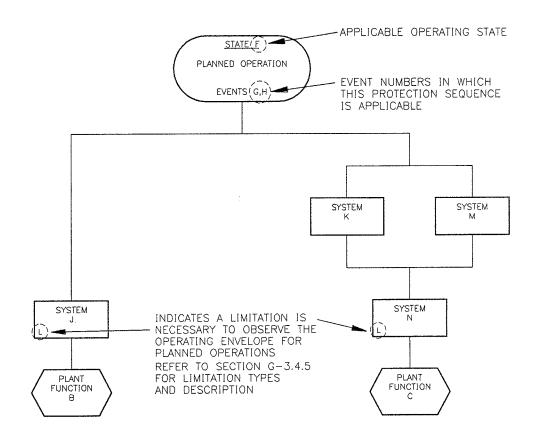
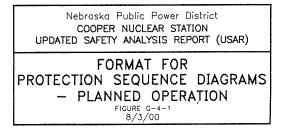


Nebraska Public Power District COOPER NUCLEAR STATION UPDATED SAFETY ANALYSIS REPORT (USAR) BLOCK DIAGRAM FOR NUCLEAR SAFETY OPERATIONAL ANALYSIS FIGURE G-2-2

7/22/96





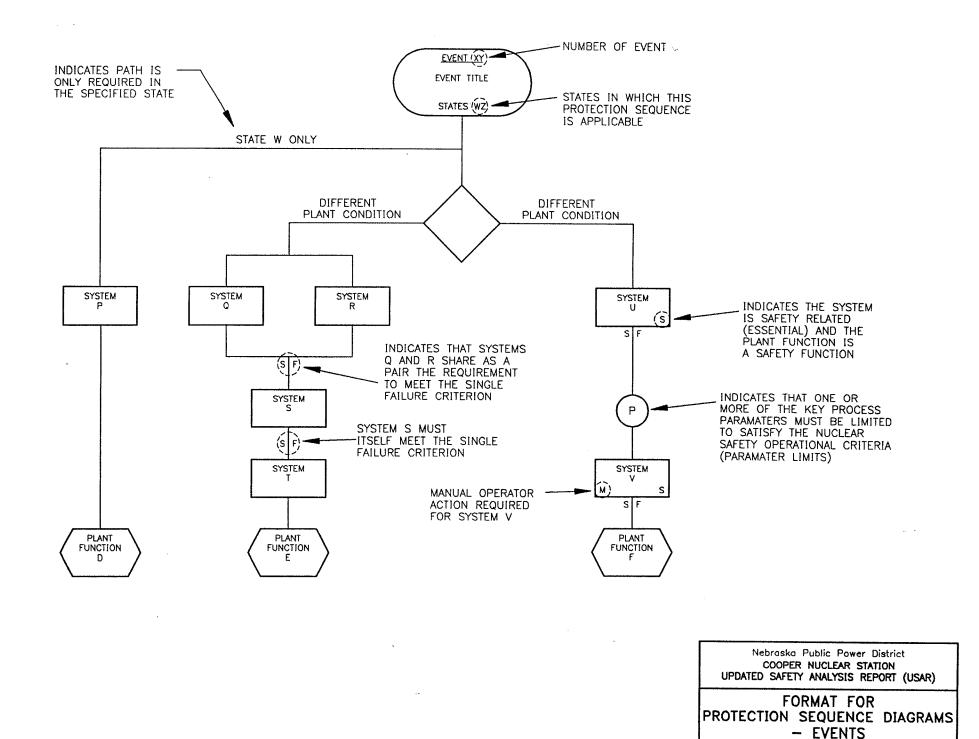
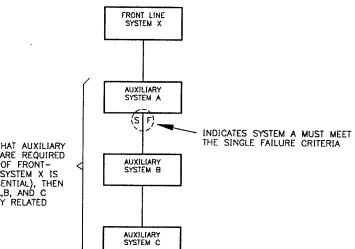


FIGURE G-4-2 7/22/96

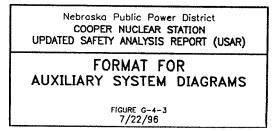


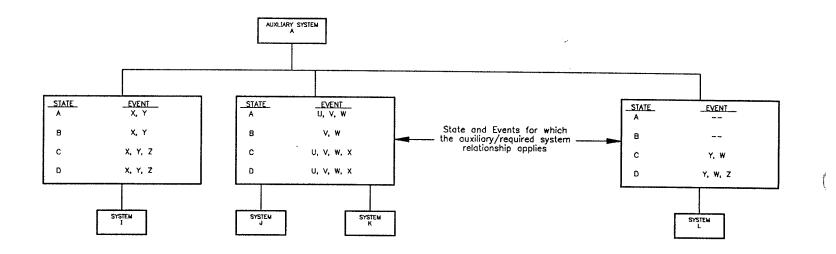
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DIAGRAM INDICATES THAT AUXILIARY SYSTEMS A,B AND C ARE REQUIRED FOR THE OPERATION OF FRONT-LINE SYSTEM X. IF SYSTEM X IS SAFETY RELATED (ESSENTIAL), THEN AUXILIARY SYSTEMS A,B, AND C MUST ALSO BE SAFETY RELATED (ESSENTIAL).

.

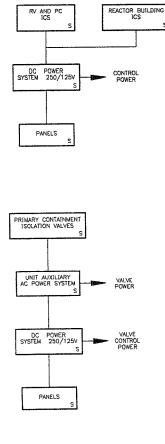
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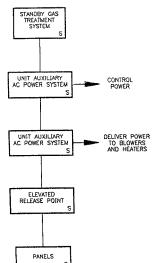


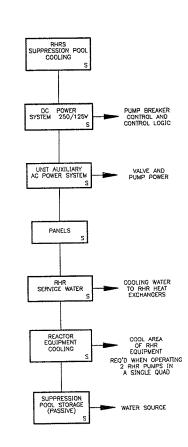


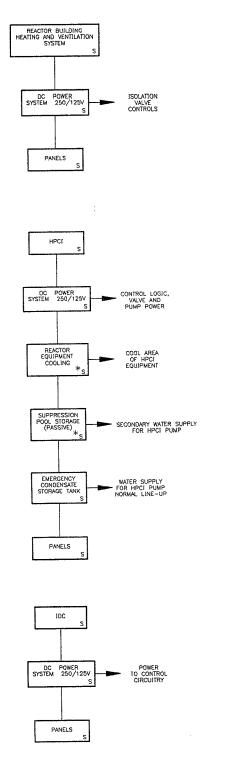
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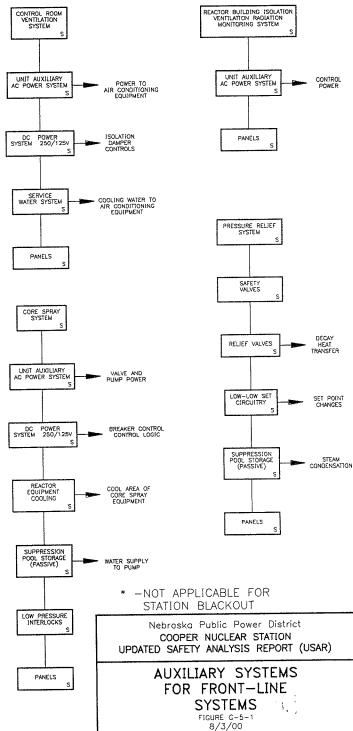
Nebraska Public Power District COOPER NUCLEAR STATION UPDATED SAFETY ANALYSIS REPORT (USAR)
FORMAT FOR COMMONALITY DIAGRAMS
FIGURE G-4-4 7/22/96



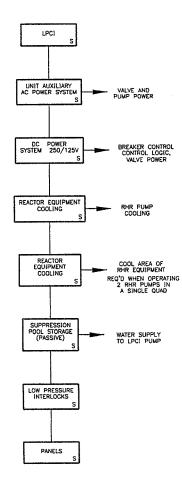


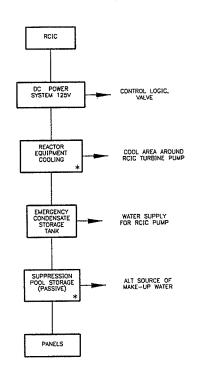






1





PRIMARY CONTAINMENT (PASSIVE)

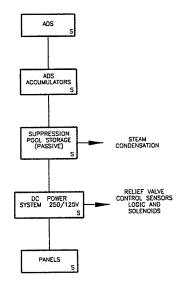
> SUPPRESSION POOL STORAGE (PASSIVE)

PRIMARY CONTAINMENT VACUUM RELIEF SYSTEM

PANELS

PRESSURE SUPRESSION

DIFFERENTIAL PRESSURE CONTROL

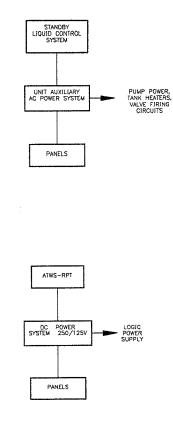


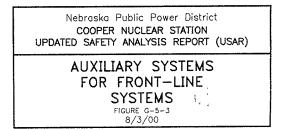
SYSTEMS WITH NO REQUIRED AUXILIARY SYSTEMS	PASSIVE	FAIL- SAFE	SELF CON- TAINED	SAFETY RELATED
FUEL ASSEMBLIES	X			X
CONTROL RODS			X	X
CONTROL ROD DRIVES		X		X
NEUTRON MONITORING		X		X
ROD BLOCK MONITORING		Х		
MAIN STEAM LINE RAD MONITORING		X		X
RPS		X		×
MSIV'S		X		X
FLOW RESTRICTORS	X		L	X
SAFETY VALVES			<u>×</u>	X
RADWASTE BUILDING	X		L	
REACTOR BUILDING	X			X
CONTROL ROD VELOCITY-LIMITER	X		L	X
CONTROL ROD HOUSING	X			X
DC POWER SYSTEM 250/125V			X	X
SUPRESSION POOL STORAGE			X	X
PRIMARY CONTAINMENT RELIEF		X		X
SPENT FUEL POOL	X		I	X
CRD HOUSING SUPPORTS	X			X
CONTROL ROOM PANELS	X		1	X
LOCAL PANELS AND RACKS	X			X
EMERGENCY COND. STORAGE TANK	x			
		t	1	1

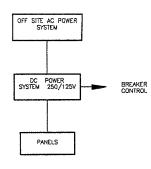
Nebraska Public Power District COOPER NUCLEAR STATION UPDATED SAFETY ANALYSIS REPORT (USAR) AUXILIARY SYSTEMS FOR FRONT-LINE SYSTEMS FIGURE G-5-2 5/5/06

