

NUCLEAR SAFETY GROUP
PROBABILISTIC RISK ASSESSMENT REPORT

PRA EVALUATION

OF

PROPOSED CCW HEAT EXCHANGER ALLOWED OUTAGE TIME
SAN ONOFRE NUCLEAR GENERATING STATION UNIT 1

Revision 2

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PROBABILISTIC RISK ASSESSMENT OF
PROPOSED SONGS 1 CCW HEAT EXCHANGER ALLOWED OUTAGE TIMES
SAN ONOFRE NUCLEAR GENERATING STATION UNIT 1

1.0 INTRODUCTION

This study assesses the risk of proposed allowed outage times for the Component Cooling Water (CCW) Heat Exchangers at San Onofre Nuclear Generating Station Unit 1 (SONGS 1). The analysis contains a comparison of core damage frequencies for various CCW Heat Exchanger allowed outage times (AOTs) to determine an acceptable allowed outage time.

The guidance in the existing Technical Specifications is not clear regarding the limiting conditions for operation (LCO) of the CCW Heat Exchangers. At the request of the NRC, SCE has been asked to propose specifications for CCW Heat Exchanger operation.

The Standard Westinghouse Technical Specifications indicate a 72 hour AOT for a CCW loop. Due to the unique design features of SONGS 1 (e.g., train cross-connects), a probabilistic based evaluation was undertaken to determine an optimal AOT considering maintenance constraints and risk of core damage. The maintenance requirements of the CCW Heat Exchangers and associated motor-operated outlet valves are such that some repairs may not be achievable within 72 hours. A 72 hour AOT could result in a forced plant shutdown once every several years. Thus, the maintenance constraints require an AOT longer than 72 hours.

2.0 FUNCTION OF THE CCW SYSTEM

The Component Cooling Water (CCW) System is a closed loop system which provides cooling water for plant components that potentially contain radioactive material. The CCW System is cooled by the Salt Water Cooling System. The CCW System provides a barrier between the plant systems containing radioactive material and the environment. A simplified diagram of the CCW System is provided in Figure 1.

The CCW System contains parallel heat exchangers that can be selected by motor-operated outlet valves MOV-720A and B. The outlet of the heat exchangers enters a common outlet pipe and provides cooling to the following plant equipment:

- Recirculation Heat Exchanger
- Charging Pump Oil Coolers
- Seal Water Heat Exchangers
- Reactor Coolant Pumps (RCPs)
- Letdown Heat Exchangers
- Residual Heat Exchangers
- Residual Heat Removal Pumps
- Reactor Shield Cooling Coils

Flow from the components is returned to the common CCW pump suction piping.

A DC Thermal Barrier Pump provides non-safety related cooling to the RCP seals in the event of loss of the CCW pumps or a station blackout event. The pump takes suction from the component cooling water supply to the RCP seals and delivers this water to the thermal barrier of the RCPs downstream of the CCW inlet check valve to the thermal barrier. After flowing through the thermal barrier, this emergency flow resumes the normal component cooling water flow path.

3.0 EVALUATION OF RISK

The analysis of core damage includes probabilistic risk assessment (PRA) initiating events that would be significantly impacted by the loss of both CCW heat exchangers. These events include:

- Large LOCA (3" diameter or larger breaks)
- Small LOCA (3/4" to 3" diameter breaks)
- Small-Small LOCA (up to 3/4" diameter breaks)
- Loss of CCW (only from failure of the heat exchangers)

Event trees have been developed and analyzed to determine the core damage risk associated with each of these initiating events. Core damage is estimated for various AOTs of the CCW Heat Exchangers by analyzing these events. The analysis assumptions are presented in Section 3.1 below. The results of the analysis are provided in Section 3.2, and a discussion of the uncertainty of the results is given in Section 3.3.

3.1 ASSUMPTIONS

The following assumptions were utilized in the analysis:

1. The accident sequences analyzed include LOCA and loss of CCW Heat Exchanger initiating events. The core damage risk from the loss of the CCW Heat Exchangers in other events (e.g., main steam line break, main feedwater line break, steam generator tube rupture, etc.) are on the order of 10^{-9} /year or less which is small compared to the analyzed events. The requirements of the CCW System in the other unanalyzed events are no greater than for the LOCA events. The impact of CCW Heat Exchanger inoperability on core damage risk during shutdown events was not analyzed due to the unavailability of shutdown risk models and an assumption that the shutdown risk is low due to the longer time available for recovery actions prior to core uncover.
2. The CCW Heat Exchangers are assumed to fail (predominately due to marine debris fouling) at a rate of approximately once per 3 years based upon actual SONGS 1 operating data.

3. The probability of failing to restore an out of service CCW Heat Exchanger given the operable CCW Heat Exchanger begins to evidence fouling is estimated to be 0.05 per demand, assuming low radiation levels around the CCW Heat Exchangers. This estimate is based on 1) a history of CCW heat exchanger fouling at a very slow and gradual rate over a matter of weeks, 2) the standard practice of operators checking one heat exchanger prior to removing the second from service, and 3) judgement that restoration of a heat exchanger or its associated MOV could be accomplished relatively quickly (Reference 1).

If the Recirculation System is in operation, radiation levels at the CCW Heat Exchangers could be too high for restoration of the CCW Heat Exchanger in maintenance. Therefore, following a Small or Large LOCA, the probability of failing to restore an out of service CCW heat exchanger is assumed to be 1.0. Post-LOCA Recirculation cooling is not assumed to be required following a small-small LOCA.

4. The loss of CCW System operability due to loss of both CCW Heat Exchangers is assumed to impact heat removal from the following heat loads in the probabilistic risk assessment:

Reactor Coolant Pump seals
Charging Pump lube oil
Recirculation Heat Exchanger

5. In the event of loss of both CCW Heat Exchangers during normal operation, the probability of non-recovery of the CCW System prior to the loss of RCP seal cooling is assumed to be 0.9. The basis for this non-recovery probability is a loss of CCW recovery evaluation in the Oconee PRA (Reference 2), which used a non-recovery probability of 0.13. The non-recovery probability used in this study is set to 0.9 for conservatism since a SONGS 1 specific evaluation has not yet been performed.

The probability of non-recovery of the CCW System after the loss of seal cooling and prior to increased leakage through the RCP seals is conservatively assumed to be 0.99. This is based upon Westinghouse studies which indicate that seal degradation is not instantaneous upon a loss of seal cooling and may take several hours before failure resulting in additional available recovery time (Reference 3).

6. Failure of RCP seal cooling (via the thermal barrier cooler) and charging seal injection is assumed to result in seal degradation leading to a seal leak of approximately 21 gpm per pump based on a Westinghouse Owners Group Report (Reference 3). A seal LOCA in all three RCPs would result in a 63 gpm RCS leak. This leak is assumed to conservatively occur

immediately upon loss of seal cooling for purposes of determining the time to loss of natural circulation cooling from RCS leakage. The operability of the Safety Injection System to makeup the RCS coolant lost through the failed RCP seals is assumed to be required immediately. This is a conservative assumption since significant time is available (approx. 1 3/4 hours) prior to the loss of natural circulation cooling. Most of the dominant potential failure modes of the Safety Injection System (e.g., failures of the Feedwater Pump suction and discharge valves to operate) could be recovered within an hour.

7. The event trees and supporting fault trees used in the analysis are based upon the SONGS 1 Probabilistic Safety Assessment, Revision 5 (Reference 4).
8. The failure rate for motor-operated or manual valves failing to remain open is assumed to be 5.0E-08/hr (Reference 5).
9. It is assumed that one CCW Heat Exchanger outage of the entire AOT duration would be entered once per year based upon actual plant maintenance data for the past four years.
10. Loss of CCW System operability would result in a loss of normal cooling of the Charging Pump lube oil. Backup lube oil cooling by an AC powered Lube Oil Cooling Fan is not available unless a SIS/LOP is present. In the event the Lube Oil Cooling Fan fails to operate or an SI signal does not occur, a calculation indicates that the Charging Pump lube oil temperature stabilizes at a steady state temperature of approximately 225 deg F after approximately two hours of operation (Reference 7). The Charging Pump thrust bearings and babbit material have shown a capability in other applications to withstand temperatures of 345 deg F for up to 300 hours without seizure (Reference 8). Therefore, it is assumed that the Charging Pump can operate without lube oil cooling for at least 24 hours. Restoration of a CCW Heat Exchanger or repair of a Charging Pump Lube Oil Fan is assumed achievable within 24 hours.

The loss of CCW cooling to the Charging Pumps in the recirculation mode of operation was assumed to result in failure of the Charging Pumps. However, this assumption is inconsequential since the Recirculation Heat Exchangers would have also lost CCW cooling resulting in a failure of recirculation cooling.

The use of Chemical and Volume Control System Test Pump G-42 for providing RCP seal flow in the event of loss of both Charging Pumps is also included in the analysis. The Test Pump has the capability to provide RCP seal injection flow at the normal flow rate. Abnormal Operating Procedure SO1-2.1-10

specifies the use of the Test Pump in the event of a Component Cooling Water System malfunction resulting in failure of the Charging Pumps.

3.2 Core Damage Analysis

The event trees analyzed for this study are provided in Figures 2 through 5. The supporting fault trees were taken from the SONGS 1 Partial PRA (Reference 4). The Loss of CCW Heat Exchanger initiating event frequency was determined as indicated below. The event trees were solved for the 31 day AOT case using the REBECA PRA software. The event trees for the 72 hour and 7 day AOT cases were solved by manipulating cut sets containing failures of the CCW Heat Exchangers in the 31 day AOT case.

The fault trees supporting event tree nodes were solved using a truncation limit of $1E-6$ and the event trees were solved using a truncation limit of $1E-9$. The choice of truncation limits assured that any core damage sequence cutsets containing failures of the CCW Heat Exchangers with a probability greater than $1E-9$ per year were found and included in the quantification. Note that the maintenance for both the CCW Heat Exchangers is lumped into the B Train Heat Exchanger since the A Train Heat Exchanger is assumed to be normally running. The basic event probabilities used for CCW Heat Exchanger E-20B in maintenance for each case were:

PROBABILITY IN MAINTENANCE

EVENT	72 Hour AOT	7 Day AOT	31 Day AOT
E-HSE20B---M (CCW Heat Exchanger E-20B in maintenance)	8.22E-03	1.92E-02	8.49E-02

3.2.1 Loss of CCW Heat Exchanger Initiating Event

A loss of CCW Heat Exchanger event tree was created for this analysis to model the impact of loss of the CCW Heat Exchangers during normal operation (non-transient condition). A fault tree was created to determine the initiating event frequency for loss of both CCW Heat Exchangers. The fault tree is provided in Figure 6. Failures of the associated CCW Heat Exchanger discharge valves to remain open were neglected based upon their low probability of occurrence ($5.0E-8$ per hour, Reference 5). The only parameter which changes in the fault tree for various AOTs evaluated is the basic event for the probability of failure of the operating CCW Heat Exchanger while the other CCW Heat Exchanger is in maintenance (basic event E-HSE20A-7C). The values used for this basic event are as follows:

AOT	Basic Event Probability	Basis
72 hours	2.71E-03	(0.33/yr / 8760 hrs/yr * 72 hr)
7 days	6.33E-03	(0.33/yr / 365 day/yr * 7 day)
31 days	2.80E-02	(0.33/yr / 365 day/yr * 31 day)

The solution for the fault tree is given below for each AOT evaluated:

AOT	Initiating Event Frequency
72 hours	1.4E-04/yr
7 days	3.2E-04/yr
31 days	1.4E-03/yr

These values were used in the solution of the loss of CCW Heat Exchanger event tree for each AOT case.

3.2.2 Core Damage Results

The results of the event tree quantification for each of the AOTs evaluated are provided in Table 1. Only contributions to core damage from loss of the CCW Heat Exchangers are provided. The 72 hour AOT results are considered a base case, since this AOT is used in the standardized Westinghouse Technical Specifications. The increase in core damage frequency above the 72 hour case is considered the incremental risk impact of the 7 and 31 day AOTs.

The quantified event trees for each AOT evaluated are provided in Appendix A. The dominant cutsets resulting from the quantification of the 31 day AOT case are provided in Appendix B. Sequence cutset results are provided only for those sequences involving the failure of systems dependent on CCW operation (i.e., Charging and Recirculation). Cutsets containing failures of the CCW Heat Exchangers in the LOCA event tree solutions are identified by arrows in the left margin. Note that all the cutsets in the loss of CCW Heat Exchanger event tree sequence solutions contain failures of the CCW Heat Exchangers and are thus not identified in any special manner.

The dominant sequences involving loss of both CCW Heat Exchangers leading to core damage result from solution of the small and large LOCA, and loss of CCW Heat Exchanger event trees. The dominant cutsets involve the following failures:

- occurrence of a small or large LOCA
- one CCW Heat Exchanger in maintenance
- the second CCW Heat Exchanger plugs

or

- loss of offsite power during normal operation
- failure of the emergency diesel generators to operate
- failure to connect the DSD diesel to Charging Pump G-8A

As indicated in the assumptions, recovery of a CCW Heat Exchanger in maintenance is not assumed possible following a large or small LOCA due to the assumed high radiation at the CCW Heat Exchangers during Recirculation System operation.

3.3 Uncertainty in the Analysis

The sequences associated with the LOCA trees are based upon best estimate fault tree analysis with some conservative assumptions of the CCW System unavailability.

Standard uncertainty values for fault tree solutions are on the order of a factor of 10 (i.e., an error factor of 10) based on the failure data analysis. The total risk contribution from unanalyzed events, including main steam line break, steam generator tube rupture, shutdown modes, etc. is not assumed to be larger than the contribution from the LOCAs and loss of CCW Heat Exchanger events. However, the uncertainty in this assumption is assumed to be bounded by another factor of 10. For conservatism, the risk contribution from each incremental AOT change is increased by a factor of 10 as indicated below to account for these uncertainties:

Increase in AOT	Adjusted Incremental Increase in Core Damage Risk
72 hours to 7 days	2.9E-07 per year
72 hours to 31 days	2.0E-06 per year

4.0 CONCLUSIONS

The increased risk of core damage from a 72 hour to 7 day AOT for the CCW Heat Exchangers, after a conservative adjustment for uncertainties, is very low at 2.9E-7 per year. This increase in the risk of core damage represents an insignificant contribution of one tenth of one percent to the overall SONGS 1 core damage frequency (estimated to be 2E-4 per year).

The increased risk of core damage from a 72 hour to 31 day AOT for the CCW Heat Exchangers, after a conservative adjustment for uncertainties, is moderately low at 2.0E-6 per year. This increase in the risk of core damage represents a small, but potentially more significant contribution of one percent to the overall SONGS 1 core damage frequency.

Thus, conservatively considering the uncertainties in the analysis,

the 7 day AOT for the CCW Heat Exchangers is recommended as the optimal AOT given maintenance constraints and the low increase in core damage risk.

5.0 REFERENCES

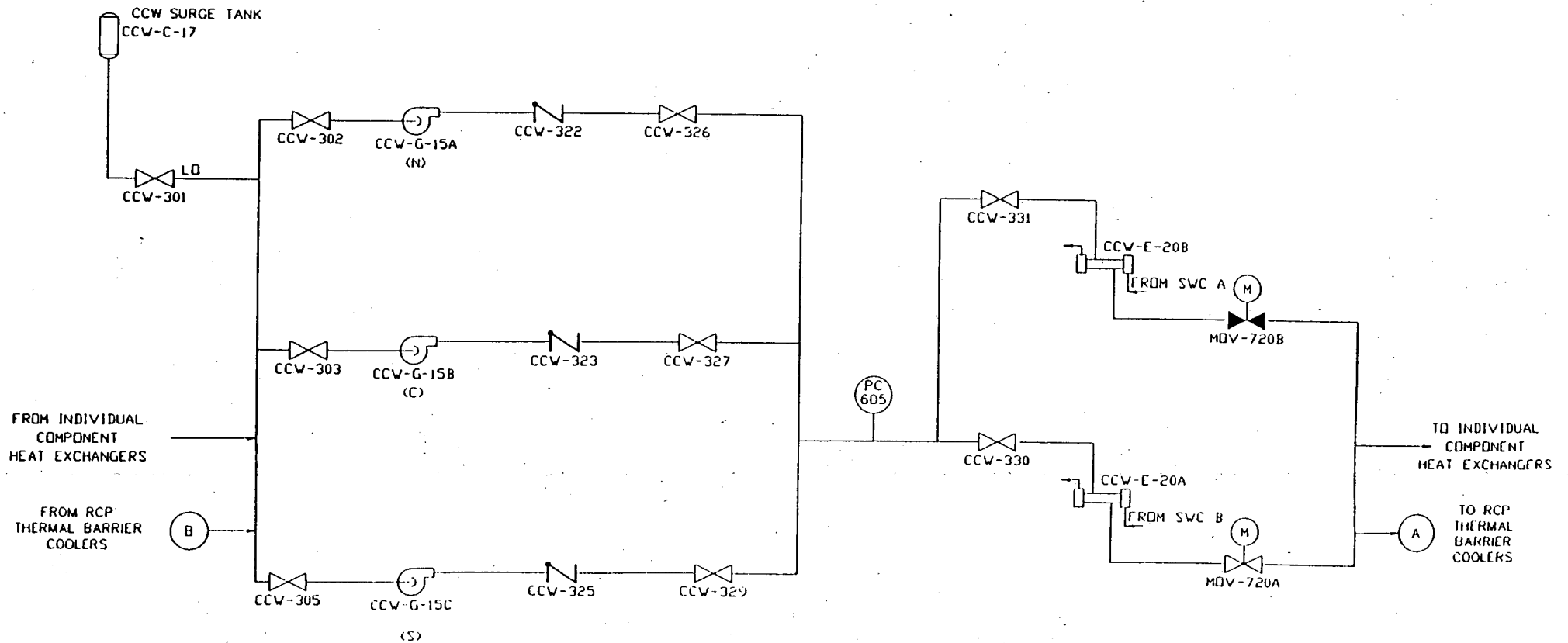
1. E-Mail from A. J. Schramm, SCE to R. J. Lee, SCE dated August 30, 1990.
2. NSAC/60, "A Probabilistic Risk Assessment of Oconee 3," Nuclear Safety Analysis Center and Duke Power Company, June 1984.
3. WCAP-10541, "Reactor Coolant Pump Seal Performance Following a Loss of All AC Power," Revision 2, Westinghouse Owners Group, November 1986.
4. San Onofre Nuclear Generating Station Unit 1 - Cycle 10 Probabilistic Safety Assessment, Revision 5, prepared by SCE Nuclear Engineering Safety and Licensing and ERIN Engineering, 1991.
5. EGG-SSRE-8875, "Generic Component Failure Data Base for Light Water and Liquid Sodium Reactor PRAs," EG&G Idaho, February 1990.
6. ANSI/ANS-51.1-1983, "American National Standard Nuclear Safety Criteria for the Design of Stationary Pressurized Water Reactor Plants"
7. "Analysis of CVC Charging Pump Bearings to Operate with Loss of Component Cooling Water and Air Cooler Fan Off, SONGS 1," Kalsi Engineering, Inc., April 5, 1989.
8. Telecon between T. G. Hook of SCE and A. D. Sistos of SCE on April 12, 1991.

TABLE 1
 Event Tree Quantification Results
 CCW Heat Exchanger AOT Calculation

Allowed Outage Time	Large LOCA CD Due to CCW HX Failure (/yr)	Small LOCA CD Due to CCW HX Failure (/yr)	Small- Small LOCA CD Due to CCW HX Failure (/yr)	Loss of CCW HX CD (/yr)	Total CD Due to CCW HX Failure (/yr)	Change in CD Due to CCW HX Failure (/yr)
72 hours	2.5E-09	8.4E-09	< 1E-09	1.1E-08	2.3E-08	-----
7 days	6.0E-09	2.0E-08	< 1E-09	2.5E-08	5.2E-08	2.9E-08
31 days	2.6E-08	8.7E-08	< 1E-09	1.1E-07	2.2E-07	2.0E-07

FIGURE 1

SAN ONOFRE UNIT 1 COMPONENT COOLING WATER SYSTEM (SHEET 1)



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FIGURE 1 (cont.)

