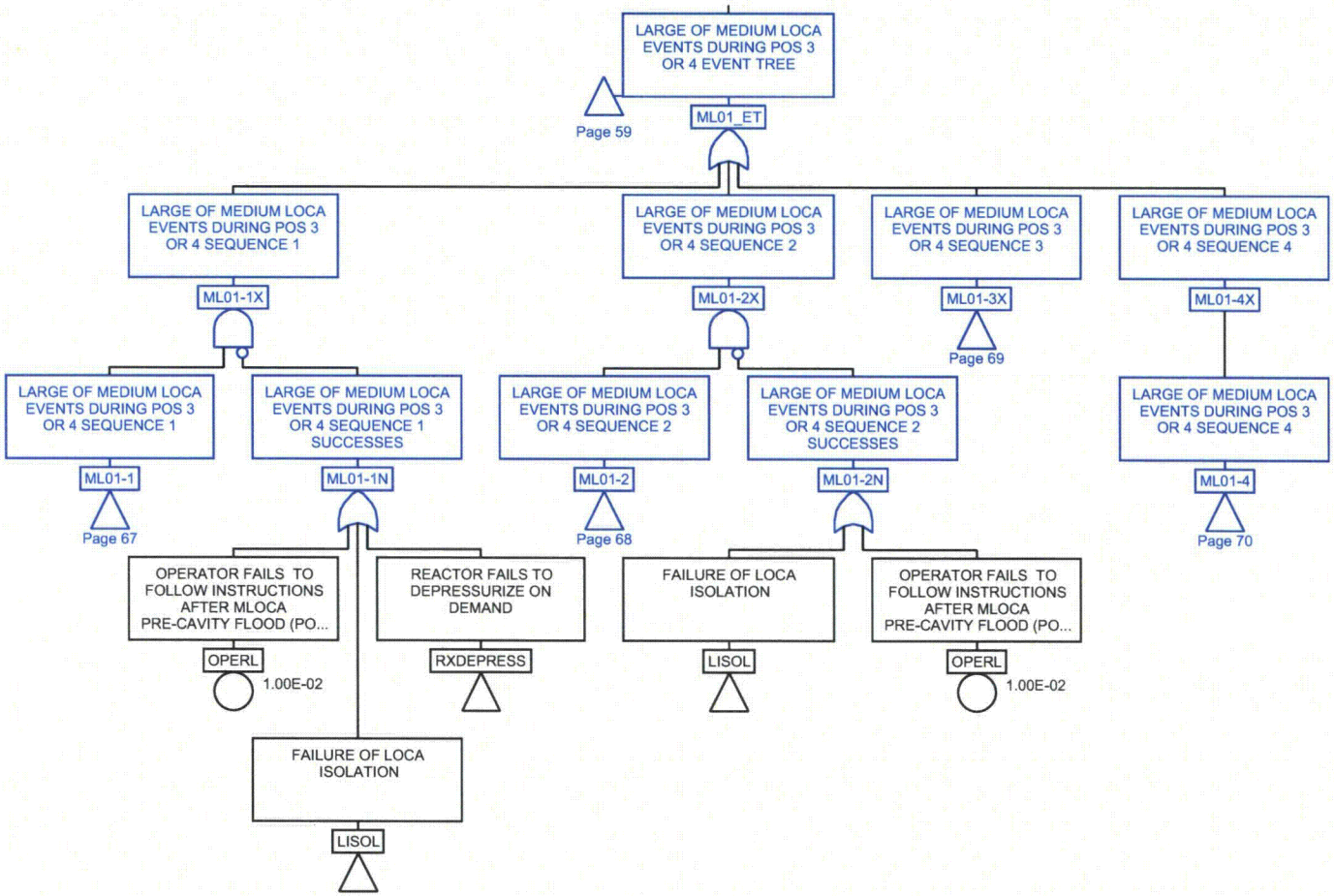
Figure G-29 Top Logic and Sequence Logic



