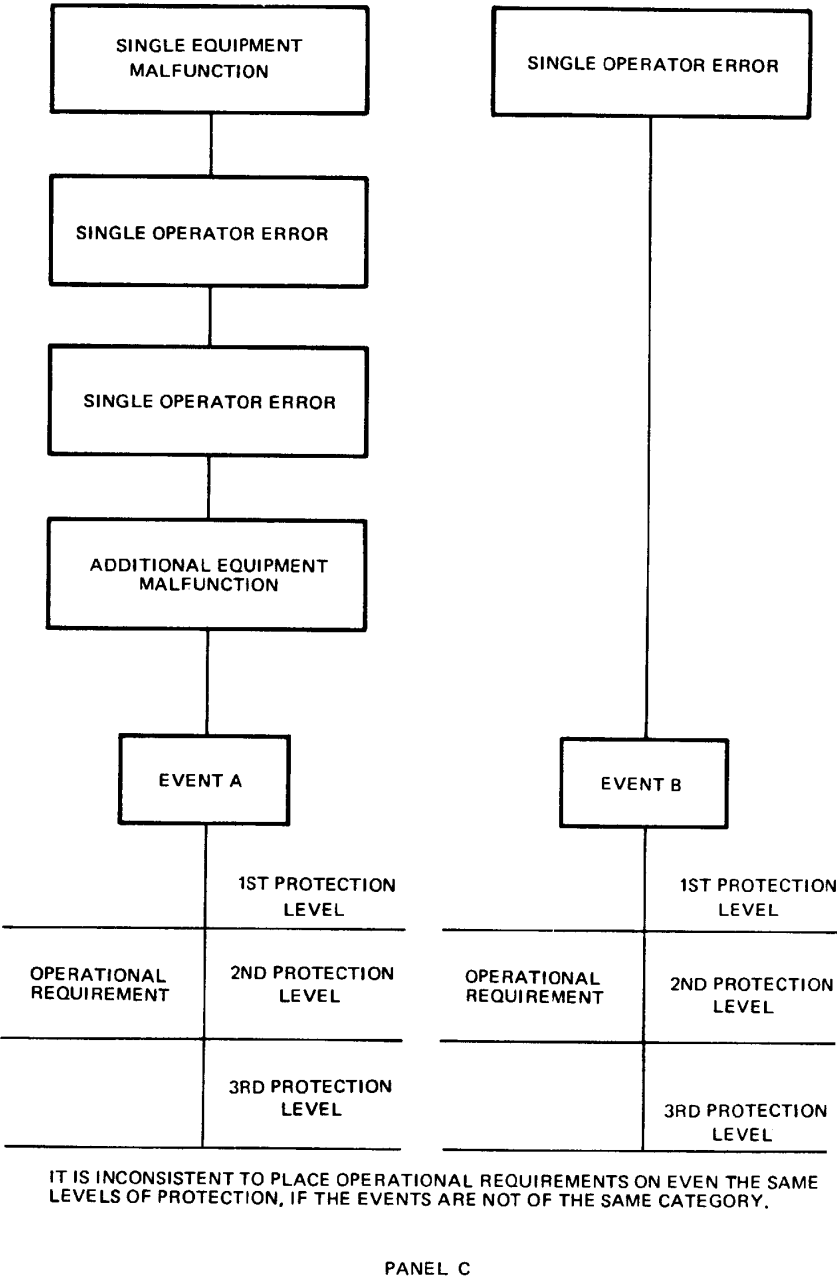
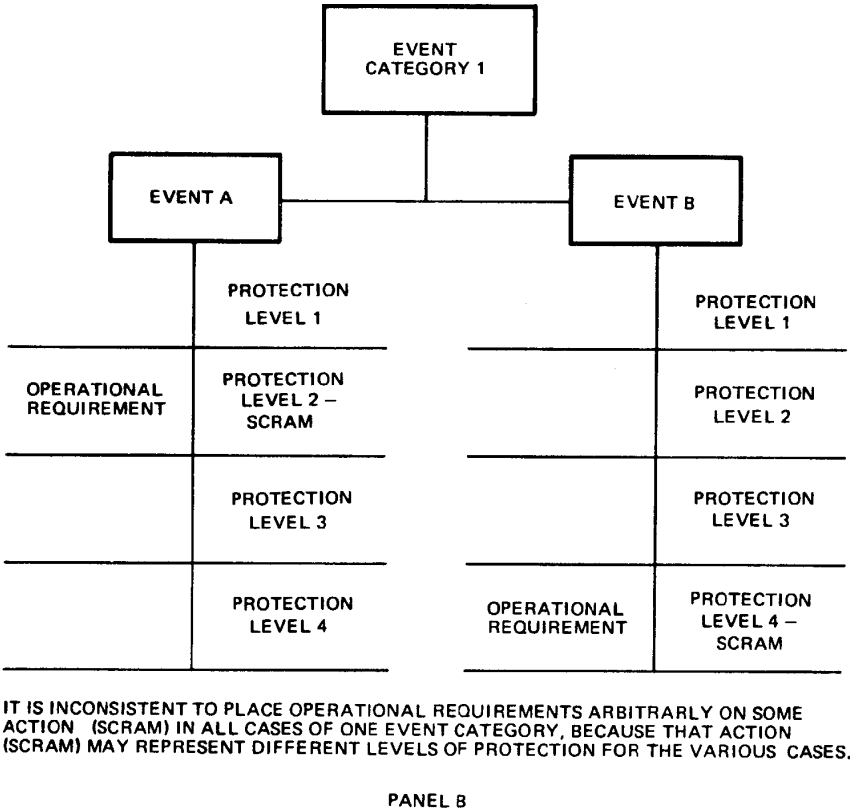
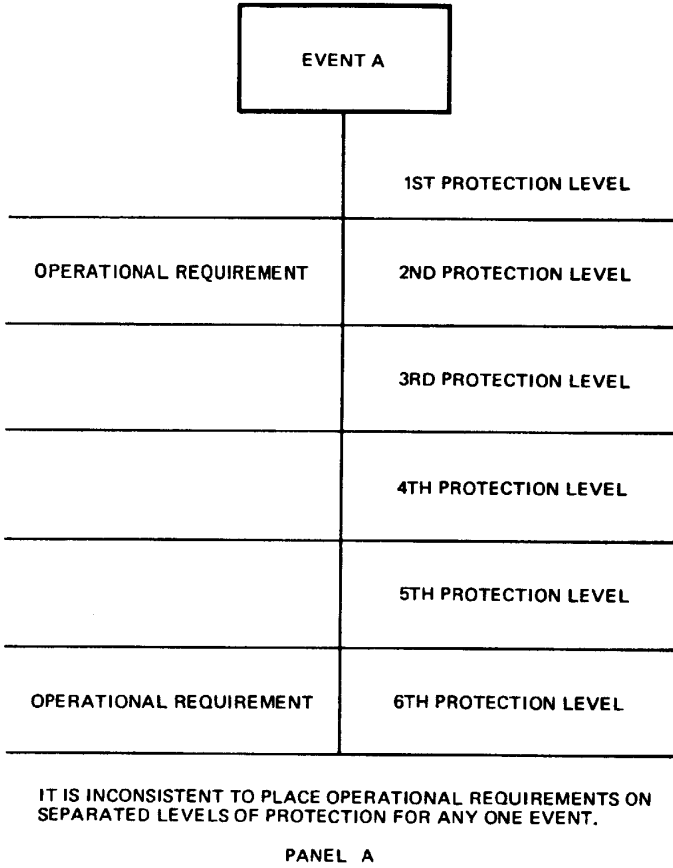
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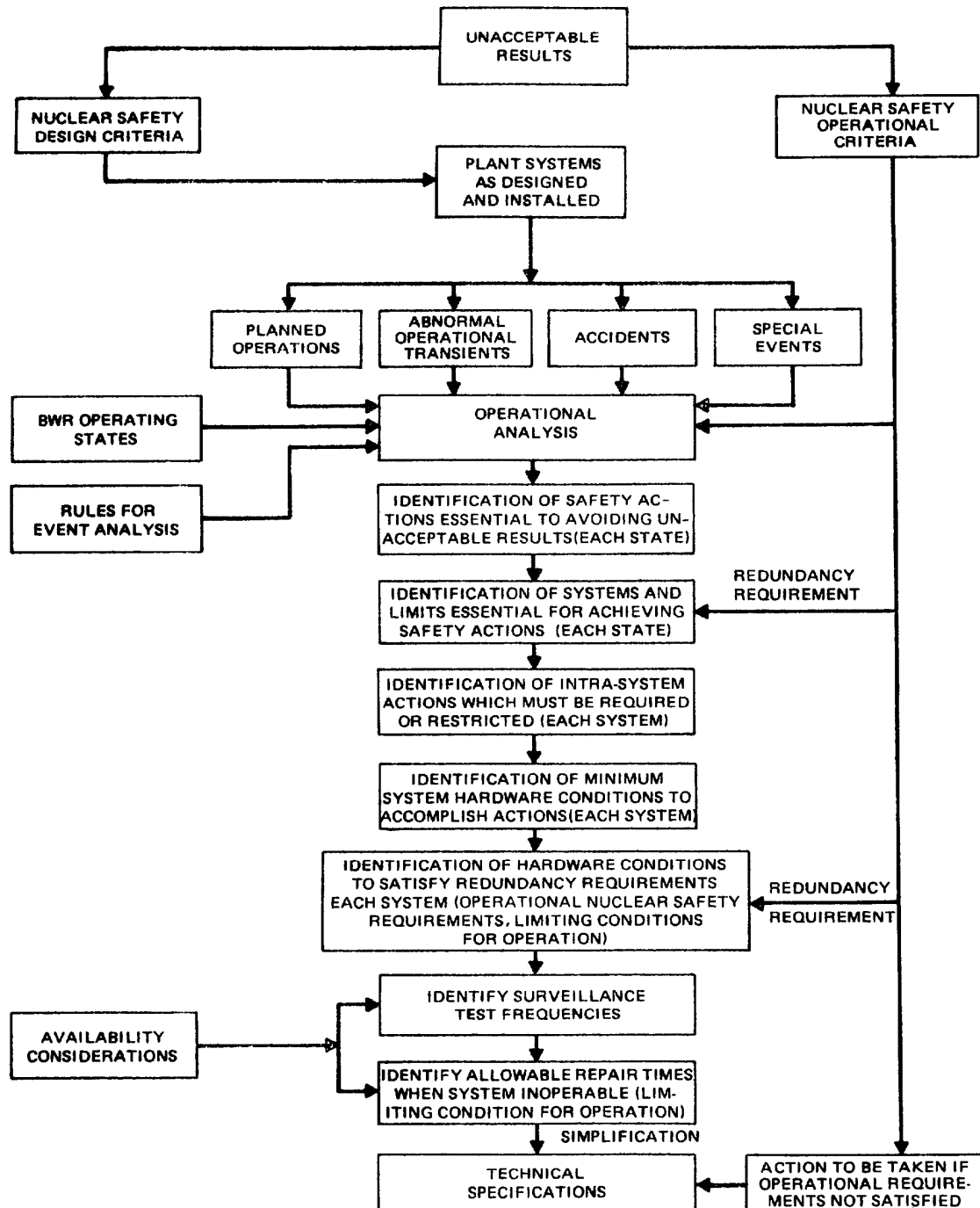
FIGURE NUMBER	TITLE
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FIGURE 15A-1	POSSIBLE INCONSISTENCIES IN THE SELECTION OF OPERATIONAL REQUIREMENTS
FIGURE 15A-2	BLOCK DIAGRAM OF METHOD USED TO DERIVE NUCLEAR SAFETY OPERATIONAL REQUIREMENTS AND TECHNICAL SPECIFICATIONS
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FIGURE 15A-36	COMMONALITY OF AUXILIARY RHRS SERVICE WATER SYSTEM
FIGURE 15A-37	COMMONALITY OF AUXILIARY SUPPRESSION POOL STORAGE



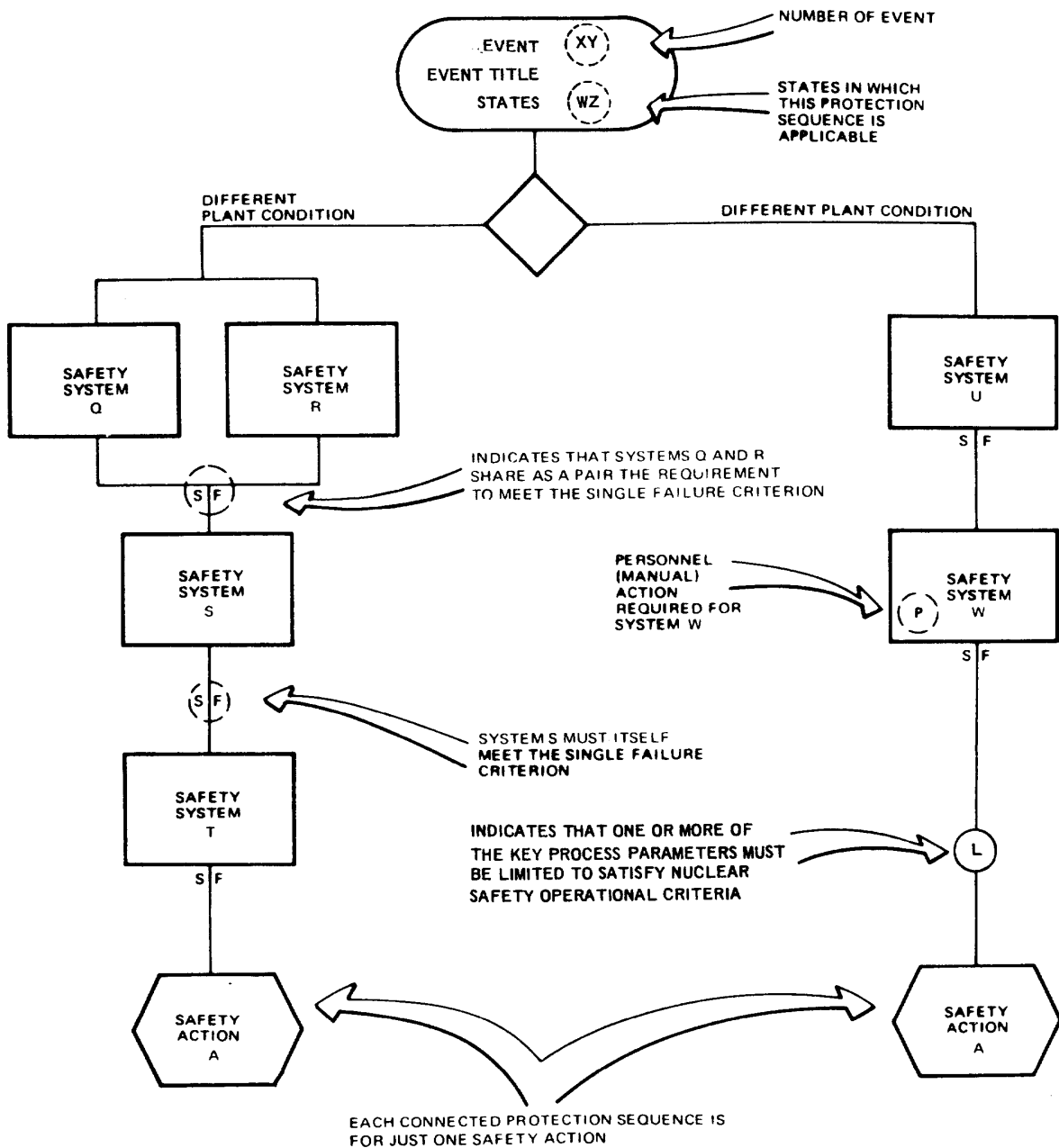
POSSIBLE INCONSISTENCIES IN THE SELECTION OF OPERATIONAL REQUIREMENTS



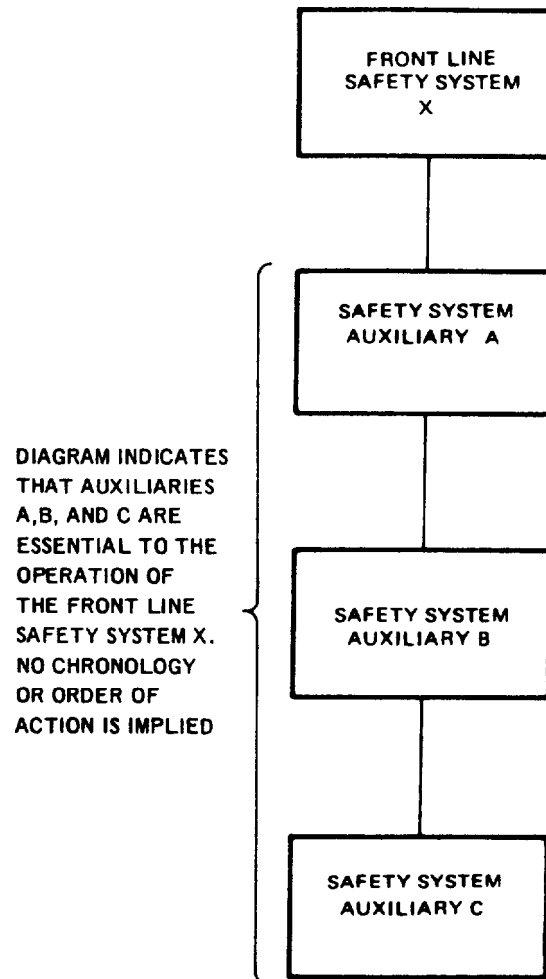
BLOCK DIAGRAM OF METHOD USED TO DERIVE NUCLEAR SAFETY OPERATIONAL REQUIREMENTS AND TECHNICAL SPECIFICATIONS