SAN ONOFRE UNIT 1
 COMPONENT COOLING WATER SYSTEM
 (THERMAL BARRIER COOLERS)
 (SHEET 2)

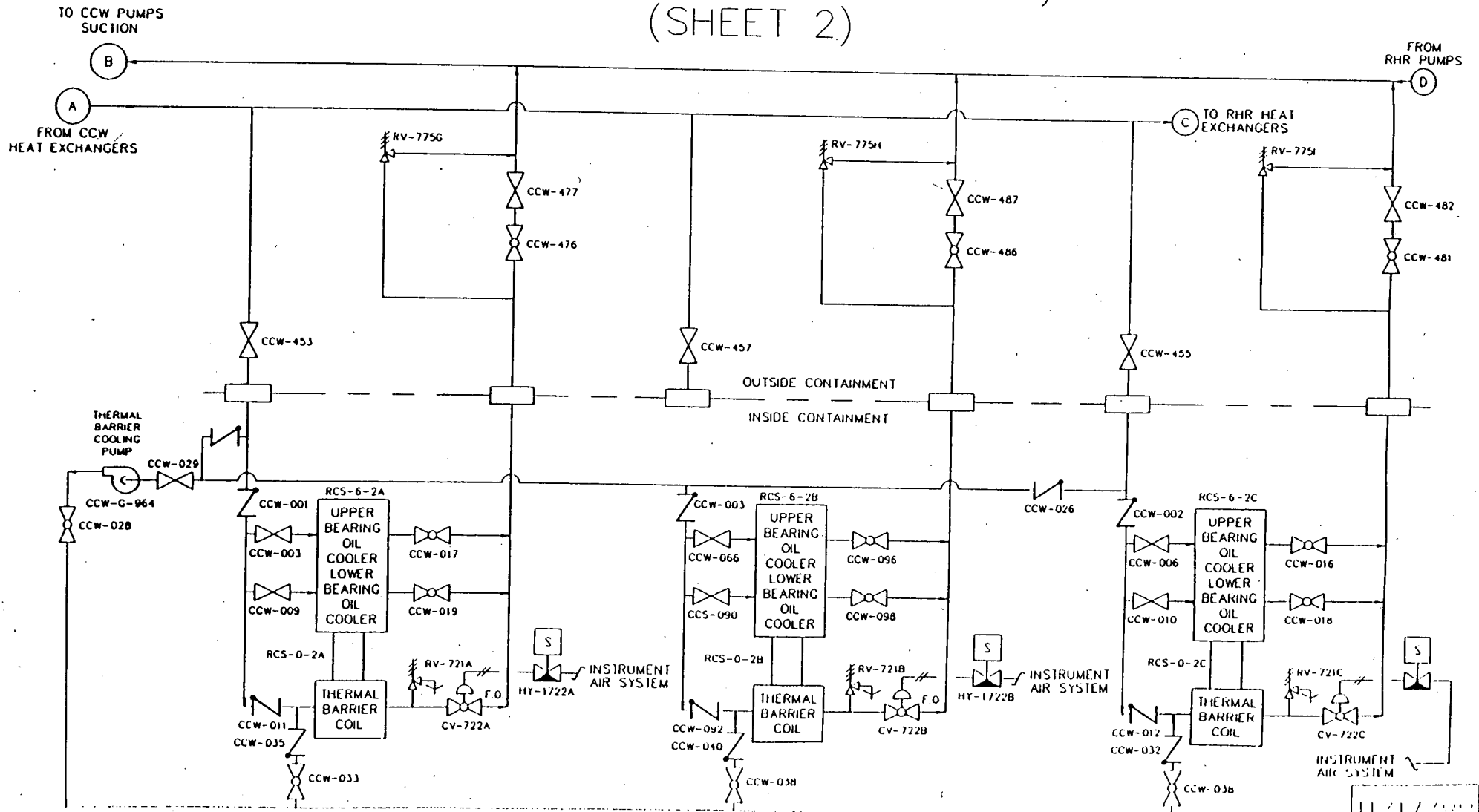


FIGURE 1 (cont.)

SAN ONOFRE UNIT 1 COMPONENT COOLING WATER SYSTEM (SHEET 3)

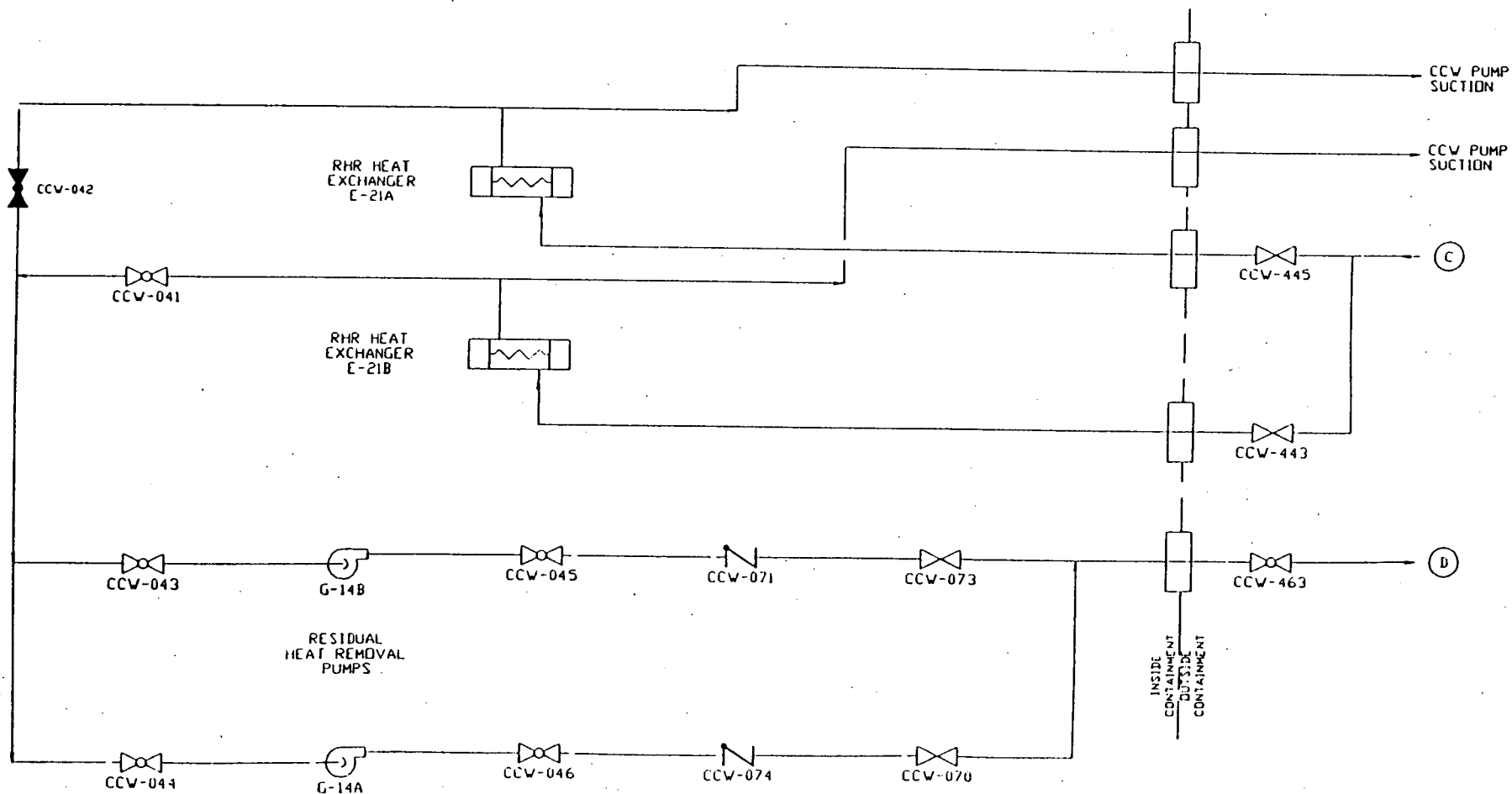


FIGURE 2

SONGS 1 - LARGE BREAK LOCA EVENT TREE

LARGE LOCA	REACTOR TRIP	SAFETY INJECTION	RECIRCULATION	NUMBER	SEQUENCE DESIGNATION	ACCIDENT CLASS	FREQUENCY
LL	K	V	Q				
				1	LL	SAFE	
				2	LL-Q		
				3	LL-V		
				4	LL-K		UNANALYZED

FIGURE 3

SONGS 1 - SMALL BREAK LOCA

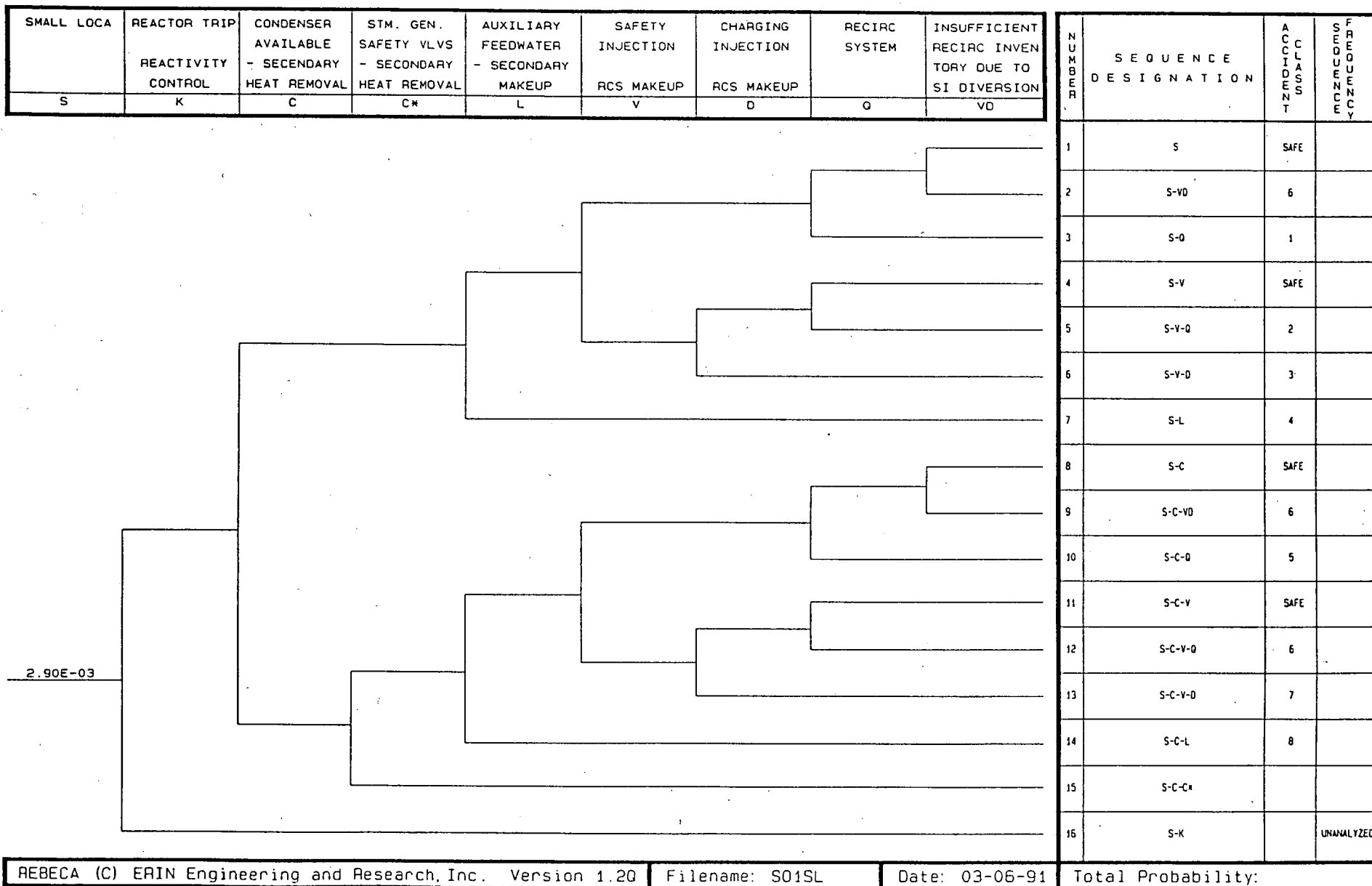


FIGURE 4

SONGS 1 - SMALL-SMALL LOCA EVENT TREE

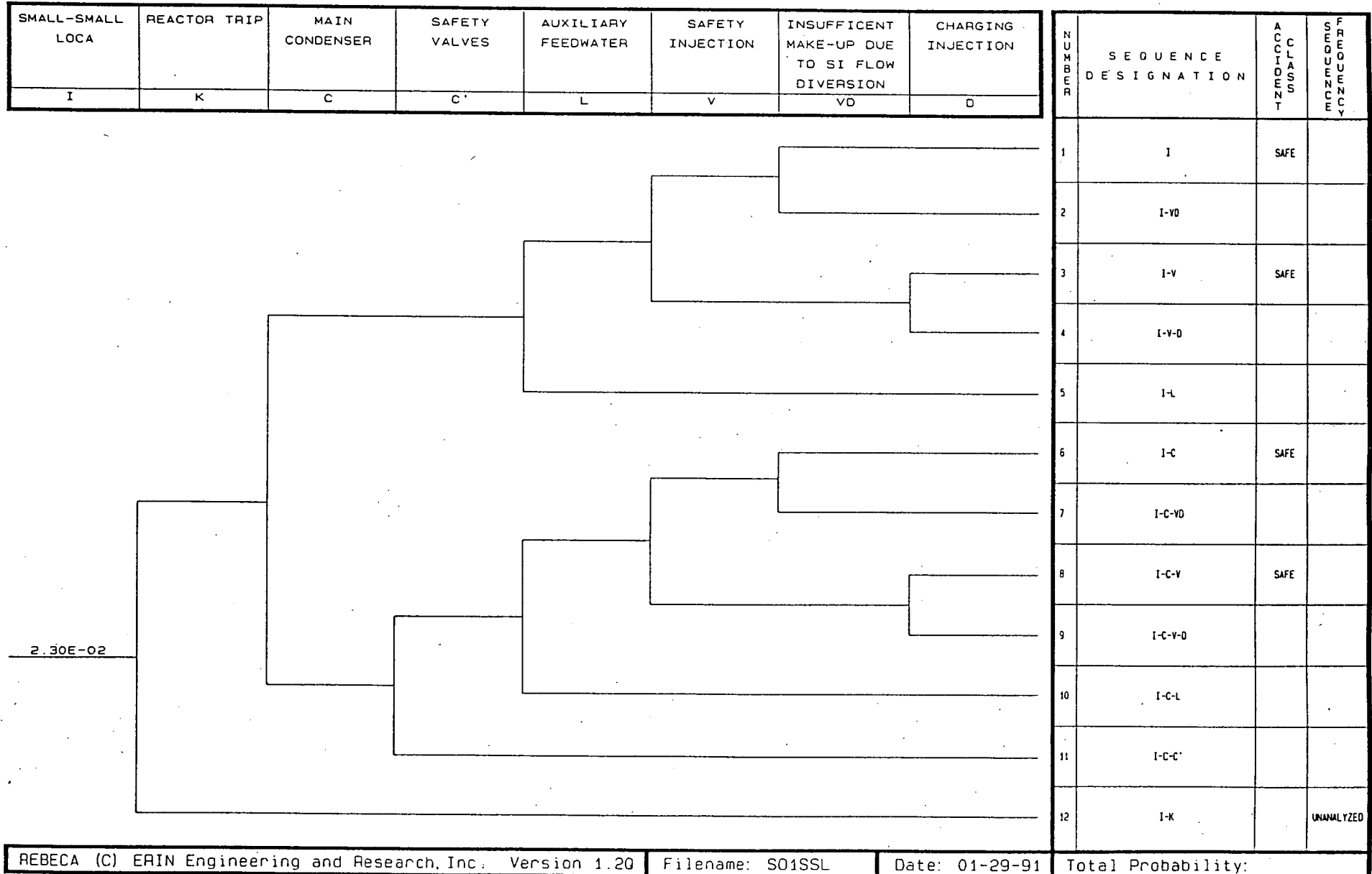
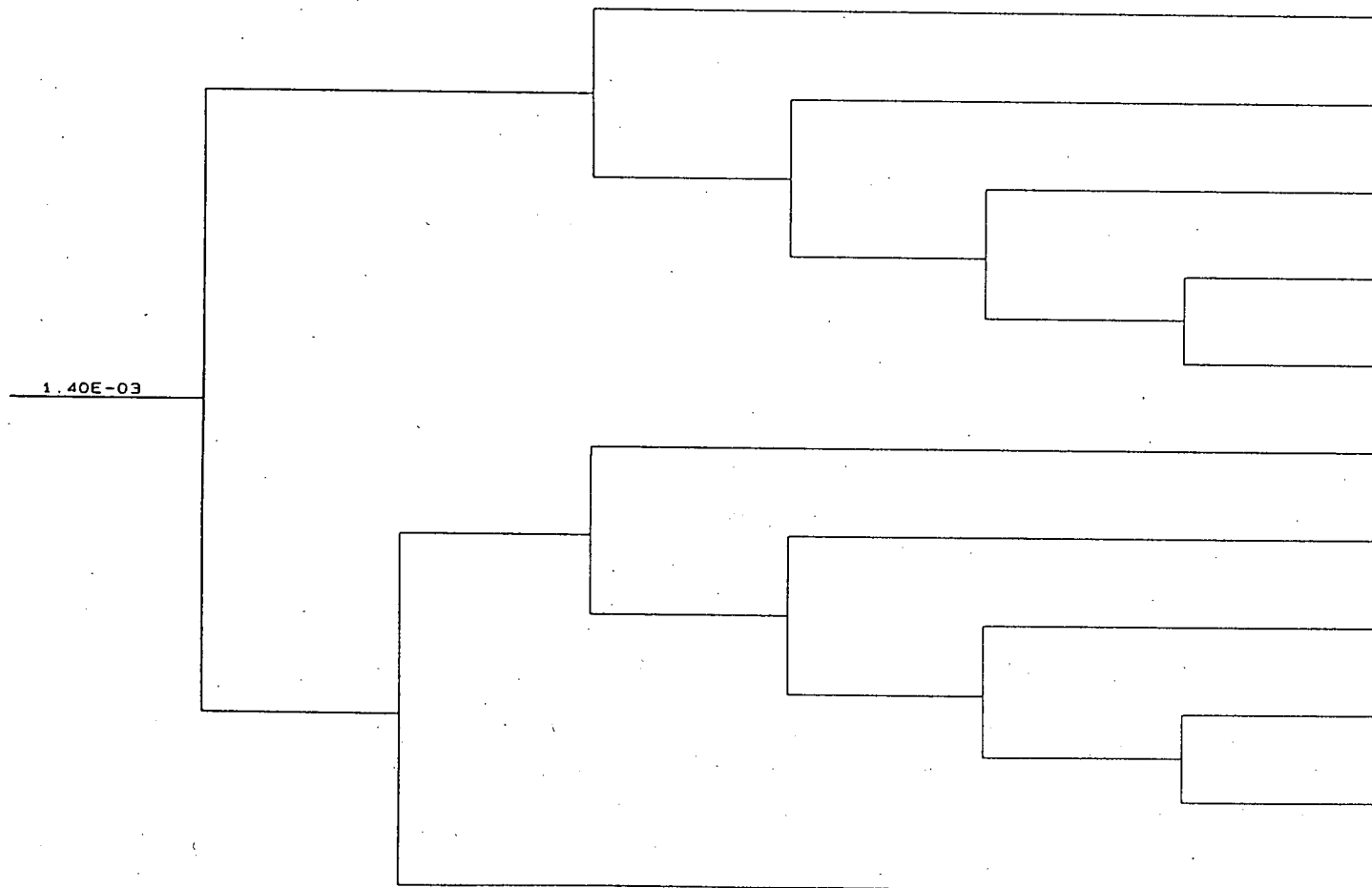


FIGURE 5

SONGS 1 - LOSS OF CCW EVENT TREE

LOSS OF CCW DUE TO LOSS OF BOTH CCW HEAT EXCH.	AUXILIARY FEEDWATER -SECONDARY COOLING	EMERGENCY CONDENSATE	CHARGING INJECTION TO RCP SEALS	CCW RECOVERY PRIOR TO LOSS OF RCP SEAL COOLING	SEAL COOLING RECOVERY PRIOR TO SEAL LOCA	SAFETY INJECTION
TC	F	C	D	C1	V1	V

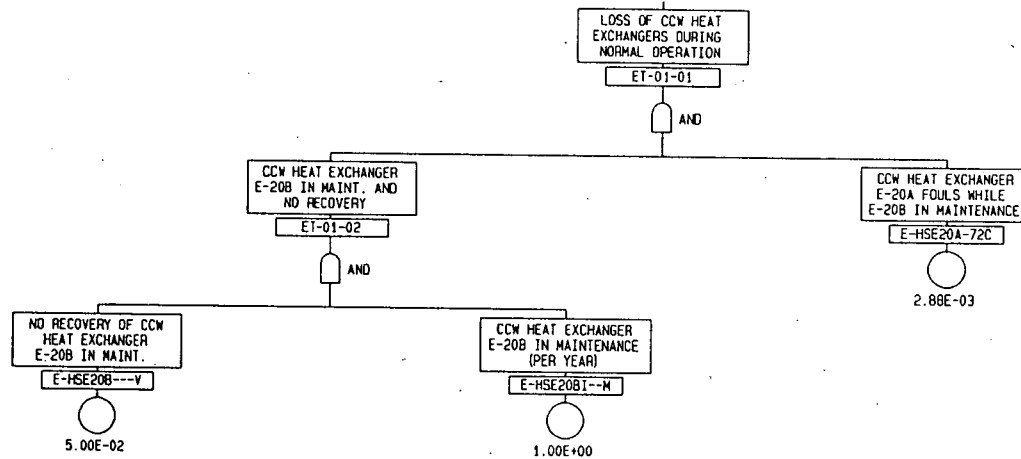


H U M B E R	S E Q U E N C E D E S I G N A T I O N	A C C I D E N T	F R E Q U E N C Y
1	TC	SAFE	
2	TC-D	SAFE	
3	TC-D-C1	SAFE	
4	TC-D-C1-V1	SAFE	
5	TC-D-C1-V1-V		
6	TC-F	SAFE	
7	TC-F-D	SAFE	
8	TC-F-D-C1	SAFE	
9	TC-F-D-C1-V1	SAFE	
10	TC-F-D-C1-V1-V		
11	TC-F-C		

FIGURE 6

SONGS 1 - LOSS OF CCW HEAT EXCHANGER INITIATOR

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APPENDIX A

Quantified Event Trees

72 HOUR AOT CASE

SONGS 1 - LARGE BREAK LOCA EVENT TREE

LARGE LOCA	REACTOR TRIP	SAFETY INJECTION	RECIRCULATION	NUMBER	SEQUENCE DESIGNATION	ACCIDENT CLASS	FREQUENCY
LL	K	V	Q				
				1	LL	SAFE	
				2	LL-Q		8.83E-06
				3	LL-V		3.48E-06
				4	LL-K		UNANALYZED