1 2 3 4 5

Figure G-29 Top Logic and Sequence Logic

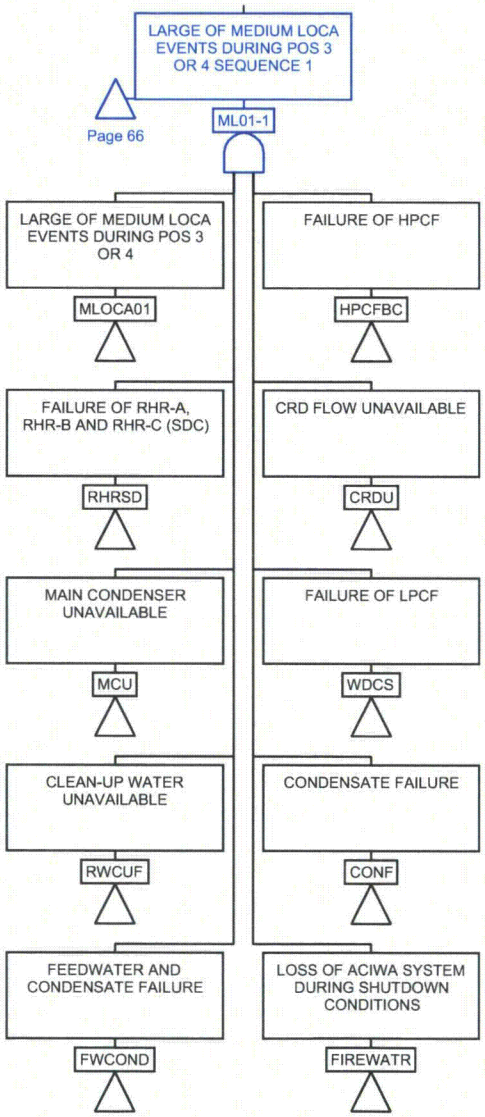


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Figure G-29 Top Logic and Sequence Logic

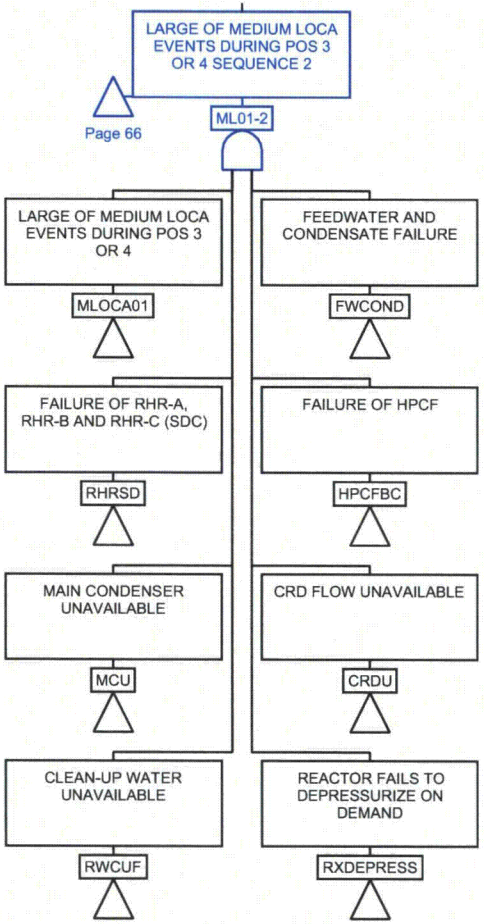

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Figure G-29 Top Logic and Sequence Logic

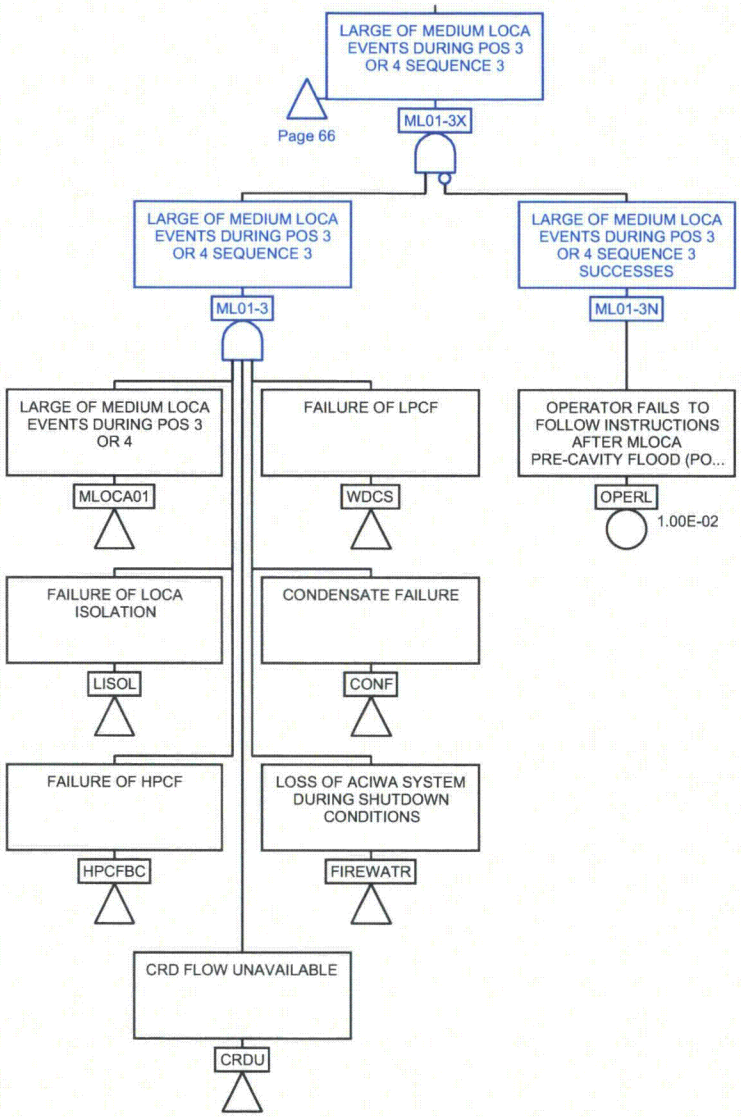

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Figure G-29 Top Logic and Sequence Logic