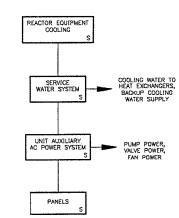
 NOT APPLICABLE FOR STATION BLACKOUT

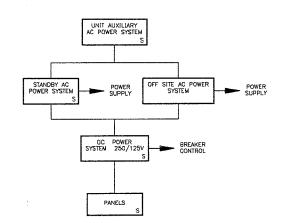
RHRS SHUTDOWN COOLING MODE DC POWER SYSTEM 250/125V VALVE POWER, BREAKER CONTROL REACTOR EQUIPMENT COOLING RHR PUMP COOLING REACTOR EQUIPMENT COOLING COOL AREA AROUND RHRS EQUIPMENT REQ'D WHEN OPERATING 2 RHR PUMPS IN A SINGLE QUAD LOW PRESSURE INTERLOCKS COOLING WATER TO RHR HEAT EXCHANGERS RHR SERVICE WATER UNIT AUXILIARY AC POWER SYSTEM VALVE AND PUMP POWER PANELS

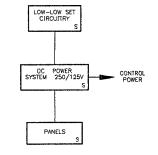


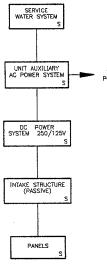


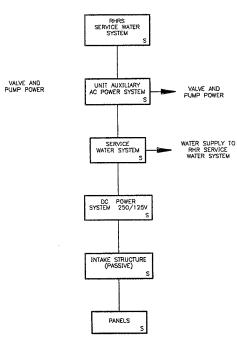


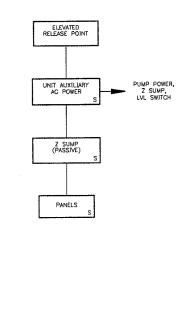


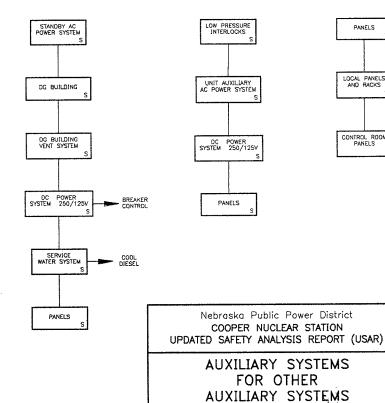












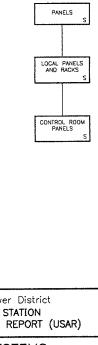
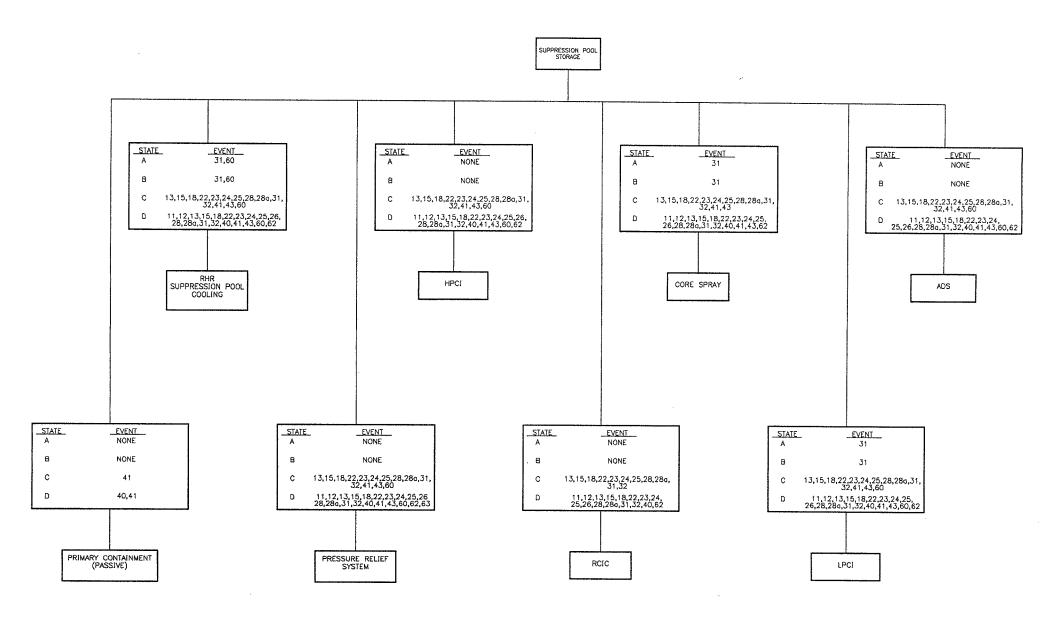
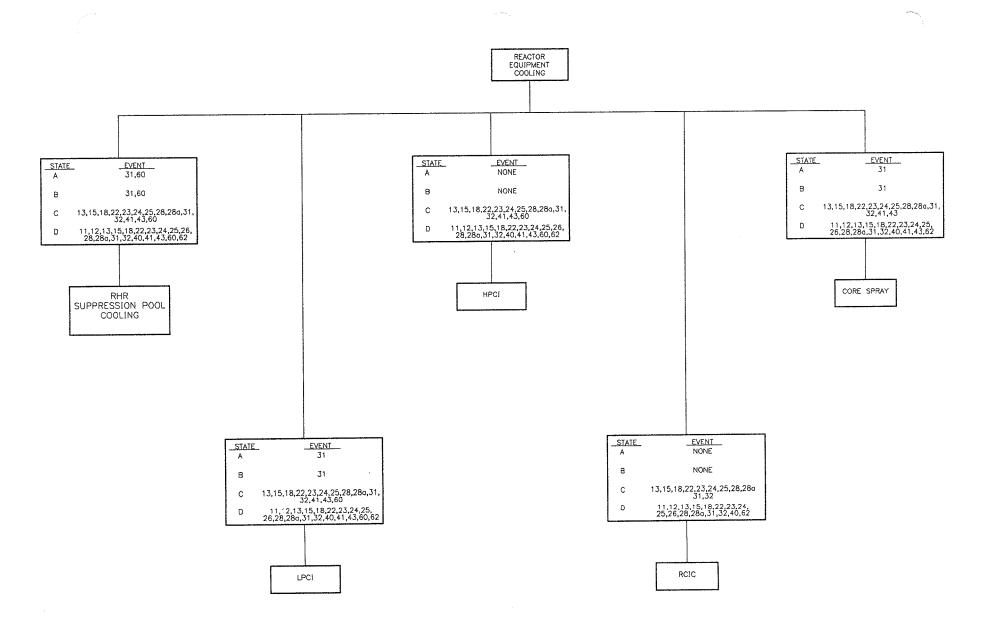


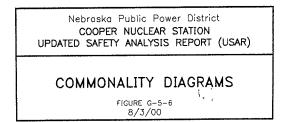
FIGURE G-5-4 8/3/00

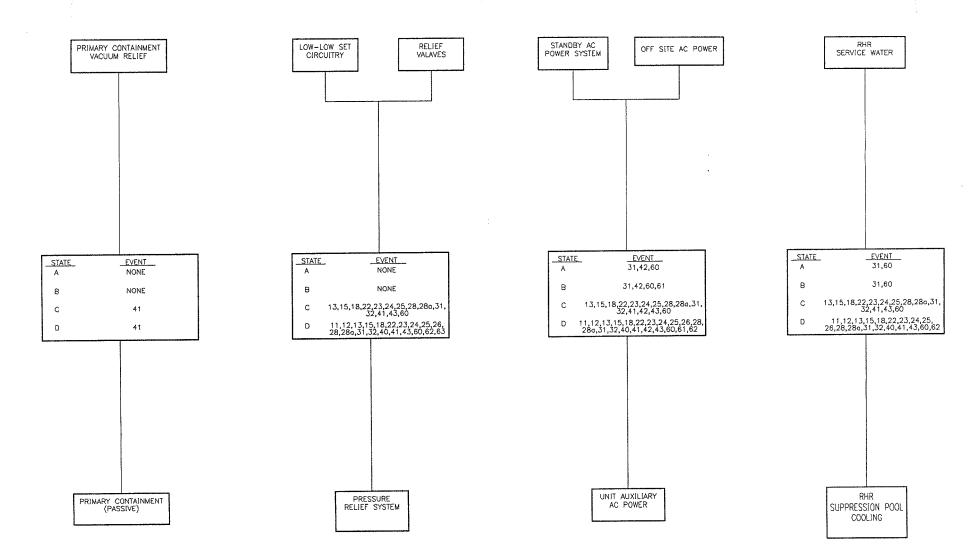
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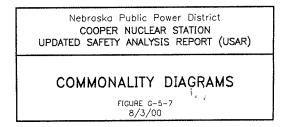


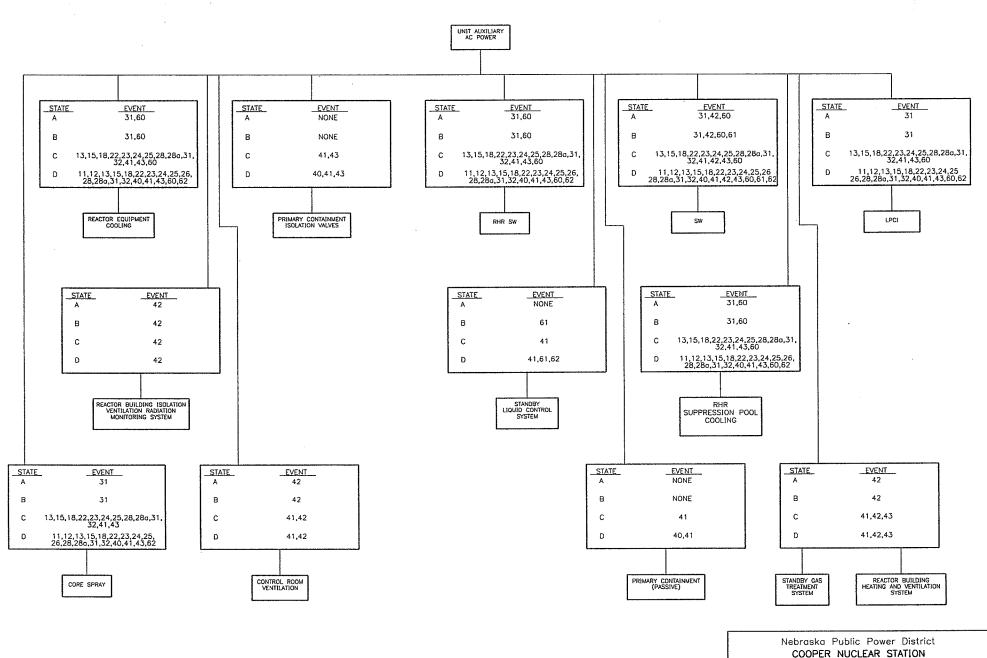
Nebraska Public Power District COOPER NUCLEAR STATION UPDATED SAFETY ANALYSIS REPORT (USAR) COMMONALITY DIAGRAMS FIGURE G-5-5 1/31/01