7 DAY AOT CASE

SONGS 1 - LARGE BREAK LOCA EVENT TREE

LARGE LOCA	REACTOR TRIP	SAFETY INJECTION	RECIRCULATION	NUMBER	SEQUENCE DESIGNATION	ACCIDENT CLASS	SEQUENCE FREQUENCY		
LL	K	V	Q						
				1	LL	SAFE			
				2	LL-Q		8.83E-06		
				3	LL-V		3.48E-06		
				4	LL-K		UNANALYZED		
REBECA (C) ERIN Engineering and Research, Inc. Version 1.20				Filename: S01LL		Date: 04-12-91		Total Probability: 1.23E-05	

31 DAY AOT CASE

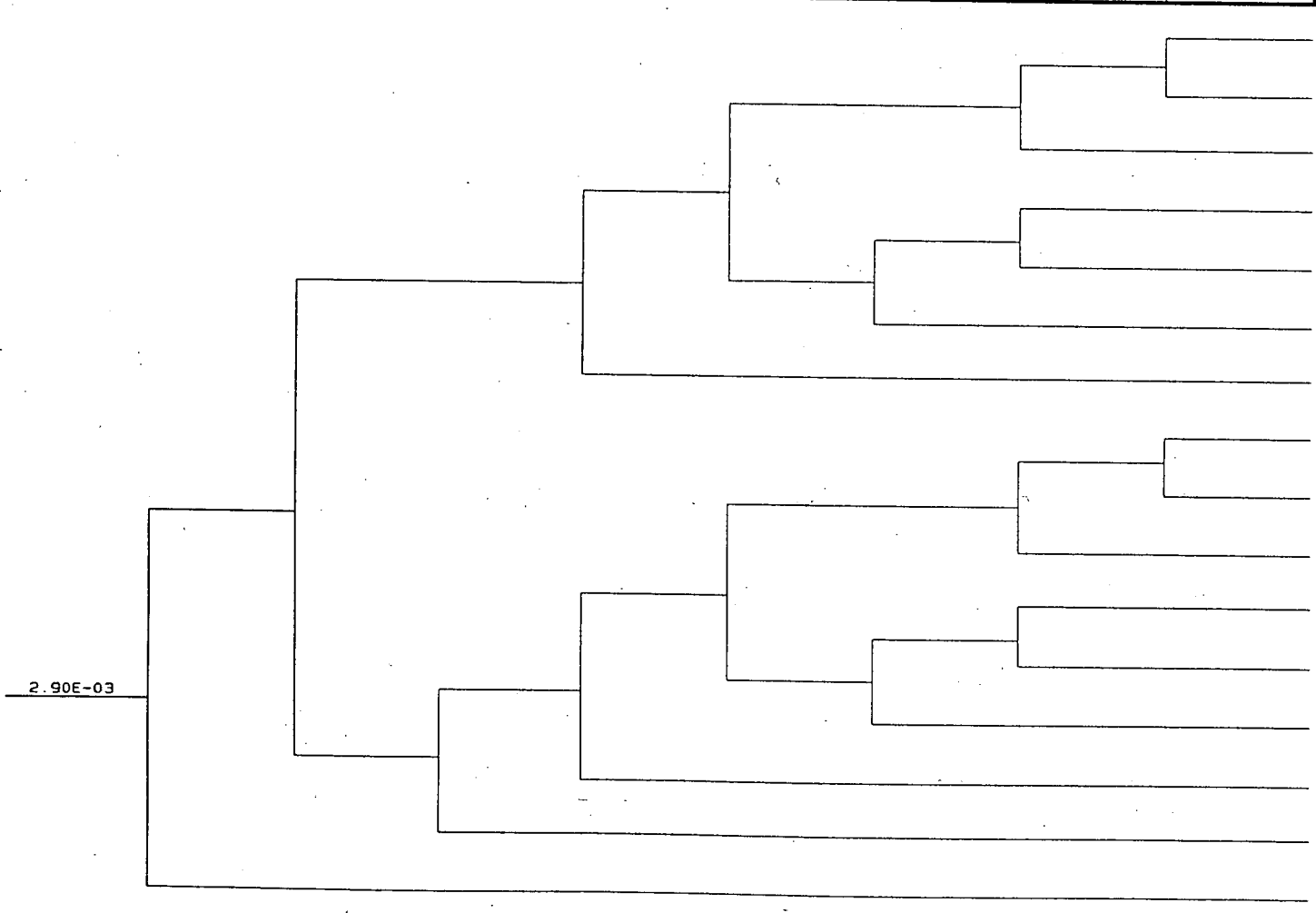
SONGS 1 - LARGE BREAK LOCA EVENT TREE

LARGE LOCA	REACTOR TRIP	SAFETY INJECTION	RECIRCULATION	NUMBER	SEQUENCE DESIGNATION	ACCIDENT CLASS	FREQUENCY
LL	K	V	Q				
				1	LL	SAFE	
				2	LL-Q		8.85E-06
				3	LL-V		3.48E-06
				4	LL-K		UNANALYZED

72 HOUR AOT CASE

SONGS 1 - SMALL BREAK LOCA

SMALL LOCA	REACTOR TRIP REACTIVITY CONTROL	CONDENSER AVAILABLE - SECONDARY HEAT REMOVAL	STM. GEN. SAFETY VLVS - SECONDARY HEAT REMOVAL	AUXILIARY FEEDWATER - SECONDARY MAKEUP	SAFETY INJECTION RCS MAKEUP	CHARGING INJECTION RCS MAKEUP	RECIRC SYSTEM	INSUFFICIENT RECIRC INVENTORY DUE TO SI DIVERSION
S	K	C	C*	L	V	D	O	VD

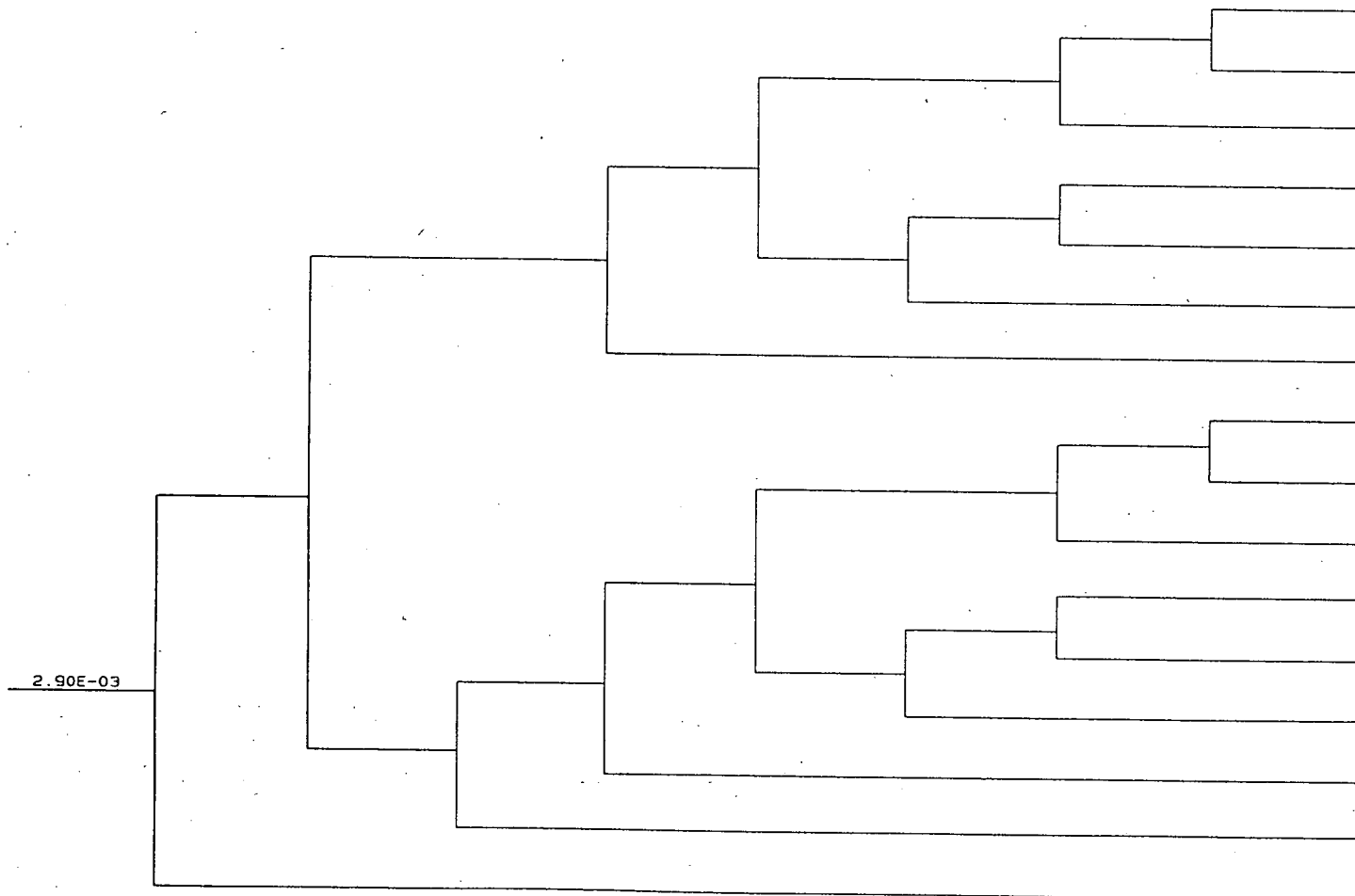


NUMBER	SEQUENCE DESIGNATION	ACCIDENT CLASS	FREQUENCY
1	S	SAFE	
2	S-VD	6	9.32E-07
3	S-O	1	2.33E-05
4	S-V	SAFE	
5	S-V-O	2	8.23E-08
6	S-V-D	3	6.32E-07
7	S-L	4	2.90E-08
8	S-C	SAFE	
9	S-C-VD	6	7.89E-09
10	S-C-O	5	2.05E-07
11	S-C-V	SAFE	
12	S-C-V-D	6	6.55E-10
13	S-C-V-O	7	5.62E-09
14	S-C-L	8	2.87E-10
15	S-C-C*		0.00E+00
16	S-K		UNANALYZED

7 DAY AOT CASE

SONGS 1 - SMALL BREAK LOCA

SMALL LOCA	REACTOR TRIP REACTIVITY CONTROL	CONDENSER AVAILABLE - SECONDARY HEAT REMOVAL	STM. GEN. SAFETY VLVS - SECONDARY HEAT REMOVAL	AUXILIARY FEEDWATER - SECONDARY MAKEUP	SAFETY INJECTION RCS MAKEUP	CHARGING INJECTION RCS MAKEUP	RECIRC SYSTEM	INSUFFICIENT RECIRC INVENTORY DUE TO SI DIVERSION
S	K	C	C*	L	V	D	O	VD

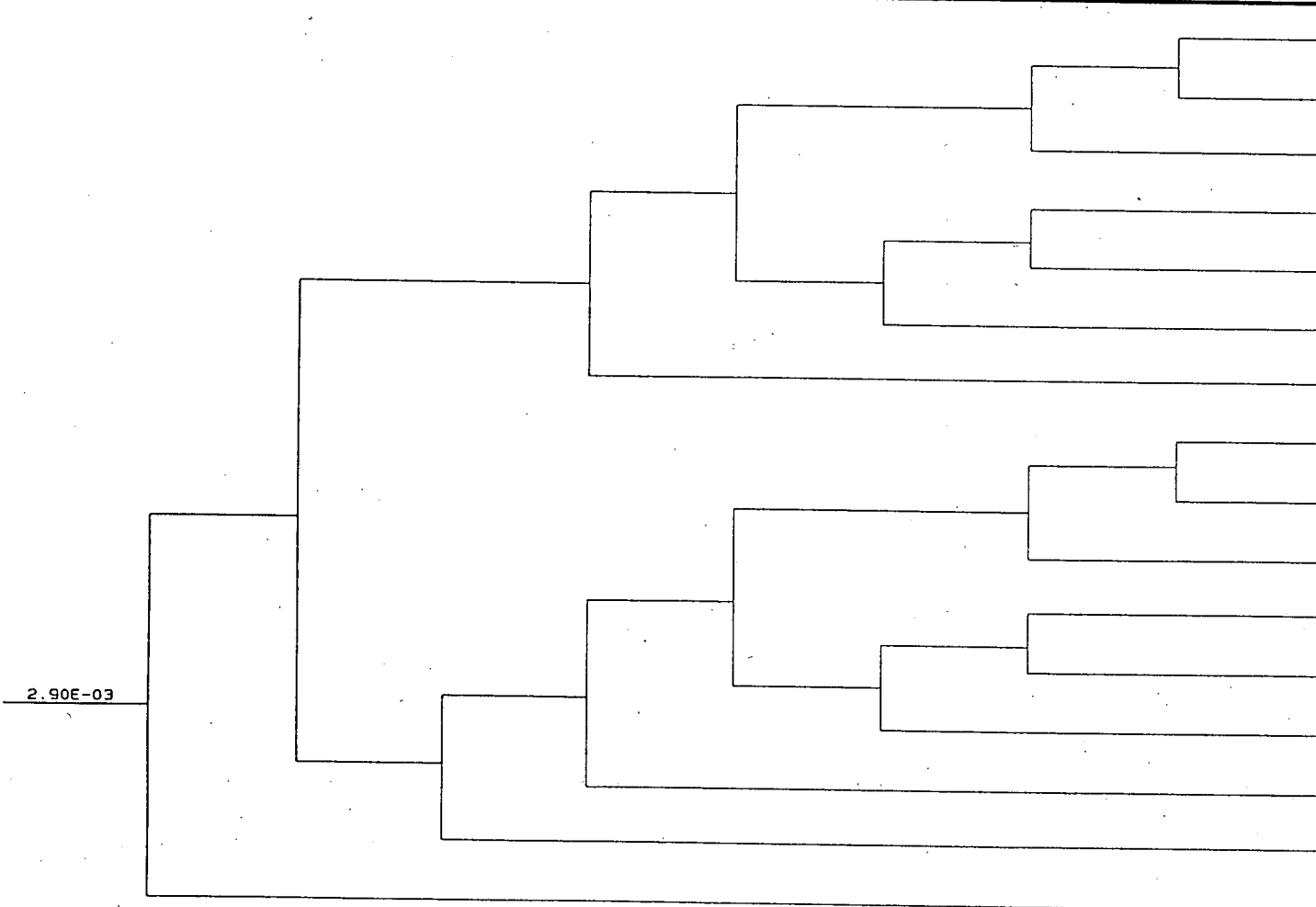


NUMBER	SEQUENCE DESIGNATION	ACCIDENT	SEQUENCE FREQUENCY
1	S	SAFE	
2	S-VD	6	9.32E-07
3	S-O	1	2.33E-05
4	S-V	SAFE	
5	S-V-O	2	8.23E-08
6	S-V-D	3	6.32E-07
7	S-L	4	2.90E-08
8	S-C	SAFE	
9	S-C-VD	6	7.89E-09
10	S-C-O	5	2.05E-07
11	S-C-V	SAFE	
12	S-C-V-D	6	6.55E-10
13	S-C-V-O	7	5.62E-09
14	S-C-L	8	2.87E-10
15	S-C-C*		0.00E+00
16	S-K		UNANALYZED

31 DAY AOT CASE

SONGS 1 - SMALL BREAK LOCA

SMALL LOCA	REACTOR TRIP REACTIVITY CONTROL	CONDENSER AVAILABLE - SECONDARY HEAT REMOVAL	STM. GEN. SAFETY VLVS - SECONDARY HEAT REMOVAL	AUXILIARY FEEDWATER - SECONDARY MAKEUP	SAFETY INJECTION RCS MAKEUP	CHARGING INJECTION RCS MAKEUP	RECIRC SYSTEM	INSUFFICIENT RECIRC INVENTORY DUE TO SI DIVERSION
S	K	C	C*	L	V	D	Q	VD

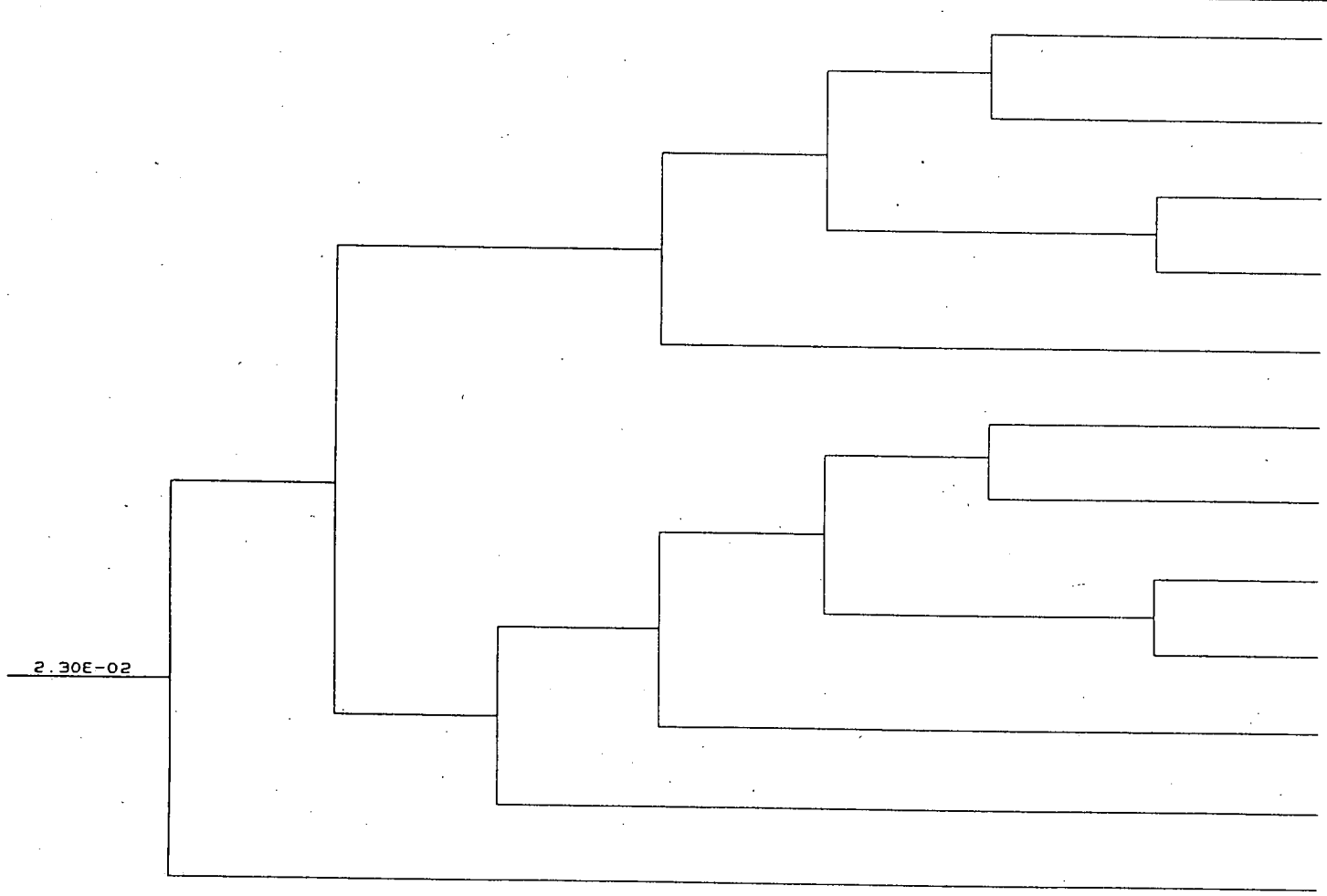


NUMBER	SEQUENCE DESIGNATION	ACCIDENT CLASS	SEQUENCE FREQUENCY
1	S	SAFE	
2	S-VD	6	9.32E-07
3	S-Q	1	2.34E-05
4	S-V	SAFE	
5	S-V-Q	2	8.23E-08
6	S-V-D	3	6.32E-07
7	S-L	4	2.90E-08
8	S-C	SAFE	
9	S-C-VD	6	7.89E-09
10	S-C-Q	5	2.05E-07
11	S-C-V	SAFE	
12	S-C-V-D	6	6.55E-10
13	S-C-V-Q	7	5.62E-09
14	S-C-L	8	2.87E-10
15	S-C-C*		0.00E+00
16	S-K		UNANALYZED

72 HOUR AOT CASE

SONGS 1 - SMALL-SMALL LOCA EVENT TREE

SMALL-SMALL LOCA	REACTOR TRIP	MAIN CONDENSER	SAFETY VALVES	AUXILIARY FEEDWATER	SAFETY INJECTION	INSUFFICIENT MAKE-UP DUE TO SI FLOW DIVERSION	CHARGING INJECTION
I	K	C	C	L	V	VD	D