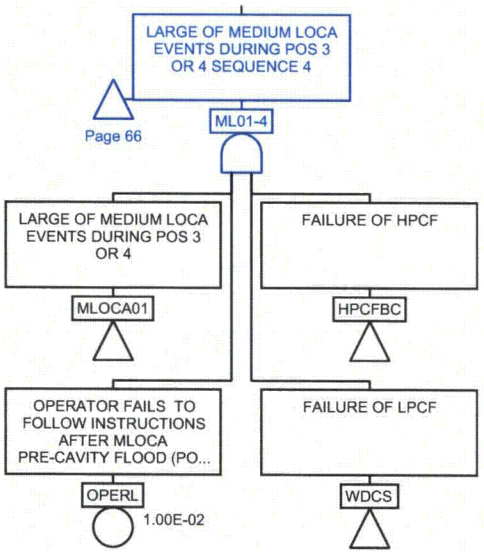

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Figure G-29 Top Logic and Sequence Logic

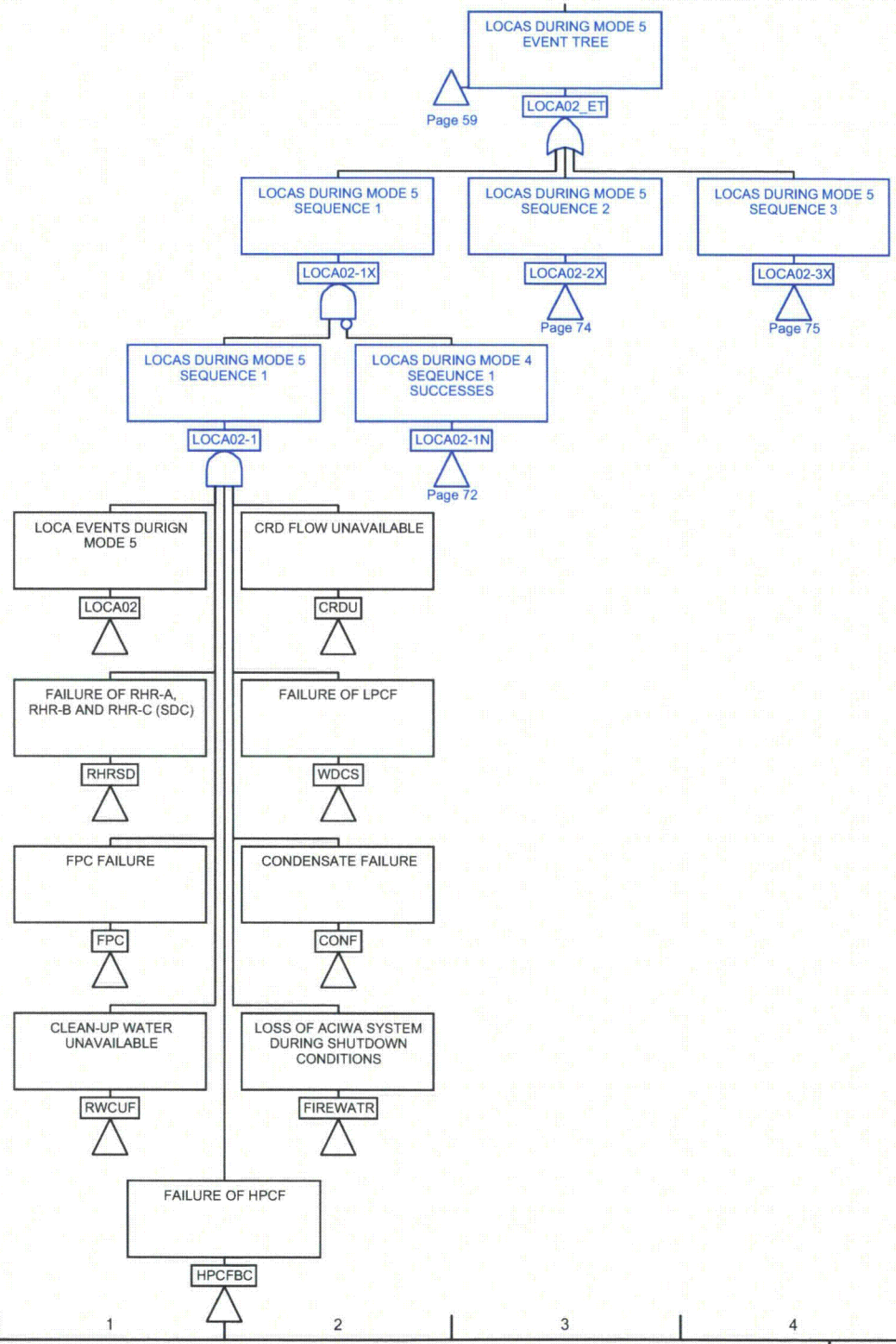
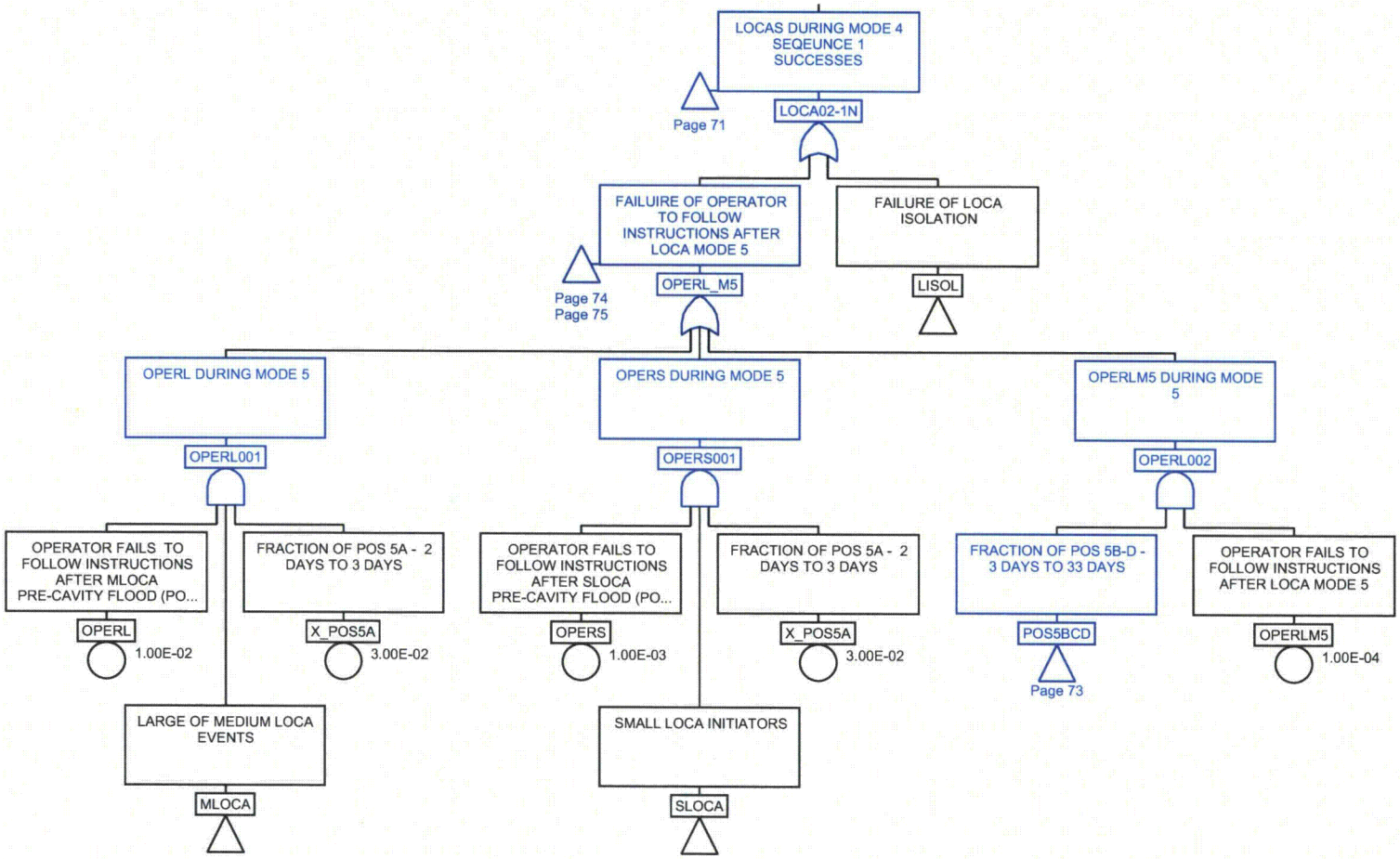
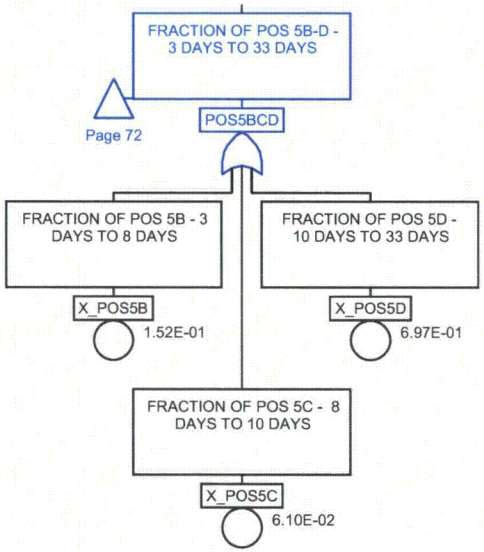