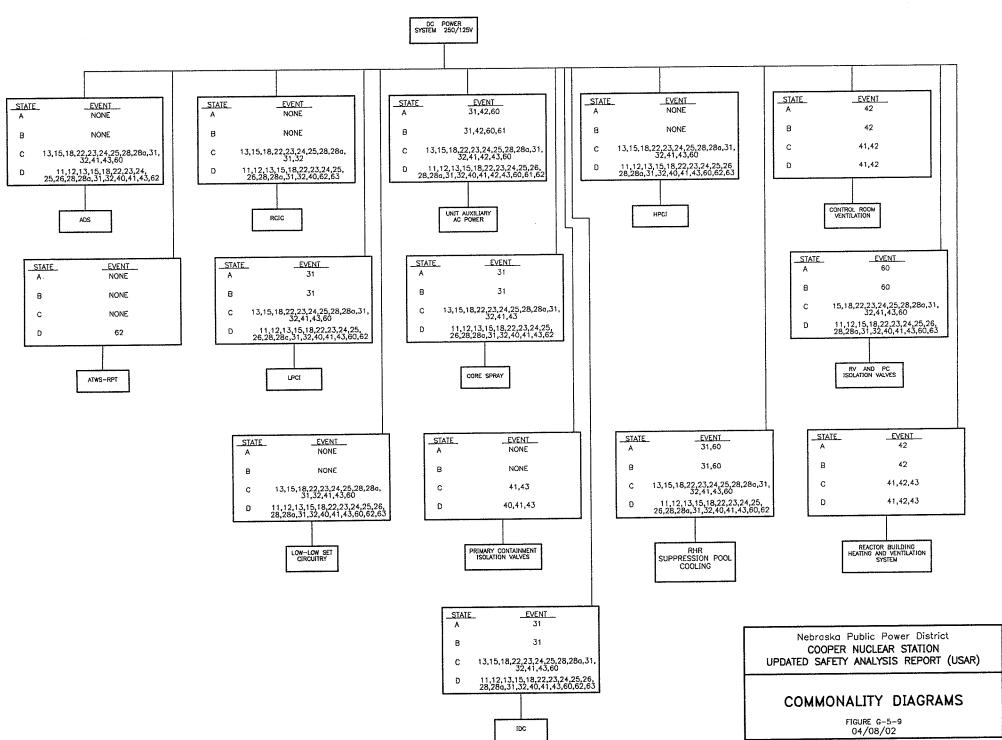


UPDATED SAFETY ANALYSIS REPORT (USAR)

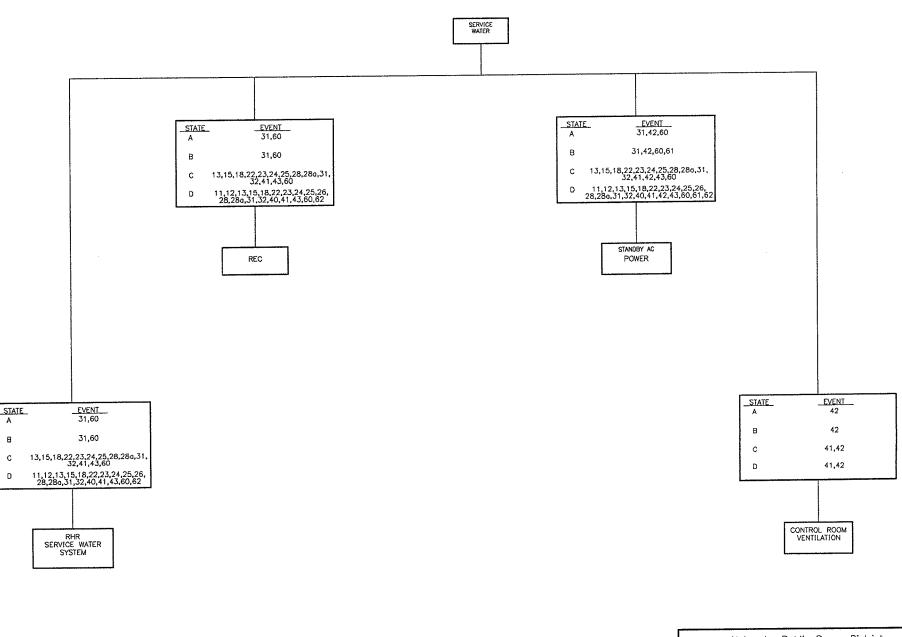
COMMONALITY DIAGRAMS

FIGURE G-5-8 02/05/10

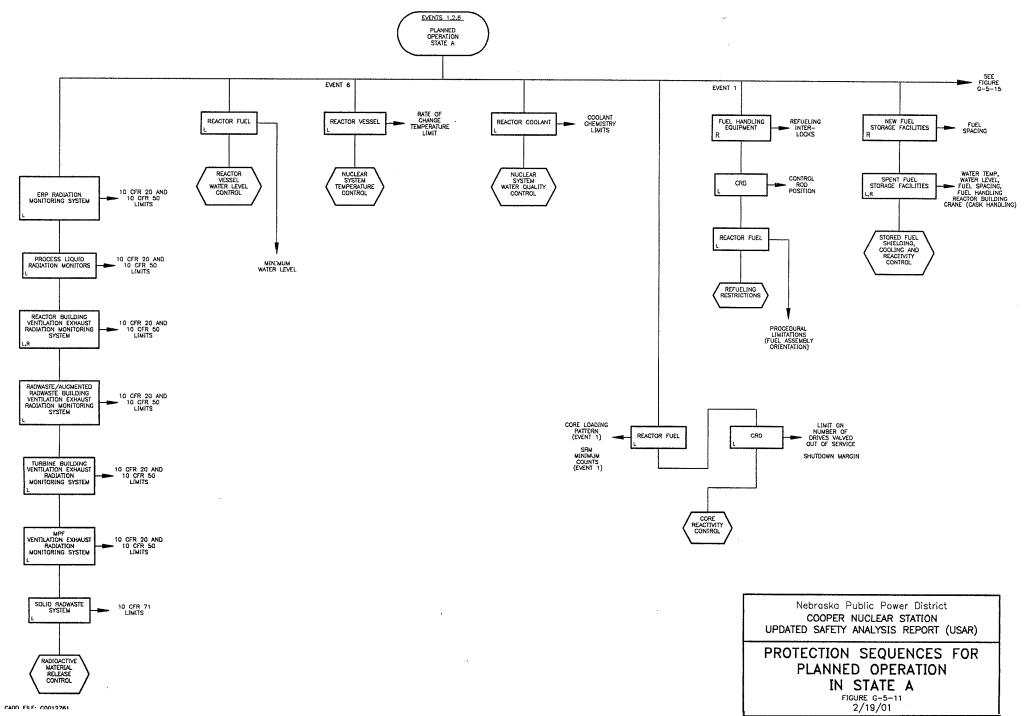
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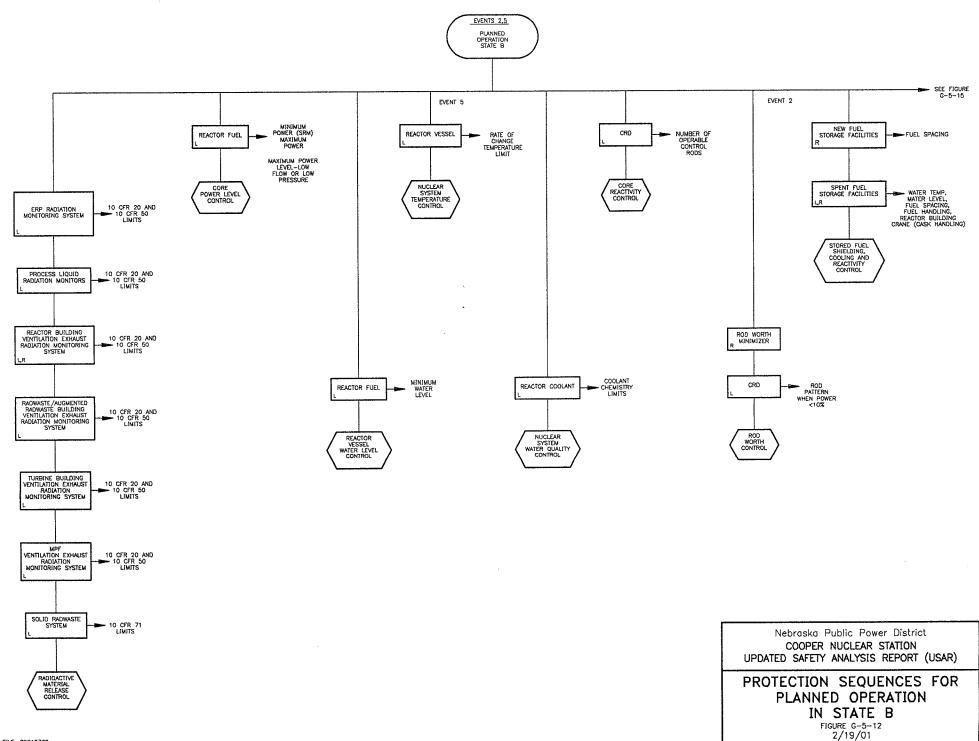