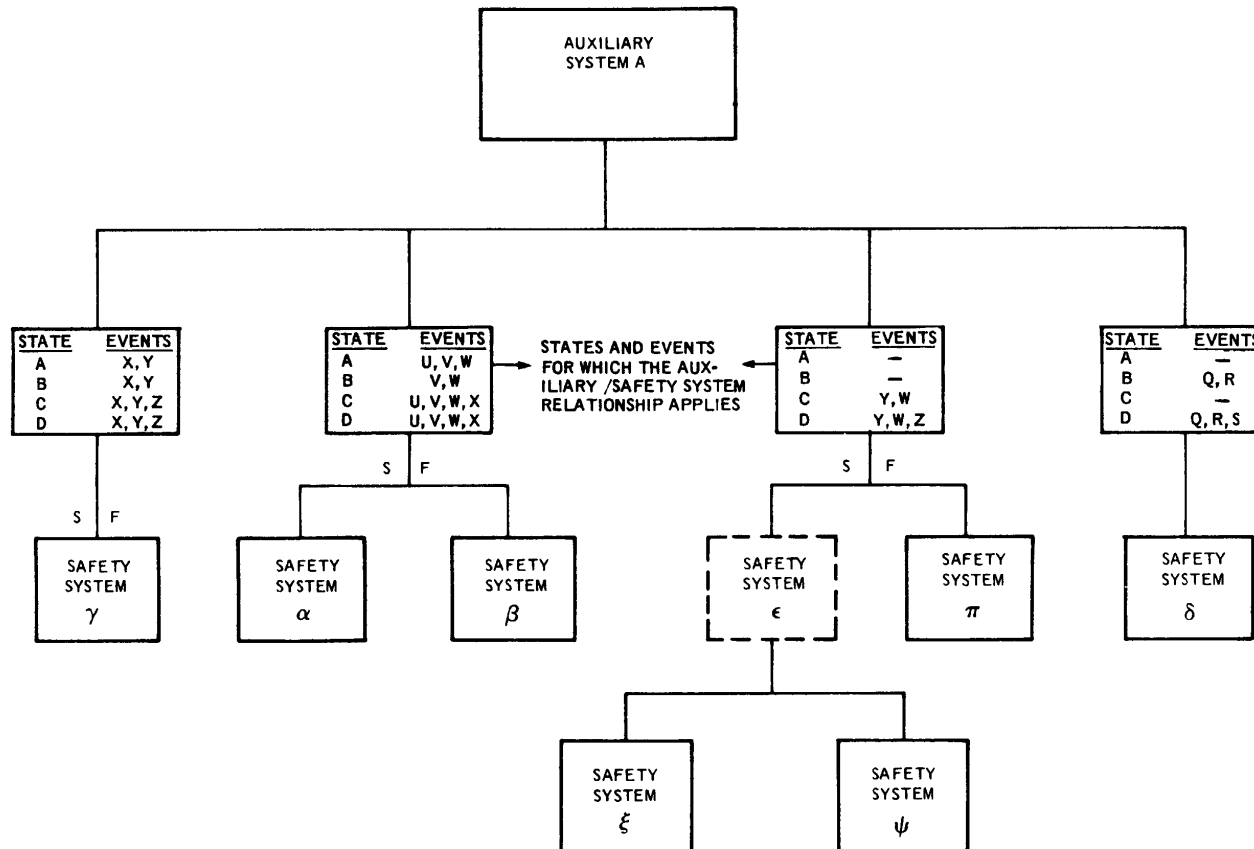
FORMAT FOR PROTECTION SEQUENCE DIAGRAMS



FORMAT FOR SAFETY SYSTEM AUXILIARY DIAGRAMS

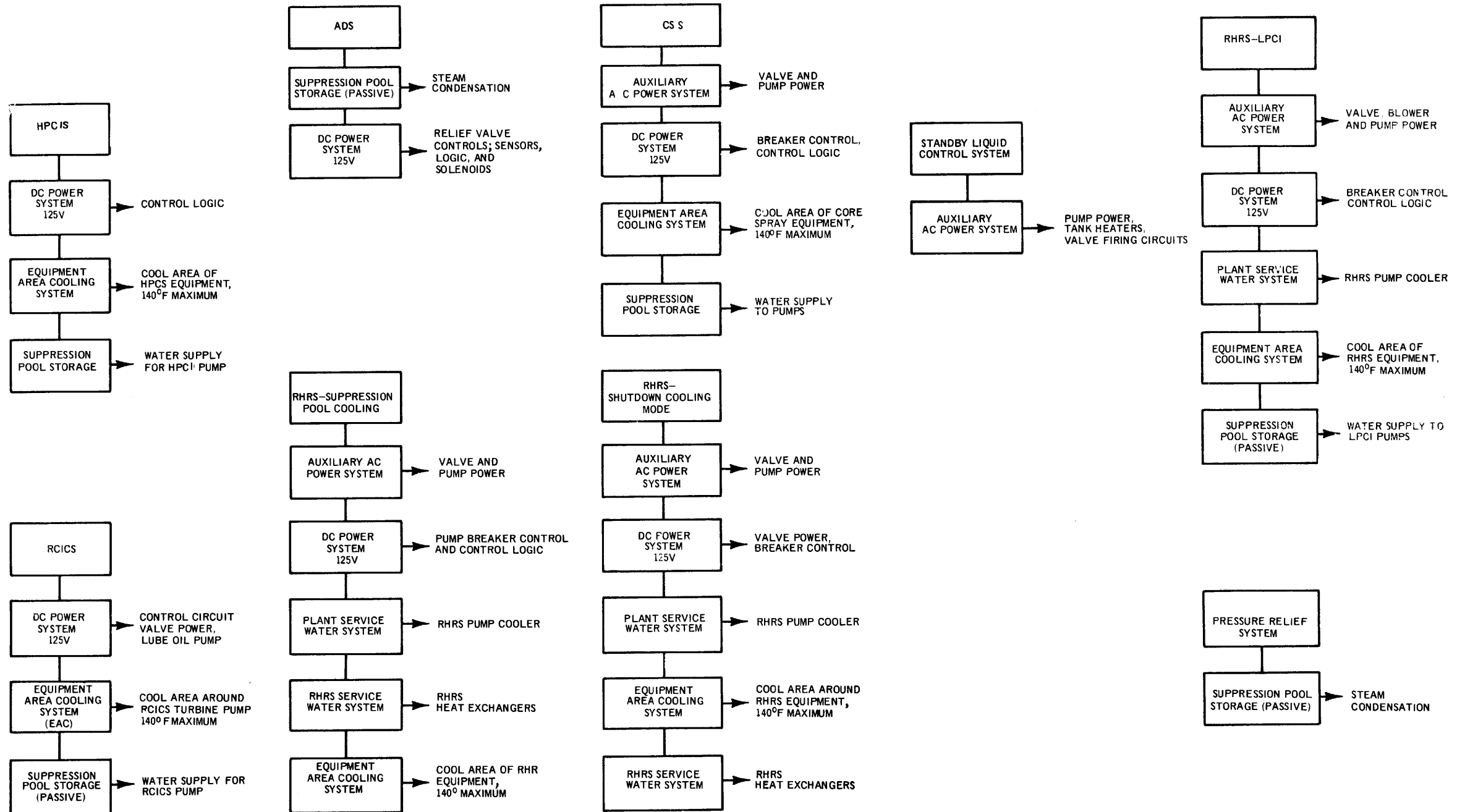


FORMAT FOR COMMONALITY OF AUXILIARY DIAGRAMS



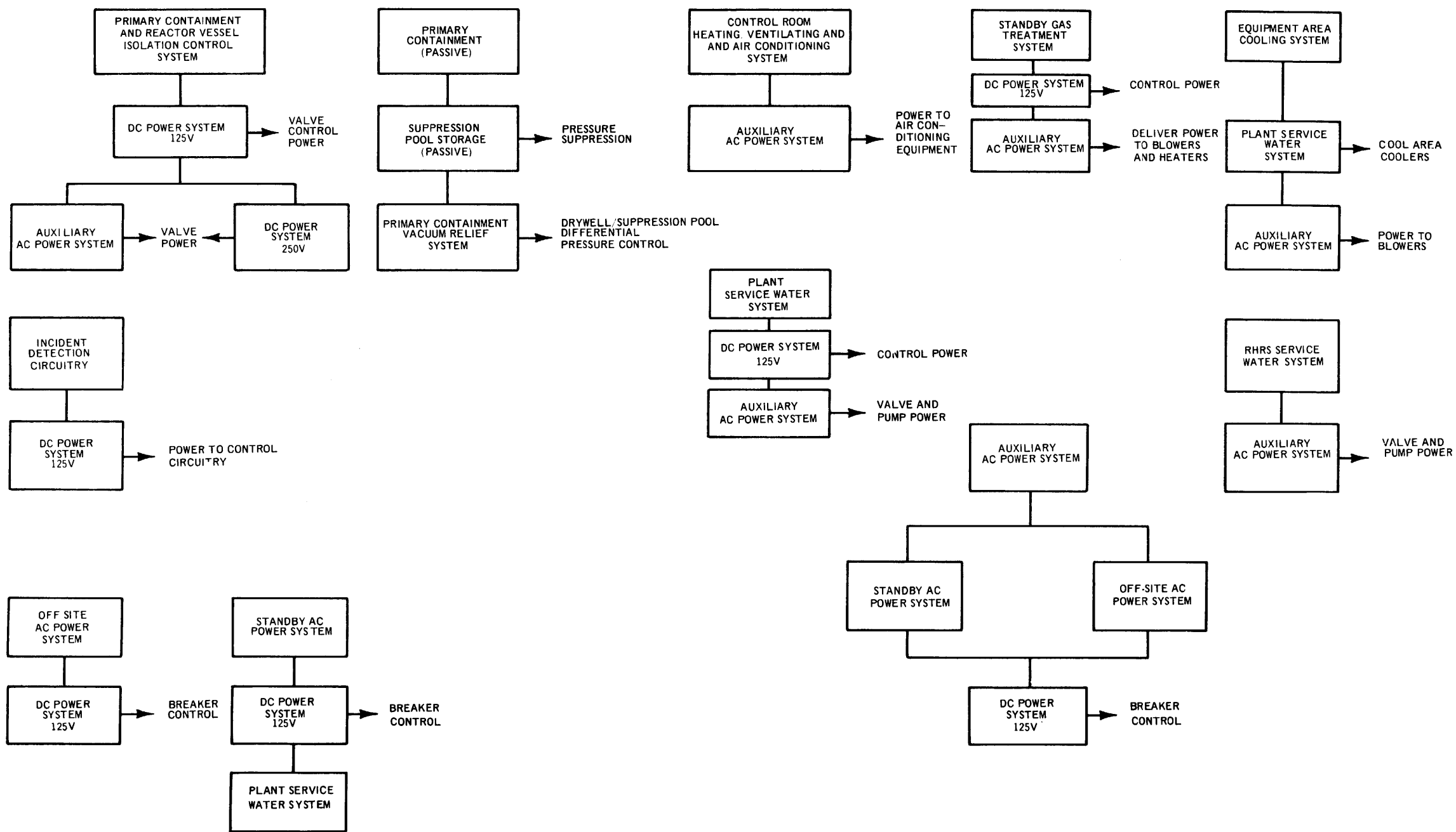
 INDICATES THAT SYSTEM IS INCLUDED
 IN COMBINATION BUT DOES NOT
 REQUIRE THE AUXILIARY.