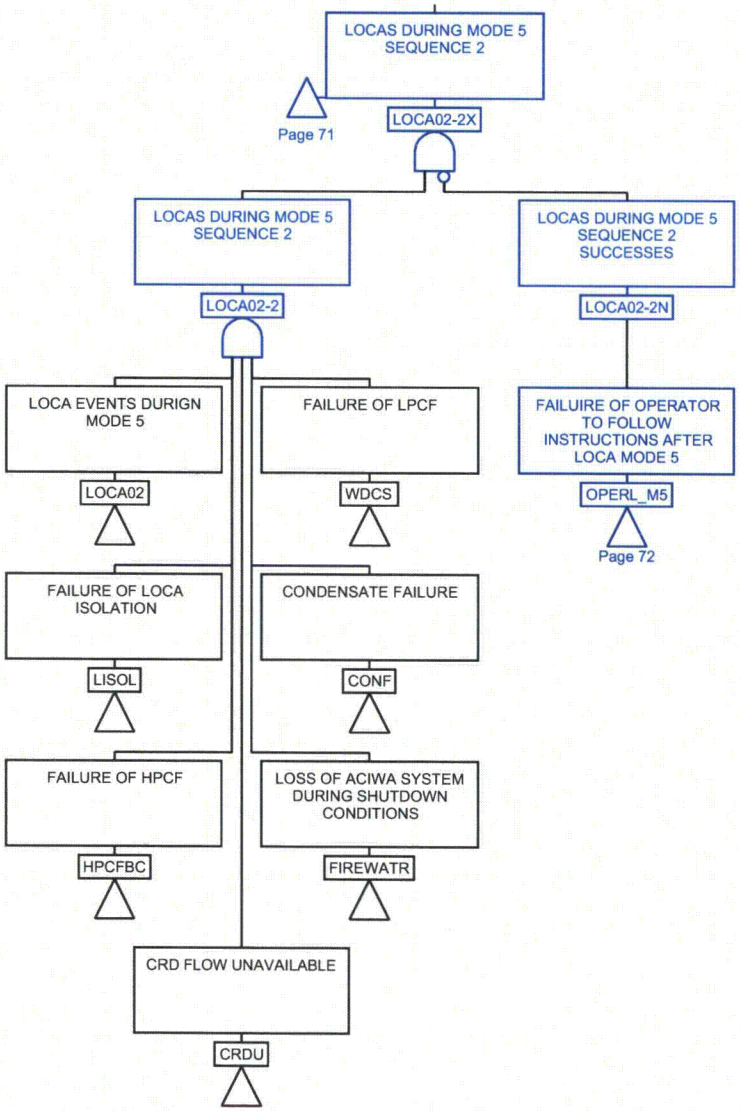
Figure G-29 Top Logic and Sequence Logic



1 2 3 4 5 6

Figure G-29 Top Logic and Sequence Logic


FRACTION OF POS 5B-D - 3 DAYS TO 33 DAYS
Page 72
POS5BCD
FRACTION OF POS 5B - 3 DAYS TO 8 DAYS
FRACTION OF POS 5D - 10 DAYS TO 33 DAYS
X_POS5B
1.52E-01
X_POS5D
6.97E-01
FRACTION OF POS 5C - 8 DAYS TO 10 DAYS
X_POS5C
6.10E-02


LOCAS DURING MODE 5 SEQUENCE 2
Page 71
LOCA02-2X
LOCAS DURING MODE 5 SEQUENCE 2
LOCA02-2
LOCAS DURING MODE 5 SEQUENCE 2 SUCCESSES
LOCA02-2N
LOCA EVENTS DURIGN MODE 5
LOCA02
FAILURE OF LPCF
WDCS
FAILUIRE OF OPERATOR TO FOLLOW INSTRUCTIONS AFTER LOCA MODE 5
OPERL_M5
Page 72
FAILURE OF LOCA ISOLATION
LISOL
CONDENSATE FAILURE
CONF
FAILURE OF HPCF
HPCFBC
LOSS OF ACIWA SYSTEM DURING SHUTDOWN CONDITIONS
FIREWATR
CRD FLOW UNAVAILABLE
CRDU