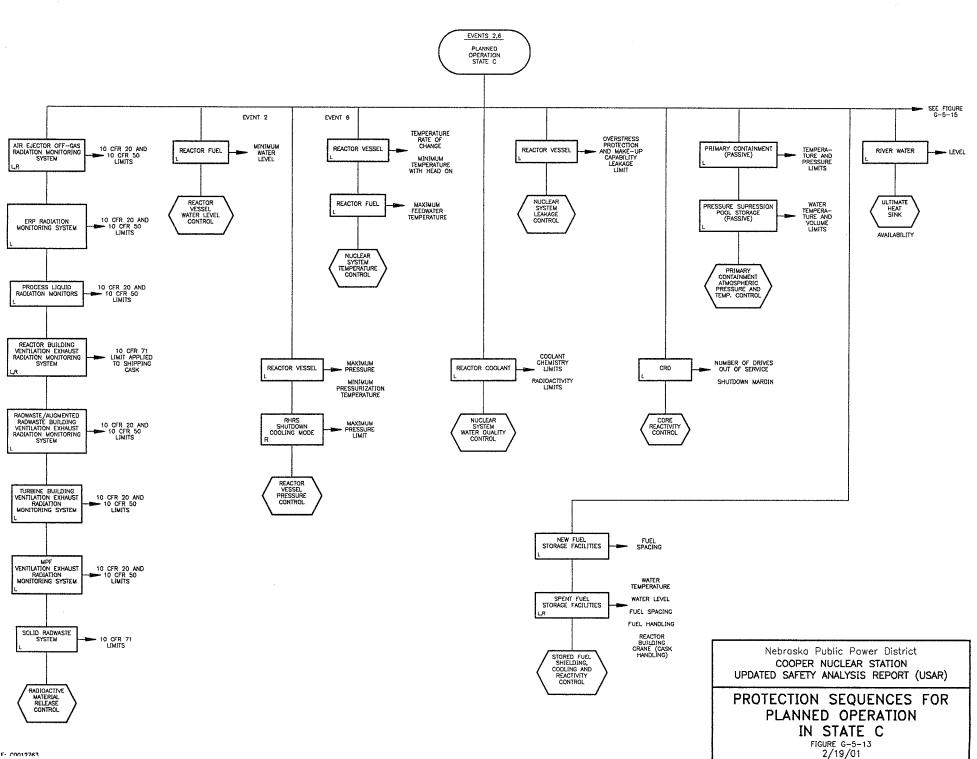
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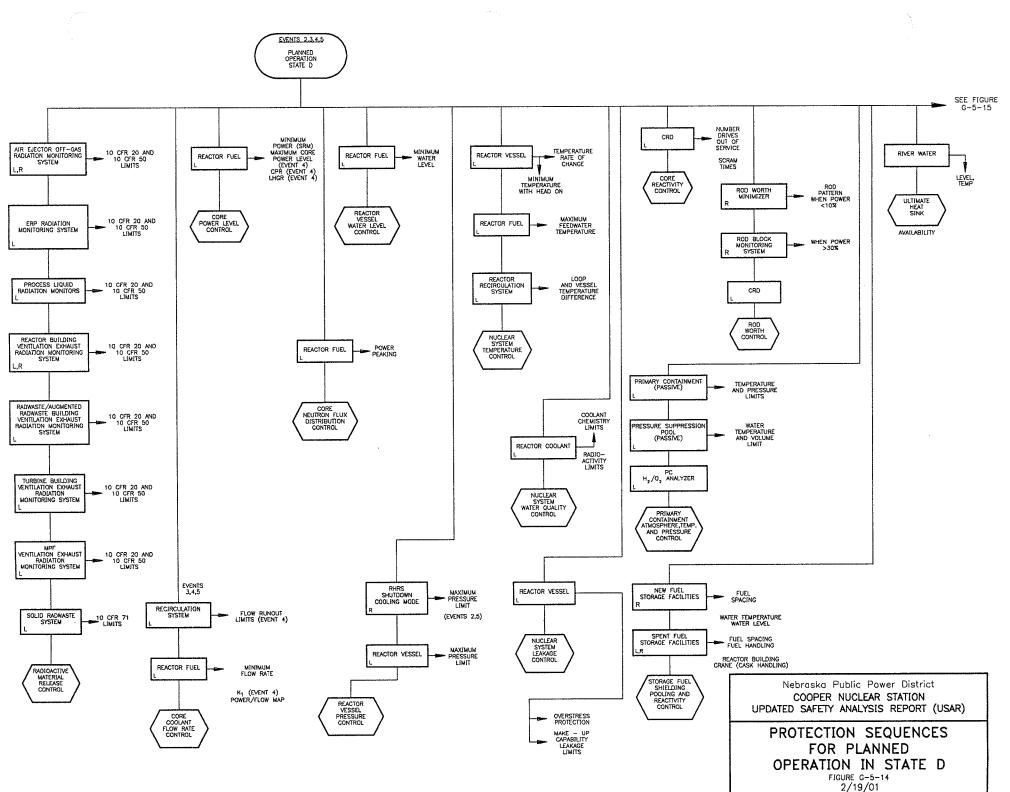
Nebraska Public Power District COOPER NUCLEAR STATION UPDATED SAFETY ANALYSIS REPORT (USAR) COMMONALITY DIAGRAMS







CADD FILE- C0012763



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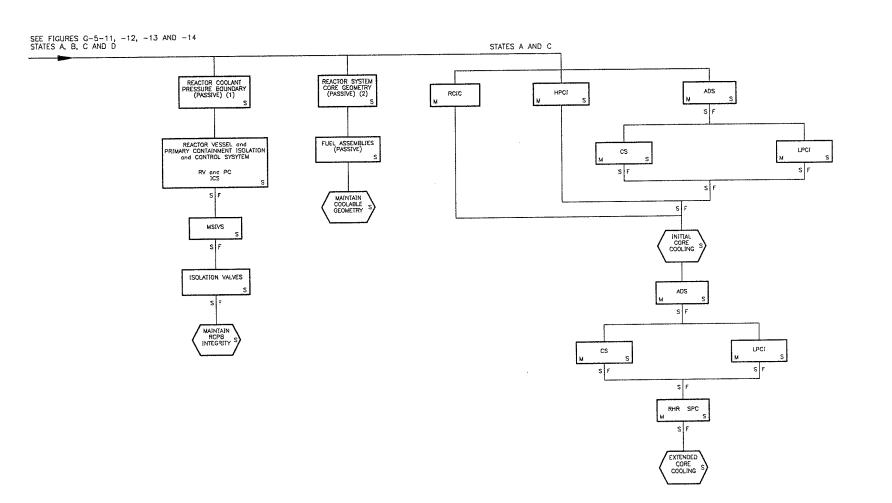
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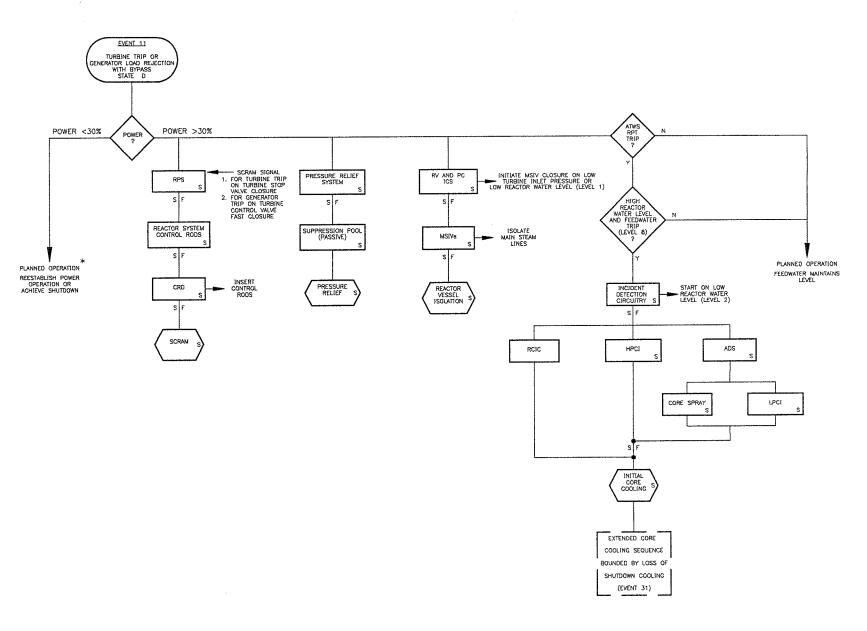
- 1. RPV 2. MAIN STEAM SYSTEM
- 3. RHR
- 4. HPCI
- 5. RCIC

- 6. RWCU
- 7. CRD SYSTEM
- 8. SLCS
- 9. FEED WATER SYSTEM

- (2) CORE GEOMETRY:
 - 1. RPV
 - 2. CORE SUPPORT STRUCTURES
 - 3. CORE SHROUD
 - 4. SHROUD SUPPORT

Nebraska Public Power District COOPER NUCLEAR STATION UPDATED SAFETY ANALYSIS REPORT (USAR) PROTECTION SEQUENCES FOR PLANNED OPERATION IN STATE A, B, C & D FIGURE G-5-15 4 8/3/00





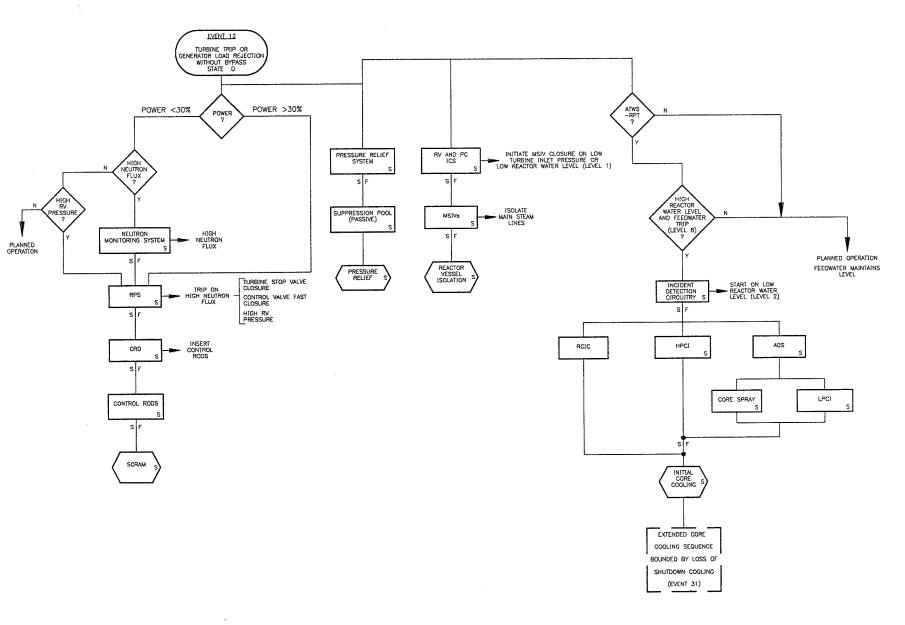
Nebraska Public Power District COOPER NUCLEAR STATION UPDATED SAFETY ANALYSIS REPORT (USAR)