SAFETY SYSTEM AUXILIARIES

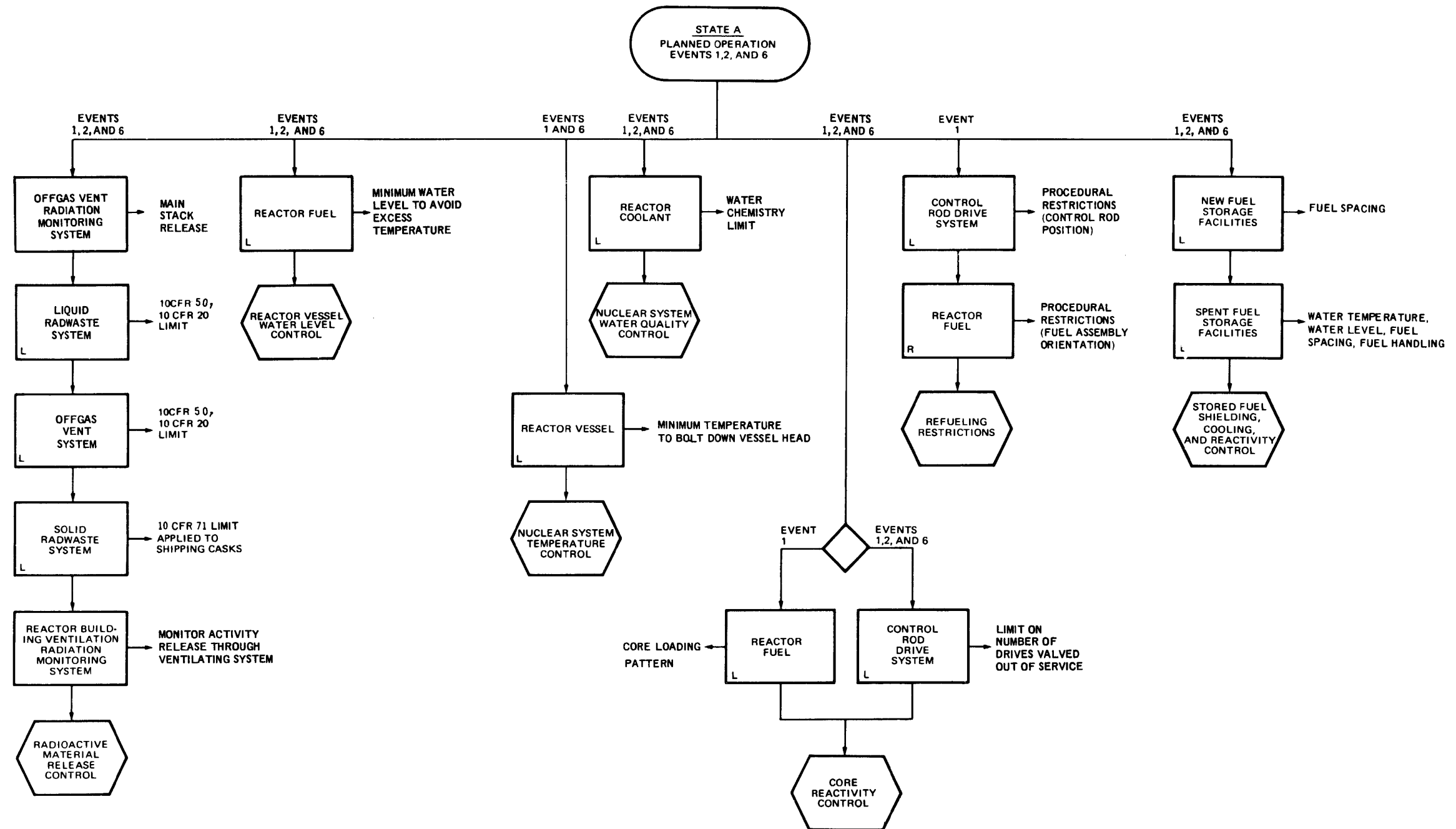




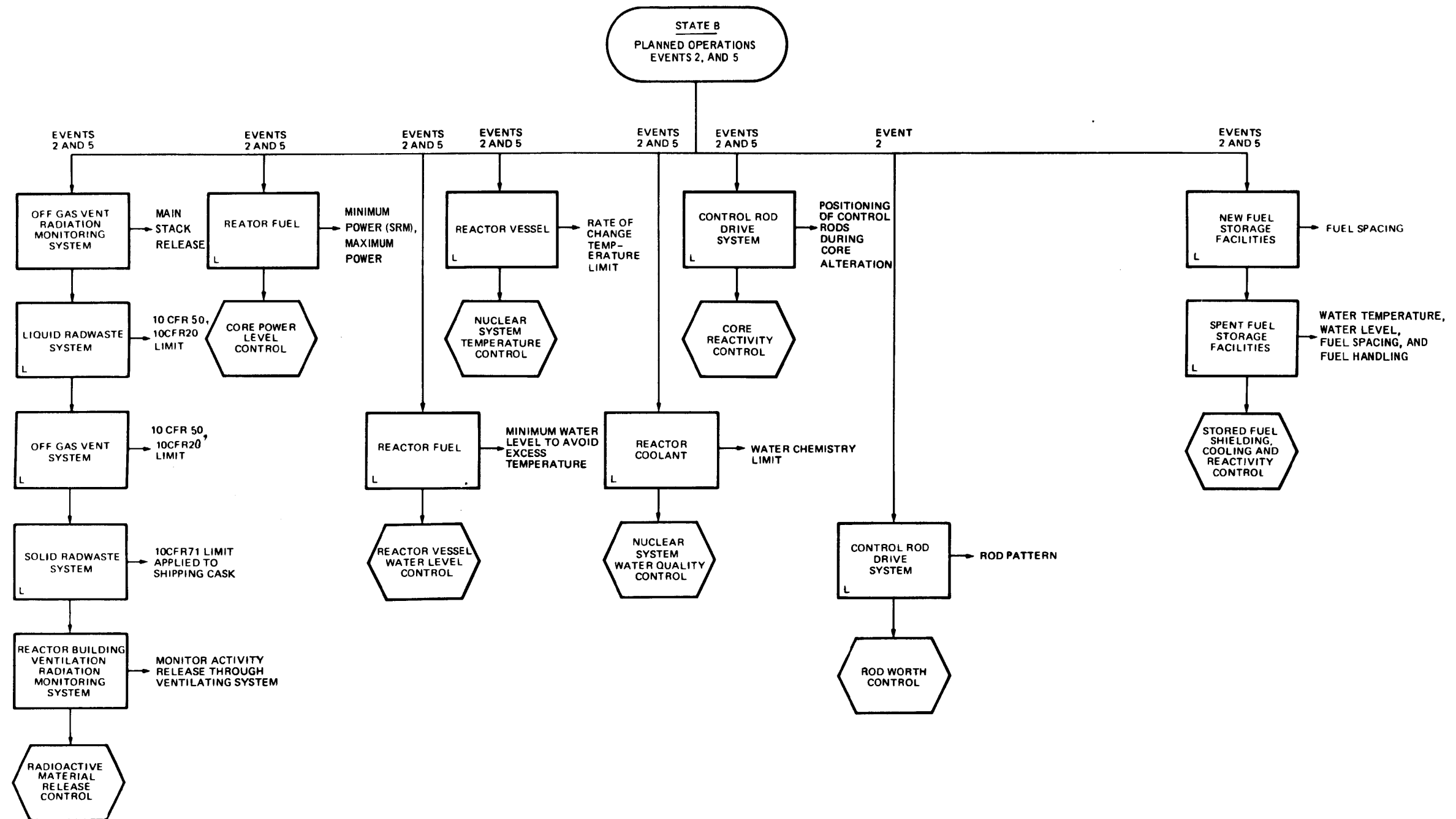
SAFETY SYSTEM AUXILIARIES



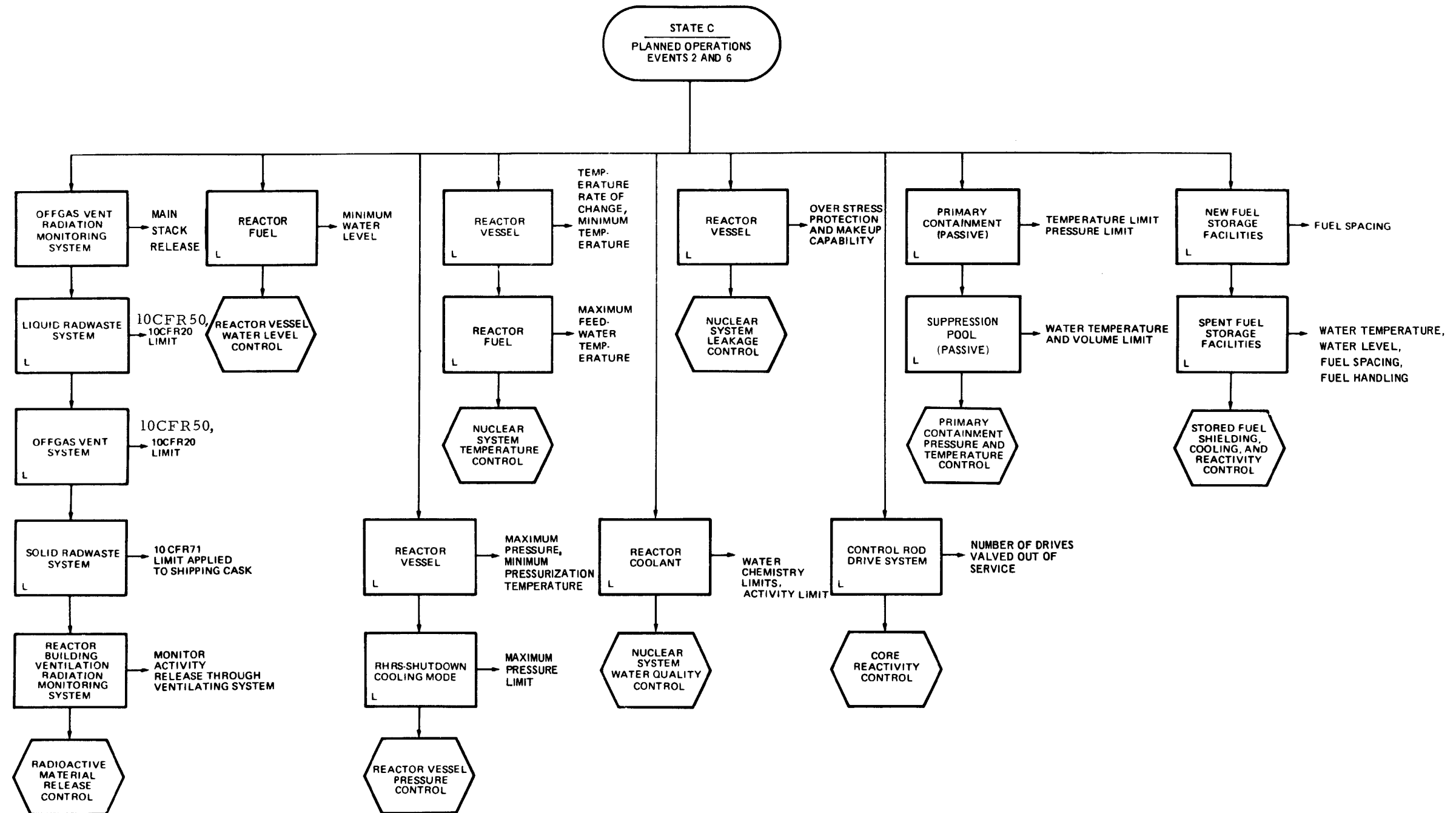
SAFETY ACTION SEQUENCES FOR PLANNING OPERATIONS IN STATE A



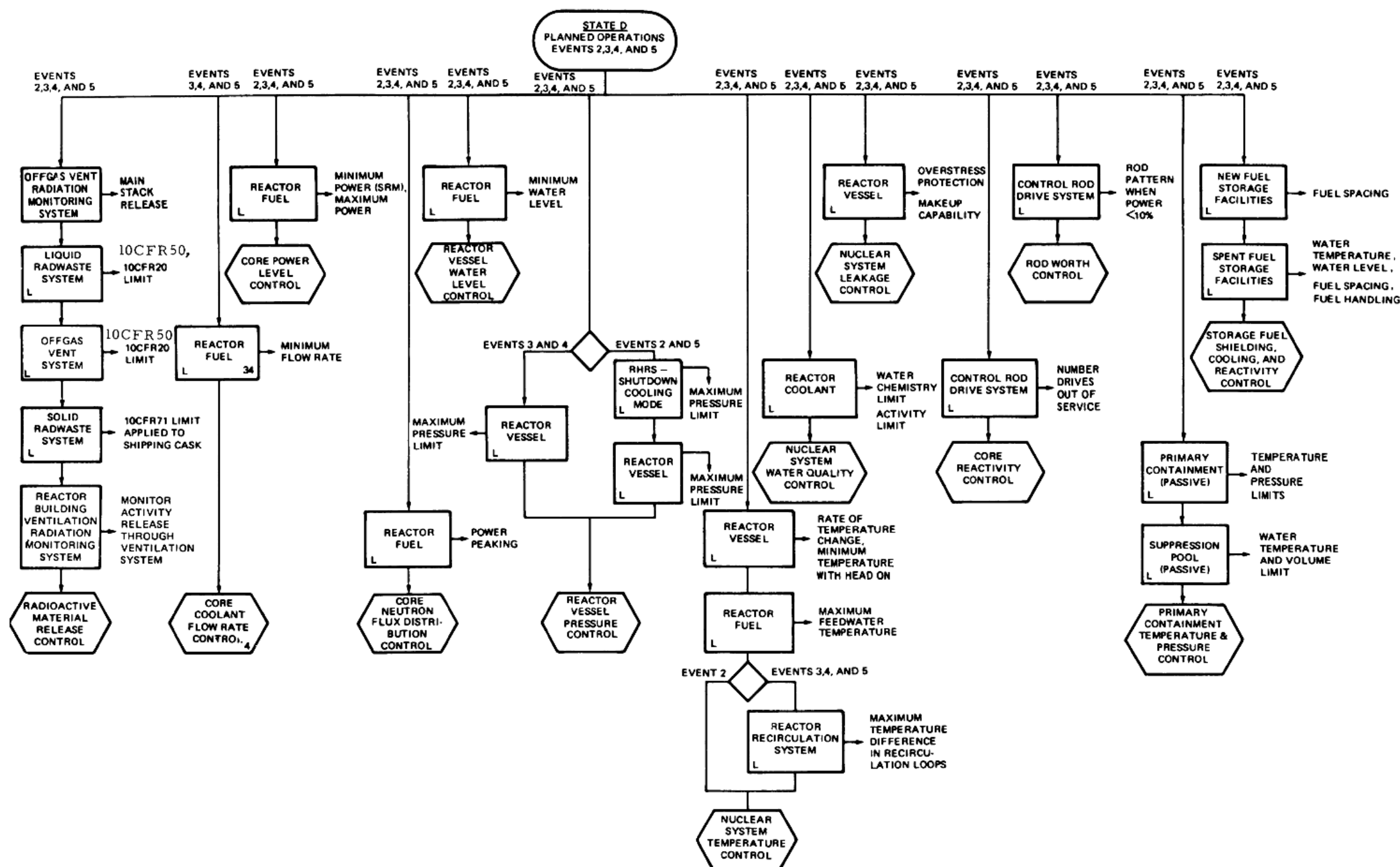
SAFETY ACTION SEQUENCES FOR PLANNING OPERATIONS IN STATE B



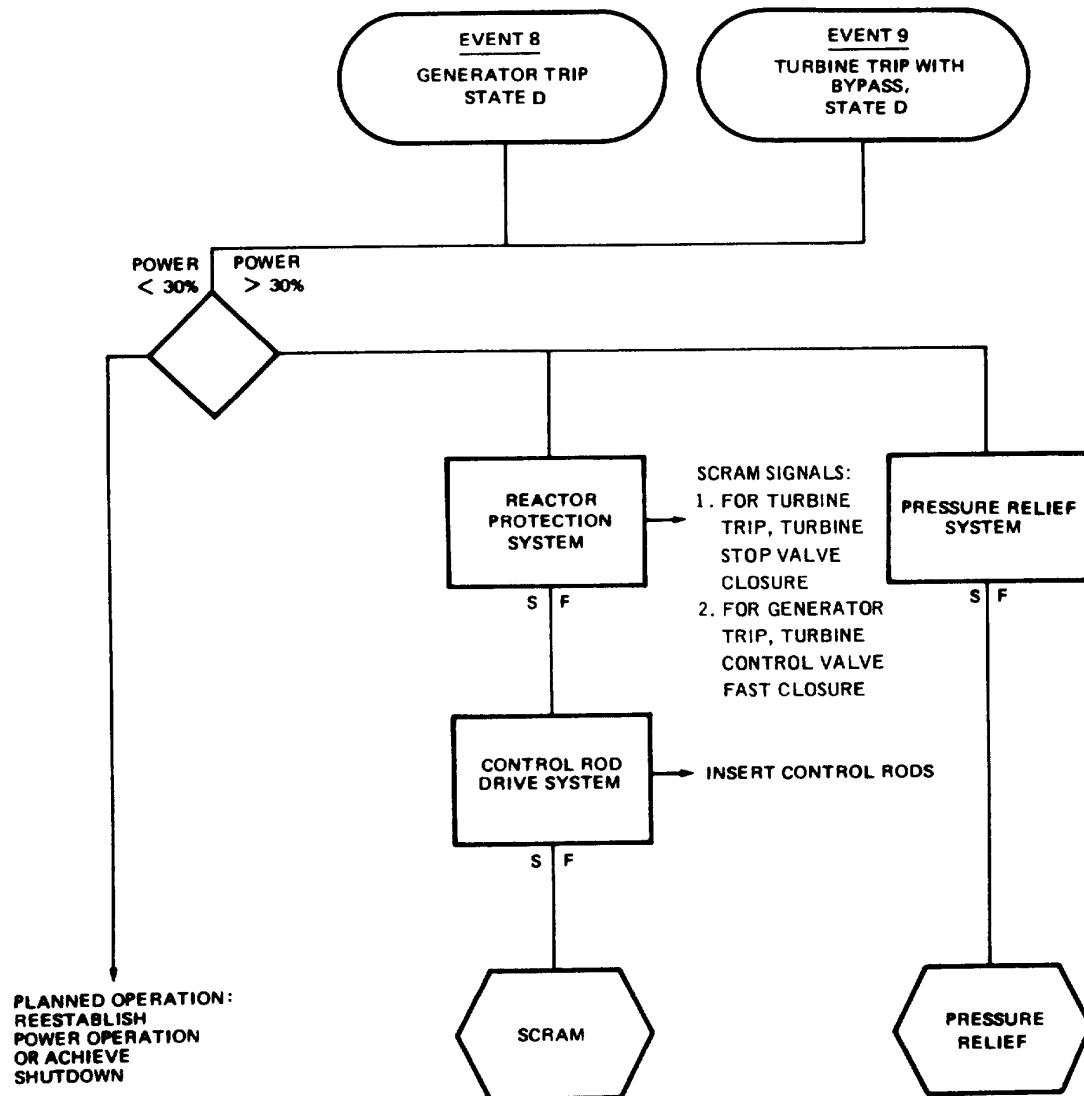
SAFETY ACTION SEQUENCES FOR PLANNING OPERATIONS IN STATE C



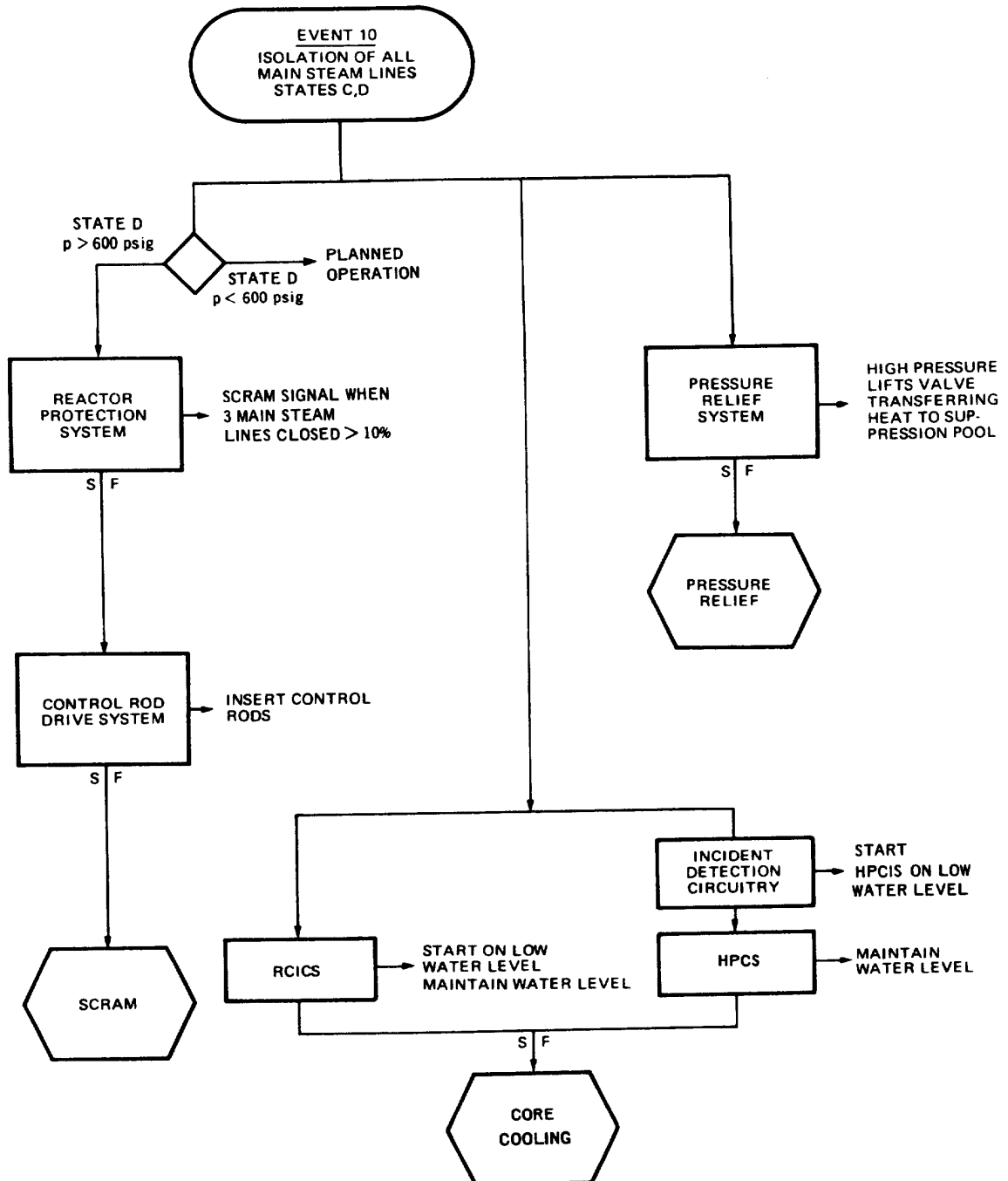
SAFETY ACTION SEQUENCES FOR PLANNING OPERATIONS IN STATE D



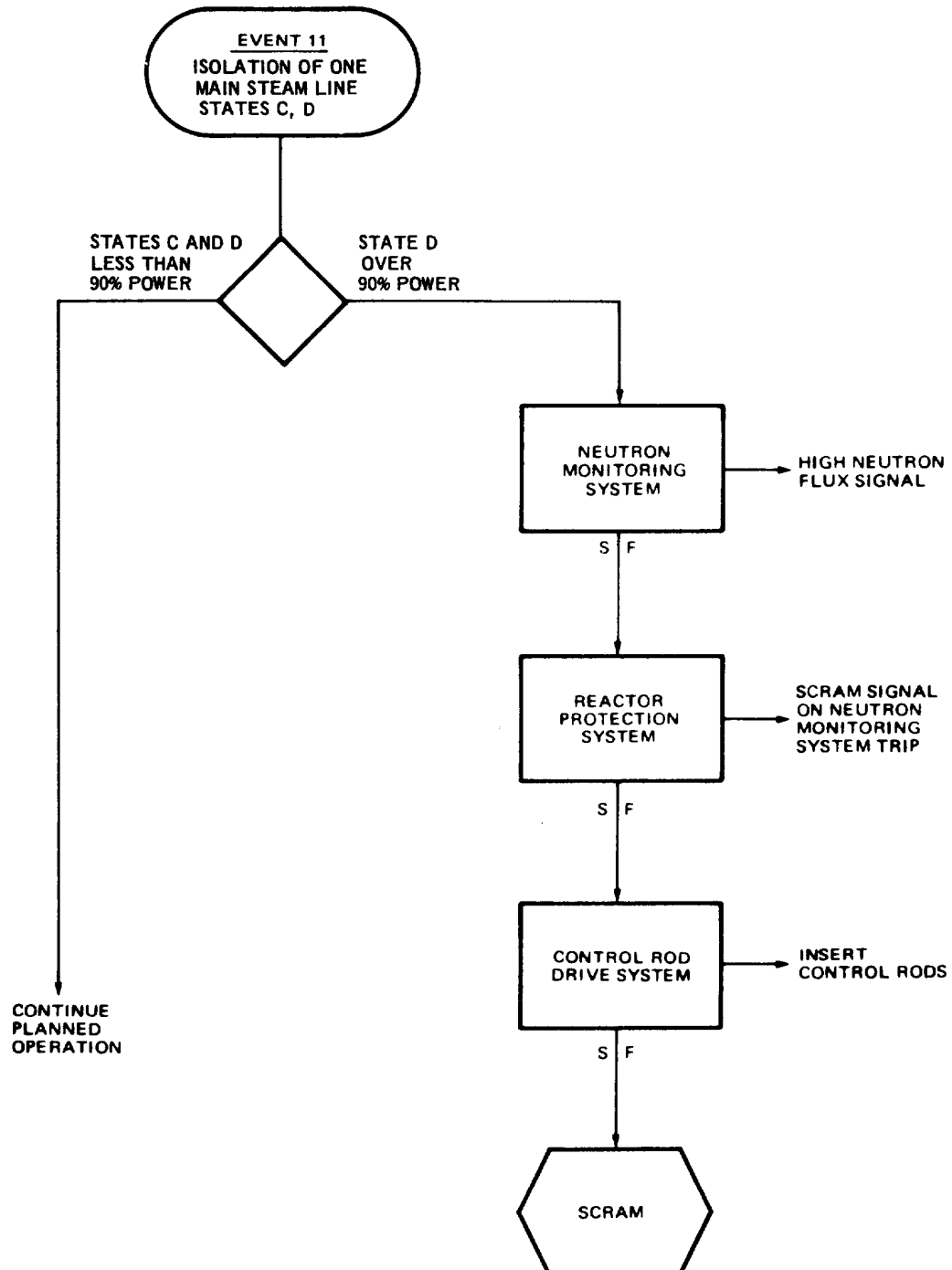
PROTECTION SEQUENCE FOR TURBINE AND GENERATOR TRIPS



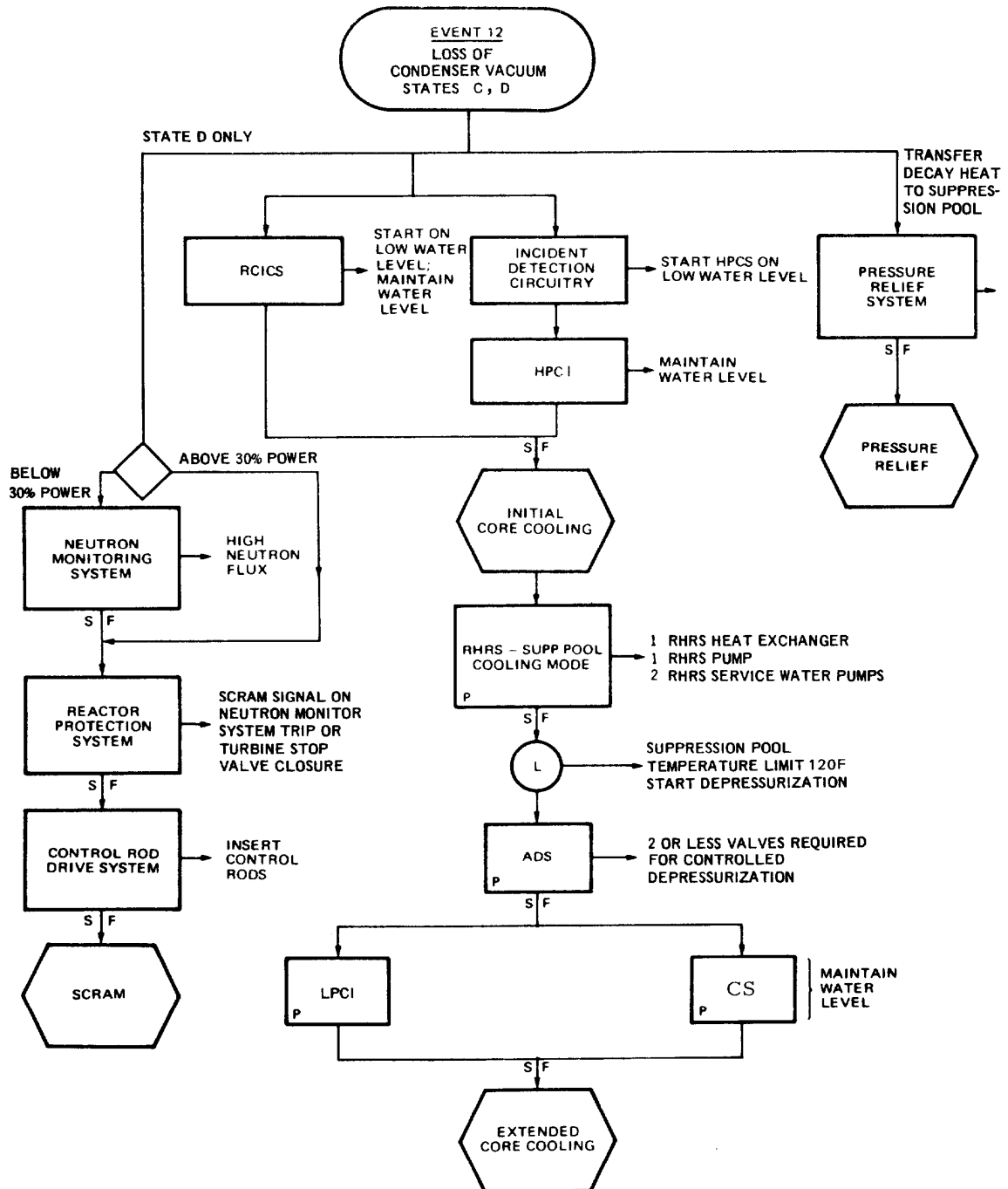
PROTECTION SEQUENCES FOR ISOLATION OF ALL MAIN STEAM LINES