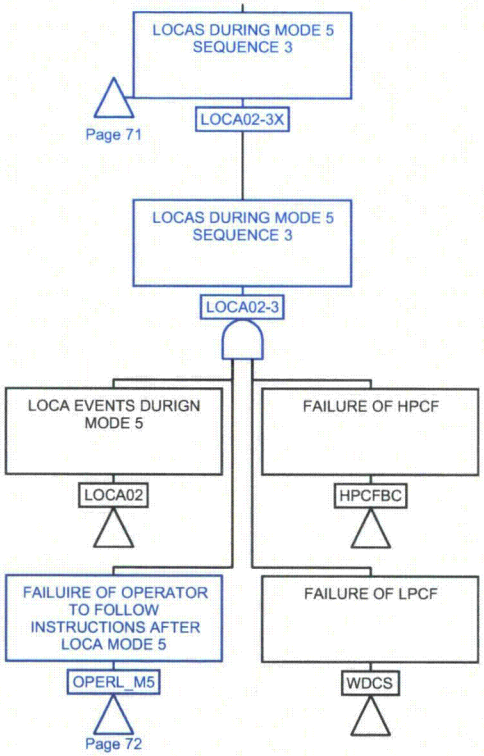


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Figure G-29 Top Logic and Sequence Logic

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A01-1N	22	2	C01-2	38	2
A01-1X	22	2	C01-2N	36	4
A01-2	22	3	C01-2X	36	4
A01-2	24	2	C01-3	36	5
A01-2N	22	4	C01-3	39	2
A01-2X	22	4	C01-3N	36	6
A01-3	22	5	C01-3X	36	6
A01-3	25	2	C01-4	40	2
A01-3N	22	6	C01-4X	36	7
A01-3X	22	6	C01-4X	40	2
A01-4	26	2	C12-1	41	1
A01-4X	22	7	C12-1	42	2
A01-4X	26	2	C12-1N	41	2
A12-1	27	1	C12-1X	41	2
A12-1	28	2	C12-2	41	3
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A12-1X	27	2	C12-2N	41	4
A12-2	27	3	C12-2X	41	4
A12-2	29	2	C12-3	41	5
A12-2N	27	4	C12-3	44	2
A12-2X	27	4	C12-3N	41	6
A12-3	27	5	C12-3X	41	6
A12-3	30	2	C12-4	45	2
A12-3N	27	6	C12-4X	41	7
A12-3X	27	6	C12-4X	45	2
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A12-4X	27	7	C1433-1	53	2
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A23-1	33	2	C1433-2	52	4
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A23-2X	32	4	C23-1N	46	2
A333-1	34	1	C23-1X	46	2
A333-1	35	2	C23-2	46	4
A333-1N	34	2	C23-2X	46	4
A333-1X	34	2	C34-1	48	1
A333-2	34	4	C34-1	49	2
A333-2X	34	4	C34-1N	48	2
C01-1	36	1	C34-1X	48	2
C01-1	37	2	C34-2	48	4
C01-1N	36	2	C34-2X	48	4

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C414-1N	50	2	CRDU	51	2
C414-1X	50	2	CRDU	53	2
C414-2	50	5	CRDU	60	2
C414-2X	50	5	CRDU	61	2
CONF	3	2	CRDU	62	2
CONF	9	2	CRDU	63	2
CONF	15	2	CRDU	67	2
CONF	17	2	CRDU	68	2
CONF	19	2	CRDU	69	2
CONF	21	2	CRDU	71	2
CONF	23	2	CRDU	74	2
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CONF	35	2	CTGF	56	2
CONF	37	2	CTGF	57	2
CONF	42	2	CTGF	58	2
CONF	47	2	DGF	54	2
CONF	49	2	DGF	55	2
CONF	51	2	DGF	56	2
CONF	53	2	DGF	57	2
CONF	60	2	DGF	58	2
CONF	67	2	FIREWATR	3	2
CONF	69	2	FIREWATR	9	2
CONF	71	2	FIREWATR	15	2
CONF	74	2	FIREWATR	17	2
CRDU	3	2	FIREWATR	19	2
CRDU	5	2	FIREWATR	21	2
CRDU	9	2	FIREWATR	23	2
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CRDU	35	2	FIREWATR	56	2
CRDU	37	2	FIREWATR	58	2
CRDU	38	2	FIREWATR	60	2
CRDU	42	2	FIREWATR	67	2
CRDU	43	2	FIREWATR	69	2