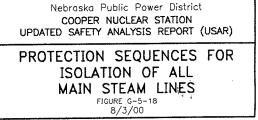
PROTECTION SEQUENCES FOR

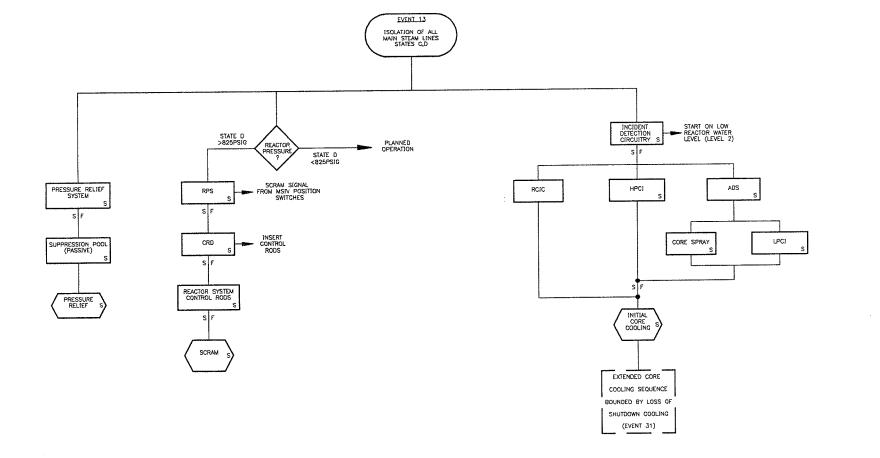
TURBINE TRIP OR GENERATOR LOAD REJECTION WITH BYPASS FIGURE G-5-16 8/3/00

BELOW ABOUT 25 PERCENT OF RATED POWER, THE BYPASS SYSTEM WILL TRANSFER STEAM AROUND THE TURBINE AND AVOID REACTOR SCRAM. BETWEEN ABOUT 25 PERCENT AND 30 PERCENT POWER, A HIGH RPV PRESSURE SCRAM WILL RESULT UNLESS OPERATOR ACTION CAN REDUCE POWER TO WITHIN THE BYPASS CAPACITY.

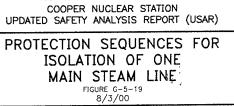
Nebraska Public Power District COOPER NUCLEAR STATION UPDATED SAFETY ANALYSIS REPORT (USAR) PROTECTION SEQUENCES FOR TURBINE TRIP OR GENERATOR LOAD REJECTION W/OUT, BYPASS FIGURE G-5-17 8/3/00



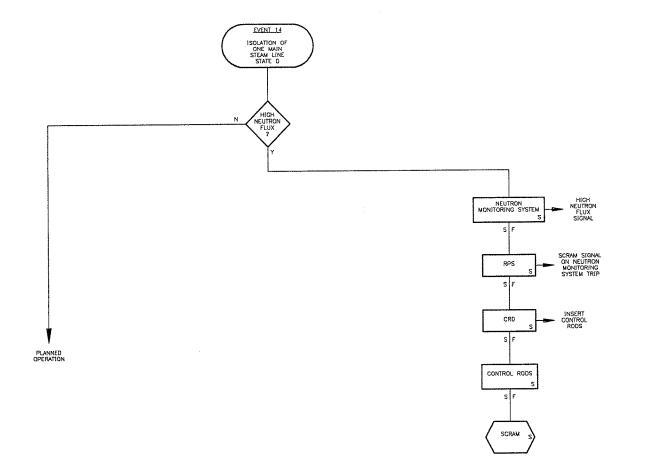


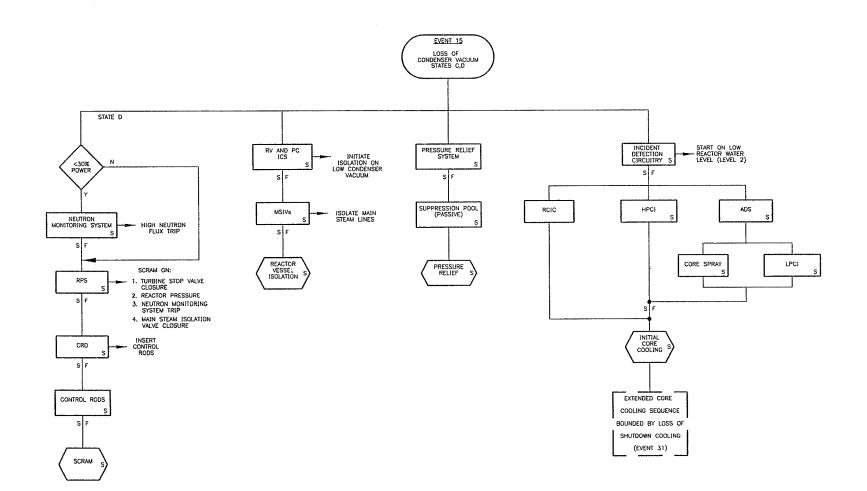


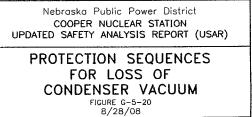
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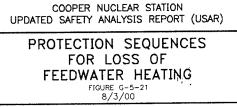


Nebraska Public Power District



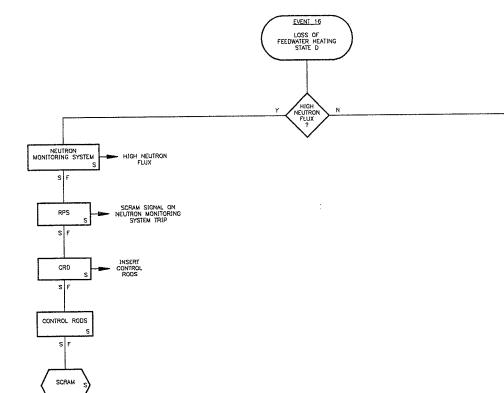






Nebraska Public Power District

NOTE: REFER TO FIG. G-4-2 FOR DIAGRAM FORMAT.

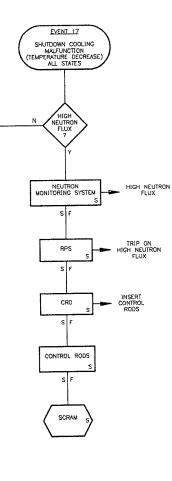


PLANNED OPERATION

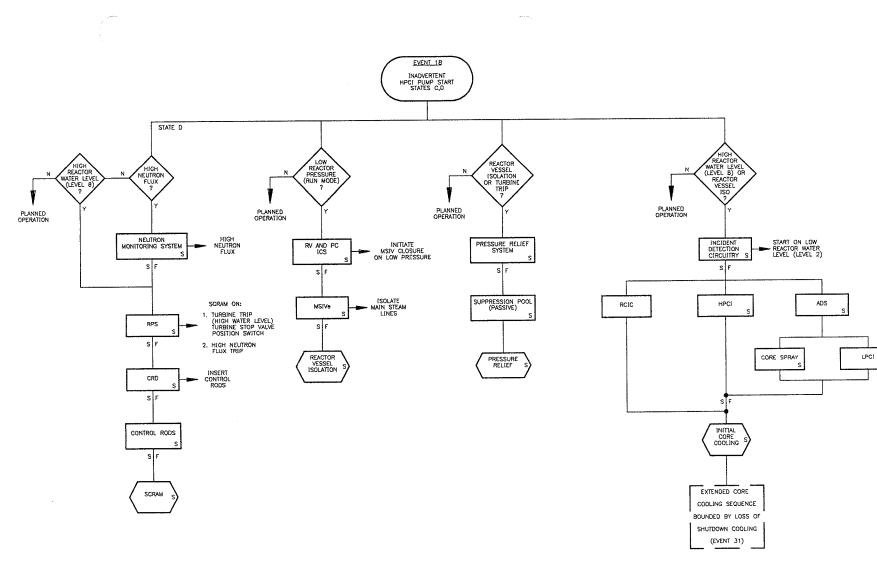
PROTECTION SEQUENCES FOR SHUTDOWN COOLING (RHRS) MALFUNCTION - TEMP DECREASE FIGURE 6-5-22 8/3/00

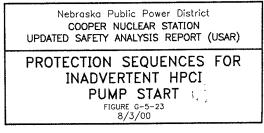
Nebraska Public Power District COOPER NUCLEAR STATION UPDATED SAFETY ANALYSIS REPORT (USAR)

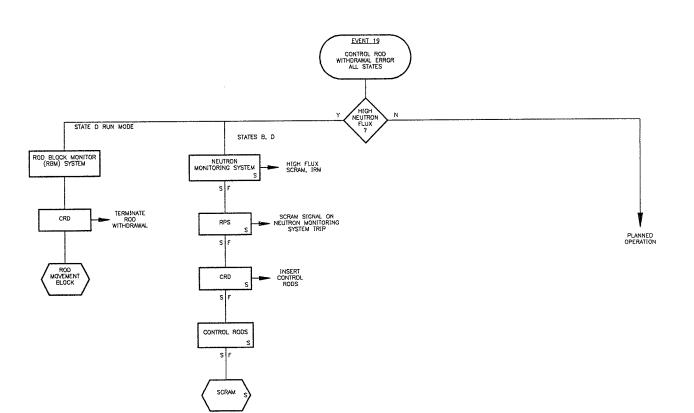
NOTE: REFER TO FIG. G-4-2 FOR DIAGRAM FORMAT.