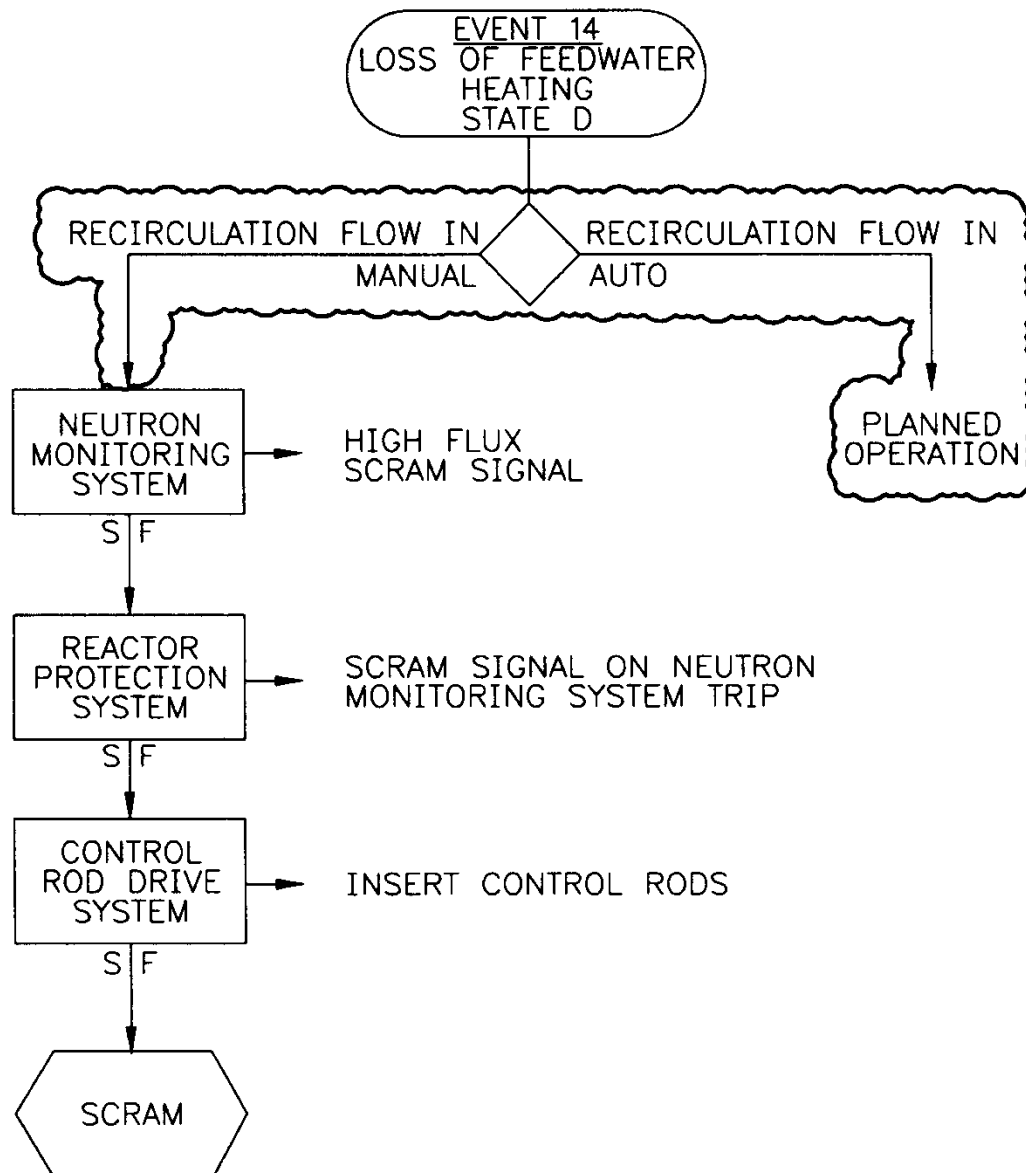
PROTECTION SEQUENCES FOR ISOLATION OF ONE MAIN STEAM LINE



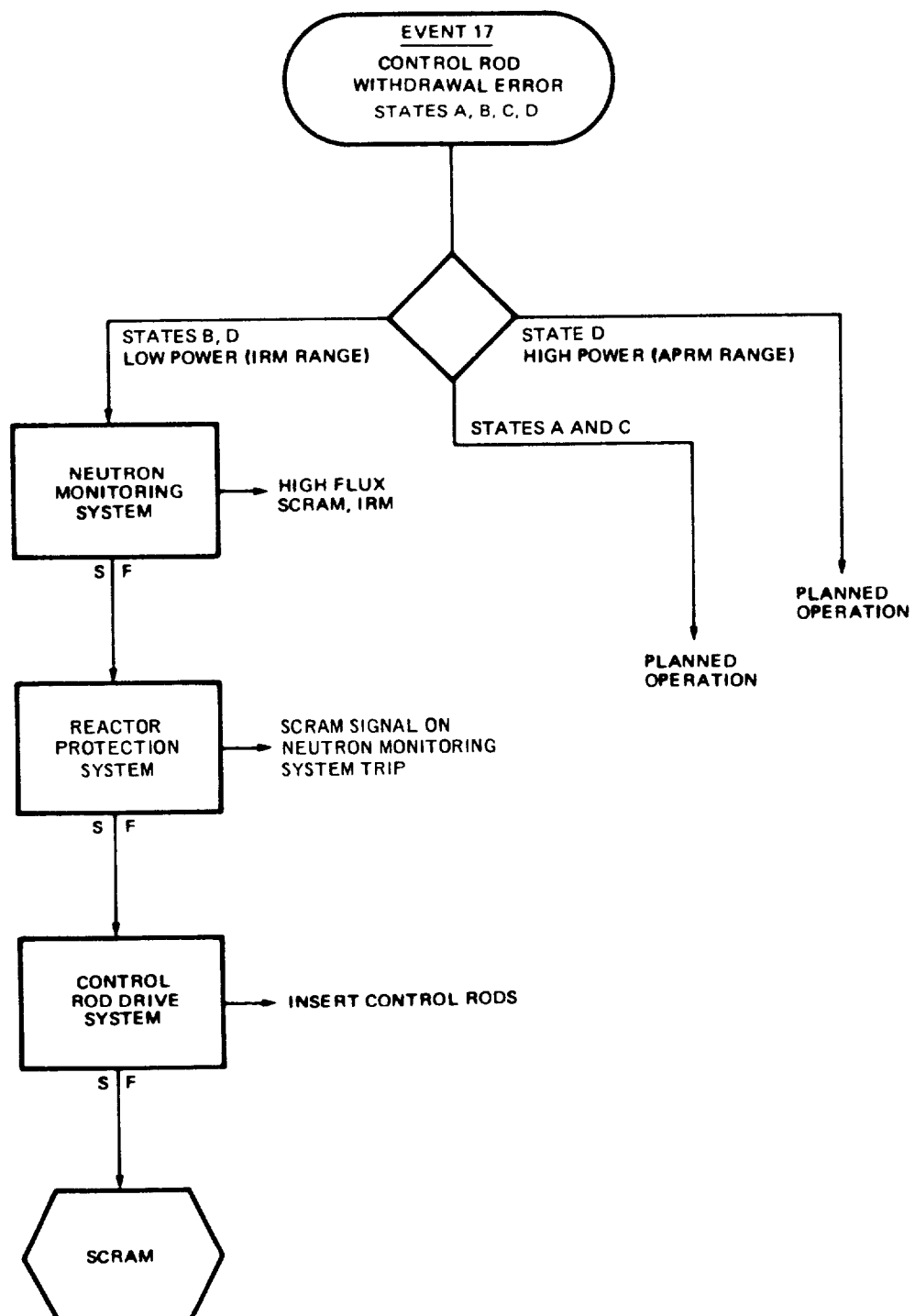
PROTECTION SEQUENCES FOR LOSS OF CONDENSER VACUUM



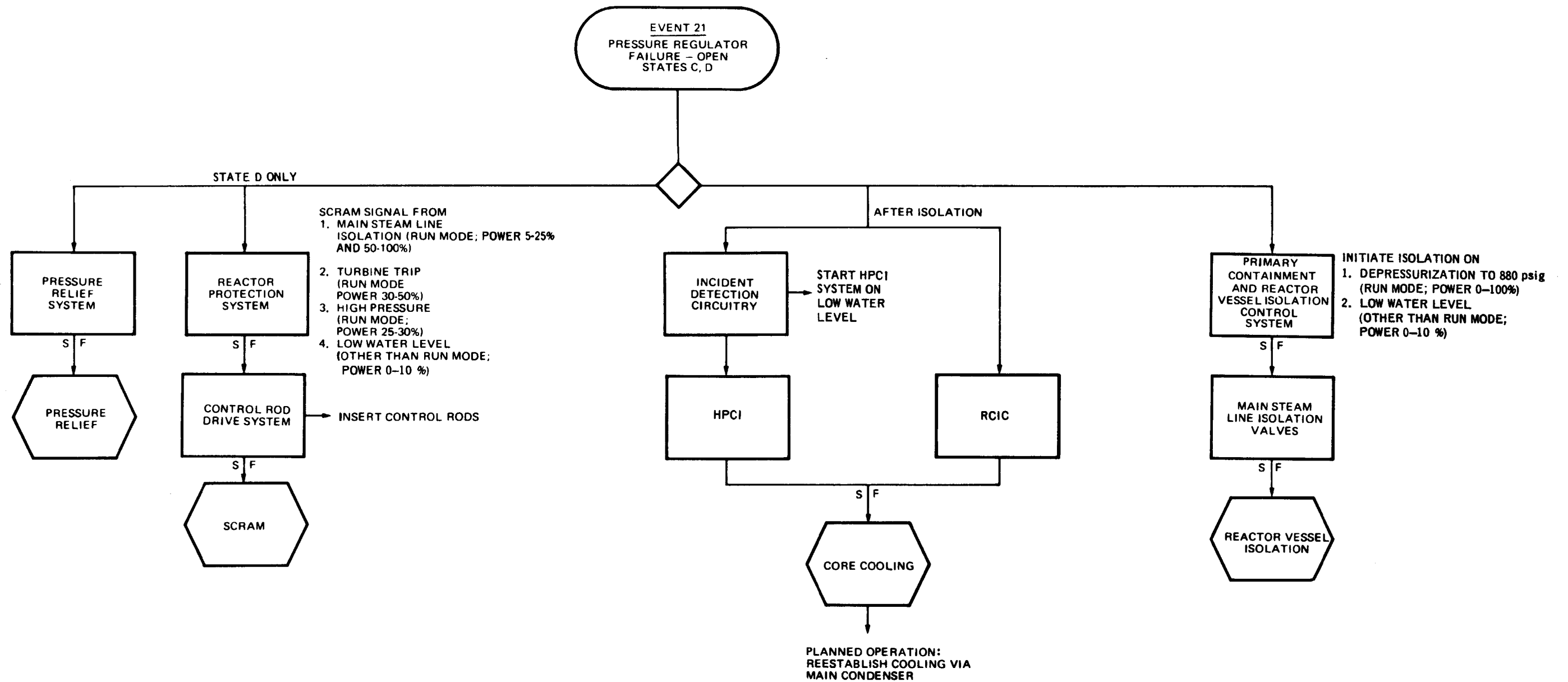
PROTECTION SEQUENCES FOR A LOSS OF A FEEDWATER HEATER



PROTECTION SEQUENCE FOR ROD WITHDRAWAL ERROR



PROTECTION SEQUENCES FOR PRESSURE REGULATOR FAILURE



EVENT 22
INADVERTENT OPENING
OF A SAFETY RELIEF
OR SAFETY VALVE
STATES C AND D

REACTOR PROTECTION SYSTEM

1. INITIATE SCRAM ON HIGH DRYWELL PRESSURE (AUTOMATIC FEEDWATER FLOW CONTROL, STATE D)
2. INITIATE SCRAM ON LOW WATER LEVEL (MANUAL FEEDWATER FLOW CONTROL OR NO FEEDWATER, STATE D)

CONTROL ROD DRIVE SYSTEM → INSERT CONTROL RODS

SCRAM

PRIMARY CONTAINMENT AND REACTOR VESSEL ISOLATION CONTROL SYSTEM

1. INITIATE CLOSURE OF ALL PRIMARY CONTAINMENT ISOLATION VALVES EXCEPT MAIN STEAM LINE VALVES ON HIGH DRYWELL PRESSURE (AUTOMATIC FEEDWATER CONTROL) OR LOW WATER LEVEL (MANUAL FEEDWATER FLOW OR NO FEEDWATER).
2. INITIATE CLOSURE OF MAIN STEAM LINE ISOLATION VALVES ON LOW TURBINE INLET PRESSURE (AUTOMATIC FEEDWATER FLOW CONTROL) OR LOW WATER LEVEL (MANUAL FEEDWATER FLOW CONTROL OR NO FEEDWATER).

MAIN STEAM LINE ISOLATION VALVES

REACTOR VESSEL ISOLATION

NUCLEAR SYSTEM PRESSURE RELIEF SYSTEM

PRESSURE RELIEF

INCIDENT DETECTION CIRCUITRY

START HPCI, LPCI, AND CS ON RESPECTIVE TRIP SETTINGS
START ADS (AUTOMATIC FEEDWATER FLOW CONTROL, STATE D)