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FIREWATR	74	2	HPCFB	33	1
FPC	19	1	HPCFB	34	3
FPC	53	1	HPCFB	35	1
FPC	71	1	HPCFB	37	2
FWCOND	3	2	HPCFB	38	2
FWCOND	5	2	HPCFB	39	2
FWCOND	9	2	HPCFB	40	2
FWCOND	11	2	HPCFB	42	2
FWCOND	23	1	HPCFB	43	2
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FWCOND	42	2	HPCFB	49	1
FWCOND	43	2	HPCFB	50	5
FWCOND	60	1	HPCFB	51	2
FWCOND	61	2	HPCFB	52	4
FWCOND	67	1	HPCFB	53	2
FWCOND	68	2	HPCFBC	60	2
HPCFB	3	2	HPCFBC	61	2
HPCFB	5	2	HPCFBC	62	2
HPCFB	6	2	HPCFBC	63	2
HPCFB	7	2	HPCFBC	64	2
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HPCFB	12	2	HPCFBC	68	2
HPCFB	13	2	HPCFBC	69	1
HPCFB	14	4	HPCFBC	70	2
HPCFB	15	1	HPCFBC	71	2
HPCFB	16	4	HPCFBC	74	1
HPCFB	17	1	HPCFBC	75	2
HPCFB	18	4	HPCFC	3	2
HPCFB	19	2	HPCFC	5	2
HPCFB	20	4	HPCFC	6	2
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HPCFB	29	2	HPCFC	15	2
HPCFB	30	1	HPCFC	16	4
HPCFB	31	2	HPCFC	17	2

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HPCFC	20	4	LOCA02-2N	74	3	
HPCFC	21	2	LOCA02-2X	71	3	
HPCFC	23	2	LOCA02-2X	74	2	
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HPCFC	25	2	LOCA02-3X	71	4	
HPCFC	26	2	LOCA02-3X	75	2	
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HPCFC	35	2	LORHR01_ET	1	2	
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L01-1N	54	3	LORHR23_ET	1	5	
L01-1X	54	2	LORHR23_ET	14	3	
L01-2	54	4	LORHR34_ET	1	6	
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L01-2X	54	4	LORHR413_ET	1	7	
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LISOL	59	5	LOSWA12_ET	22	5	
LISOL	62	1	LOSWA12_ET	27	4	
LISOL	63	1	LOSWA23_ET	22	6	
LISOL	66	2	LOSWA23_ET	32	3	
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LISOL	74	1	LOSWC12_ET	36	5	
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LOCA02	74	1	LOSWC1433_ET	36	9	
LOCA02	75	1	LOSWC1433_ET	52	3	
LOCA02-1	71	2	LOSWC23_ET	36	6	
LOCA02-1N	71	3	LOSWC23_ET	46	3	
LOCA02-1N	72	4	LOSWC34_ET	36	7	

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LOSWC414_ET	36	8	OPERATOR	8	2
LOSWC414_ET	50	3	OPERATOR	10	2
MCU	3	1	OPERATOR	12	1
MCU	5	1	OPERATOR	13	1
MCU	9	1	OPERATOR	14	2
MCU	11	1	OPERATOR	14	3
MCU	23	1	OPERATOR	22	2
MCU	24	1	OPERATOR	22	4
MCU	28	1	OPERATOR	25	1
MCU	29	1	OPERATOR	26	1
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MCU	38	1	OPERATOR	27	4
MCU	42	1	OPERATOR	30	1
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MCU	67	1	OPERATOR	36	2
MCU	68	1	OPERATOR	36	4
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ML01-1X	66	2	OPERATOR	41	4
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ML01-2X	66	4	OPERATOR	46	3
ML01-3	69	2	OPERL	66	2
ML01-3N	69	3	OPERL	66	5
ML01-3X	66	5	OPERL	69	3
ML01-3X	69	2	OPERL	70	1
ML01-4	66	6	OPERL	72	1
ML01-4	70	2	OPERL001	72	2
ML01-4X	66	6	OPERL002	72	6
ML01_ET	59	6	OPERLM5	72	6
ML01_ET	66	4	OPERL_M5	72	4
MLOCA	72	2	OPERL_M5	74	3
MLOCA01	67	1	OPERL_M5	75	1
MLOCA01	68	1	OPERM5	16	2
MLOCA01	69	1	OPERM5	16	3
MLOCA01	70	1	OPERM5	18	2
MTX	1	8	OPERM5	18	3
OPERATOR	2	2	OPERM5	20	2
OPERATOR	4	2	OPERM5	20	3
OPERATOR	6	1	OPERM5	34	2