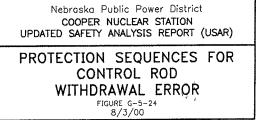


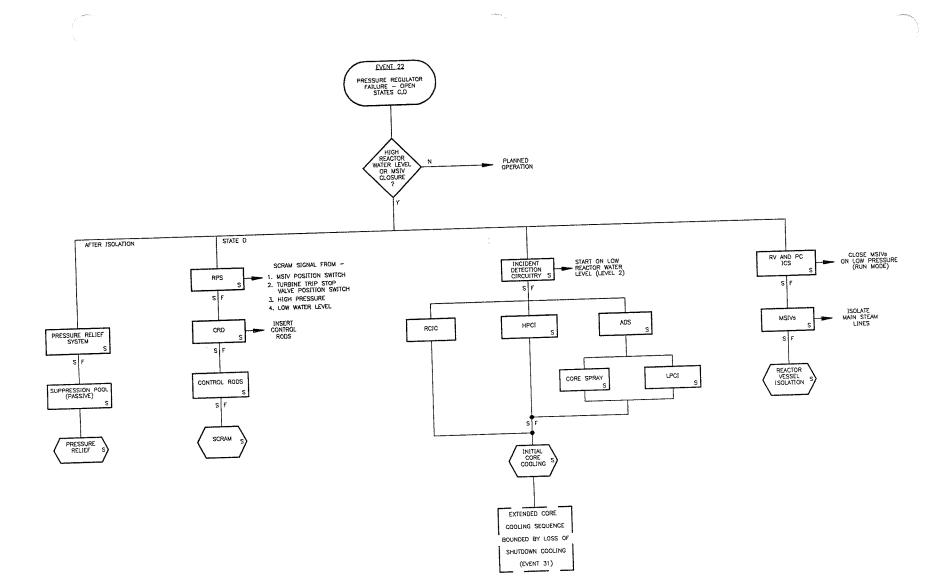
PLANNED OPERATION ~

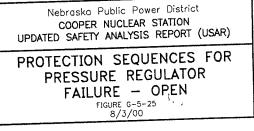




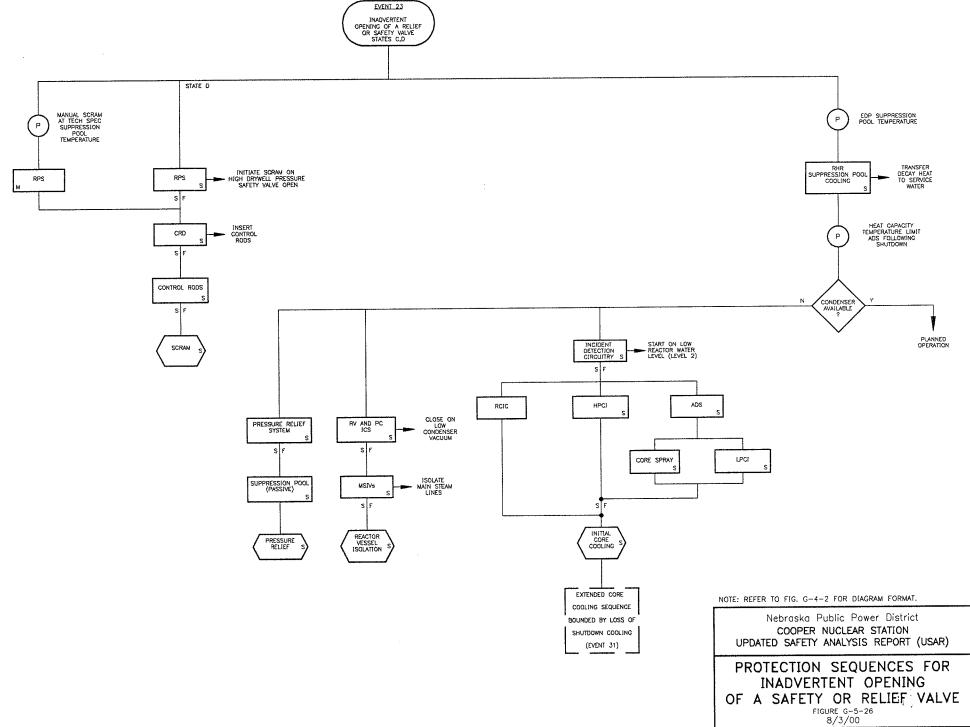


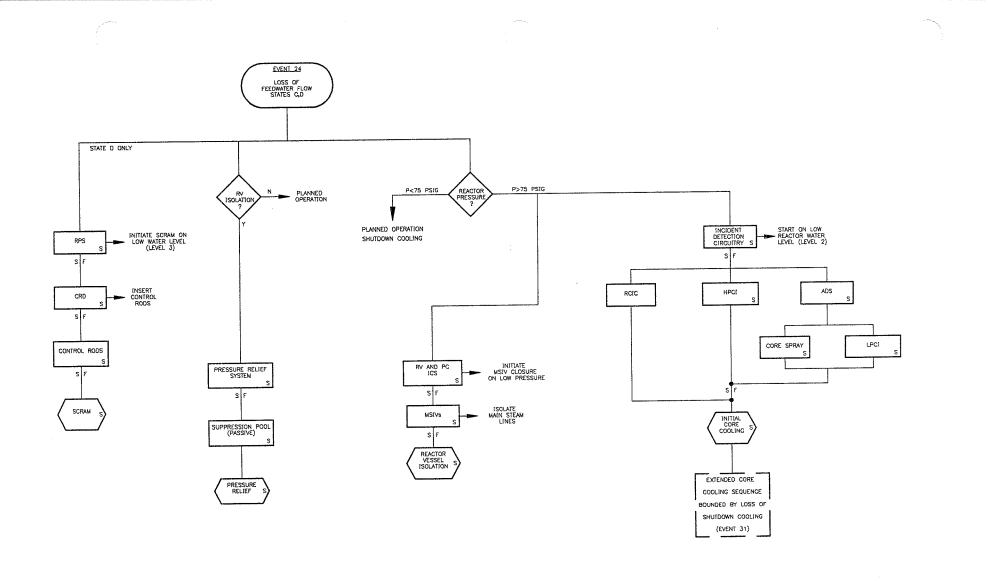


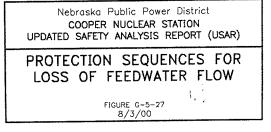




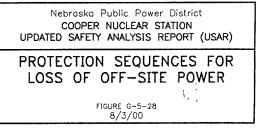


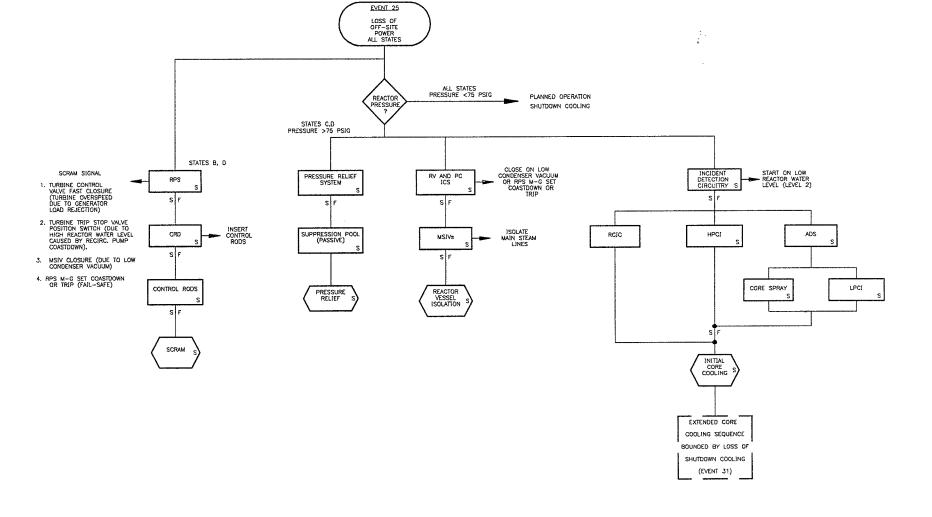




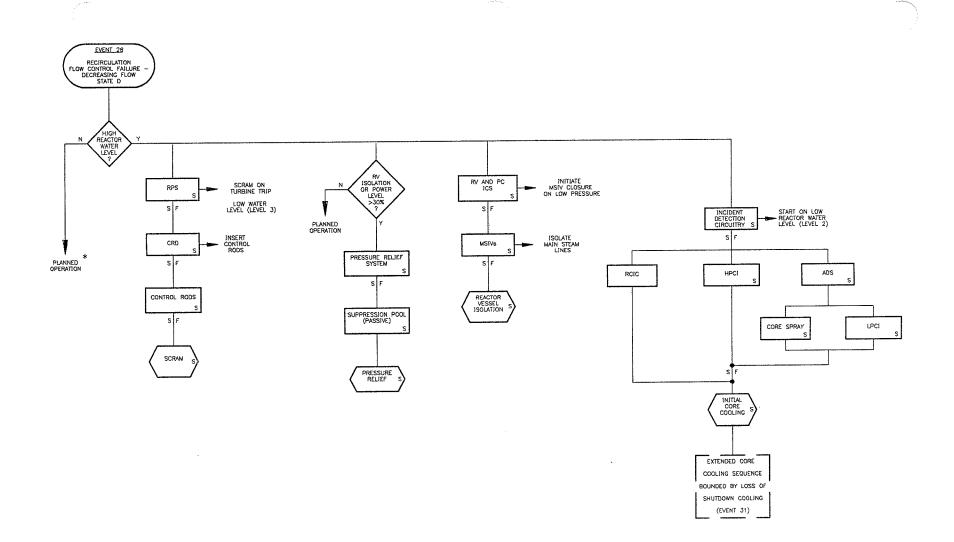








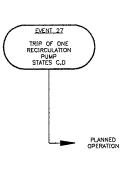
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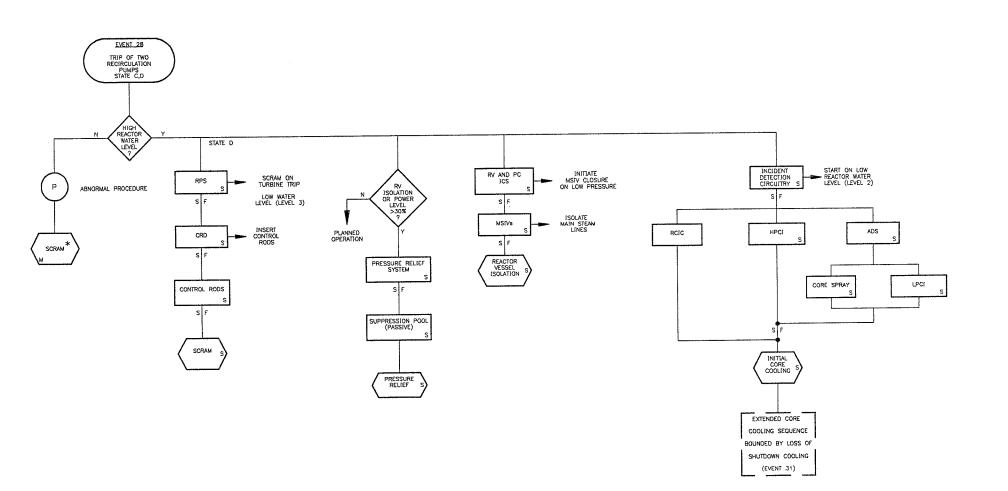


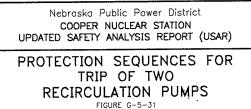


* BELOW ABOUT 25 PERCENT OF RATED POWER, THE BYPASS SYSTEM WILL TRANSFER STEAM AROUND THE TURBINE AND AVOID REACTOR SCRAM. BETWEEN ABOUT 25 PERCENT AND 30 PERCENT POWER, A HIGH RPV PRESSURE SCRAM WILL RESULT UNLESS OPERATOR ACTION CAN REDUCE POWER TO WITHIN THE BYPASS CAPACITY.