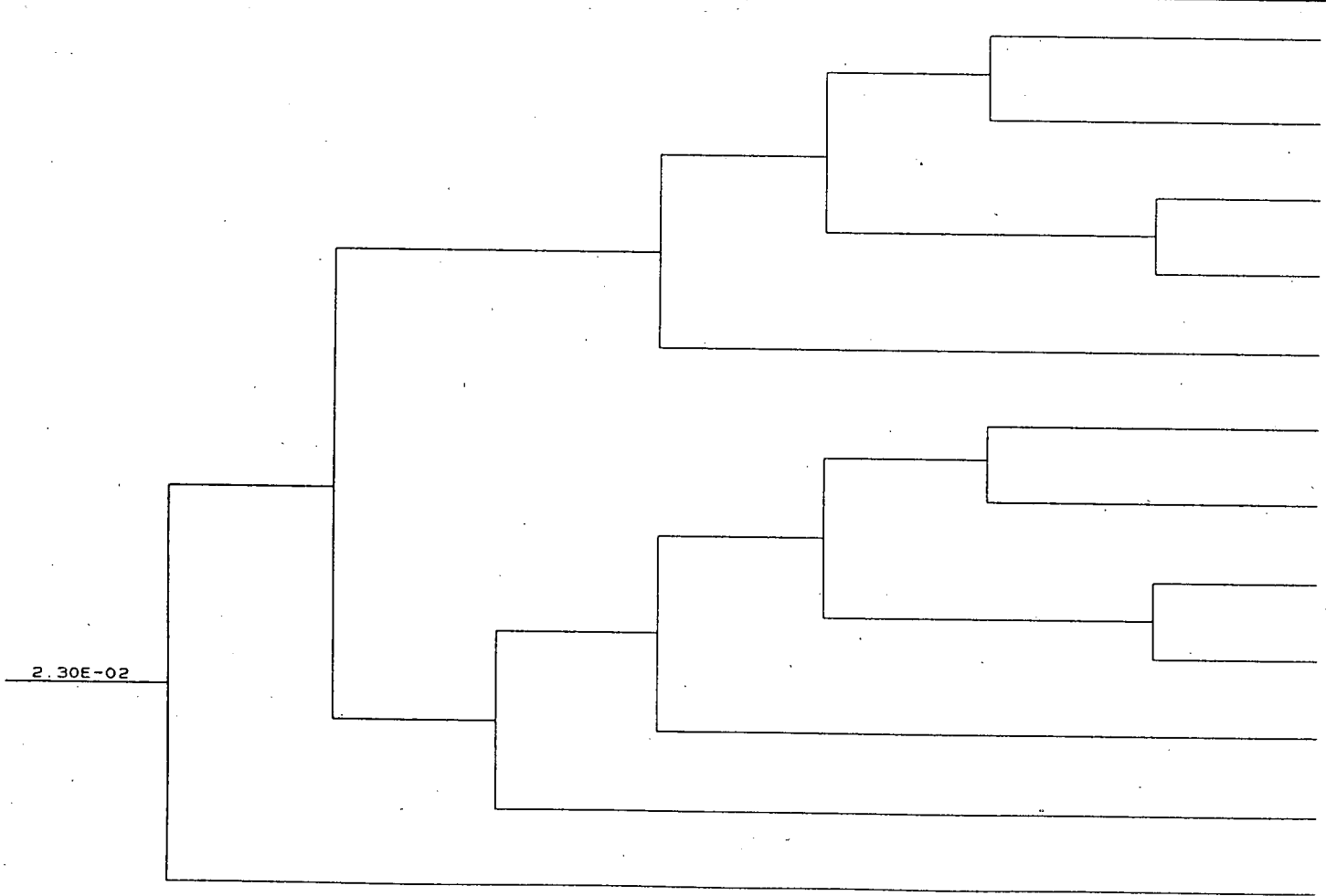


NUMBER	SEQUENCE DESIGNATION	ACCIDENT	SEQUENCE FREQUENCY
1	I	SAFE	
2	I-VD		7.39E-06
3	I-V	SAFE	
4	I-V-D		2.09E-06
5	I-L		2.30E-07
6	I-C	SAFE	
7	I-C-VD		6.67E-08
8	I-C-V	SAFE	
9	I-C-V-D		1.53E-08
10	I-C-L		2.30E-09
11	I-C-C		0.00E+00
12	I-K		UNANALYZED

7 DAY AOT CASE

SONGS 1 - SMALL-SMALL LOCA EVENT TREE

SMALL-SMALL LOCA	REACTOR TRIP	MAIN CONDENSER	SAFETY VALVES	AUXILIARY FEEDWATER	SAFETY INJECTION	INSUFFICIENT MAKE-UP DUE TO SI FLOW DIVERSION	CHARGING INJECTION
I	K	C	C	L	V	VD	D

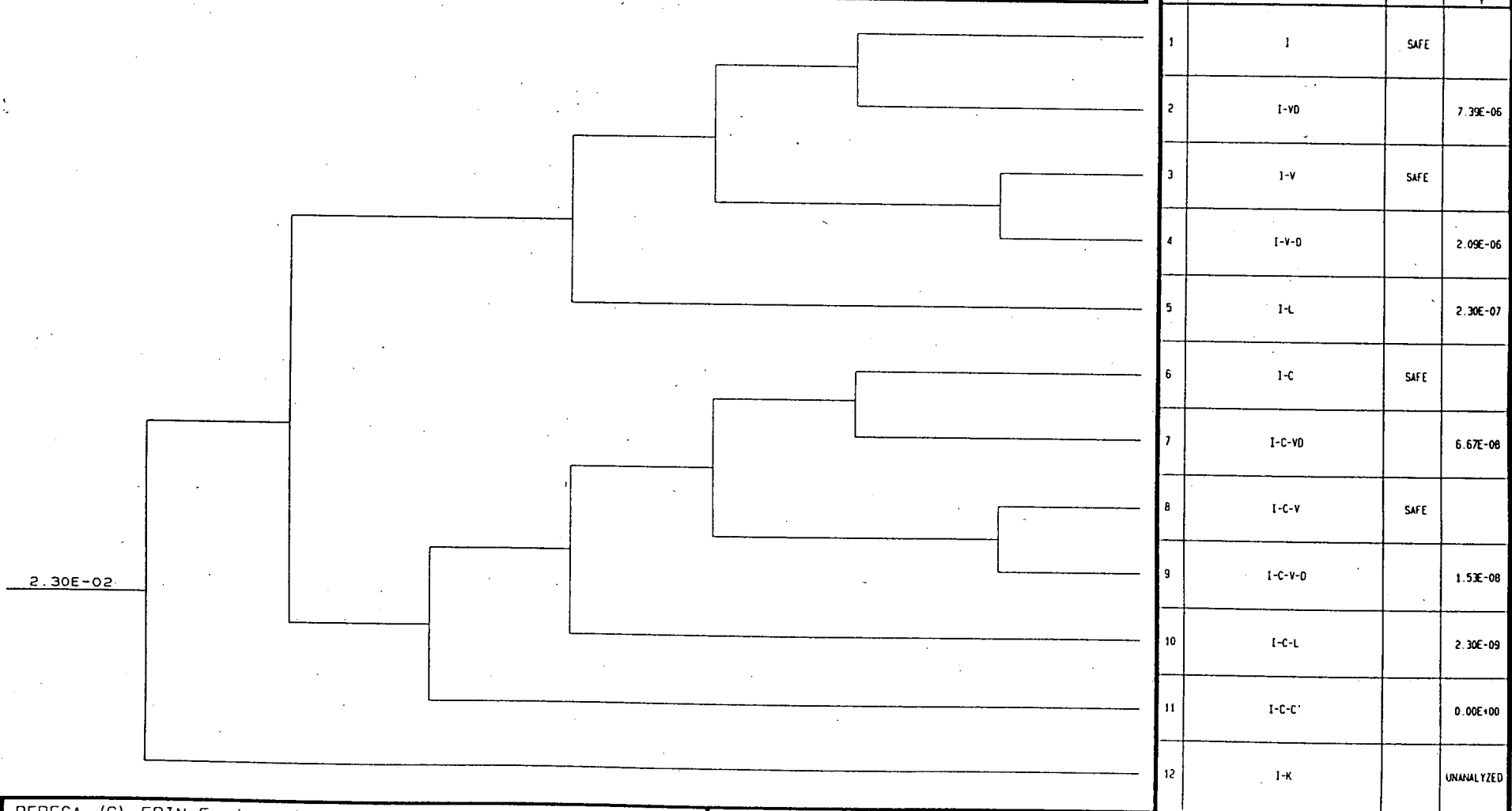


NUMBER	SEQUENCE DESIGNATION	ACCIDENT	SEQUENCE FREQUENCY
1	I	SAFE	
2	I-VD		7.39E-06
3	I-V	SAFE	
4	I-V-D		2.09E-06
5	I-L		2.30E-07
6	I-C	SAFE	
7	I-C-VD		6.67E-08
8	I-C-V	SAFE	
9	I-C-V-D		1.53E-08
10	I-C-L		2.30E-09
11	I-C-C		0.00E+00
12	I-K		UNANALYZED

31 DAY AOT CASE

SONGS 1 - SMALL-SMALL LOCA EVENT TREE

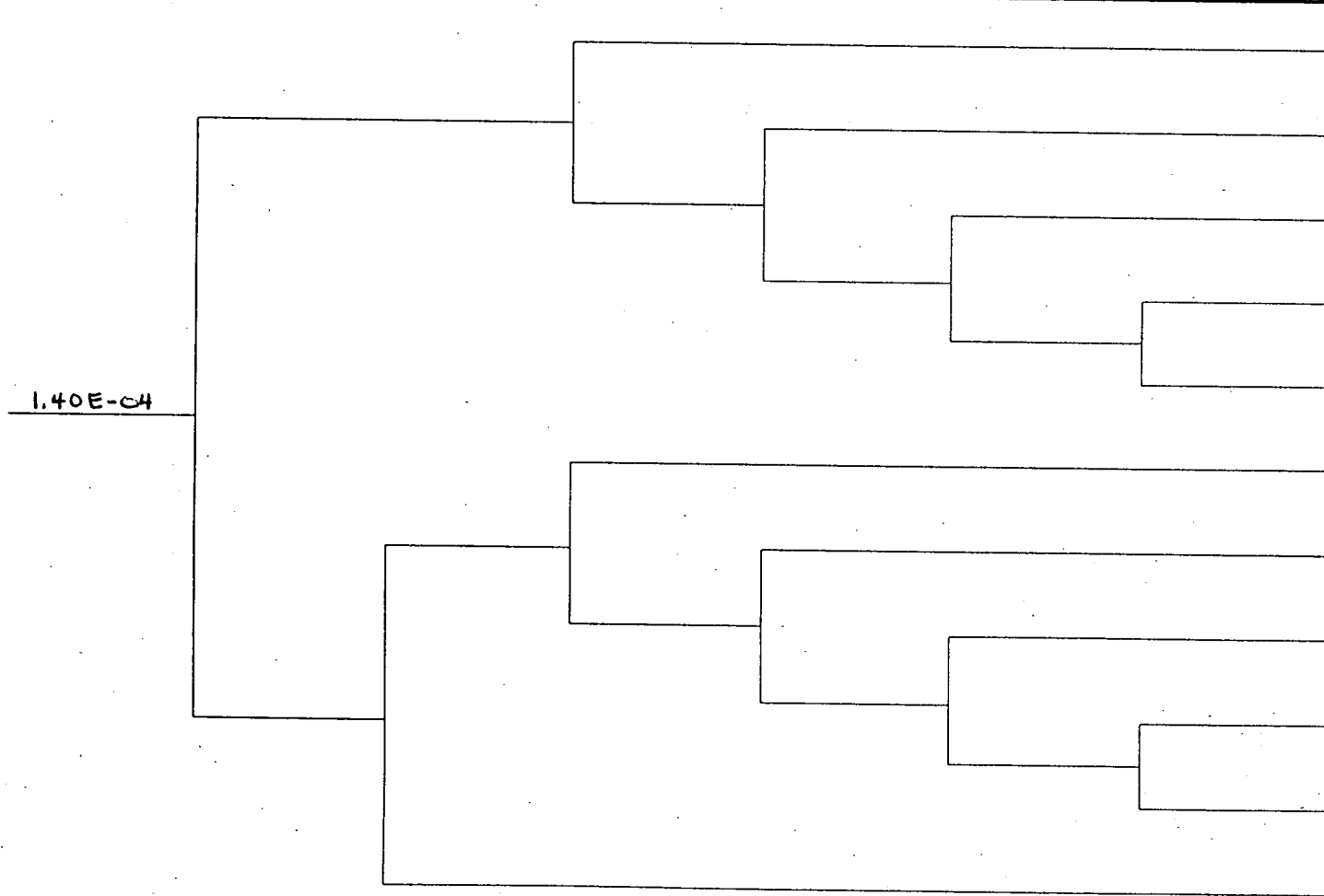
SMALL-SMALL LOCA	REACTOR TRIP	MAIN CONDENSER	SAFETY VALVES	AUXILIARY FEEDWATER	SAFETY INJECTION	INSUFFICIENT MAKE-UP DUE TO SI FLOW DIVERSION	CHARGING INJECTION
I	K	C	C	L	V	VD	D



72 HOUR AOT CASE

SONGS 1 - LOSS OF CCW EVENT TREE

LOSS OF CCW DUE TO LOSS OF BOTH CCW HEAT EXCH.	AUXILIARY FEEDWATER -SECONDARY COOLING	EMERGENCY CONDENSATE	CHARGING INJECTION TO RCP SEALS	CCW RECOVERY PRIOR TO LOSS OF RCP SEAL COOLING	SEAL COOLING RECOVERY PRIOR TO SEAL LOCA	SAFETY INJECTION
TC	F	C	D	C1	V1	V

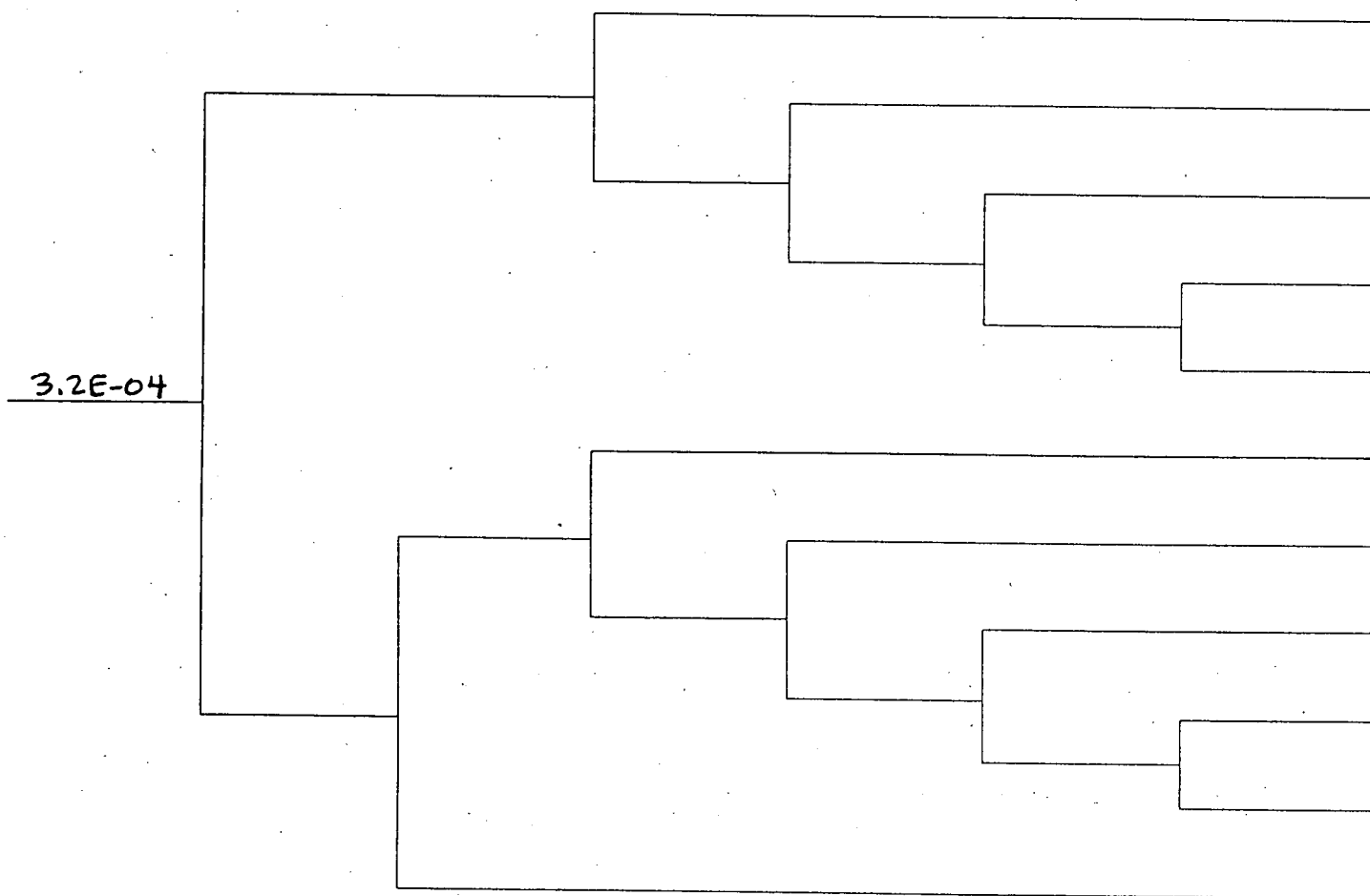


NUMBER	SEQUENCE DESIGNATION	ACCIDENT	SEQUENCE
1	TC	SAFE	
2	TC-D	SAFE	
3	TC-D-C1	SAFE	
4	TC-D-C1-V1	SAFE	
5	TC-D-C1-V1-V		1.04 E-08
6	TC-F	SAFE	
7	TC-F-D	SAFE	
8	TC-F-D-C1	SAFE	
9	TC-F-D-C1-V1	SAFE	
10	TC-F-D-C1-V1-V		3.49 E-15
11	TC-F-C		7.00 E-10

7 DAY AOT CASE

SONGS 1 - LOSS OF CCW EVENT TREE

LOSS OF CCW DUE TO LOSS OF BOTH CCW HEAT EXCH.	AUXILIARY FEEDWATER -SECONDARY COOLING	EMERGENCY CONDENSATE	CHARGING INJECTION TO RCP SEALS	CCW RECOVERY PRIOR TO LOSS OF RCP SEAL COOLING	SEAL COOLING RECOVERY PRIOR TO SEAL LOCA	SAFETY INJECTION
TC	F	C	D	C1	V1	V



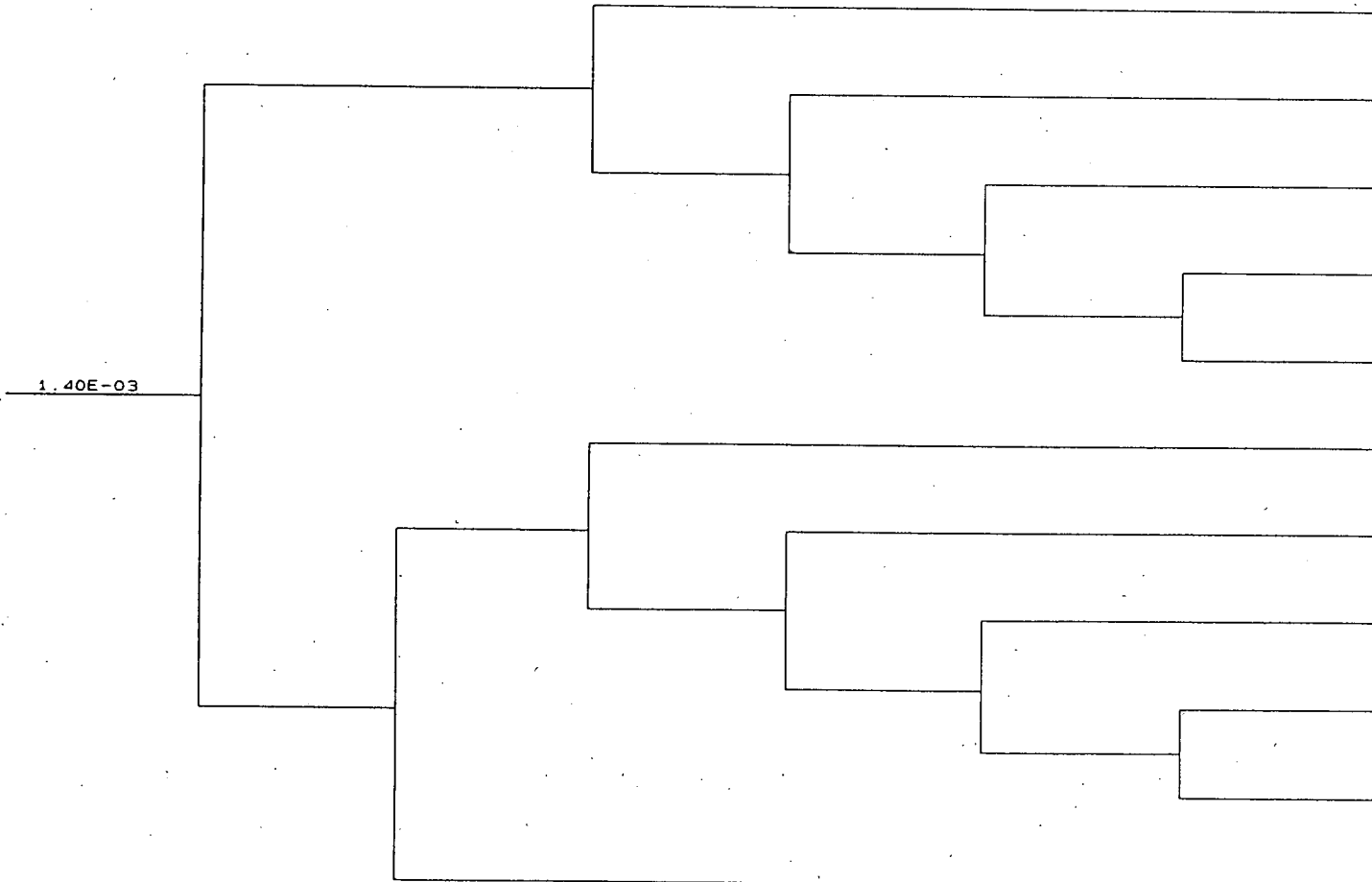
NUMBER	SEQUENCE DESIGNATION	ACCIDENT CLASS	SEQUENCE FREQUENCY
1	TC	SAFE	
2	TC-D	SAFE	
3	TC-D-C1	SAFE	
4	TC-D-C1-V1	SAFE	
5	TC-D-C1-V1-V		2.38 E-08
6	TC-F	SAFE	
7	TC-F-D	SAFE	
8	TC-F-D-C1	SAFE	
9	TC-F-D-C1-V1	SAFE	
10	TC-F-D-C1-V1-V		7.98 E-15
11	TC-F-C		1.60 E-09