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OPERM5	50	4	R12-4X	1	4
OPERM5	52	2	R12-4X	13	2
OPERM5	52	3	R23-1	14	1
OPERS	59	2	R23-1	15	2
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OPERS	63	3	R23-2	14	4
OPERS	64	1	R23-2X	14	4
OPERS	65	1	R34-1	16	1
OPERS	72	3	R34-1	17	2
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POS5BCD	73	2	R34-2	16	4
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R01-1	3	2	R413-1	18	1
R01-1N	2	2	R413-1	19	2
R01-1X	1	1	R413-1N	18	2
R01-1X	2	2	R413-1X	18	2
R01-2	4	1	R413-2	18	4
R01-2	5	2	R413-2X	18	4
R01-2N	4	2	R414-1	20	1
R01-2X	1	1	R414-1	21	2
R01-2X	4	2	R414-1N	20	2
R01-3	6	2	R414-1X	20	2
R01-3N	6	3	R414-2	20	4
R01-3X	1	2	R414-2X	20	4
R01-3X	6	2	REC20	19	1
R01-4	7	2	REC45	17	1
R01-4X	1	2	REC45	21	1
R01-4X	7	2	REC45	49	1
R12-1	8	1	REC45	51	1
R12-1	9	2	REC45	53	1
R12-1N	8	2	REC50	33	1
R12-1X	1	3	REC50	35	1
R12-1X	8	2	REC50	58	1
R12-2	10	1	REC90	3	1
R12-2	11	2	REC90	5	1
R12-2N	10	2	REC90	9	1
R12-2X	1	3	REC90	11	1
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REC90	28	1	RHRSDB	17	1
REC90	29	1	RHRSDB	19	1
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REC90	42	1	RHRSDB	24	1
REC90	43	1	RHRSDB	28	1
REC90	47	1	RHRSDB	29	1
REC90	54	1	RHRSDB	33	1
REC90	55	1	RHRSDB	35	1
REC90	56	1	RHRSDB	37	1
REC90	57	1	RHRSDB	38	1
RHR0	3	1	RHRSDB	42	1
RHR0	5	1	RHRSDB	43	1
RHR0	6	1	RHRSDB	47	1
RHR0	7	1	RHRSDB	49	1
RHR1	9	1	RHRSDB	51	1
RHR1	11	1	RHRSDB	53	1
RHR1	12	1	RHRSDC	3	1
RHR1	13	1	RHRSDC	5	1
RHR2	14	3	RHRSDC	9	1
RHR2	15	1	RHRSDC	11	1
RHR3	16	3	RHRSDC	15	1
RHR3	17	1	RHRSDC	17	1
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RHRSD	60	1	RHRSDC	28	1
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RHRSD	71	1	RWCUF	3	1
RHRSDA	37	1	RWCUF	5	2
RHRSDA	38	1	RWCUF	9	1
RHRSDA	42	1	RWCUF	11	2
RHRSDA	43	1	RWCUF	19	1
RHRSDA	47	1	RWCUF	21	1
RHRSDA	49	1	RWCUF	37	1
RHRSDA	51	1	RWCUF	38	2
RHRSDA	53	1	RWCUF	42	1
RHRSDB	3	1	RWCUF	43	2
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RHRSDB	9	1	RWCUF	53	1
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RXDEPRESS	24	2	SL01-2	59	3
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RXDEPRESS	27	3	SL01-2N	59	4
RXDEPRESS	27	6	SL01-2X	59	4
RXDEPRESS	29	2	SL01-3	62	2
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RXDEPRESS	43	2	SL01-5	64	2
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RXDEPRESS	55	2	SL01-5X	64	2
RXDEPRESS	56	3	SL01-6	65	2
RXDEPRESS	57	2	SL01-6X	59	8
RXDEPRESS	59	3	SL01-6X	65	2
RXDEPRESS	61	2	SL01_ET	59	5
RXDEPRESS	62	4	SLOCA	72	4
RXDEPRESS	63	2	SLOCA01	60	1
RXDEPRESS	64	3	SLOCA01	61	1
RXDEPRESS	65	2	SLOCA01	62	1
RXDEPRESS	66	3	SLOCA01	63	1
RXDEPRESS	68	2	SLOCA01	64	1
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SWSA3	32	3	WDCSA	50	6
SWSA3	33	1	WDCSA	51	2
SWSA3	34	3	WDCSA	52	4
SWSA3	35	1	WDCSA	53	2
SWSC1	42	1	WDCSAB	50	6
SWSC1	43	1	WDCSB	23	2
SWSC1	44	1	WDCSB	25	2
SWSC1	45	1	WDCSB	28	2
SWSC2	46	3	WDCSB	30	2
SWSC2	47	1	WDCSB	32	4
SWSC3	48	3	WDCSB	33	2
SWSC3	49	1	WDCSB	34	4
SWSC4	50	3	WDCSB	35	2
SWSC4	51	1	WDCSB	37	2
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SWSC5	53	1	WDCSB	42	2
WDCS	3	2	WDCSB	44	2
WDCS	6	2	WDCSB	46	4
WDCS	9	2	WDCSB	47	2
WDCS	12	2	WDCSB	48	4
WDCS	14	4	WDCSB	49	2
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WDCS	21	2	WDCSC	28	2
WDCS	60	2	WDCSC	30	2
WDCS	62	2	WDCSC	32	4
WDCS	64	2	WDCSC	33	2
WDCS	67	2	WDCSC	34	4
WDCS	69	2	WDCSC	35	2
WDCS	70	2	X_POS5A	72	2
WDCS	71	2	X_POS5A	72	4
WDCS	74	2	X_POS5B	73	1
WDCS	75	2	X_POS5C	73	2
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