Nebraska Public Power District



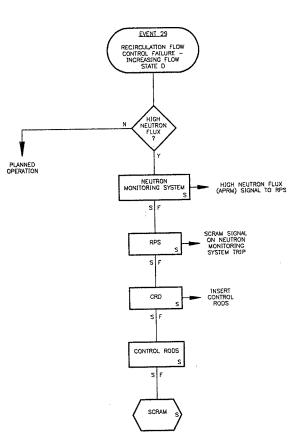


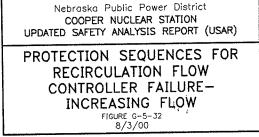


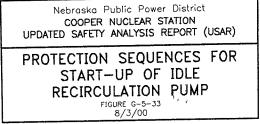
8/3/00

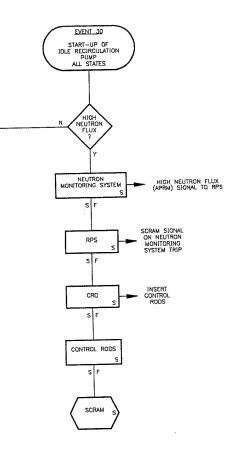
* THE ANALYSIS ASSUMES BELOW ABOUT 25 PERCENT OF RATED POWER, THE BYPASS SYSYTEM WILL TRANSFER STEAM AROUND THE TURBINE AND AVOID REACTOR SCRAM. BETWEEN ABOUT 25 PERCENT AND 30 PERCENT POWER, A HIGH RPV PRESSURE SCRAM WILL RESULT UNLESS OPERATOR ACTION CAN REDUCE POWER TO WITHIN THE BYPASS CAPACITY HOWEVER, THE ABNORMAL PROCEDURE REQUIRES THE OPERATOR TO INITIATE A MANUAL SCRAM.