6 VALVES REQUIRED FOR WORST CONDITION (MANUAL INITIATION REQUIRED WHEN FEEDWATER IS OFF OR IN MANUAL FLOW CONTROL)

AUTOMATIC DEPRESSURIZATION SYSTEM

LPCI **CS**

HPCS → MAINTAIN WATER LEVEL

INITIAL CORE COOLING

RHRS—SUPPRESSION POOL P COOLING MODE

ADS ACTUATED **HPCS ACTUATED**

SUPPRESSION POOL TEMPERATURE LIMIT 120°F, START DEPRESSURIZATION

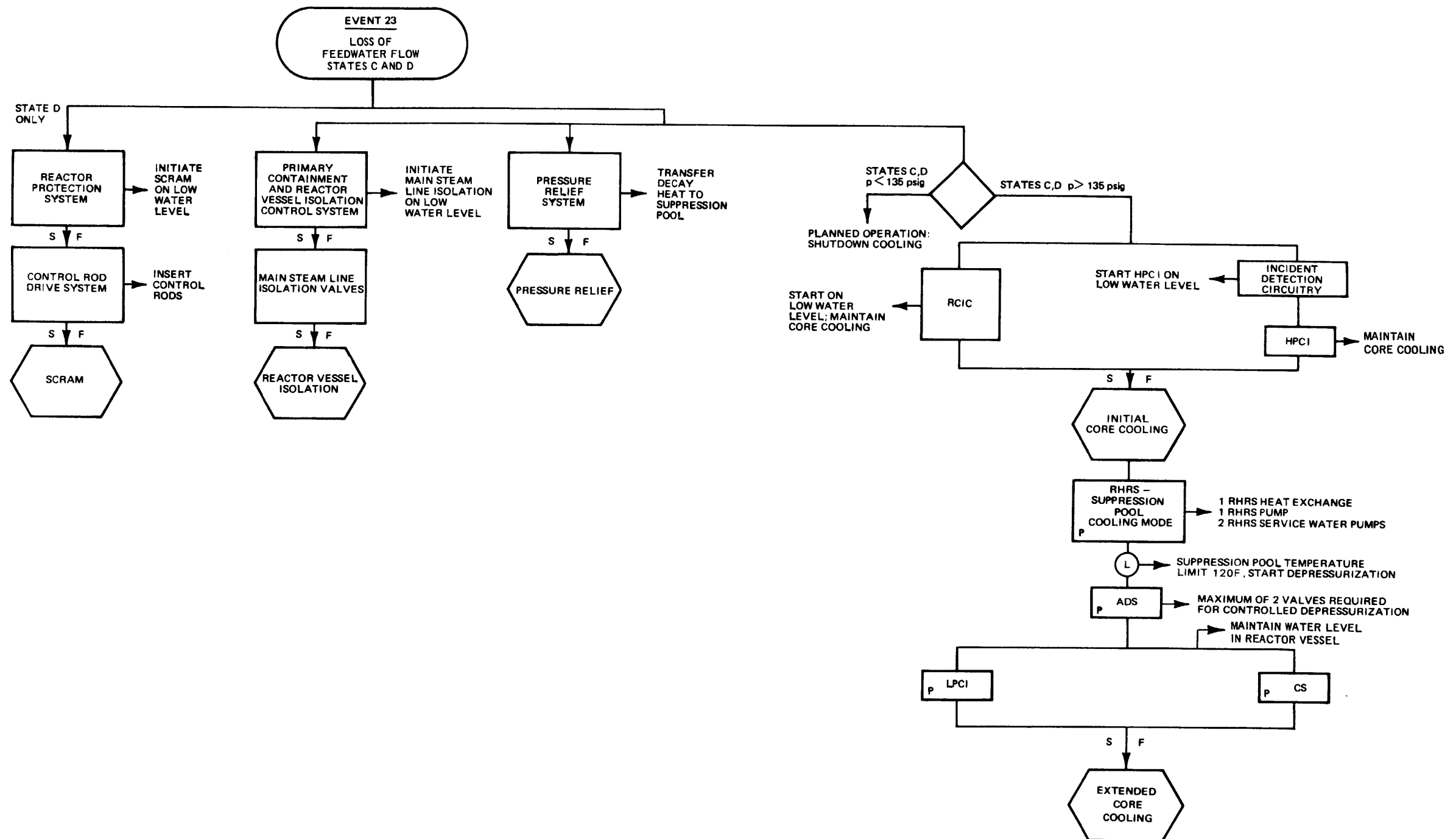
ADS → 2 VALVES REQUIRED FOR CONTROLLED DEPRESSURIZATION

LPCI **CS**

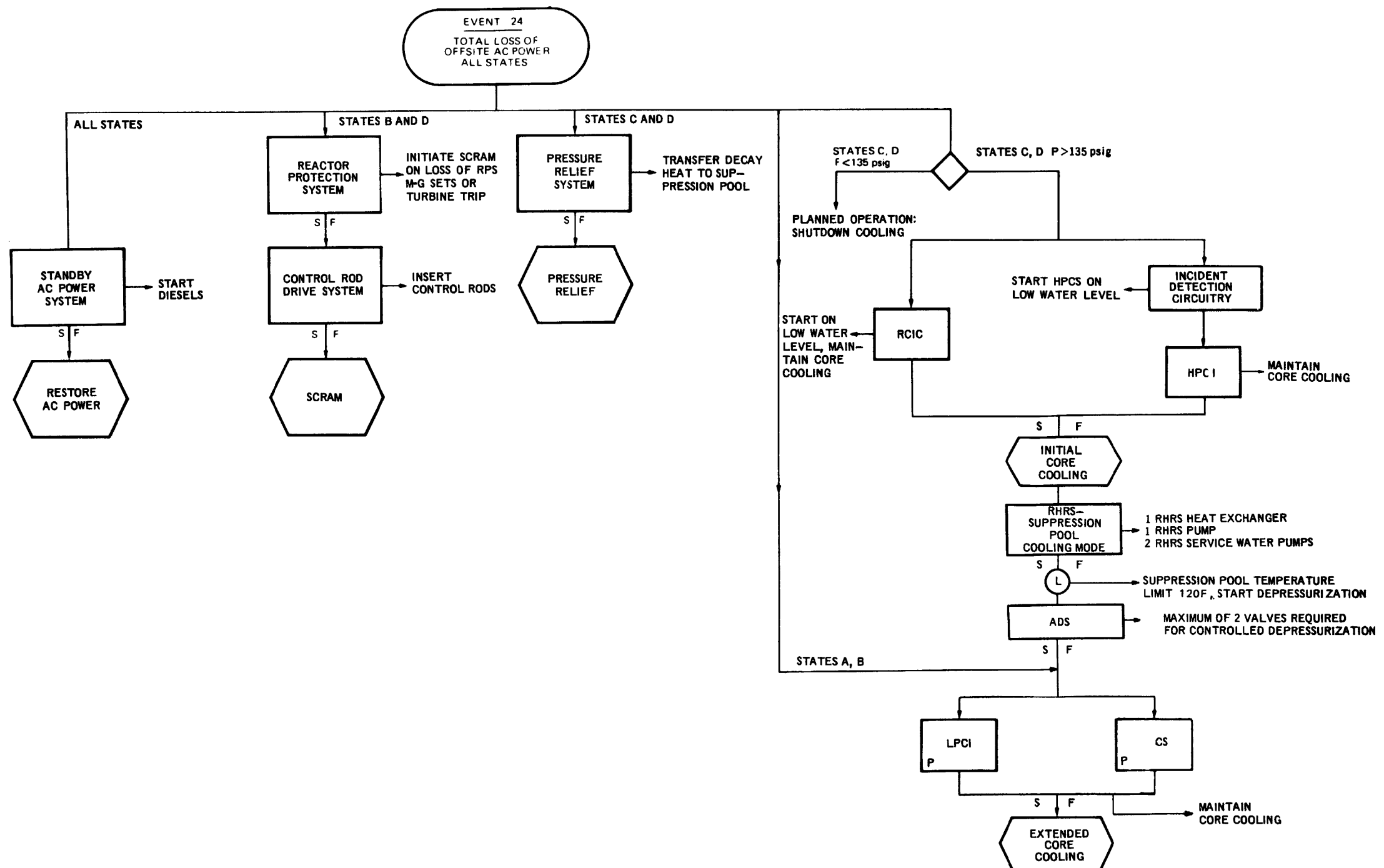
ADS → MAXIMUM OF 2 VALVES REQUIRED TO MAINTAIN DEPRESSURIZATION

EXTENDED CORE COOLING

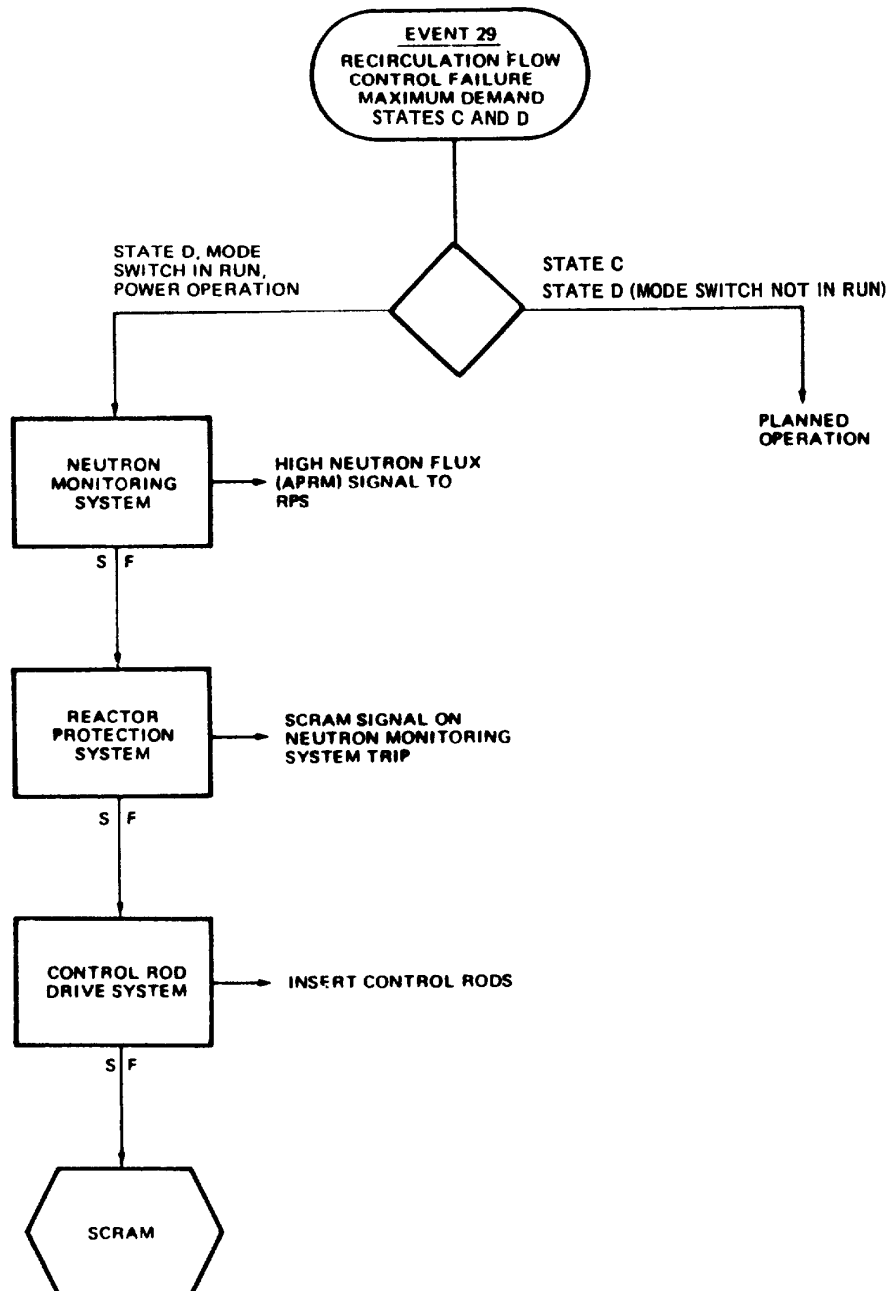
PROTECTION SEQUENCES FOR LOSS OF FEEDWATER FLOW



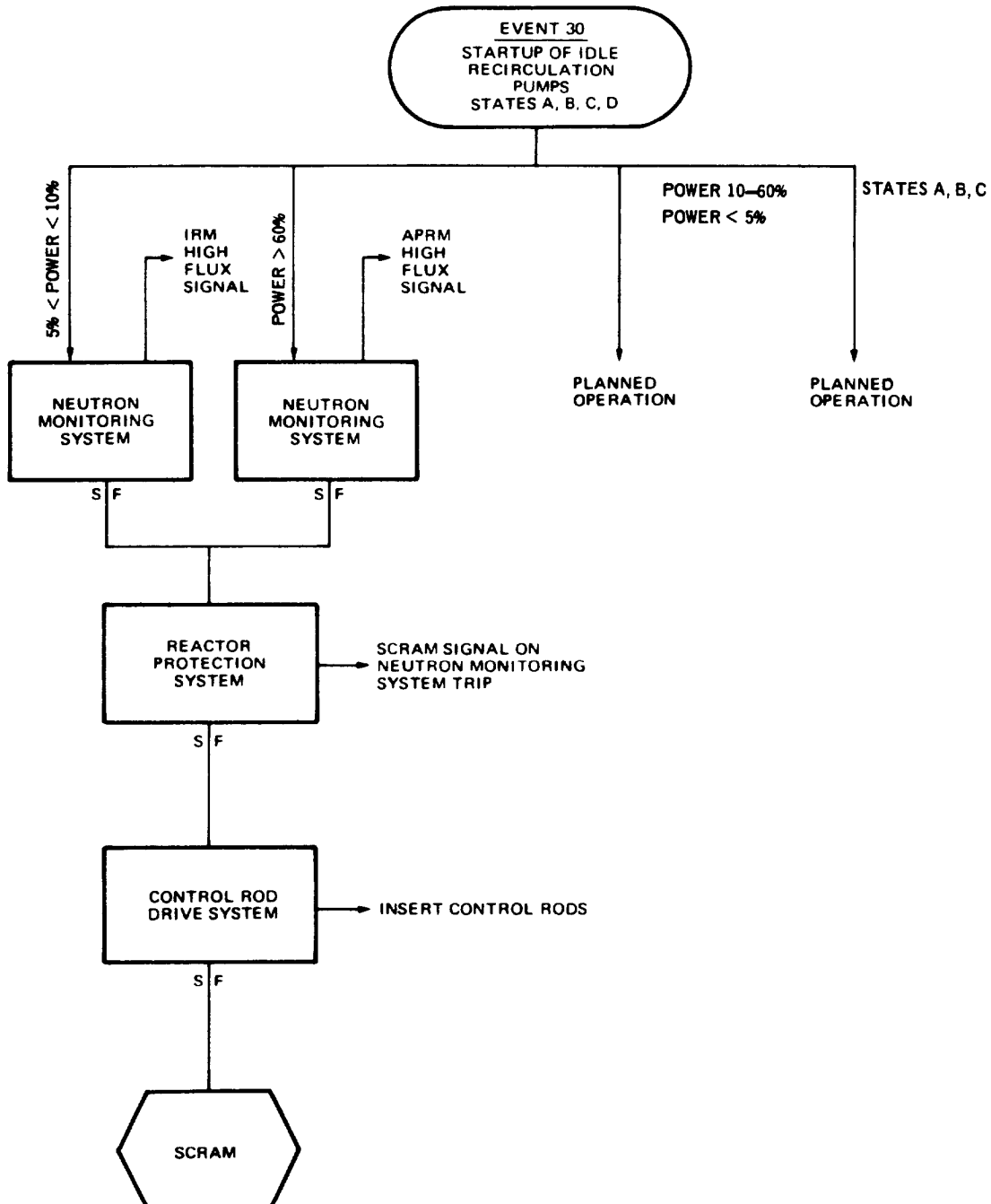
PROTECTION SEQUENCES FOR TOTAL LOSS OF OFFSITE A-C POWER



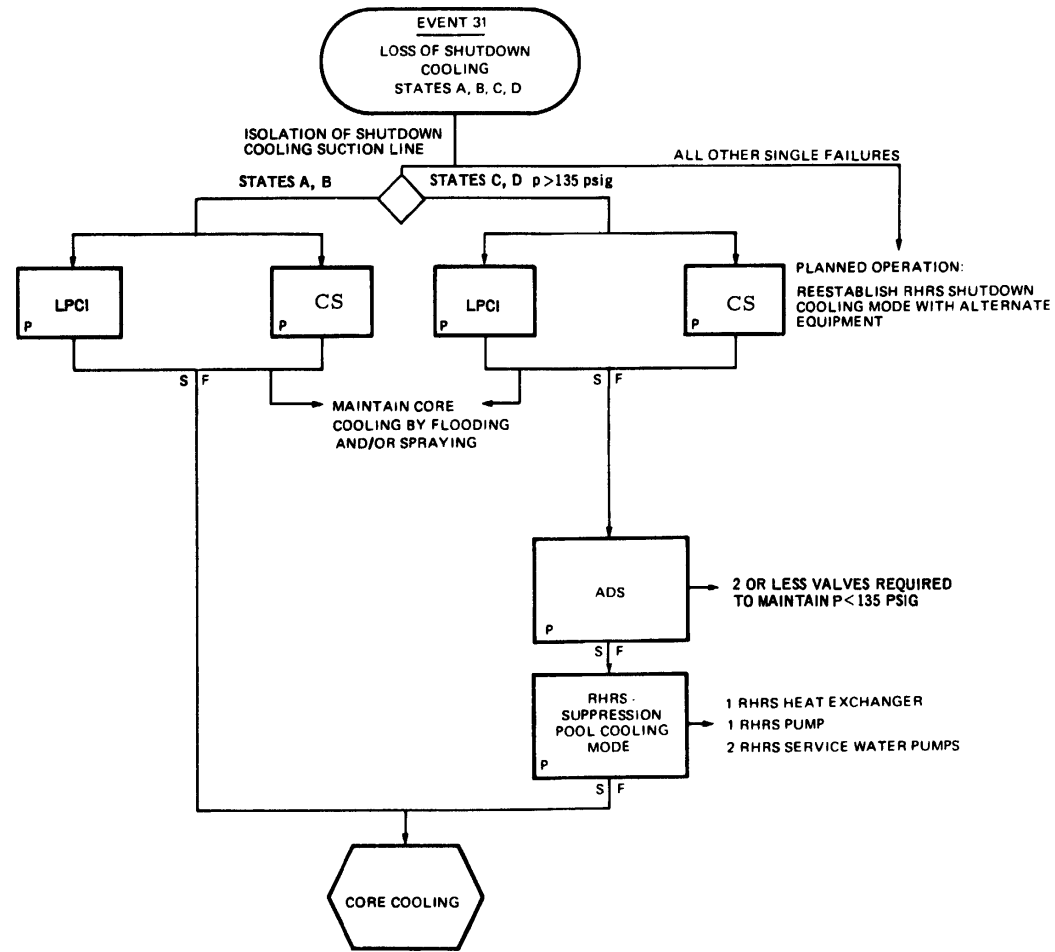