31 DAY AOT CASE

SONGS 1 - LOSS OF CCW EVENT TREE

LOSS OF CCW DUE TO LOSS OF BOTH CCW HEAT EXCH.	AUXILIARY FEEDWATER -SECONDARY COOLING	EMERGENCY CONDENSATE	CHARGING INJECTION TO RCP SEALS	CCW RECOVERY PRIOR TO LOSS OF RCP SEAL COOLING	SEAL COOLING RECOVERY PRIOR TO SEAL LOCA	SAFETY INJECTION
TC	F	C	D	C1	V1	V

NUMBER	SEQUENCE DESIGNATION	ACCLASST	FREQUENCY
1	TC	SAFE	
2	TC-D	SAFE	
3	TC-D-C1	SAFE	
4	TC-D-C1-V1	SAFE	
5	TC-D-C1-V1-V		1.04E-07
6	TC-F	SAFE	
7	TC-F-D	SAFE	
8	TC-F-D-C1	SAFE	
9	TC-F-D-C1-V1	SAFE	
10	TC-F-D-C1-V1-V		3.49E-14
11	TC-F-C		7.00E-09



APPENDIX B

Dominant Cutsets from Event Tree Quantification

(31 DAY AOT CASE)

Top Event: S01LL02 Top Event Probability: 8.850E-06

This file was created on 4-12-1991 at 10:24:37

Rank	Cutset Importance	Cutset Probability	
1	4.972E-01	4.400E-06	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	QASYRECIR--U	5.000E-03	- OPERATORS FAIL TO COMPLETE RECIRC PROCEDURE IN TIME
2	1.362E-01	1.206E-06	
	E-MPCC0001-R	1.370E-03	- COMMON CAUSE FAILURE -MP-R --> G15A, G15B, AND G15C
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
3	1.306E-01	1.156E-06	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-MPCC0030-R	2.627E-03	- COMMON CAUSE FAILURE -MP-R --> G45A AND G45B
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
4	1.541E-02	1.364E-07	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-AVCC0001-P	3.100E-04	- CCF OF RECIRC HX INLET MOVS 737A & B TO OPEN
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
5	1.536E-02	1.360E-07	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-MPCC0010-S	3.090E-04	- COMMON CAUSE FAILURE -MP-S --> G45A AND G45B
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
5	1.536E-02	1.360E-07	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-C3CC0006-N	3.090E-04	- COMMON CAUSE FAILURE -C3-N --> 1107 AND 1207
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
5	1.536E-02	1.360E-07	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-MSCC0002-J	3.090E-04	- COMMON CAUSE FAILURE -MS-J --> 866A AND 866B
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
6	1.357E-02	1.201E-07	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-MVCC0002-P	2.730E-04	- COMMON CAUSE FAILURE -MV-P --> 866A AND 866B
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

Top Event: S01LL02 Top Event Probability: 8.850E-06

This file was created on 4-12-1991 at 10:24:37

Rank	Cutset Importance	Cutset Probability	
7	1.074E-02	9.504E-08	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-HTE11----C	2.160E-04	- HEAT EXCHANGER (TUBE) E11 PLUGGED/FOULED
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
7	1.074E-02	9.504E-08	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-AV517/8--U	1.000E-02	- OPERATORS FAIL TO CLOSE CV-517 OR CV-518 PER PROCEDURE
	Q-MPG45A-4WR	2.160E-02	- MTR-DRIVEN PP G45A FT RUN FOR 720 HRS
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
7	1.074E-02	9.504E-08	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-AV517/8--U	1.000E-02	- OPERATORS FAIL TO CLOSE CV-517 OR CV-518 PER PROCEDURE
	Q-MPG45B-4WR	2.160E-02	- MTR-DRIVEN PP G45B FT RUN FOR 720 HOURS
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
8	5.370E-03	4.752E-08	
	E-TANKC17--E	5.400E-05	- CCW SYSTEM LEAK DEPLETES SURGE TANK SUPPLY OVER 30 DAYS
	E-TKC17----V	1.000E+00	- OPERATOR FAILS TO SUPPLY MAKEUP TO TANK, GIVEN LOW LEVEL
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
9	4.972E-03	4.400E-08	
	E-XV389----X	1.000E-04	- MANUAL VLV CCW-389 LEFT INOP POST-MAINT
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
9	4.972E-03	4.400E-08	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-AV517/8--U	1.000E-02	- OPERATORS FAIL TO CLOSE CV-517 OR CV-518 PER PROCEDURE
	Q-MPG27X---U	1.000E-02	- OPR FAILS TO STOP ONE REFUELING PP PER PROCEDURE
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
10	3.974E-03	3.516E-08	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-MPG45A---M	3.700E-03	- RECIRC PMP G-45A OUT OF SERVICE FOR MAINT
	Q-MPG45B-4WR	2.160E-02	- MTR-DRIVEN PP G45B FT RUN FOR 720 HOURS
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

Top Event: S01LL02 Top Event Probability: 8.850E-06

This file was created on 4-12-1991 at 10:24:37

Rank	Cutset Importance	Cutset Probability	
10	3.974E-03	3.516E-08	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-MPG45A-4WR	2.160E-02	- MTR-DRIVEN PP G45A FT RUN FOR 720 HRS
	Q-MPG45B---M	3.700E-03	- RECIRC PUMP G-45B OUT OF SERVICE FOR MAINT
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
11	3.222E-03	2.851E-08	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-AV518----N	3.000E-03	- AIR-OPERATED VLV CV-518 FT CLOSE ON DEMAND
	Q-MPG45B-4WR	2.160E-02	- MTR-DRIVEN PP G45B FT RUN FOR 720 HOURS
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
11	3.222E-03	2.851E-08	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-C31207---N	3.000E-03	- BKR (CONTROL) 480V 1207 FT CLOSE ON DEMAND
	Q-MPG45A-4WR	2.160E-02	- MTR-DRIVEN PP G45A FT RUN FOR 720 HRS
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
11	3.222E-03	2.851E-08	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-MPG45A-4WR	2.160E-02	- MTR-DRIVEN PP G45A FT RUN FOR 720 HRS
	Q-MV866B---P	3.000E-03	- MTR-OPERATED VLV MOV-866B FT OPEN ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
11	3.222E-03	2.851E-08	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-C31107---N	3.000E-03	- BKR (CONTROL) 480V 1107 FT CLOSE ON DEMAND
	Q-MPG45B-4WR	2.160E-02	- MTR-DRIVEN PP G45B FT RUN FOR 720 HOURS
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
11	3.222E-03	2.851E-08	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-AV517----N	3.000E-03	- AIR-OPERATED VLV CV-517 FT CLOSE ON DEMAND
	Q-MPG45A-4WR	2.160E-02	- MTR-DRIVEN PP G45A FT RUN FOR 720 HRS
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
11	3.222E-03	2.851E-08	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-MPG45A-4WR	2.160E-02	- MTR-DRIVEN PP G45A FT RUN FOR 720 HRS
	Q-MPG45B---S	3.000E-03	- MTR-DRIVEN PP G45B FT START ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

Top Event: S01LL02 Top Event Probability: 8.850E-06

This file was created on 4-12-1991 at 10:24:37

Rank	Cutset Importance	Cutset Probability
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11 3.222E-03 2.851E-08

INIT-LL--LL 8.800E-04 - INITIATING EVENT LL FOR EVENT TREE 'S01LL'
Q-MPG45A---S 3.000E-03 - MTR-DRIVEN PP G45A FT START ON DEMAND
Q-MPG45B-4WR 2.160E-02 - MTR-DRIVEN PP G45B FT RUN FOR 720 HOURS
Q-SYRHR----U 5.000E-01 - FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

11 3.222E-03 2.851E-08

INIT-LL--LL 8.800E-04 - INITIATING EVENT LL FOR EVENT TREE 'S01LL'
Q-AV518----N 3.000E-03 - AIR-OPERATED VLV CV-518 FT CLOSE ON DEMAND
Q-MPG45A-4WR 2.160E-02 - MTR-DRIVEN PP G45A FT RUN FOR 720 HRS
Q-SYRHR----U 5.000E-01 - FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

11 3.222E-03 2.851E-08

INIT-LL--LL 8.800E-04 - INITIATING EVENT LL FOR EVENT TREE 'S01LL'
Q-MPG45A-4WR 2.160E-02 - MTR-DRIVEN PP G45A FT RUN FOR 720 HRS
Q-MS866B---J 3.000E-03 - MTR STARTER MOV-866B FT ACTUATE ON DEMAND
Q-SYRHR----U 5.000E-01 - FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

11 3.222E-03 2.851E-08

INIT-LL--LL 8.800E-04 - INITIATING EVENT LL FOR EVENT TREE 'S01LL'
Q-MPG45B-4WR 2.160E-02 - MTR-DRIVEN PP G45B FT RUN FOR 720 HOURS
Q-MV866A---P 3.000E-03 - MTR-OPERATED VLV MOV-866A FT OPEN ON DEMAND
Q-SYRHR----U 5.000E-01 - FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

11 3.222E-03 2.851E-08

INIT-LL--LL 8.800E-04 - INITIATING EVENT LL FOR EVENT TREE 'S01LL'
Q-AV517----N 3.000E-03 - AIR-OPERATED VLV CV-517 FT CLOSE ON DEMAND
Q-MPG45B-4WR 2.160E-02 - MTR-DRIVEN PP G45B FT RUN FOR 720 HOURS
Q-SYRHR----U 5.000E-01 - FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

11 3.222E-03 2.851E-08

INIT-LL--LL 8.800E-04 - INITIATING EVENT LL FOR EVENT TREE 'S01LL'
Q-MPG45B-4WR 2.160E-02 - MTR-DRIVEN PP G45B FT RUN FOR 720 HOURS
Q-MS866A---J 3.000E-03 - MTR STARTER MOV-866A FT ACTUATE ON DEMAND
Q-SYRHR----U 5.000E-01 - FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

12 2.486E-03 2.200E-08

DASV115X1--U 5.000E-02 - OP FTA N2 TO SV1115 AD,BE,CF PER PROCED/IMMED LOCA
INIT-LL--LL 8.800E-04 - INITIATING EVENT LL FOR EVENT TREE 'S01LL'
Q-SYRHR----U 5.000E-01 - FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
U-OOCNDLP--Z 1.000E-03 - CONDITIONAL LOSS OF OFFSITE POWER GIVEN TURBINE TRIP

Top Event: S01LL02 Top Event Probability: 8.850E-06

This file was created on 4-12-1991 at 10:24:37

Rank	Cutset Importance	Cutset Probability	
13	2.148E-03	1.901E-08	
	E-CV322----N	1.000E-03	- CHECK VALVE CCW-322 FT CLOSE ON DEMAND
	E-MPG15A-4WR	2.160E-02	- MTR-DRIVEN PP G15A FT RUN FOR 720 HOURS CCW SUPPLY
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
14	1.840E-03	1.628E-08	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-AV517/8--U	1.000E-02	- OPERATORS FAIL TO CLOSE CV-517 OR CV-518 PER PROCEDURE
	Q-MPG45A---M	3.700E-03	- RECIRC PMP G-45A OUT OF SERVICE FOR MAINT
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
14	1.840E-03	1.628E-08	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-AV517/8--U	1.000E-02	- OPERATORS FAIL TO CLOSE CV-517 OR CV-518 PER PROCEDURE
	Q-MPG45B---M	3.700E-03	- RECIRC PUMP G-45B OUT OF SERVICE FOR MAINT
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
15	1.824E-03	1.614E-08	
	E-HSE20B---M	8.490E-02	- CCW HX E-20B OUT OF SERVICE FOR MAINTENANCE
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	P-HTE20A-4WC	2.160E-04	- HEAT EXCHANGER (TUBE) CCW E-20A PLUGGED/FOULED
16	1.492E-03	1.320E-08	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-AV518----N	3.000E-03	- AIR-OPERATED VLV CV-518 FT CLOSE ON DEMAND
	Q-MPG27X---U	1.000E-02	- OPR FAILS TO STOP ONE REFUELING PP PER PROCEDURE
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
16	1.492E-03	1.320E-08	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-AV517----N	3.000E-03	- AIR-OPERATED VLV CV-517 FT CLOSE ON DEMAND
	Q-MPG27X---U	1.000E-02	- OPR FAILS TO STOP ONE REFUELING PP PER PROCEDURE
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
16	1.492E-03	1.320E-08	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-AV517/8--U	1.000E-02	- OPERATORS FAIL TO CLOSE CV-517 OR CV-518 PER PROCEDURE
	Q-C31207---N	3.000E-03	- BKR (CONTROL) 480V 1207 FT CLOSE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

Top Event: S01LL02 Top Event Probability: 8.850E-06

This file was created on 4-12-1991 at 10:24:37

Rank	Cutset Importance	Cutset Probability	
16	1.492E-03	1.320E-08	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-AV517/8--U	1.000E-02	- OPERATORS FAIL TO CLOSE CV-517 OR CV-518 PER PROCEDURE
	Q-C31107---N	3.000E-03	- BKR (CONTROL) 480V 1107 FT CLOSE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
16	1.492E-03	1.320E-08	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-AV517/8--U	1.000E-02	- OPERATORS FAIL TO CLOSE CV-517 OR CV-518 PER PROCEDURE
	Q-MPG45A---S	3.000E-03	- MTR-DRIVEN PP G45A FT START ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
16	1.492E-03	1.320E-08	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-AV517/8--U	1.000E-02	- OPERATORS FAIL TO CLOSE CV-517 OR CV-518 PER PROCEDURE
	Q-MS866B---J	3.000E-03	- MTR STARTER MOV-866B FT ACTUATE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
16	1.492E-03	1.320E-08	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-AV517/8--U	1.000E-02	- OPERATORS FAIL TO CLOSE CV-517 OR CV-518 PER PROCEDURE
	Q-MV866B---P	3.000E-03	- MTR-OPERATED VLV MOV-866B FT OPEN ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
16	1.492E-03	1.320E-08	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-AV517/8--U	1.000E-02	- OPERATORS FAIL TO CLOSE CV-517 OR CV-518 PER PROCEDURE
	Q-MPG45B---S	3.000E-03	- MTR-DRIVEN PP G45B FT START ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
16	1.492E-03	1.320E-08	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-AV517/8--U	1.000E-02	- OPERATORS FAIL TO CLOSE CV-517 OR CV-518 PER PROCEDURE
	Q-MS866A---J	3.000E-03	- MTR STARTER MOV-866A FT ACTUATE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
16	1.492E-03	1.320E-08	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-AV517/8--U	1.000E-02	- OPERATORS FAIL TO CLOSE CV-517 OR CV-518 PER PROCEDURE
	Q-MV866A---P	3.000E-03	- MTR-OPERATED VLV MOV-866A FT OPEN ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

Top Event: S01LL02 Top Event Probability: 8.850E-06

This file was created on 4-12-1991 at 10:24:37

Rank	Cutset Importance	Cutset Probability	
17	1.306E-03	1.156E-08	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-AV517/8--U	1.000E-02	- OPERATORS FAIL TO CLOSE CV-517 OR CV-518 PER PROCEDURE
	Q-MPCC0035-R	2.627E-03	- COMMON CAUSE FAILURE -MP-R --> G8A AND G8B
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
18	1.074E-03	9.504E-09	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-MPG45B-4WR	2.160E-02	- MTR-DRIVEN PP G45B FT RUN FOR 720 HOURS
	Q-SV3518---J	1.000E-03	- SOLENOID VALVE PY-3518 FT ACTUATE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
18	1.074E-03	9.504E-09	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-MPG45B-4WR	2.160E-02	- MTR-DRIVEN PP G45B FT RUN FOR 720 HOURS
	Q-SV2517---J	1.000E-03	- SOLENOID VALVE PV-2517 FT ACTUATE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
18	1.074E-03	9.504E-09	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-MPG45A-4WR	2.160E-02	- MTR-DRIVEN PP G45A FT RUN FOR 720 HRS
	Q-SV3518---J	1.000E-03	- SOLENOID VALVE PY-3518 FT ACTUATE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
18	1.074E-03	9.504E-09	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-MPG45A-4WR	2.160E-02	- MTR-DRIVEN PP G45A FT RUN FOR 720 HRS
	Q-SV2517---J	1.000E-03	- SOLENOID VALVE PV-2517 FT ACTUATE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
19	9.665E-04	8.554E-09	
	E-MPCC0006-R	2.627E-03	- COMMON CAUSE FAILURE -MP-R --> G15A AND G15C
	E-MPG15B---M	3.700E-03	- PUMP G-15B OUT OF SERVICE FOR MAINTENANCE
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
19	9.665E-04	8.554E-09	
	E-MPCC0005-R	2.627E-03	- COMMON CAUSE FAILURE -MP-R --> G15A AND G15B
	E-MPG15C---M	3.700E-03	- PUMP G-15C OUT OF SERVICE FOR MAINTENANCE
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'

Top Event: S01LL02 Top Event Probability: 8.850E-06

This file was created on 4-12-1991 at 10:24:37

Rank	Cutset Importance	Cutset Probability
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20 8.204E-04 7.260E-09

D-LOCAC---D 3.300E-01 - FLOW SPILLAGE FROM RCS LOOP C
DASV115XL--U 5.000E-02 - OP FTA N2 TO SV1115AD,BE,CF PER PROC/LATE LOA
INIT-LL--LL 8.800E-04 - INITIATING EVENT LL FOR EVENT TREE 'S01LL'
Q-SYRHR----U 5.000E-01 - FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
U-OOCNDLP--Z 1.000E-03 - CONDITIONAL LOSS OF OFFSITE POWER GIVEN TURBINE TRIP

21 7.837E-04 6.935E-09

INIT-LL--LL 8.800E-04 - INITIATING EVENT LL FOR EVENT TREE 'S01LL'
P-MPCC0011-R 2.627E-03 - COMMON CAUSE FAILURE -MP-R --> G13A AND G13B
P-SYSWC----V 3.000E-03 - OPER. FAILS TO RESPOND TO LOSS OF SWC

21 7.837E-04 6.935E-09

E-MPCC0005-R 2.627E-03 - COMMON CAUSE FAILURE -MP-R --> G15A AND G15B
E-MPG15C---S 3.000E-03 - MTR-DRIVEN PP G15C FT. START ON DEMAND CCW SUPPLY
INIT-LL--LL 8.800E-04 - INITIATING EVENT LL FOR EVENT TREE 'S01LL'

21 7.837E-04 6.935E-09

E-MPCC0006-R 2.627E-03 - COMMON CAUSE FAILURE -MP-R --> G15A AND G15C
E-MPG15B---S 3.000E-03 - MTR-DRIVEN PP G15B FT START ON DEMAND CCW SUPPLY
INIT-LL--LL 8.800E-04 - INITIATING EVENT LL FOR EVENT TREE 'S01LL'

21 7.837E-04 6.935E-09

E-C31305---N 3.000E-03 - BKR (CONTROL) 480V 1305 FT CLOSE ON DEMAND CCW G-15C
E-MPCC0005-R 2.627E-03 - COMMON CAUSE FAILURE -MP-R --> G15A AND G15B
INIT-LL--LL 8.800E-04 - INITIATING EVENT LL FOR EVENT TREE 'S01LL'

21 7.837E-04 6.935E-09

E-C31221---N 3.000E-03 - BKR (CONTROL) 480V 1221 FT CLOSE ON DEMAND/ CCW G-15B
E-MPCC0006-R 2.627E-03 - COMMON CAUSE FAILURE -MP-R --> G15A AND G15C
INIT-LL--LL 8.800E-04 - INITIATING EVENT LL FOR EVENT TREE 'S01LL'

22 6.078E-04 5.379E-09

E-HSE20B---M 8.490E-02 - CCW HX E-20B OUT OF SERVICE FOR MAINTENANCE
E-MV720A-4WQ 7.200E-05 - MTR-OPERATED VLV 720A FT REMAIN OPEN FOR 720 Hours
INIT-LL--LL 8.800E-04 - INITIATING EVENT LL FOR EVENT TREE 'S01LL'

Top Event: S01LL02 Top Event Probability: 8.850E-06

This file was created on 4-12-1991 at 10:24:37

Rank	Cutset Importance	Cutset Probability	
23	5.519E-04	4.884E-09	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-MPG45A---M	3.700E-03	- RECIRC PMP G-45A OUT OF SERVICE FOR MAINT
	Q-MS866B---J	3.000E-03	- MTR STARTER MOV-866B FT ACTUATE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
23	5.519E-04	4.884E-09	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-MPG45A---M	3.700E-03	- RECIRC PMP G-45A OUT OF SERVICE FOR MAINT
	Q-MV866B---P	3.000E-03	- MTR-OPERATED VLV MOV-866B FT OPEN ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
23	5.519E-04	4.884E-09	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-MPG45B---M	3.700E-03	- RECIRC PUMP G-45B OUT OF SERVICE FOR MAINT
	Q-MV866A---P	3.000E-03	- MTR-OPERATED VLV MOV-866A FT OPEN ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
23	5.519E-04	4.884E-09	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-MPG45A---M	3.700E-03	- RECIRC PMP G-45A OUT OF SERVICE FOR MAINT
	Q-MPG45B---S	3.000E-03	- MTR-DRIVEN PP G45B FT START ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
23	5.519E-04	4.884E-09	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-MPG45B---M	3.700E-03	- RECIRC PUMP G-45B OUT OF SERVICE FOR MAINT
	Q-MS866A---J	3.000E-03	- MTR STARTER MOV-866A FT ACTUATE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
23	5.519E-04	4.884E-09	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-AV518----N	3.000E-03	- AIR-OPERATED VLV CV-518 FT CLOSE ON DEMAND
	Q-MPG45A---M	3.700E-03	- RECIRC PMP G-45A OUT OF SERVICE FOR MAINT
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
23	5.519E-04	4.884E-09	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-AV517----N	3.000E-03	- AIR-OPERATED VLV CV-517 FT CLOSE ON DEMAND
	Q-MPG45A---M	3.700E-03	- RECIRC PMP G-45A OUT OF SERVICE FOR MAINT
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