NOD FILE: C0012781

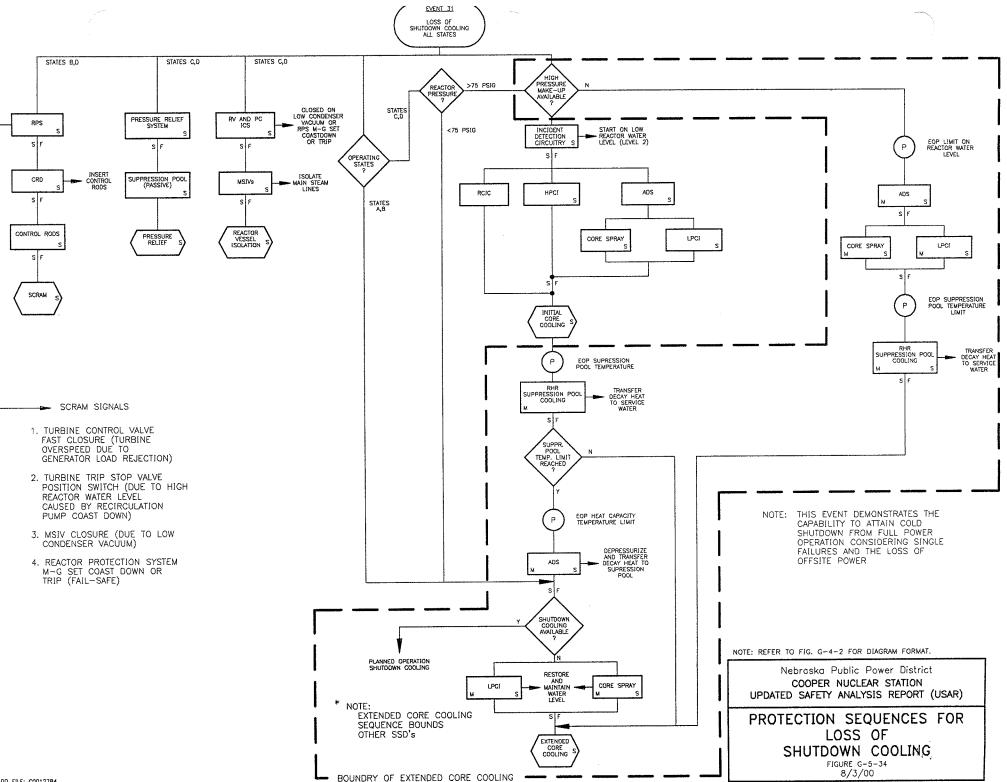


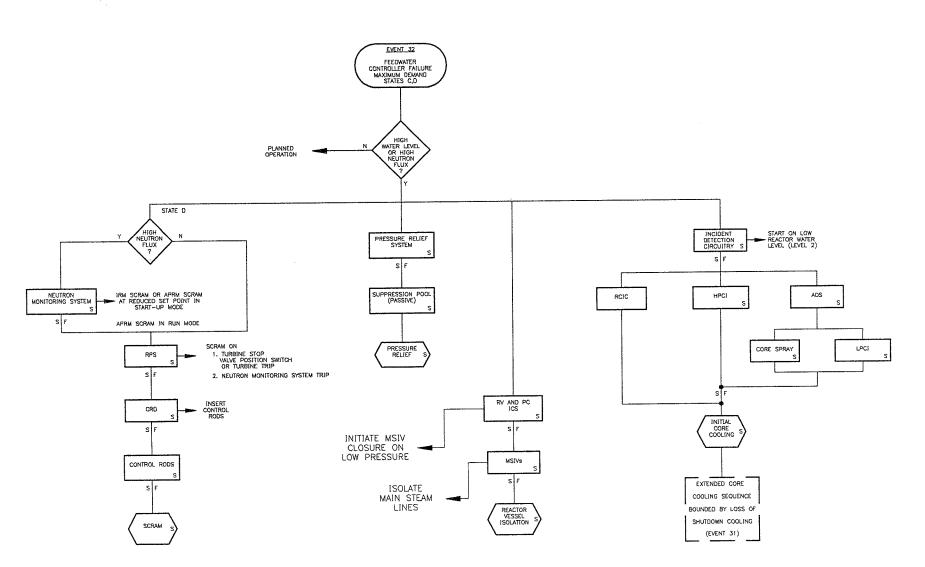


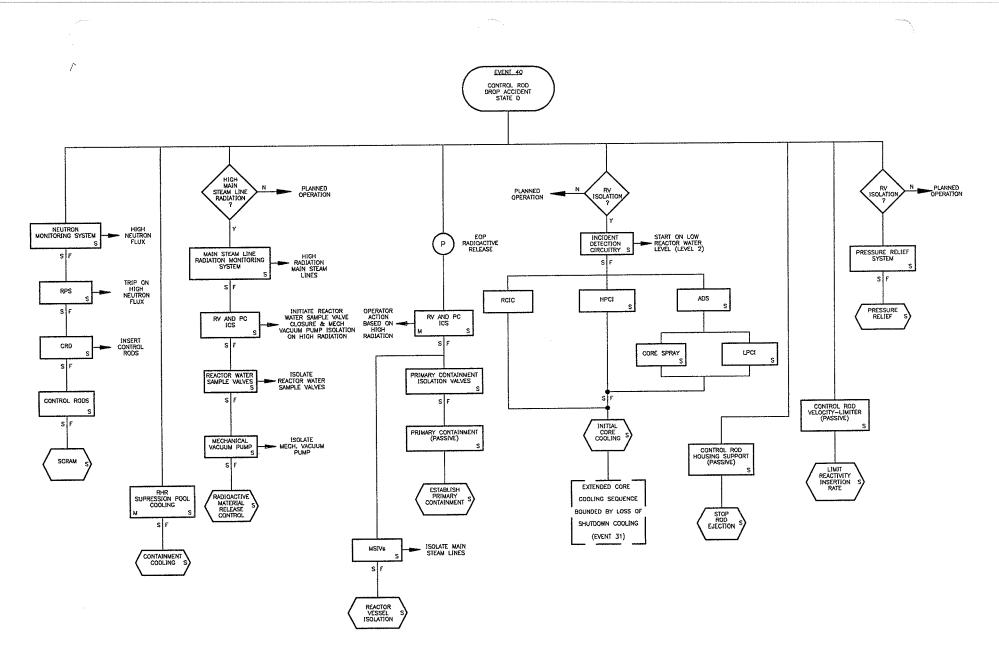


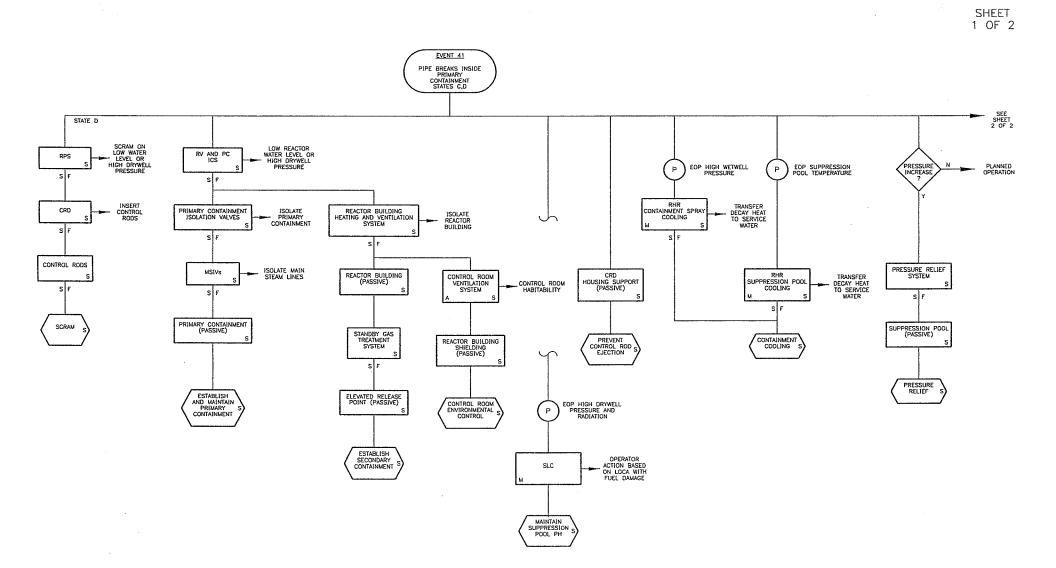


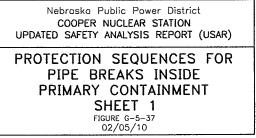
PLANNED OPERATION

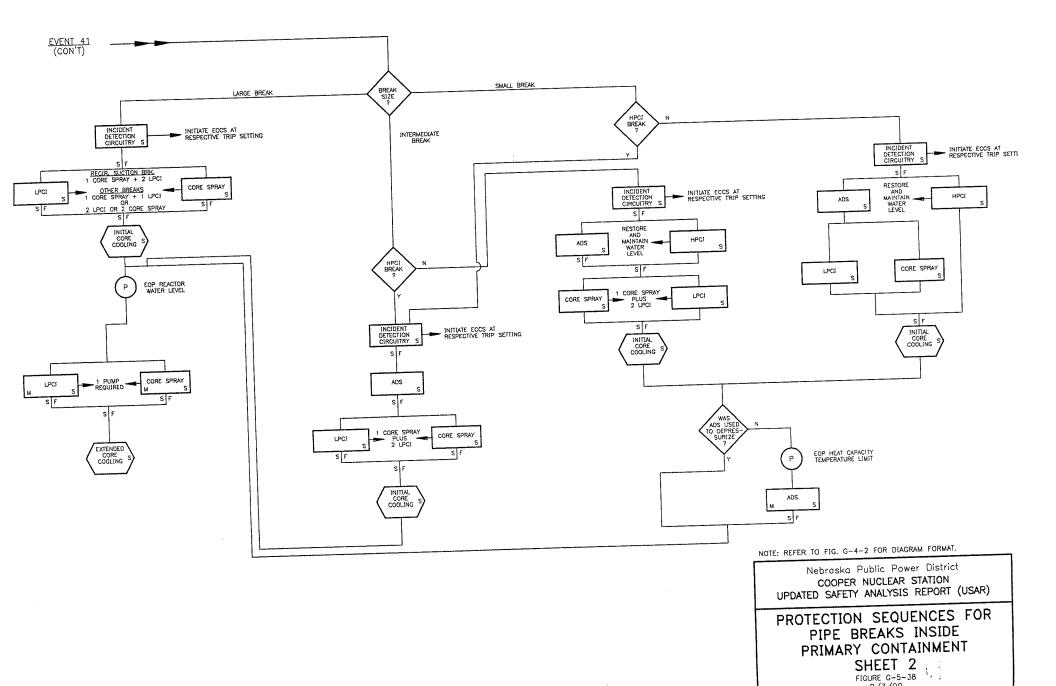






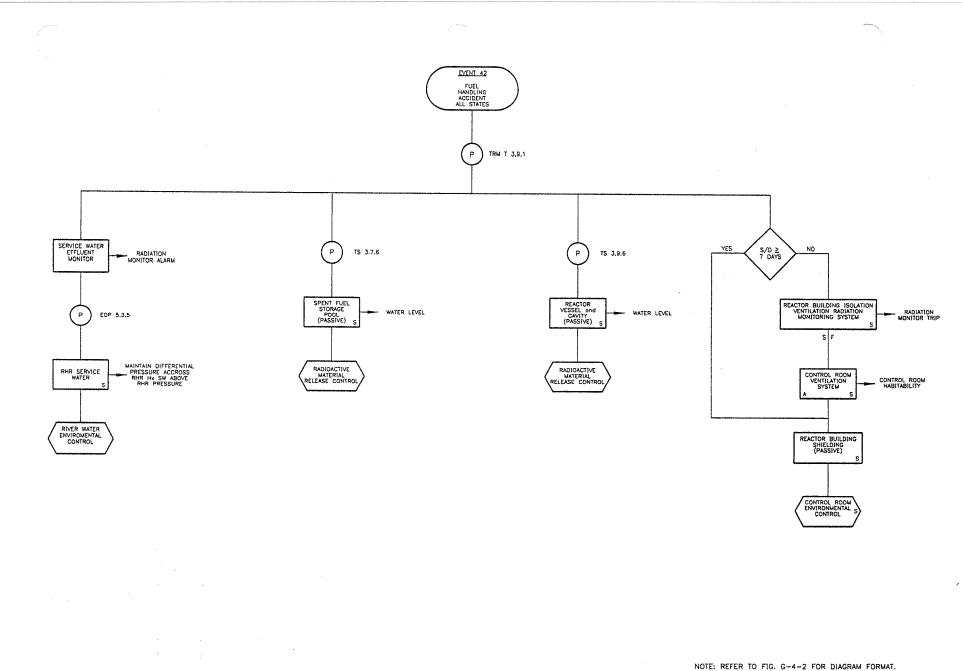






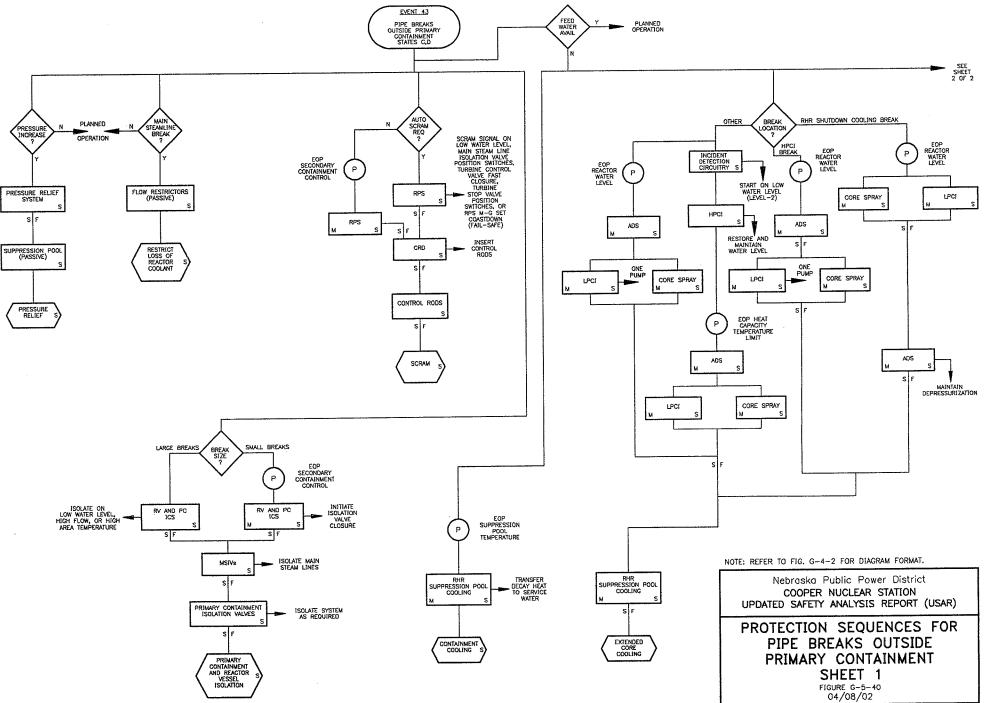
SHEET 2 OF 2

8/3/00

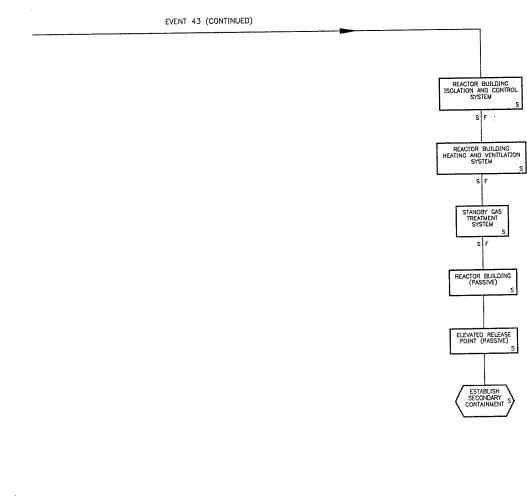


Nebroska Public Power District COOPER NUCLEAR STATION UPDATED SAFETY ANALYSIS REPORT (USAR) PROTECTION SEQUENCES FOR FUEL HANDLING ACCIDENT FIGURE G-5-39 03/09/07

SHEET 1 OF 2



CADD FILE: COO12790



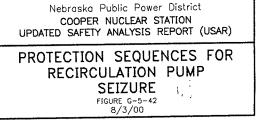
PROTECTION SEQUENCES FOR PIPE BREAKS OUTSIDE PRIMARY CONTAINMENT

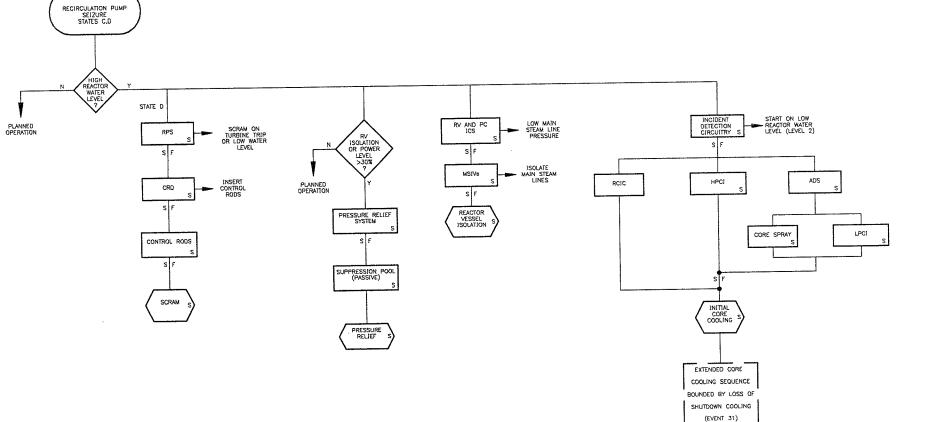
SHEET 2 FIGURE G-5-41 8/3/00

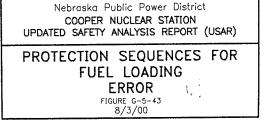
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Nebraska Public Power District COOPER NUCLEAR STATION UPDATED SAFETY ANALYSIS REPORT (USAR)

EVENI 280











STATES B,D

SCRAM BY DE-ENERGIZING SYSTEM NANUALLY

INSERT CONTROL RODS

Ρ

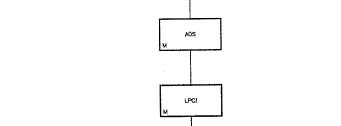
RPS

CRD

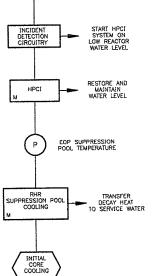
CONTROL RODS

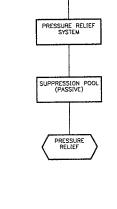
SHUT DOWN REACTOR FROM OUTSIDE CONTROL ROOM

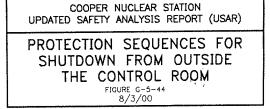
PROCEDURAL REQUIREMENT



EXTENDED CORE COOLING

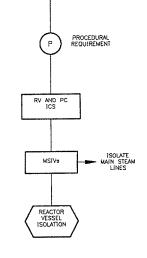






Nebraska Public Power District

NOTE: REFER TO FIG. G-4-2 FOR DIAGRAM FORMAT.





EVENT_60 SHUTDOWN FROM OUTSIDE CONTROL ROOM ALL STATES

STATES C,D