PROTECTION SEQUENCE FOR RECIRCULATION FLOW CONTROL FAILURE MAXIMUM DEMAND



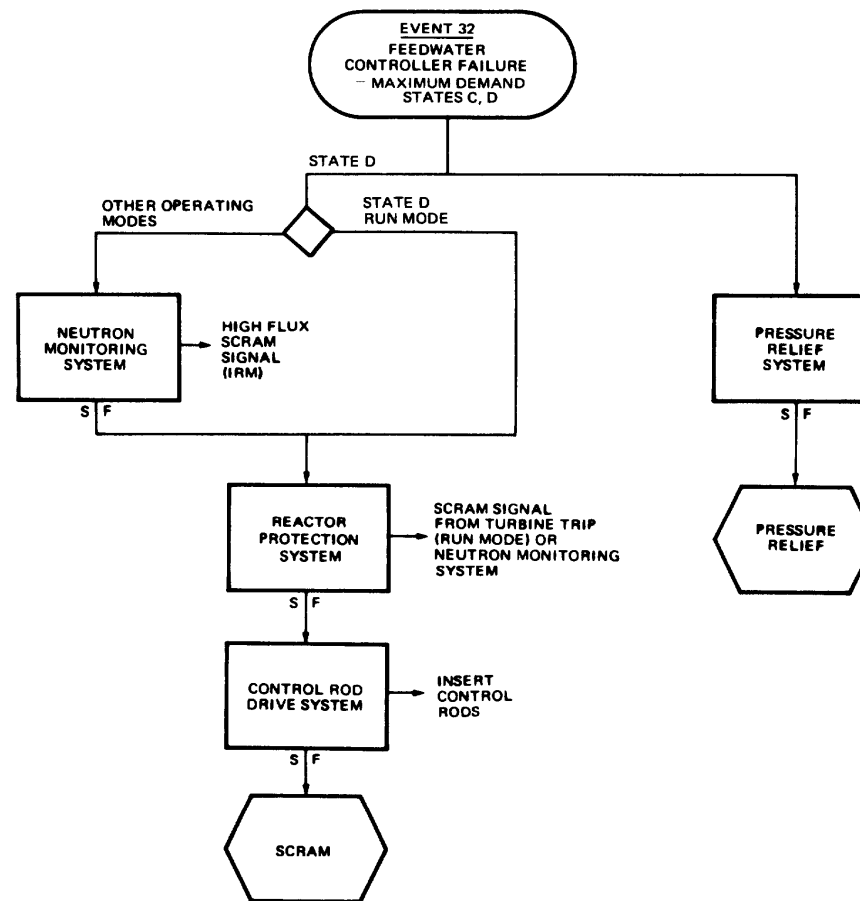
PROTECTION SEQUENCES FOR STARTUP OF IDLE RECIRCULATION PUMP



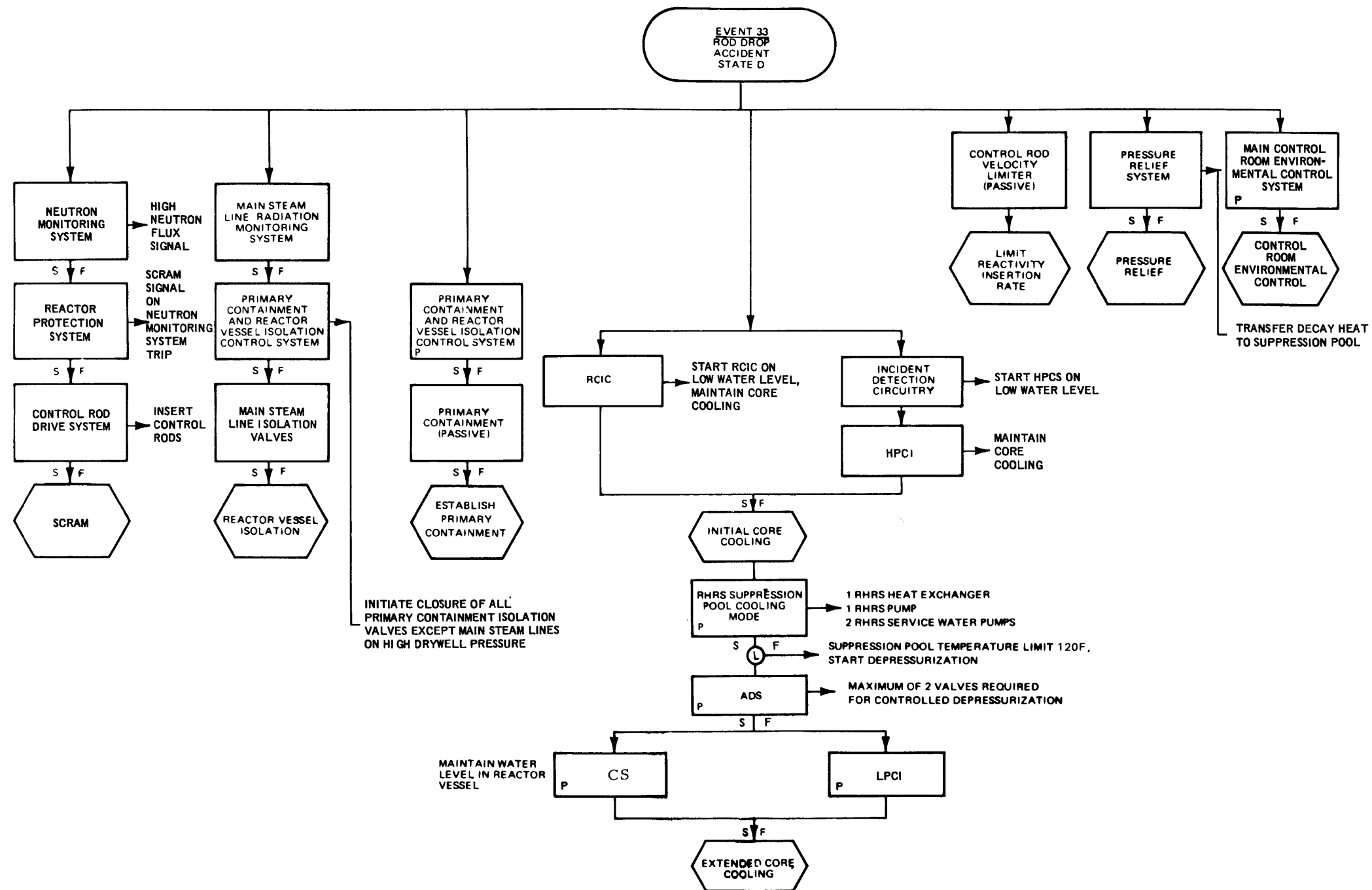
PROTECTION SEQUENCES FOR LOSS OF SHUTDOWN COOLING



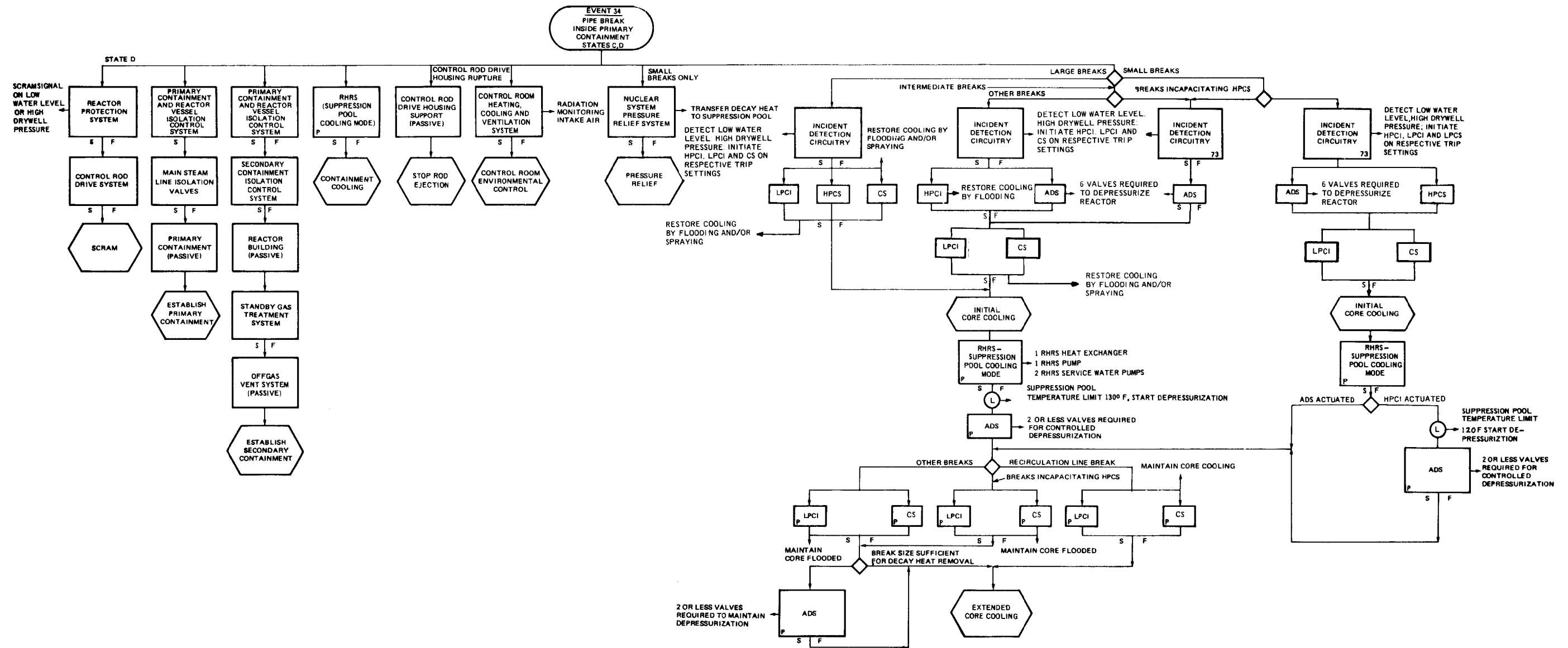
PROTECTION SEQUENCES FOR FEEDWATER CONTROLLER FAILURE - MAXIMUM DEMAND



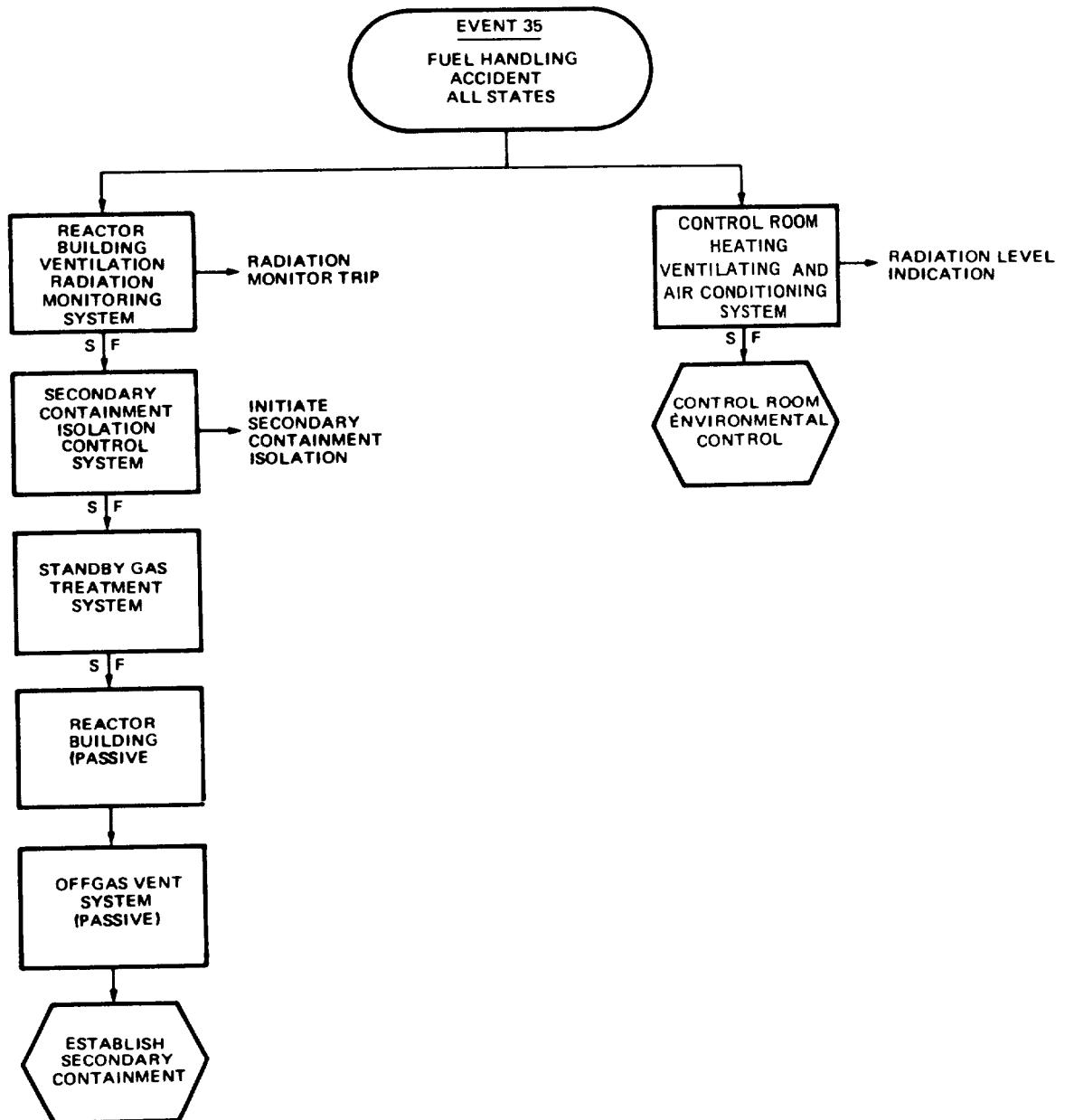
PROTECTION SEQUENCES FOR CONTROL ROD DROP ACCIDENT



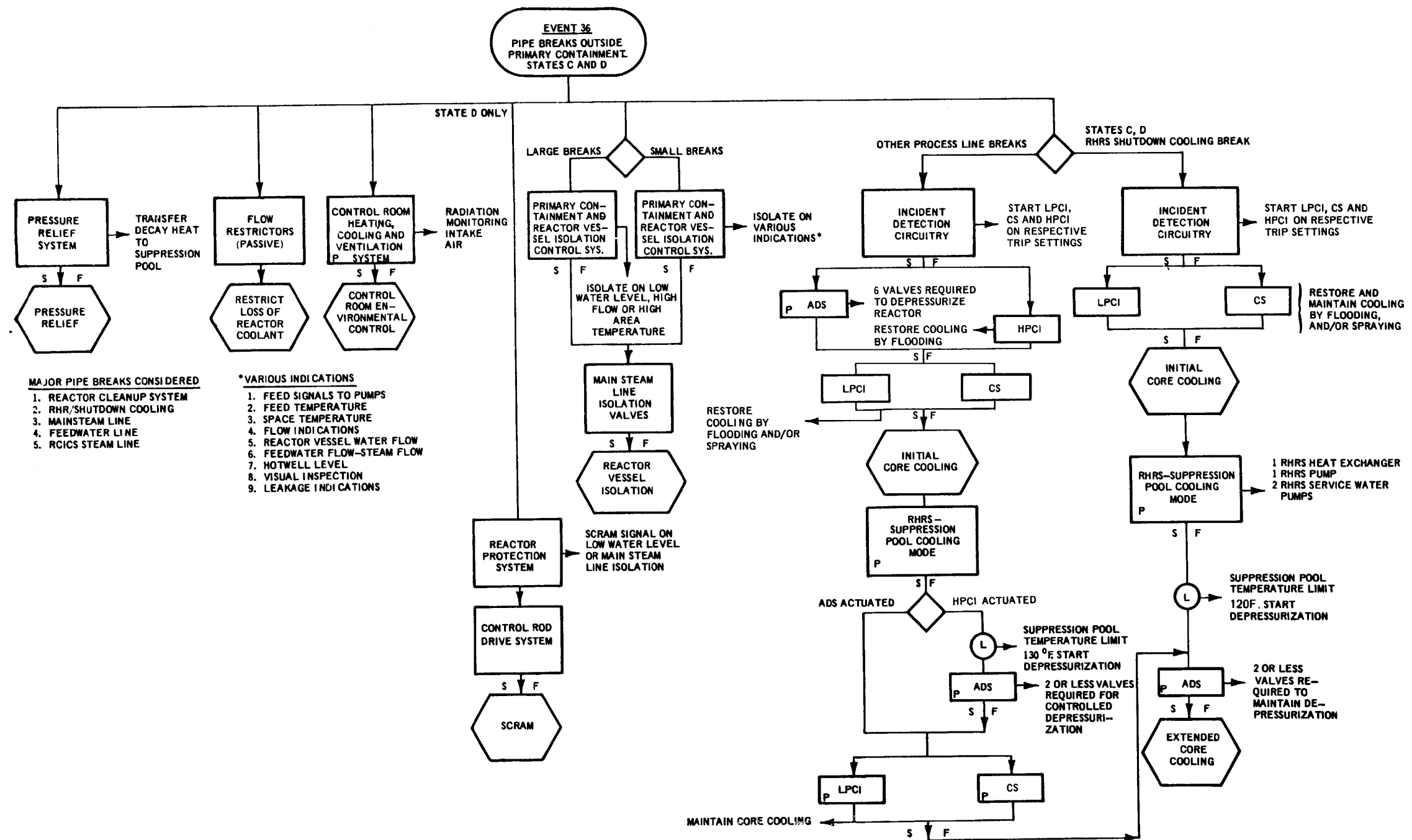
PROTECTION SEQUENCES FOR PIPE BREAKS INSIDE PRIMARY CONTAINMENT



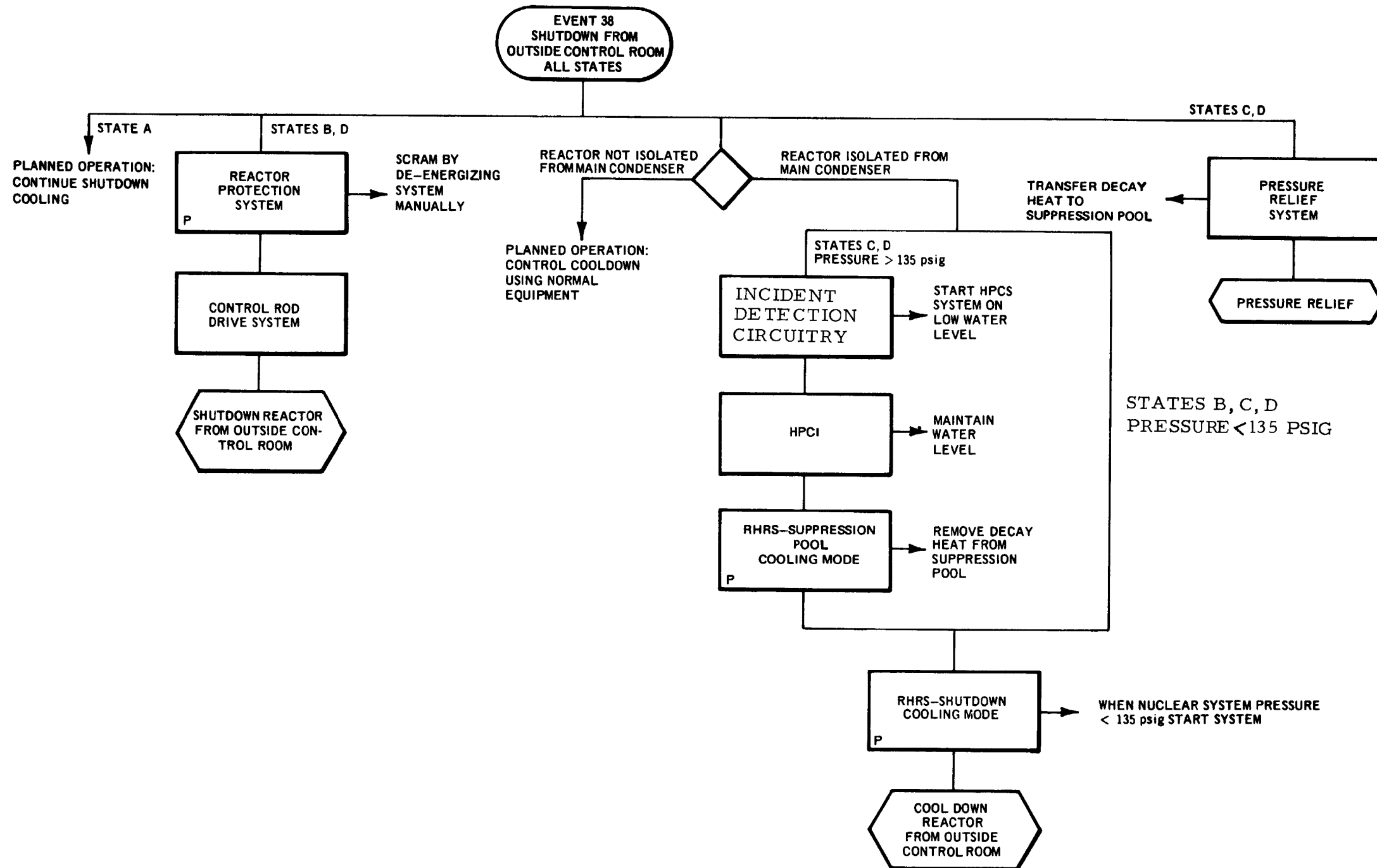
PROTECTION SEQUENCES FOR FUEL HANDLING ACCIDENT



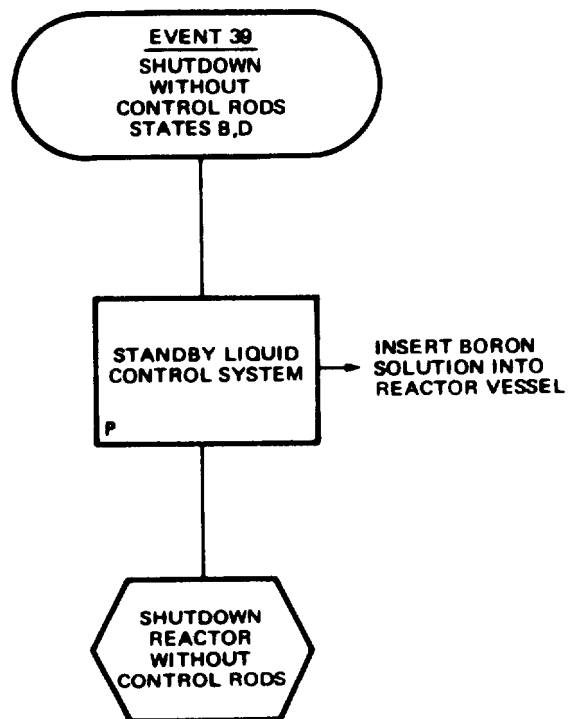
PROTECTION SEQUENCES FOR PIPE BREAKS OUTSIDE PRIMARY CONTAINMENT



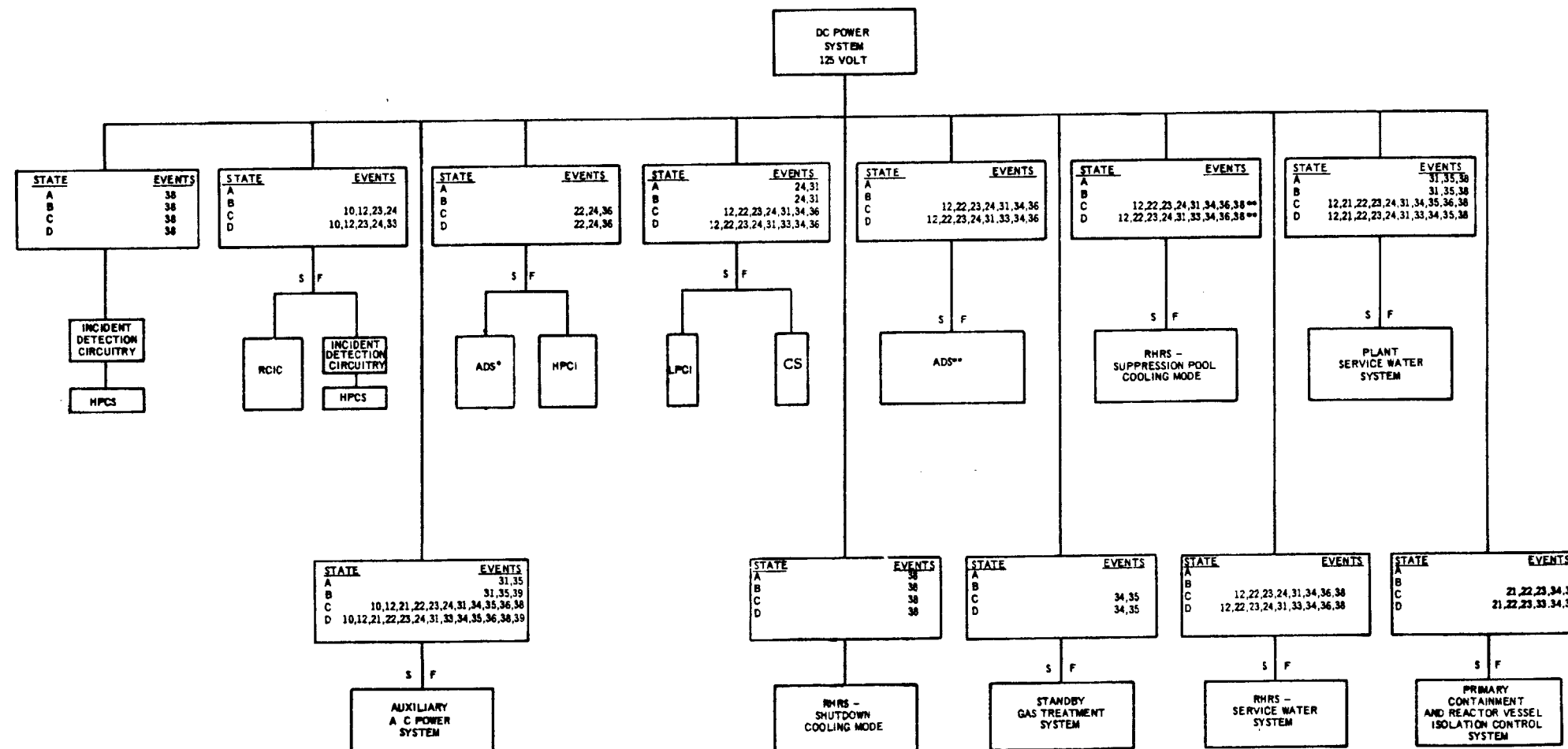
PROTECTION SEQUENCES FOR SHUTDOWN FROM OUTSIDE CONTROL ROOM