Top Event: SO1LL02 Top Event Probability: 8.850E-06

This file was created on 4-12-1991 at 10:24:37

Rank	Cutset Importance	Cutset Probability
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23 5.519E-04 4.884E-09

INIT-LL--LL 8.800E-04 - INITIATING EVENT LL FOR EVENT TREE 'SO1LL'
Q-C31207---N 3.000E-03 - BKR (CONTROL) 480V 1207 FT CLOSE ON DEMAND
Q-MPG45A---M 3.700E-03 - RECIRC PMP G-45A OUT OF SERVICE FOR MAINT
Q-SYRHR----U 5.000E-01 - FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

23 5.519E-04 4.884E-09

INIT-LL--LL 8.800E-04 - INITIATING EVENT LL FOR EVENT TREE 'SO1LL'
Q-AV518----N 3.000E-03 - AIR-OPERATED VLV CV-518 FT CLOSE ON DEMAND
Q-MPG45B---M 3.700E-03 - RECIRC PUMP G-45B OUT OF SERVICE FOR MAINT
Q-SYRHR----U 5.000E-01 - FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

23 5.519E-04 4.884E-09

INIT-LL--LL 8.800E-04 - INITIATING EVENT LL FOR EVENT TREE 'SO1LL'
Q-MPG45A---S 3.000E-03 - MTR-DRIVEN PP G45A FT START ON DEMAND
Q-MPG45B---M 3.700E-03 - RECIRC PUMP G-45B OUT OF SERVICE FOR MAINT
Q-SYRHR----U 5.000E-01 - FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

23 5.519E-04 4.884E-09

INIT-LL--LL 8.800E-04 - INITIATING EVENT LL FOR EVENT TREE 'SO1LL'
Q-C31107---N 3.000E-03 - BKR (CONTROL) 480V 1107 FT CLOSE ON DEMAND
Q-MPG45B---M 3.700E-03 - RECIRC PUMP G-45B OUT OF SERVICE FOR MAINT
Q-SYRHR----U 5.000E-01 - FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

23 5.519E-04 4.884E-09

INIT-LL--LL 8.800E-04 - INITIATING EVENT LL FOR EVENT TREE 'SO1LL'
Q-AV517---N 3.000E-03 - AIR-OPERATED VLV CV-517 FT CLOSE ON DEMAND
Q-MPG45B---M 3.700E-03 - RECIRC PUMP G-45B OUT OF SERVICE FOR MAINT
Q-SYRHR----U 5.000E-01 - FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

24 5.471E-04 4.841E-09

E-HSE20B---M 8.490E-02 - CCW HX E-20B OUT OF SERVICE FOR MAINTENANCE
INIT-LL--LL 8.800E-04 - INITIATING EVENT LL FOR EVENT TREE 'SO1LL'
P-MPG13B-4WR 2.160E-02 - MTR-DRIVEN PP G13B FT RUN FOR 720 HOURS SALTWATER COOLING
P-SYSWC----V 3.000E-03 - OPER. FAILS TO RESPOND TO LOSS OF SWC

25 4.972E-04 4.400E-09

INIT-LL--LL 8.800E-04 - INITIATING EVENT LL FOR EVENT TREE 'SO1LL'
Q-MPG27X---U 1.000E-02 - OPR FAILS TO STOP ONE REFUELING PP PER PROCEDURE
Q-SV2517---J 1.000E-03 - SOLENOID VALVE PV-2517 FT ACTUATE ON DEMAND
Q-SYRHR----U 5.000E-01 - FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

Top Event: S01LL02 Top Event Probability: 8.850E-06

This file was created on 4-12-1991 at 10:24:37

Rank	Cutset Importance	Cutset Probability	
25	4.972E-04	4.400E-09	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-MPG27X---U	1.000E-02	- OPR FAILS TO STOP ONE REFUELING PP PER PROCEDURE
	Q-SV3518---J	1.000E-03	- SOLENOID VALVE PY-3518 FT ACTUATE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	4.475E-04	3.960E-09	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-AV518----N	3.000E-03	- AIR-OPERATED VLV CV-518 FT CLOSE ON DEMAND
	Q-C31207---N	3.000E-03	- BKR (CONTROL) 480V 1207 FT CLOSE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	4.475E-04	3.960E-09	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-AV517----N	3.000E-03	- AIR-OPERATED VLV CV-517 FT CLOSE ON DEMAND
	Q-C31207---N	3.000E-03	- BKR (CONTROL) 480V 1207 FT CLOSE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	4.475E-04	3.960E-09	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-C31107---N	3.000E-03	- BKR (CONTROL) 480V 1107 FT CLOSE ON DEMAND
	Q-MV866B---P	3.000E-03	- MTR-OPERATED VLV MOV-866B FT OPEN ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	4.475E-04	3.960E-09	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-C31107---N	3.000E-03	- BKR (CONTROL) 480V 1107 FT CLOSE ON DEMAND
	Q-MS866B---J	3.000E-03	- MTR STARTER MOV-866B FT ACTUATE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	4.475E-04	3.960E-09	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-AV518----N	3.000E-03	- AIR-OPERATED VLV CV-518 FT CLOSE ON DEMAND
	Q-MS866A---J	3.000E-03	- MTR STARTER MOV-866A FT ACTUATE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	4.475E-04	3.960E-09	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-AV517----N	3.000E-03	- AIR-OPERATED VLV CV-517 FT CLOSE ON DEMAND
	Q-MV866B---P	3.000E-03	- MTR-OPERATED VLV MOV-866B FT OPEN ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

Top Event: S01LL02 Top Event Probability: 8.850E-06

This file was created on 4-12-1991 at 10:24:37

Rank	Cutset Importance	Cutset Probability	
26	4.475E-04	3.960E-09	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-C31207---N	3.000E-03	- BKR (CONTROL) 480V 1207 FT CLOSE ON DEMAND
	Q-MV866A---P	3.000E-03	- MTR-OPERATED VLV MOV-866A FT OPEN ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	4.475E-04	3.960E-09	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-AV518----N	3.000E-03	- AIR-OPERATED VLV CV-518 FT CLOSE ON DEMAND
	Q-MV866B---P	3.000E-03	- MTR-OPERATED VLV MOV-866B FT OPEN ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	4.475E-04	3.960E-09	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-C31207---N	3.000E-03	- BKR (CONTROL) 480V 1207 FT CLOSE ON DEMAND
	Q-MPG45A---S	3.000E-03	- MTR-DRIVEN PP G45A FT START ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	4.475E-04	3.960E-09	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-AV517----N	3.000E-03	- AIR-OPERATED VLV CV-517 FT CLOSE ON DEMAND
	Q-MPG45A---S	3.000E-03	- MTR-DRIVEN PP G45A FT START ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	4.475E-04	3.960E-09	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-C31207---N	3.000E-03	- BKR (CONTROL) 480V 1207 FT CLOSE ON DEMAND
	Q-MS866A---J	3.000E-03	- MTR STARTER MOV-866A FT ACTUATE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	4.475E-04	3.960E-09	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-AV518----N	3.000E-03	- AIR-OPERATED VLV CV-518 FT CLOSE ON DEMAND
	Q-C31107---N	3.000E-03	- BKR (CONTROL) 480V 1107 FT CLOSE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	4.475E-04	3.960E-09	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-AV517----N	3.000E-03	- AIR-OPERATED VLV CV-517 FT CLOSE ON DEMAND
	Q-MV866A---P	3.000E-03	- MTR-OPERATED VLV MOV-866A FT OPEN ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

Top Event: S01LL02 Top Event Probability: 8.850E-06

This file was created on 4-12-1991 at 10:24:37

Rank	Cutset Importance	Cutset Probability	
26	4.475E-04	3.960E-09	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-MS866B---J	3.000E-03	- MTR STARTER MOV-866B FT ACTUATE ON DEMAND
	Q-MV866A---P	3.000E-03	- MTR-OPERATED VLV MOV-866A FT OPEN ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	4.475E-04	3.960E-09	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-AV518----N	3.000E-03	- AIR-OPERATED VLV CV-518 FT CLOSE ON DEMAND
	Q-MS866B---J	3.000E-03	- MTR STARTER MOV-866B FT ACTUATE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	4.475E-04	3.960E-09	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-AV518----N	3.000E-03	- AIR-OPERATED VLV CV-518 FT CLOSE ON DEMAND
	Q-MPG45A---S	3.000E-03	- MTR-DRIVEN PP G45A FT START ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	4.475E-04	3.960E-09	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-AV518----N	3.000E-03	- AIR-OPERATED VLV CV-518 FT CLOSE ON DEMAND
	Q-MPG45B---S	3.000E-03	- MTR-DRIVEN PP G45B FT START ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	4.475E-04	3.960E-09	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-MPG45A---S	3.000E-03	- MTR-DRIVEN PP G45A FT START ON DEMAND
	Q-MS866B---J	3.000E-03	- MTR STARTER MOV-866B FT ACTUATE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	4.475E-04	3.960E-09	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-MPG45A---S	3.000E-03	- MTR-DRIVEN PP G45A FT START ON DEMAND
	Q-MV866B---P	3.000E-03	- MTR-OPERATED VLV MOV-866B FT OPEN ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	4.475E-04	3.960E-09	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-AV517----N	3.000E-03	- AIR-OPERATED VLV CV-517 FT CLOSE ON DEMAND
	Q-MS866B---J	3.000E-03	- MTR STARTER MOV-866B FT ACTUATE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

Top Event: S01LL02 Top Event Probability: 8.850E-06

This file was created on 4-12-1991 at 10:24:37

Rank	Cutset Importance	Cutset Probability	
26	4.475E-04	3.960E-09	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-AV517----N	3.000E-03	- AIR-OPERATED VLV CV-517 FT CLOSE ON DEMAND
	Q-C31107---N	3.000E-03	- BKR (CONTROL) 480V 1107 FT CLOSE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	4.475E-04	3.960E-09	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-C31107---N	3.000E-03	- BKR (CONTROL) 480V 1107 FT CLOSE ON DEMAND
	Q-MPG45B---S	3.000E-03	- MTR-DRIVEN PP G45B FT START ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	4.475E-04	3.960E-09	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-AV518----N	3.000E-03	- AIR-OPERATED VLV CV-518 FT CLOSE ON DEMAND
	Q-MV866A---P	3.000E-03	- MTR-OPERATED VLV MOV-866A FT OPEN ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	4.475E-04	3.960E-09	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-MPG45B---S	3.000E-03	- MTR-DRIVEN PP G45B FT START ON DEMAND
	Q-MV866A---P	3.000E-03	- MTR-OPERATED VLV MOV-866A FT OPEN ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	4.475E-04	3.960E-09	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-MS866A---J	3.000E-03	- MTR STARTER MOV-866A FT ACTUATE ON DEMAND
	Q-MV866B---P	3.000E-03	- MTR-OPERATED VLV MOV-866B FT OPEN ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	4.475E-04	3.960E-09	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-AV517----N	3.000E-03	- AIR-OPERATED VLV CV-517 FT CLOSE ON DEMAND
	Q-MS866A---J	3.000E-03	- MTR STARTER MOV-866A FT ACTUATE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	4.475E-04	3.960E-09	
	INIT-LL--LL	8.800E-04	- INITIATING EVENT LL FOR EVENT TREE 'S01LL'
	Q-AV517----N	3.000E-03	- AIR-OPERATED VLV CV-517 FT CLOSE ON DEMAND
	Q-MPG45B---S	3.000E-03	- MTR-DRIVEN PP G45B FT START ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

Top Event: S01LL02 Top Event Probability: 8.850E-06

This file was created on 4-12-1991 at 10:24:37

Rank	Cutset Importance	Cutset Probability
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26	4.475E-04	3.960E-09
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INIT-LL--LL .8.800E-04 - INITIATING EVENT LL FOR EVENT TREE 'S01LL'
Q-MPG45B---S 3.000E-03 - MTR-DRIVEN PP G45B FT START ON DEMAND
Q-MS866A---J 3.000E-03 - MTR STARTER MOV-866A FT ACTUATE ON DEMAND
Q-SYRHR---U 5.000E-01 - FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

Top Event: S01SL03 Top Event Probability: 2.336E-05

This file was created on 4-12-1991 at 10:26:21

Rank	Cutset Importance	Cutset Probability
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1 3.725E-01 8.700E-06

INIT-S---SL 2.900E-03 - INITIATING EVENT S FOR EVENT TREE 'S01SL'
QCSYRECIR--U 3.000E-03 - OPERATORS FAIL TO COMPLETE RECIRC PROCEDURE IN TIME

2 1.701E-01 3.973E-06

E-MPCC0001-R 1.370E-03 - COMMON CAUSE FAILURE -MP-R --> G15A, G15B, AND G15C
INIT-S---SL 2.900E-03 - INITIATING EVENT S FOR EVENT TREE 'S01SL'

3 1.631E-01 3.809E-06

INIT-S---SL 2.900E-03 - INITIATING EVENT S FOR EVENT TREE 'S01SL'
Q-MPCC0030-R 2.627E-03 - COMMON CAUSE FAILURE -MP-R --> G45A AND G45B
Q-SYRHR----U 5.000E-01 - FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

4 1.925E-02 4.495E-07

INIT-S---SL 2.900E-03 - INITIATING EVENT S FOR EVENT TREE 'S01SL'
Q-AVCC0001-P 3.100E-04 - CCF OF RECIRC HX INLET MOVES 737A & B TO OPEN
Q-SYRHR----U 5.000E-01 - FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

5 1.918E-02 4.481E-07

INIT-S---SL 2.900E-03 - INITIATING EVENT S FOR EVENT TREE 'S01SL'
Q-MPCC0010-S 3.090E-04 - COMMON CAUSE FAILURE -MP-S --> G45A AND G45B
Q-SYRHR----U 5.000E-01 - FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

5 1.918E-02 4.481E-07

INIT-S---SL 2.900E-03 - INITIATING EVENT S FOR EVENT TREE 'S01SL'
Q-C3CC0006-N 3.090E-04 - COMMON CAUSE FAILURE -C3-N --> 1107 AND 1207
Q-SYRHR----U 5.000E-01 - FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

5 1.918E-02 4.481E-07

INIT-S---SL 2.900E-03 - INITIATING EVENT S FOR EVENT TREE 'S01SL'
Q-MSCC0002-J 3.090E-04 - COMMON CAUSE FAILURE -MS-J --> 866A AND 866B
Q-SYRHR----U 5.000E-01 - FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

6 1.695E-02 3.959E-07

INIT-S---SL 2.900E-03 - INITIATING EVENT S FOR EVENT TREE 'S01SL'
Q-MVCC0002-P 2.730E-04 - COMMON CAUSE FAILURE -MV-P --> 866A AND 866B
Q-SYRHR----U 5.000E-01 - FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

Top Event: S01SL03 Top Event Probability: 2.336E-05

This file was created on 4-12-1991 at 10:26:21

Rank	Cutset Importance	Cutset Probability	
7	1.341E-02	3.132E-07	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-HTE11----C	2.160E-04	- HEAT EXCHANGER (TUBE) E11 PLUGGED/FOULED
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
7	1.341E-02	3.132E-07	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-AV517/8--U	1.000E-02	- OPERATORS FAIL TO CLOSE CV-517 OR CV-518 PER PROCEDURE
	Q-MPG45A-4WR	2.160E-02	- MTR-DRIVEN PP G45A FT RUN FOR 720 HRS
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
7	1.341E-02	3.132E-07	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-AV517/8--U	1.000E-02	- OPERATORS FAIL TO CLOSE CV-517 OR CV-518 PER PROCEDURE
	Q-MPG45B-4WR	2.160E-02	- MTR-DRIVEN PP G45B FT RUN FOR 720 HOURS
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
8	6.705E-03	1.566E-07	
	E-TANKC17--E	5.400E-05	- CCW SYSTEM LEAK DEPLETES SURGE TANK SUPPLY OVER 30 DAYS
	E-TKC17----V	1.000E+00	- OPERATOR FAILS TO SUPPLY MAKEUP TO TANK, GIVEN LOW LEVEL
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
9	6.208E-03	1.450E-07	
	E-XV389----X	1.000E-04	- MANUAL VLV CCW-389 LEFT INOP POST-MAINT
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
9	6.208E-03	1.450E-07	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-AV517/8--U	1.000E-02	- OPERATORS FAIL TO CLOSE CV-517 OR CV-518 PER PROCEDURE
	Q-MPG27X---U	1.000E-02	- OPR FAILS TO STOP ONE REFUELING PP PER PROCEDURE
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
10	4.962E-03	1.159E-07	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-MPG45A---M	3.700E-03	- RECIRC PMP G-45A OUT OF SERVICE FOR MAINT
	Q-MPG45B-4WR	2.160E-02	- MTR-DRIVEN PP G45B FT RUN FOR 720 HOURS
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

Top Event: S01SL03 Top Event Probability: 2.336E-05

This file was created on 4-12-1991 at 10:26:21

Rank	Cutset Importance	Cutset Probability	
10	4.962E-03	1.159E-07	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-MPG45A-4WR	2.160E-02	- MTR-DRIVEN PP G45A FT RUN FOR 720 HRS
	Q-MPG45B---M	3.700E-03	- RECIRC PUMP G-45B OUT OF SERVICE FOR MAINT
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
11	4.023E-03	9.396E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-AV517----N	3.000E-03	- AIR-OPERATED VLV CV-517 FT CLOSE ON DEMAND
	Q-MPG45A-4WR	2.160E-02	- MTR-DRIVEN PP G45A FT RUN FOR 720 HRS
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
11	4.023E-03	9.396E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-C31207---N	3.000E-03	- BKR (CONTROL) 480V 1207 FT CLOSE ON DEMAND
	Q-MPG45A-4WR	2.160E-02	- MTR-DRIVEN PP G45A FT RUN FOR 720 HRS
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
11	4.023E-03	9.396E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-AV518----N	3.000E-03	- AIR-OPERATED VLV CV-518 FT CLOSE ON DEMAND
	Q-MPG45B-4WR	2.160E-02	- MTR-DRIVEN PP G45B FT RUN FOR 720 HOURS
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
11	4.023E-03	9.396E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-C31107---N	3.000E-03	- BKR (CONTROL) 480V 1107 FT CLOSE ON DEMAND
	Q-MPG45B-4WR	2.160E-02	- MTR-DRIVEN PP G45B FT RUN FOR 720 HOURS
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
11	4.023E-03	9.396E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-MPG45A-4WR	2.160E-02	- MTR-DRIVEN PP G45A FT RUN FOR 720 HRS
	Q-MV866B---P	3.000E-03	- MTR-OPERATED VLV MOV-866B FT OPEN ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
11	4.023E-03	9.396E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-MPG45B-4WR	2.160E-02	- MTR-DRIVEN PP G45B FT RUN FOR 720 HOURS
	Q-MS866A---J	3.000E-03	- MTR STARTER MOV-866A FT ACTUATE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

Top Event: S01SL03 Top Event Probability: 2.336E-05

This file was created on 4-12-1991 at 10:26:21

Rank	Cutset Importance	Cutset Probability	
11	4.023E-03	9.396E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-MPG45A-4WR	2.160E-02	- MTR-DRIVEN PP G45A FT RUN FOR 720 HRS
	Q-MS866B---J	3.000E-03	- MTR STARTER MOV-866B FT ACTUATE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
11	4.023E-03	9.396E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-AV518----N	3.000E-03	- AIR-OPERATED VLV CV-518 FT CLOSE ON DEMAND
	Q-MPG45A-4WR	2.160E-02	- MTR-DRIVEN PP G45A FT RUN FOR 720 HRS
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
11	4.023E-03	9.396E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-MPG45A---S	3.000E-03	- MTR-DRIVEN PP G45A FT START ON DEMAND
	Q-MPG45B-4WR	2.160E-02	- MTR-DRIVEN PP G45B FT RUN FOR 720 HOURS
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
11	4.023E-03	9.396E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-MPG45A-4WR	2.160E-02	- MTR-DRIVEN PP G45A FT RUN FOR 720 HRS
	Q-MPG45B---S	3.000E-03	- MTR-DRIVEN PP G45B FT START ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
11	4.023E-03	9.396E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-MPG45B-4WR	2.160E-02	- MTR-DRIVEN PP G45B FT RUN FOR 720 HOURS
	Q-MV866A---P	3.000E-03	- MTR-OPERATED VLV MOV-866A FT OPEN ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
11	4.023E-03	9.396E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-AV517----N	3.000E-03	- AIR-OPERATED VLV CV-517 FT CLOSE ON DEMAND
	Q-MPG45B-4WR	2.160E-02	- MTR-DRIVEN PP G45B FT RUN FOR 720 HOURS
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
12	3.104E-03	7.250E-08	
	DCSV115X1--U	5.000E-02	- OP FT ACT N2 TO SV-1115 AD,BE,CF PER PROC/IMMED LOA
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
	U-OOCNDLP--Z	1.000E-03	- CONDITIONAL LOSS OF OFFSITE POWER GIVEN TURBINE TRIP

Top Event: S01SL03 Top Event Probability: 2.336E-05

This file was created on 4-12-1991 at 10:26:21

Rank	Cutset Importance	Cutset Probability	
13	2.682E-03	6.264E-08	
	E-CV322----N	1.000E-03	- CHECK VALVE CCW-322 FT CLOSE ON DEMAND
	E-MPG15A-4WR	2.160E-02	- MTR-DRIVEN PP G15A FT RUN FOR 720 HOURS CCW SUPPLY
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
14	2.297E-03	5.365E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-AV517/8--U	1.000E-02	- OPERATORS FAIL TO CLOSE CV-517 OR CV-518 PER PROCEDURE
	Q-MPG45A---M	3.700E-03	- RECIRC PMP G-45A OUT OF SERVICE FOR MAINT
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
14	2.297E-03	5.365E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-AV517/8--U	1.000E-02	- OPERATORS FAIL TO CLOSE CV-517 OR CV-518 PER PROCEDURE
	Q-MPG45B---M	3.700E-03	- RECIRC PUMP G-45B OUT OF SERVICE FOR MAINT
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
15	2.277E-03	5.318E-08	
	E-HSE20B---M	8.490E-02	- CCW HX E-20B OUT OF SERVICE FOR MAINTENANCE
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	P-HTE20A-4WC	2.160E-04	- HEAT EXCHANGER (TUBE) CCW E-20A PLUGGED/FOULED
16	1.862E-03	4.350E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-AV518----N	3.000E-03	- AIR-OPERATED VLV CV-518 FT CLOSE ON DEMAND
	Q-MPG27X---U	1.000E-02	- OPR FAILS TO STOP ONE REFUELING PP PER PROCEDURE
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
16	1.862E-03	4.350E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-AV517/8--U	1.000E-02	- OPERATORS FAIL TO CLOSE CV-517 OR CV-518 PER PROCEDURE
	Q-C31107---N	3.000E-03	- BKR (CONTROL) 480V 1107 FT CLOSE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
16	1.862E-03	4.350E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-AV517/8--U	1.000E-02	- OPERATORS FAIL TO CLOSE CV-517 OR CV-518 PER PROCEDURE
	Q-MPG45B---S	3.000E-03	- MTR-DRIVEN PP G45B FT START ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

Top Event: S01SL03 Top Event Probability: 2.336E-05

This file was created on 4-12-1991 at 10:26:21

Rank	Cutset Importance	Cutset Probability	
16	1.862E-03	4.350E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-AV517/8--U	1.000E-02	- OPERATORS FAIL TO CLOSE CV-517 OR CV-518 PER PROCEDURE
	Q-MPG45A---S	3.000E-03	- MTR-DRIVEN PP G45A FT START ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
16	1.862E-03	4.350E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-AV517/8--U	1.000E-02	- OPERATORS FAIL TO CLOSE CV-517 OR CV-518 PER PROCEDURE
	Q-C31207---N	3.000E-03	- BKR (CONTROL) 480V 1207 FT CLOSE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
16	1.862E-03	4.350E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-AV517/8--U	1.000E-02	- OPERATORS FAIL TO CLOSE CV-517 OR CV-518 PER PROCEDURE
	Q-MV866A---P	3.000E-03	- MTR-OPERATED VLV MOV-866A FT OPEN ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
16	1.862E-03	4.350E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-AV517/8--U	1.000E-02	- OPERATORS FAIL TO CLOSE CV-517 OR CV-518 PER PROCEDURE
	Q-MV866B---P	3.000E-03	- MTR-OPERATED VLV MOV-866B FT OPEN ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
16	1.862E-03	4.350E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-AV517----N	3.000E-03	- AIR-OPERATED VLV CV-517 FT CLOSE ON DEMAND
	Q-MPG27X---U	1.000E-02	- OPR FAILS TO STOP ONE REFUELING PP PER PROCEDURE
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
16	1.862E-03	4.350E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-AV517/8--U	1.000E-02	- OPERATORS FAIL TO CLOSE CV-517 OR CV-518 PER PROCEDURE
	Q-MS866A---J	3.000E-03	- MTR STARTER MOV-866A FT ACTUATE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
16	1.862E-03	4.350E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-AV517/8--U	1.000E-02	- OPERATORS FAIL TO CLOSE CV-517 OR CV-518 PER PROCEDURE
	Q-MS866B---J	3.000E-03	- MTR STARTER MOV-866B FT ACTUATE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

Top Event: S01SL03 Top Event Probability: 2.336E-05

This file was created on 4-12-1991 at 10:26:21

Rank	Cutset Importance	Cutset Probability
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17 1.631E-03 3.809E-08

INIT-S---SL 2.900E-03 - INITIATING EVENT S FOR EVENT TREE 'S01SL'
Q-AV517/8--U 1.000E-02 - OPERATORS FAIL TO CLOSE CV-517 OR CV-518 PER PROCEDURE
Q-MPCC0035-R 2.627E-03 - COMMON CAUSE FAILURE -MP-R --> G8A AND G8B
Q-SYRHR----U 5.000E-01 - FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

18 1.341E-03 3.132E-08

INIT-S---SL 2.900E-03 - INITIATING EVENT S FOR EVENT TREE 'S01SL'
Q-MPG45B-4WR 2.160E-02 - MTR-DRIVEN PP G45B FT RUN FOR 720 HOURS
Q-SV3518---J 1.000E-03 - SOLENOID VALVE PY-3518 FT ACTUATE ON DEMAND
Q-SYRHR----U 5.000E-01 - FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

18 1.341E-03 3.132E-08

INIT-S---SL 2.900E-03 - INITIATING EVENT S FOR EVENT TREE 'S01SL'
Q-MPG45A-4WR 2.160E-02 - MTR-DRIVEN PP G45A FT RUN FOR 720 HRS
Q-SV3518---J 1.000E-03 - SOLENOID VALVE PY-3518 FT ACTUATE ON DEMAND
Q-SYRHR----U 5.000E-01 - FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

18 1.341E-03 3.132E-08

INIT-S---SL 2.900E-03 - INITIATING EVENT S FOR EVENT TREE 'S01SL'
Q-MPG45A-4WR 2.160E-02 - MTR-DRIVEN PP G45A FT RUN FOR 720 HRS
Q-SV2517---J 1.000E-03 - SOLENOID VALVE PV-2517 FT ACTUATE ON DEMAND
Q-SYRHR----U 5.000E-01 - FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

18 1.341E-03 3.132E-08

INIT-S---SL 2.900E-03 - INITIATING EVENT S FOR EVENT TREE 'S01SL'
Q-MPG45B-4WR 2.160E-02 - MTR-DRIVEN PP G45B FT RUN FOR 720 HOURS
Q-SV2517---J 1.000E-03 - SOLENOID VALVE PV-2517 FT ACTUATE ON DEMAND
Q-SYRHR----U 5.000E-01 - FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

19 1.207E-03 2.819E-08

E-MPCC0006-R 2.627E-03 - COMMON CAUSE FAILURE -MP-R --> G15A AND G15C
E-MPG15B---M 3.700E-03 - PUMP G-15B OUT OF SERVICE FOR MAINTENANCE
INIT-S---SL 2.900E-03 - INITIATING EVENT S FOR EVENT TREE 'S01SL'

19 1.207E-03 2.819E-08

E-MPCC0005-R 2.627E-03 - COMMON CAUSE FAILURE -MP-R --> G15A AND G15B
E-MPG15C---M 3.700E-03 - PUMP G-15C OUT OF SERVICE FOR MAINTENANCE
INIT-S---SL 2.900E-03 - INITIATING EVENT S FOR EVENT TREE 'S01SL'

Top Event: S01SL03 Top Event Probability: 2.336E-05

This file was created on 4-12-1991 at 10:26:21

Rank	Cutset Importance	Cutset Probability	
20	1.024E-03	2.393E-08	
	D-LOCAC----D	3.300E-01	- FLOW SPILLAGE FROM RCS LOOP C
	DCSV115XL--U	5.000E-02	- OP FTA N2 TO SV1115AD,BE,CF PER PROC/LATE LOA
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
	U-OOCNDLP--Z	1.000E-03	- CONDITIONAL LOSS OF OFFSITE POWER GIVEN TURBINE TRIP
21	9.786E-04	2.285E-08	
	E-C31221---N	3.000E-03	- BKR (CONTROL) 480V 1221 FT CLOSE ON DEMAND/ CCW G-15B
	E-MPCC0006-R	2.627E-03	- COMMON CAUSE FAILURE -MP-R --> G15A AND G15C
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
21	9.786E-04	2.285E-08	
	E-MPCC0005-R	2.627E-03	- COMMON CAUSE FAILURE -MP-R --> G15A AND G15B
	E-MPG15C---S	3.000E-03	- MTR-DRIVEN PP G15C FT START ON DEMAND CCW SUPPLY
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
21	9.786E-04	2.285E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	P-MPCC0011-R	2.627E-03	- COMMON CAUSE FAILURE -MP-R --> G13A AND G13B
	P-SYSWC----V	3.000E-03	- OPER. FAILS TO RESPOND TO LOSS OF SWC
21	9.786E-04	2.285E-08	
	E-MPCC0006-R	2.627E-03	- COMMON CAUSE FAILURE -MP-R --> G15A AND G15C
	E-MPG15B---S	3.000E-03	- MTR-DRIVEN PP G15B FT START ON DEMAND CCW SUPPLY
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
21	9.786E-04	2.285E-08	
	E-C31305---N	3.000E-03	- BKR (CONTROL) 480V 1305 FT CLOSE ON DEMAND CCW G-15C
	E-MPCC0005-R	2.627E-03	- COMMON CAUSE FAILURE -MP-R --> G15A AND G15B
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
22	7.590E-04	1.773E-08	
	E-HSE20B---M	8.490E-02	- CCW HX E-20B OUT OF SERVICE FOR MAINTENANCE
	E-MV720A-4WQ	7.200E-05	- MTR-OPERATED VLV 720A FT REMAIN OPEN FOR 720 Hours
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'

Top Event: S01SL03 Top Event Probability: 2.336E-05

This file was created on 4-12-1991 at 10:26:21

Rank	Cutset Importance	Cutset Probability	
23	6.891E-04	1.610E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-MPG45B---M	3.700E-03	- RECIRC PUMP G-45B OUT OF SERVICE FOR MAINT
	Q-MS866A---J	3.000E-03	- MTR STARTER MOV-866A FT ACTUATE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
23	6.891E-04	1.610E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-MPG45A---M	3.700E-03	- RECIRC PMP G-45A OUT OF SERVICE FOR MAINT
	Q-MS866B---J	3.000E-03	- MTR STARTER MOV-866B FT ACTUATE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
23	6.891E-04	1.610E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-MPG45A---M	3.700E-03	- RECIRC PMP G-45A OUT OF SERVICE FOR MAINT
	Q-MPG45B---S	3.000E-03	- MTR-DRIVEN PP G45B FT START ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
23	6.891E-04	1.610E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-MPG45A---M	3.700E-03	- RECIRC PMP G-45A OUT OF SERVICE FOR MAINT
	Q-MV866B---P	3.000E-03	- MTR-OPERATED VLV MOV-866B FT OPEN ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
23	6.891E-04	1.610E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-MPG45B---M	3.700E-03	- RECIRC PUMP G-45B OUT OF SERVICE FOR MAINT
	Q-MV866A---P	3.000E-03	- MTR-OPERATED VLV MOV-866A FT OPEN ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
23	6.891E-04	1.610E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-AV518----N	3.000E-03	- AIR-OPERATED VLV CV-518 FT CLOSE ON DEMAND
	Q-MPG45A---M	3.700E-03	- RECIRC PMP G-45A OUT OF SERVICE FOR MAINT
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
23	6.891E-04	1.610E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-AV518----N	3.000E-03	- AIR-OPERATED VLV CV-518 FT CLOSE ON DEMAND
	Q-MPG45B---M	3.700E-03	- RECIRC PUMP G-45B OUT OF SERVICE FOR MAINT
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

Top Event: S01SL03 Top Event Probability: 2.336E-05

This file was created on 4-12-1991 at 10:26:21

Rank	Cutset Importance	Cutset Probability
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23 6.891E-04 1.610E-08

INIT-S---SL 2.900E-03 - INITIATING EVENT S FOR EVENT TREE 'S01SL'
Q-MPG45A---S 3.000E-03 - MTR-DRIVEN PP G45A FT START ON DEMAND
Q-MPG45B---M 3.700E-03 - RECIRC PUMP G-45B OUT OF SERVICE FOR MAINT
Q-SYRHR----U 5.000E-01 - FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

23 6.891E-04 1.610E-08

INIT-S---SL 2.900E-03 - INITIATING EVENT S FOR EVENT TREE 'S01SL'
Q-C31107---N 3.000E-03 - BKR (CONTROL) 480V 1107 FT CLOSE ON DEMAND
Q-MPG45B---M 3.700E-03 - RECIRC PUMP G-45B OUT OF SERVICE FOR MAINT
Q-SYRHR----U 5.000E-01 - FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

23 6.891E-04 1.610E-08

INIT-S---SL 2.900E-03 - INITIATING EVENT S FOR EVENT TREE 'S01SL'
Q-AV517----N 3.000E-03 - AIR-OPERATED VLV CV-517 FT CLOSE ON DEMAND
Q-MPG45B---M 3.700E-03 - RECIRC PUMP G-45B OUT OF SERVICE FOR MAINT
Q-SYRHR----U 5.000E-01 - FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

23 6.891E-04 1.610E-08

INIT-S---SL 2.900E-03 - INITIATING EVENT S FOR EVENT TREE 'S01SL'
Q-AV517----N 3.000E-03 - AIR-OPERATED VLV CV-517 FT CLOSE ON DEMAND
Q-MPG45A---M 3.700E-03 - RECIRC PMP G-45A OUT OF SERVICE FOR MAINT
Q-SYRHR----U 5.000E-01 - FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

23 6.891E-04 1.610E-08

INIT-S---SL 2.900E-03 - INITIATING EVENT S FOR EVENT TREE 'S01SL'
Q-C31207---N 3.000E-03 - BKR (CONTROL) 480V 1207 FT CLOSE ON DEMAND
Q-MPG45A---M 3.700E-03 - RECIRC PMP G-45A OUT OF SERVICE FOR MAINT
Q-SYRHR----U 5.000E-01 - FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

24 6.831E-04 1.595E-08

E-HSE20B---M 8.490E-02 - CCW HX E-20B OUT OF SERVICE FOR MAINTENANCE
INIT-S---SL 2.900E-03 - INITIATING EVENT S FOR EVENT TREE 'S01SL'
P-MPG13B-4WR 2.160E-02 - MTR-DRIVEN PP G13B FT RUN FOR 720 HOURS SALTWATER COOLING
P-SYSWC----V 3.000E-03 - OPER. FAILS TO RESPOND TO LOSS OF SWC

25 6.208E-04 1.450E-08

INIT-S---SL 2.900E-03 - INITIATING EVENT S FOR EVENT TREE 'S01SL'
Q-MPG27X---U 1.000E-02 - OPR FAILS TO STOP ONE REFUELING PP PER PROCEDURE
Q-SV3518---J 1.000E-03 - SOLENOID VALVE PY-3518 FT ACTUATE ON DEMAND
Q-SYRHR----U 5.000E-01 - FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

Top Event: S01SL03 Top Event Probability: 2.336E-05

This file was created on 4-12-1991 at 10:26:21

Rank	Cutset Importance	Cutset Probability	
25	6.208E-04	1.450E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-MPG27X---U	1.000E-02	- OPR FAILS TO STOP ONE REFUELING PP PER PROCEDURE
	Q-SV2517---J	1.000E-03	- SOLENOID VALVE PV-2517 FT ACTUATE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	5.587E-04	1.305E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-AV518----N	3.000E-03	- AIR-OPERATED VLV CV-518 FT CLOSE ON DEMAND
	Q-MS866B---J	3.000E-03	- MTR STARTER MOV-866B FT ACTUATE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	5.587E-04	1.305E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-AV517----N	3.000E-03	- AIR-OPERATED VLV CV-517 FT CLOSE ON DEMAND
	Q-C31107---N	3.000E-03	- BKR (CONTROL) 480V 1107 FT CLOSE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	5.587E-04	1.305E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-AV518----N	3.000E-03	- AIR-OPERATED VLV CV-518 FT CLOSE ON DEMAND
	Q-MS866A---J	3.000E-03	- MTR STARTER MOV-866A FT ACTUATE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	5.587E-04	1.305E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-C31107---N	3.000E-03	- BKR (CONTROL) 480V 1107 FT CLOSE ON DEMAND
	Q-MS866B---J	3.000E-03	- MTR STARTER MOV-866B FT ACTUATE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	5.587E-04	1.305E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-C31107---N	3.000E-03	- BKR (CONTROL) 480V 1107 FT CLOSE ON DEMAND
	Q-MV866B---P	3.000E-03	- MTR-OPERATED VLV MOV-866B FT OPEN ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	5.587E-04	1.305E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-MPG45A---S	3.000E-03	- MTR-DRIVEN PP G45A FT START ON DEMAND
	Q-MV866B---P	3.000E-03	- MTR-OPERATED VLV MOV-866B FT OPEN ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

Top Event: S01SL03 Top Event Probability: 2.336E-05

This file was created on 4-12-1991 at 10:26:21

Rank	Cutset Importance	Cutset Probability	
26	5.587E-04	1.305E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-AV518----N	3.000E-03	- AIR-OPERATED VLV CV-518 FT CLOSE ON DEMAND
	Q-MV866A---P	3.000E-03	- MTR-OPERATED VLV MOV-866A FT OPEN ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	5.587E-04	1.305E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-AV518----N	3.000E-03	- AIR-OPERATED VLV CV-518 FT CLOSE ON DEMAND
	Q-MV866B---P	3.000E-03	- MTR-OPERATED VLV MOV-866B FT OPEN ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	5.587E-04	1.305E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-C31207---N	3.000E-03	- BKR (CONTROL) 480V 1207 FT CLOSE ON DEMAND
	Q-MPG45A---S	3.000E-03	- MTR-DRIVEN PP G45A FT START ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	5.587E-04	1.305E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-AV517----N	3.000E-03	- AIR-OPERATED VLV CV-517 FT CLOSE ON DEMAND
	Q-MPG45A---S	3.000E-03	- MTR-DRIVEN PP G45A FT START ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	5.587E-04	1.305E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-C31207---N	3.000E-03	- BKR (CONTROL) 480V 1207 FT CLOSE ON DEMAND
	Q-MS866A---J	3.000E-03	- MTR STARTER MOV-866A FT ACTUATE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	5.587E-04	1.305E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-C31207---N	3.000E-03	- BKR (CONTROL) 480V 1207 FT CLOSE ON DEMAND
	Q-MV866A---P	3.000E-03	- MTR-OPERATED VLV MOV-866A FT OPEN ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	5.587E-04	1.305E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-AV518----N	3.000E-03	- AIR-OPERATED VLV CV-518 FT CLOSE ON DEMAND
	Q-C31207---N	3.000E-03	- BKR (CONTROL) 480V 1207 FT CLOSE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

Top Event: S01SL03 Top Event Probability: 2.336E-05

This file was created on 4-12-1991 at 10:26:21

Rank	Cutset Importance	Cutset Probability	
26	5.587E-04	1.305E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-MS866B---J	3.000E-03	- MTR STARTER MOV-866B FT ACTUATE ON DEMAND
	Q-MV866A---P	3.000E-03	- MTR-OPERATED VLV MOV-866A FT OPEN ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	5.587E-04	1.305E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-AV518----N	3.000E-03	- AIR-OPERATED VLV CV-518 FT CLOSE ON DEMAND
	Q-MPG45A---S	3.000E-03	- MTR-DRIVEN PP G45A FT START ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	5.587E-04	1.305E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-AV518----N	3.000E-03	- AIR-OPERATED VLV CV-518 FT CLOSE ON DEMAND
	Q-C31107---N	3.000E-03	- BKR (CONTROL) 480V 1107 FT CLOSE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	5.587E-04	1.305E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-AV517----N	3.000E-03	- AIR-OPERATED VLV CV-517 FT CLOSE ON DEMAND
	Q-MPG45B---S	3.000E-03	- MTR-DRIVEN PP G45B FT START ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	5.587E-04	1.305E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-AV517----N	3.000E-03	- AIR-OPERATED VLV CV-517 FT CLOSE ON DEMAND
	Q-C31207---N	3.000E-03	- BKR (CONTROL) 480V 1207 FT CLOSE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	5.587E-04	1.305E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-AV517----N	3.000E-03	- AIR-OPERATED VLV CV-517 FT CLOSE ON DEMAND
	Q-MV866B---P	3.000E-03	- MTR-OPERATED VLV MOV-866B FT OPEN ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	5.587E-04	1.305E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-MPG45A---S	3.000E-03	- MTR-DRIVEN PP G45A FT START ON DEMAND
	Q-MS866B---J	3.000E-03	- MTR STARTER MOV-866B FT ACTUATE ON DEMAND
	Q-SYRHR----U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