PROTECTION SEQUENCES FOR SHUTDOWN WITHOUT CONTROL RODS

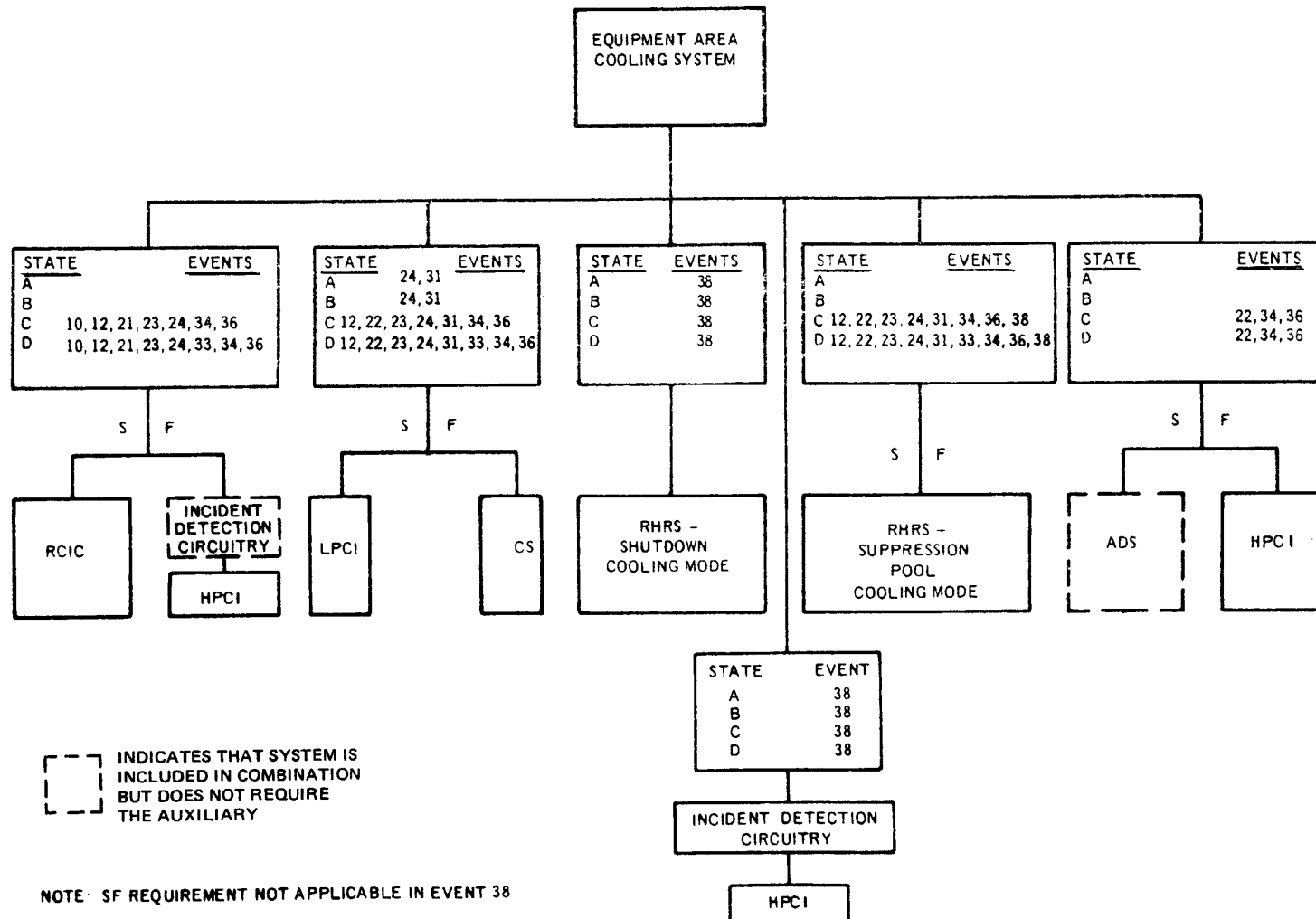


COMMONALITY OF AUXILIARY D-C POWER SYSTEM 125 VOLT

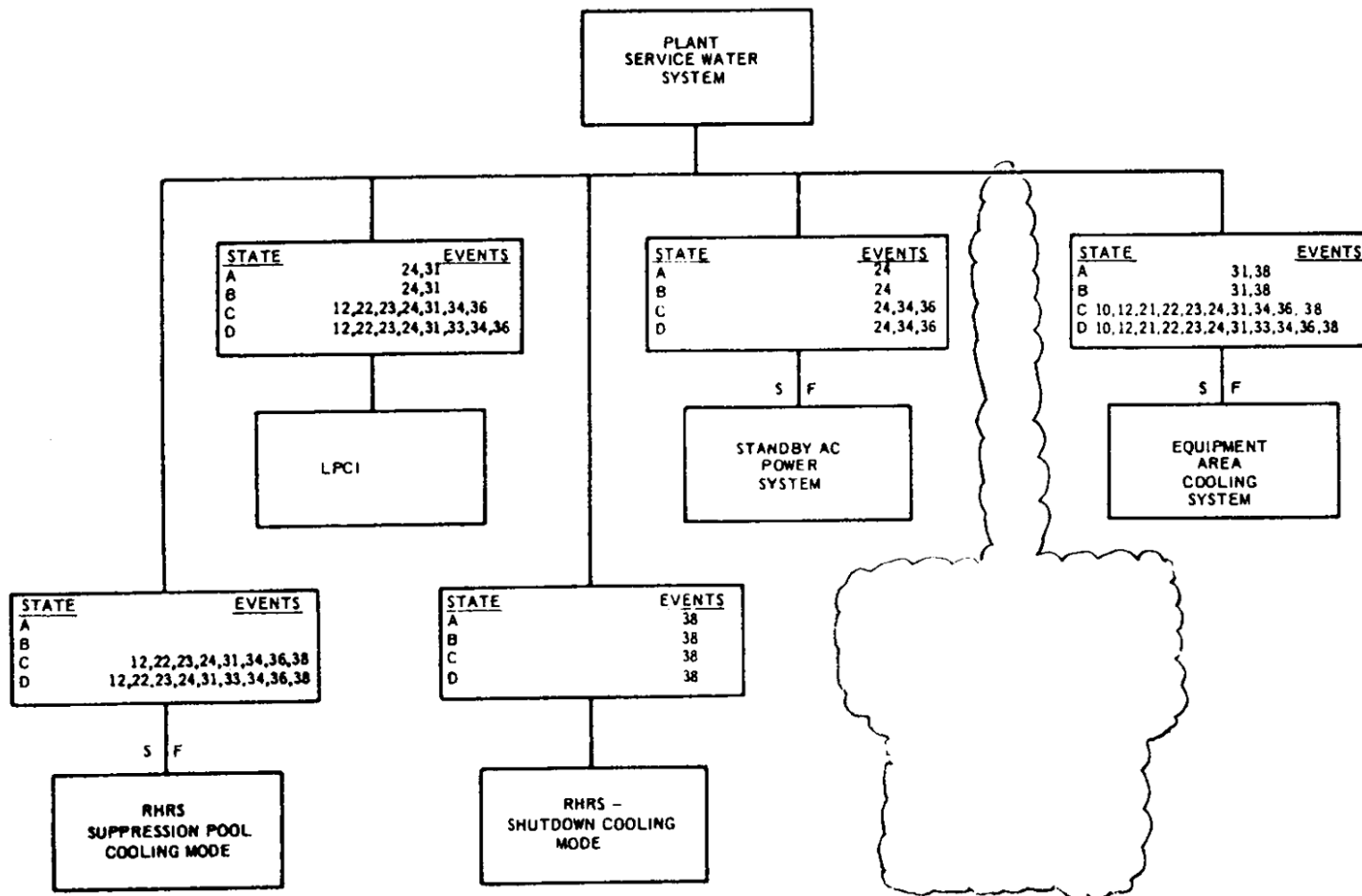


*BLOWDOWN
**CONTROLLED DEPRESSURIZATION
NOTE: SF REQUIREMENT NOT APPLICABLE IN EVENT 38

COMMONALITY OF AUXILIARY EQUIPMENT AREA COOLING SYSTEM



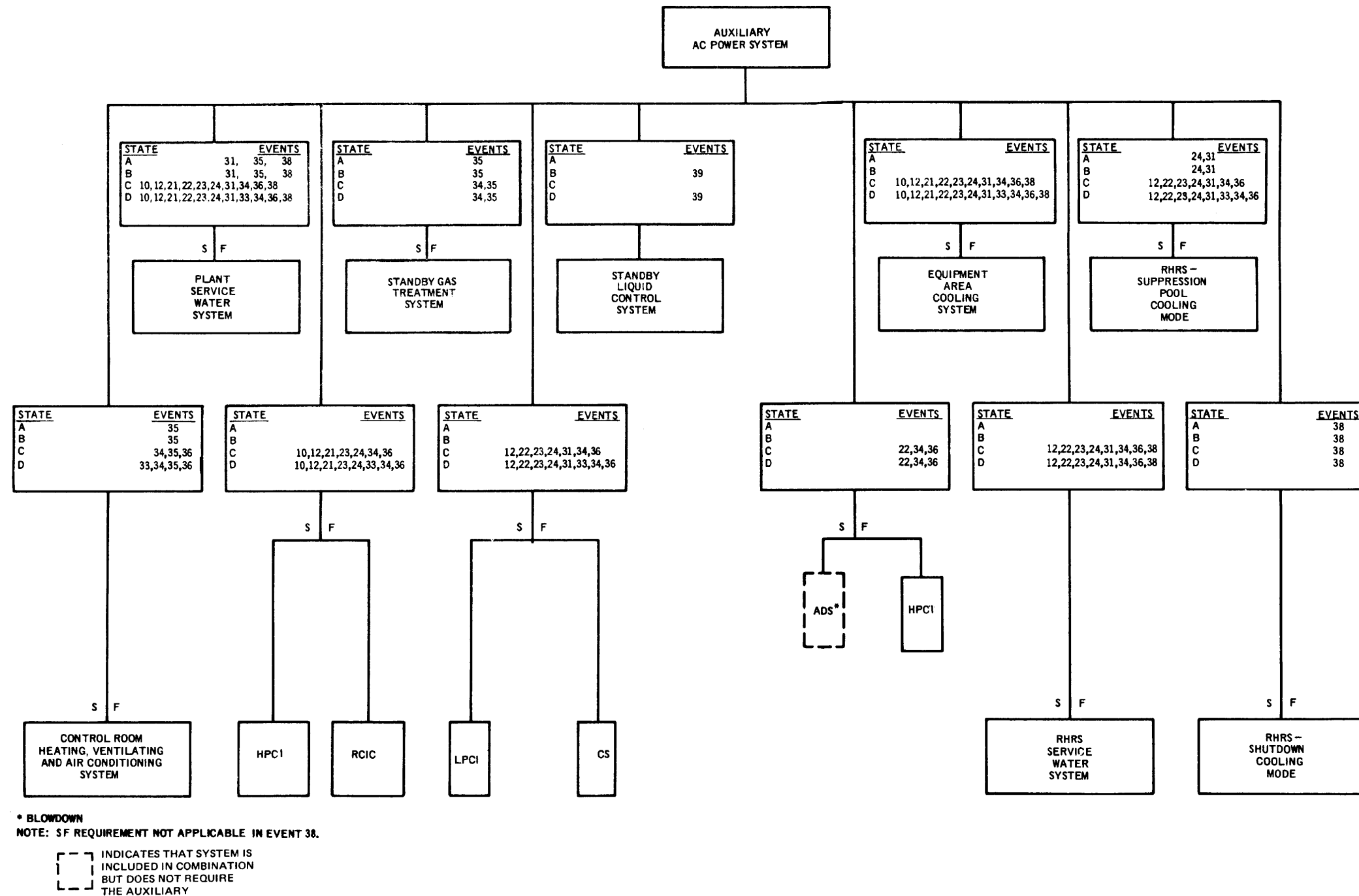
COMMONALITY OF AUXILIARY PLANT SERVICE WATER SYSTEM



NOTE: SF REQUIREMENT NOT APPLICABLE IN EVENT 38.



COMMONALITY OF AUXILIARY A-C POWER SYSTEM

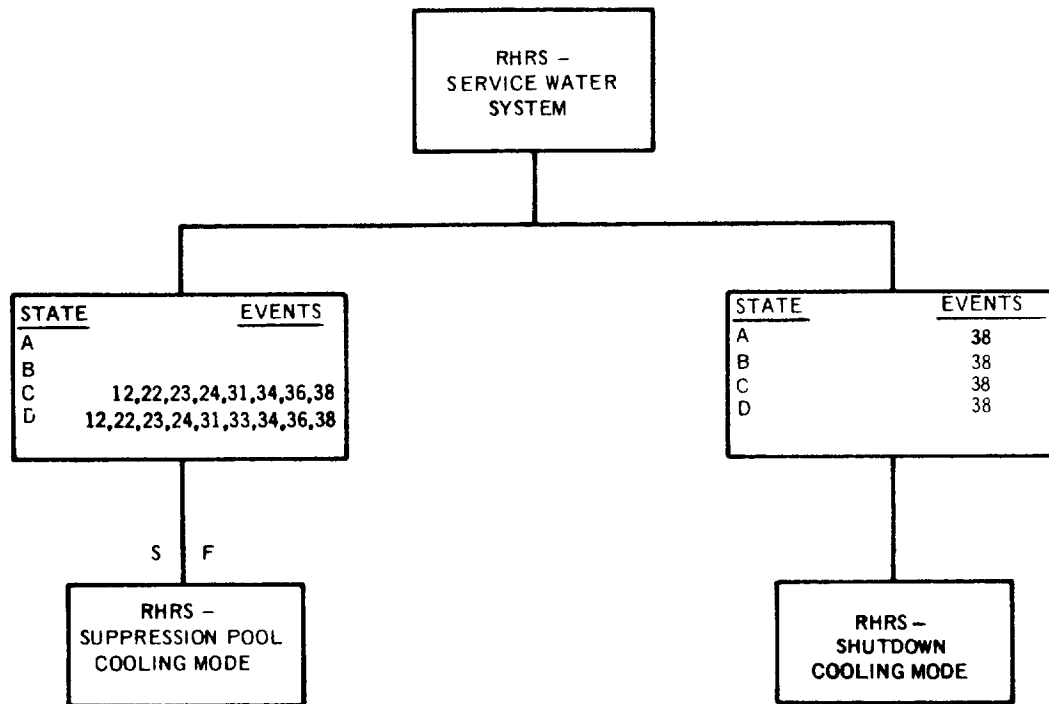




UPDATED FSAR
OPERATIONAL SAFETY ANALYSIS
APPENDIX 15A FIGURES

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COMMONALITY OF AUXILIARY RHR SERVICE WATER SYSTEM



NOTE: SF REQUIREMENT NOT APPLICABLE IN EVENT 38.

COMMONALITY OF AUXILIARY SUPPRESSION POOL STORAGE