Top Event: S01SL03 Top Event Probability: 2.336E-05

This file was created on 4-12-1991 at 10:26:21

Rank	Cutset Importance	Cutset Probability	
26	5.587E-04	1.305E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-AV517---N	3.000E-03	- AIR-OPERATED VLV CV-517 FT CLOSE ON DEMAND
	Q-MV866A---P	3.000E-03	- MTR-OPERATED VLV MOV-866A FT OPEN ON DEMAND
	Q-SYRHR---U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	5.587E-04	1.305E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-C31107---N	3.000E-03	- BKR (CONTROL) 480V 1107 FT CLOSE ON DEMAND
	Q-MPG45B---S	3.000E-03	- MTR-DRIVEN PP G45B FT START ON DEMAND
	Q-SYRHR---U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	5.587E-04	1.305E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-AV518---N	3.000E-03	- AIR-OPERATED VLV CV-518 FT CLOSE ON DEMAND
	Q-MPG45B---S	3.000E-03	- MTR-DRIVEN PP G45B FT START ON DEMAND
	Q-SYRHR---U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	5.587E-04	1.305E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-AV517---N	3.000E-03	- AIR-OPERATED VLV CV-517 FT CLOSE ON DEMAND
	Q-MS866B---J	3.000E-03	- MTR STARTER MOV-866B FT ACTUATE ON DEMAND
	Q-SYRHR---U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	5.587E-04	1.305E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-MPG45B---S	3.000E-03	- MTR-DRIVEN PP G45B FT START ON DEMAND
	Q-MV866A---P	3.000E-03	- MTR-OPERATED VLV MOV-866A FT OPEN ON DEMAND
	Q-SYRHR---U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	5.587E-04	1.305E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-MS866A---J	3.000E-03	- MTR STARTER MOV-866A FT ACTUATE ON DEMAND
	Q-MV866B---P	3.000E-03	- MTR-OPERATED VLV MOV-866B FT OPEN ON DEMAND
	Q-SYRHR---U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE
26	5.587E-04	1.305E-08	
	INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
	Q-MPG45B---S	3.000E-03	- MTR-DRIVEN PP G45B FT START ON DEMAND
	Q-MS866A---J	3.000E-03	- MTR STARTER MOV-866A FT ACTUATE ON DEMAND
	Q-SYRHR---U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

Top Event: S01SL03 Top Event Probability: 2.336E-05

This file was created on 4-12-1991 at 10:26:21

<u>Rank</u>	<u>Cutset Importance</u>	<u>Cutset Probability</u>
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26	5.587E-04	1.305E-08
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INIT-S---SL	2.900E-03	- INITIATING EVENT S FOR EVENT TREE 'S01SL'
Q-AV517---N	3.000E-03	- AIR-OPERATED VLV CV-517 FT CLOSE ON DEMAND
Q-MS866A---J	3.000E-03	- MTR STARTER MOV-866A FT ACTUATE ON DEMAND
Q-SYRHR---U	5.000E-01	- FAILURE TO EFFECT RHR BACKUP PER PROCEDURE

Top Event: S01SSL04 Top Event Probability: 2.089E-06

This file was created on 4-12-1991 at 10:35:32

Rank	Cutset Importance	Cutset Probability
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1 5.663E-02 1.183E-07

D-G8ADSD---V 1.000E+00 - OP FAILS TO CONNECT CHR G PUMP G-8A TO DSD DIESEL W/O PROC.
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
U-DGCC0002-R 5.145E-03 - COMMON CAUSE FAILURE -DG-R --> 1 AND 2
U-OOCNDLP--Z 1.000E-03 - CONDITIONAL LOSS OF OFFSITE POWER GIVEN TURBINE TRIP

2 3.585E-02 7.491E-08

D-G8ADSD---V 1.000E+00 - OP FAILS TO CONNECT CHR G PUMP G-8A TO DSD DIESEL W/O PROC.
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
U-DG1-----S 5.900E-02 - DIESEL GENERATOR 1 FT START ON DEMAND
U-DG2----1DR 5.520E-02 - DIESEL GENERATOR 2 FT RUN FOR 24 HOURS
U-OOCNDLP--Z 1.000E-03 - CONDITIONAL LOSS OF OFFSITE POWER GIVEN TURBINE TRIP

3 3.401E-02 7.107E-08

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHR G SYSTEM PER PROC IN TIME
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-NV853B---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853B/SIS SYSTEM
V-NVCC0007-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 851A AND 853B

3 3.401E-02 7.107E-08

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHR G SYSTEM PER PROC IN TIME
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-C211C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50B BREAKER 11C05/SIS
V-C212C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3A BREAKER 12C04/SIS
V-C2CC0006-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C05 AND 12C04

3 3.401E-02 7.107E-08

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHR G SYSTEM PER PROC IN TIME
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-C211C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50B BREAKER 11C05/SIS
V-C212C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50A BREAKER 12C05 /SIS
V-C2CC0007-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C05 AND 12C05

3 3.401E-02 7.107E-08

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHR G SYSTEM PER PROC IN TIME
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-NVCC0005-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 851A AND 851B

Top Event: S01SSL04 Top Event Probability: 2.089E-06

This file was created on 4-12-1991 at 10:35:32

Rank	Cutset Importance	Cutset Probability
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3 3.401E-02 7.107E-08

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHR G SYSTEM PER PROC IN TIME
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-C2CC0001-P 3.090E-04 - COMMON CAUSE FAILURE -C2-P --> 11C04 AND 12C04

3 3.401E-02 7.107E-08

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHR G SYSTEM PER PROC IN TIME
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-NV853A---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853A/SIS SYSTEM
V-NV853B---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853B/SIS SYSTEM
V-NVCC0010-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 853A AND 853B

3 3.401E-02 7.107E-08

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHR G SYSTEM PER PROC IN TIME
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-C211C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3B BREAKER 11C04/SIS
V-C212C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50A BREAKER 12C05 /SIS
V-C2CC0009-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C04 AND 12C05

3 3.401E-02 7.107E-08

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHR G SYSTEM PER PROC IN TIME
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-NV853A---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853A/SIS SYSTEM
V-NVCC0008-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 851B AND 853A

3 3.401E-02 7.107E-08

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHR G SYSTEM PER PROC IN TIME
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-MPCC0004-S 3.090E-04 - COMMON CAUSE FAILURE -MP-S --> G50A AND G50B

3 3.401E-02 7.107E-08

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHR G SYSTEM PER PROC IN TIME
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-C211C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3B BREAKER 11C04/SIS
V-C212C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3A BREAKER 12C04/SIS
V-C2CC0008-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C04 AND 12C04

Top Event: S01SSL04 Top Event Probability: 2.089E-06

This file was created on 4-12-1991 at 10:35:32

Rank	Cutset Importance	Cutset Probability
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4 2.987E-02 6.242E-08

D-G8ADSD---V 1.000E+00 - OP FAILS TO CONNECT CHR G PUMP G-8A TO DSD DIESEL W/O PROC.
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
U-DG1-----S 5.900E-02 - DIESEL GENERATOR 1 FT START ON DEMAND
U-DG2-----M 4.600E-02 - DIESEL GENERATOR NO. 2 IN MAINTENANCE
U-OOCNDLP--Z 1.000E-03 - CONDITIONAL LOSS OF OFFSITE POWER GIVEN TURBINE TRIP

5 2.832E-02 5.917E-08

INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
U-DGCC0002-R 5.145E-03 - COMMON CAUSE FAILURE -DG-R --> 1 AND 2
U-OOCNDLP--Z 1.000E-03 - CONDITIONAL LOSS OF OFFSITE POWER GIVEN TURBINE TRIP
U-OOSDG&E--Z 5.000E-01 - SDG&E LINE UNAVAILABLE

6 2.795E-02 5.840E-08

D-G8ADSD---V 1.000E+00 - OP FAILS TO CONNECT CHR G PUMP G-8A TO DSD DIESEL W/O PROC.
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
U-DG1-----M 4.600E-02 - DIESEL GENERATOR NO. 1 IN MAINTENANCE
U-DG2----1DR 5.520E-02 - DIESEL GENERATOR 2 FT RUN FOR 24 HOURS
U-OOCNDLP--Z 1.000E-03 - CONDITIONAL LOSS OF OFFSITE POWER GIVEN TURBINE TRIP

6 2.795E-02 5.840E-08

D-G8ADSD---V 1.000E+00 - OP FAILS TO CONNECT CHR G PUMP G-8A TO DSD DIESEL W/O PROC.
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
U-DG1----1DR 5.520E-02 - DIESEL GENERATOR 1 FT RUN FOR 24 HOURS
U-DG2-----M 4.600E-02 - DIESEL GENERATOR NO. 2 IN MAINTENANCE
U-OOCNDLP--Z 1.000E-03 - CONDITIONAL LOSS OF OFFSITE POWER GIVEN TURBINE TRIP

7 1.792E-02 3.745E-08

INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
U-DG1-----S 5.900E-02 - DIESEL GENERATOR 1 FT START ON DEMAND
U-DG2----1DR 5.520E-02 - DIESEL GENERATOR 2 FT RUN FOR 24 HOURS
U-OOCNDLP--Z 1.000E-03 - CONDITIONAL LOSS OF OFFSITE POWER GIVEN TURBINE TRIP
U-OOSDG&E--Z 5.000E-01 - SDG&E LINE UNAVAILABLE

8 1.494E-02 3.121E-08

INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
U-DG1-----S 5.900E-02 - DIESEL GENERATOR 1 FT START ON DEMAND
U-DG2-----M 4.600E-02 - DIESEL GENERATOR NO. 2 IN MAINTENANCE
U-OOCNDLP--Z 1.000E-03 - CONDITIONAL LOSS OF OFFSITE POWER GIVEN TURBINE TRIP
U-OOSDG&E--Z 5.000E-01 - SDG&E LINE UNAVAILABLE

Top Event: S01SSL04 Top Event Probability: 2.089E-06

This file was created on 4-12-1991 at 10:35:32

Rank	Cutset Importance	Cutset Probability	
9	1.398E-02	2.920E-08	
	INIT-I---SSL	2.300E-02	- INITIATING EVENT I FOR EVENT TREE 'S01SSL'
	U-DG1----1DR	5.520E-02	- DIESEL GENERATOR 1 FT RUN FOR 24 HOURS
	U-DG2-----M	4.600E-02	- DIESEL GENERATOR NO. 2 IN MAINTENANCE
	U-OOCNDLP--Z	1.000E-03	- CONDITIONAL LOSS OF OFFSITE POWER GIVEN TURBINE TRIP
	U-OOSDG&E--Z	5.000E-01	- SDG&E LINE UNAVAILABLE
9	1.398E-02	2.920E-08	
	INIT-I---SSL	2.300E-02	- INITIATING EVENT I FOR EVENT TREE 'S01SSL'
	U-DG1-----M	4.600E-02	- DIESEL GENERATOR NO. 1 IN MAINTENANCE
	U-DG2----1DR	5.520E-02	- DIESEL GENERATOR 2 FT RUN FOR 24 HOURS
	U-OOCNDLP--Z	1.000E-03	- CONDITIONAL LOSS OF OFFSITE POWER GIVEN TURBINE TRIP
	U-OOSDG&E--Z	5.000E-01	- SDG&E LINE UNAVAILABLE
10	1.112E-02	2.323E-08	
	DDSYCHARG--U	1.000E-02	- OP FAILS TO ALIGN CHR G SYSTEM PER PROC IN TIME
	INIT-I---SSL	2.300E-02	- INITIATING EVENT I FOR EVENT TREE 'S01SSL'
	V-NV854A---Y	1.000E+00	- OPERATOR FAILS TO RECOVER HV-854A/SIS SYSTEM
	V-NV854B---Y	1.000E+00	- OPERATOR FAILS TO RECOVER HV-854B/SIS SYSTEM
	V-NVCC0004-N	1.010E-04	- COMMON CAUSE FAILURE -NV-N --> 854A AND 854B
11	1.020E-02	2.132E-08	
	D-MV1100C--N	3.000E-03	- MTR-OPERATED VLV MOV-1100C FT CLOSE ON DEMAND
	D-MV1100C--Y	1.000E+00	- OPS FAILS TO RECOVER MOV-1100C
	INIT-I---SSL	2.300E-02	- INITIATING EVENT I FOR EVENT TREE 'S01SSL'
	V-C211C04--Y	1.000E+00	- OPERATOR FAILS TO RECOVER G-3B BREAKER 11C04/SIS
	V-C212C05--Y	1.000E+00	- OPERATOR FAILS TO RECOVER G-50A BREAKER 12C05 /SIS
	V-C2CC0009-N	3.090E-04	- COMMON CAUSE FAILURE -C2-N --> 11C04 AND 12C05
11	1.020E-02	2.132E-08	
	D-MV1100C--N	3.000E-03	- MTR-OPERATED VLV MOV-1100C FT CLOSE ON DEMAND
	D-MV1100C--Y	1.000E+00	- OPS FAILS TO RECOVER MOV-1100C
	INIT-I---SSL	2.300E-02	- INITIATING EVENT I FOR EVENT TREE 'S01SSL'
	V-NV853B---Y	1.000E+00	- OPERATOR FAILS TO RECOVER HV-853B/SIS SYSTEM
	V-NVCC0007-P	3.090E-04	- COMMON CAUSE FAILURE -NV-P --> 851A AND 853B
11	1.020E-02	2.132E-08	
	D-MS1100C--J	3.000E-03	- MTR STARTER MOV-1100C FT ACTUATE ON DEMAND
	D-MS1100C--Y	1.000E+00	- OPER. FAILS TO RECOVER MOV-1100C MOTOR STARTER
	INIT-I---SSL	2.300E-02	- INITIATING EVENT I FOR EVENT TREE 'S01SSL'
	V-MPCC0004-S	3.090E-04	- COMMON CAUSE FAILURE -MP-S --> G50A AND G50B

Top Event: S01SSL04 Top Event Probability: 2.089E-06

This file was created on 4-12-1991 at 10:35:32

<u>Rank</u>	<u>Cutset Importance</u>	<u>Cutset Probability</u>
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11 1.020E-02 2.132E-08

D-MS1100C--J 3.000E-03 - MTR STARTER MOV-1100C FT ACTUATE ON DEMAND
D-MS1100C--Y 1.000E+00 - OPER. FAILS TO RECOVER MOV-1100C MOTOR STARTER
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-NVCC0005-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 851A AND 851B

11 1.020E-02 2.132E-08

D-MS1100C--J 3.000E-03 - MTR STARTER MOV-1100C FT ACTUATE ON DEMAND
D-MS1100C--Y 1.000E+00 - OPER. FAILS TO RECOVER MOV-1100C MOTOR STARTER
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-C2CC0001-P 3.090E-04 - COMMON CAUSE FAILURE -C2-P --> 11C04 AND 12C04

11 1.020E-02 2.132E-08

D-MV1100C--N 3.000E-03 - MTR-OPERATED VLV MOV-1100C FT CLOSE ON DEMAND
D-MV1100C--Y 1.000E+00 - OPS FAILS TO RECOVER MOV-1100C
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-C211C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50B BREAKER 11C05/SIS
V-C212C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3A BREAKER 12C04/SIS
V-C2CC0006-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C05 AND 12C04

11 1.020E-02 2.132E-08

D-MV1100C--N 3.000E-03 - MTR-OPERATED VLV MOV-1100C FT CLOSE ON DEMAND
D-MV1100C--Y 1.000E+00 - OPS FAILS TO RECOVER MOV-1100C
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-C211C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50B BREAKER 11C05/SIS
V-C212C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50A BREAKER 12C05 /SIS
V-C2CC0007-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C05 AND 12C05

11 1.020E-02 2.132E-08

D-MS1100C--J 3.000E-03 - MTR STARTER MOV-1100C FT ACTUATE ON DEMAND
D-MS1100C--Y 1.000E+00 - OPER. FAILS TO RECOVER MOV-1100C MOTOR STARTER
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-C211C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3B BREAKER 11C04/SIS
V-C212C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50A BREAKER 12C05 /SIS
V-C2CC0009-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C04 AND 12C05

Top Event: S01SSL04 . Top Event Probability: 2.089E-06

This file was created on 4-12-1991 at 10:35:32

Rank	Cutset Importance	Cutset Probability	
11	1.020E-02	2.132E-08	
	D-MS1100C--J	3.000E-03	- MTR STARTER MOV-1100C FT ACTUATE ON DEMAND
	D-MS1100C--Y	1.000E+00	- OPER. FAILS TO RECOVER MOV-1100C MOTOR STARTER
	INIT-I---SSL	2.300E-02	- INITIATING EVENT I FOR EVENT TREE 'S01SSL'
	V-C211C05--Y	1.000E+00	- OPERATOR FAILS TO RECOVER G-50B BREAKER 11C05/SIS
	V-C212C04--Y	1.000E+00	- OPERATOR FAILS TO RECOVER G-3A BREAKER 12C04/SIS
	V-C2CC0006-N	3.090E-04	- COMMON CAUSE FAILURE -C2-N --> 11C05 AND 12C04
11	1.020E-02	2.132E-08	
	D-MS1100C--J	3.000E-03	- MTR STARTER MOV-1100C FT ACTUATE ON DEMAND
	D-MS1100C--Y	1.000E+00	- OPER. FAILS TO RECOVER MOV-1100C MOTOR STARTER
	INIT-I---SSL	2.300E-02	- INITIATING EVENT I FOR EVENT TREE 'S01SSL'
	V-C211C04--Y	1.000E+00	- OPERATOR FAILS TO RECOVER G-3B BREAKER 11C04/SIS
	V-C212C04--Y	1.000E+00	- OPERATOR FAILS TO RECOVER G-3A BREAKER 12C04/SIS
	V-C2CC0008-N	3.090E-04	- COMMON CAUSE FAILURE -C2-N --> 11C04 AND 12C04
11	1.020E-02	2.132E-08	
	D-MV1100C--N	3.000E-03	- MTR-OPERATED VLV MOV-1100C FT CLOSE ON DEMAND
	D-MV1100C--Y	1.000E+00	- OPS FAILS TO RECOVER MOV-1100C
	INIT-I---SSL	2.300E-02	- INITIATING EVENT I FOR EVENT TREE 'S01SSL'
	V-NV853A---Y	1.000E+00	- OPERATOR FAILS TO RECOVER HV-853A/SIS SYSTEM
	V-NV853B---Y	1.000E+00	- OPERATOR FAILS TO RECOVER HV-853B/SIS SYSTEM
	V-NVCC0010-P	3.090E-04	- COMMON CAUSE FAILURE -NV-P --> 853A AND 853B
11	1.020E-02	2.132E-08	
	D-MS1100C--J	3.000E-03	- MTR STARTER MOV-1100C FT ACTUATE ON DEMAND
	D-MS1100C--Y	1.000E+00	- OPER. FAILS TO RECOVER MOV-1100C MOTOR STARTER
	INIT-I---SSL	2.300E-02	- INITIATING EVENT I FOR EVENT TREE 'S01SSL'
	V-C211C05--Y	1.000E+00	- OPERATOR FAILS TO RECOVER G-50B BREAKER 11C05/SIS
	V-C212C05--Y	1.000E+00	- OPERATOR FAILS TO RECOVER G-50A BREAKER 12C05 /SIS
	V-C2CC0007-N	3.090E-04	- COMMON CAUSE FAILURE -C2-N --> 11C05 AND 12C05
11	1.020E-02	2.132E-08	
	D-MS1100C--J	3.000E-03	- MTR STARTER MOV-1100C FT ACTUATE ON DEMAND
	D-MS1100C--Y	1.000E+00	- OPER. FAILS TO RECOVER MOV-1100C MOTOR STARTER
	INIT-I---SSL	2.300E-02	- INITIATING EVENT I FOR EVENT TREE 'S01SSL'
	V-NV853A---Y	1.000E+00	- OPERATOR FAILS TO RECOVER HV-853A/SIS SYSTEM
	V-NV853B---Y	1.000E+00	- OPERATOR FAILS TO RECOVER HV-853B/SIS SYSTEM
	V-NVCC0010-P	3.090E-04	- COMMON CAUSE FAILURE -NV-P --> 853A AND 853B

Top Event: S01SSL04 Top Event Probability: 2.089E-06

This file was created on 4-12-1991 at 10:35:32

Rank	Cutset Importance	Cutset Probability
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11 1.020E-02 2.132E-08

D-MV1100C--N 3.000E-03 - MTR-OPERATED VLV MOV-1100C FT CLOSE ON DEMAND
D-MV1100C--Y 1.000E+00 - OPS FAILS TO RECOVER MOV-1100C
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-C2CC0001-P 3.090E-04 - COMMON CAUSE FAILURE -C2-P --> 11C04 AND 12C04

11 1.020E-02 2.132E-08

D-MV1100C--N 3.000E-03 - MTR-OPERATED VLV MOV-1100C FT CLOSE ON DEMAND
D-MV1100C--Y 1.000E+00 - OPS FAILS TO RECOVER MOV-1100C
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-NV853A---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853A/SIS SYSTEM
V-NVCC0008-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 851B AND 853A

11 1.020E-02 2.132E-08

D-MS1100C--J 3.000E-03 - MTR STARTER MOV-1100C FT ACTUATE ON DEMAND
D-MS1100C--Y 1.000E+00 - OPER. FAILS TO RECOVER MOV-1100C MOTOR STARTER
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-NV853A---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853A/SIS SYSTEM
V-NVCC0008-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 851B AND 853A

11 1.020E-02 2.132E-08

D-MV1100C--N 3.000E-03 - MTR-OPERATED VLV MOV-1100C FT CLOSE ON DEMAND
D-MV1100C--Y 1.000E+00 - OPS FAILS TO RECOVER MOV-1100C
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-C211C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3B BREAKER 11C04/SIS
V-C212C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3A BREAKER 12C04/SIS
V-C2CC0008-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C04 AND 12C04

11 1.020E-02 2.132E-08

D-MS1100C--J 3.000E-03 - MTR STARTER MOV-1100C FT ACTUATE ON DEMAND
D-MS1100C--Y 1.000E+00 - OPER. FAILS TO RECOVER MOV-1100C MOTOR STARTER
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-NV853B---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853B/SIS SYSTEM
V-NVCC0007-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 851A AND 853B

11 1.020E-02 2.132E-08

D-MV1100C--N 3.000E-03 - MTR-OPERATED VLV MOV-1100C FT CLOSE ON DEMAND
D-MV1100C--Y 1.000E+00 - OPS FAILS TO RECOVER MOV-1100C
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-MPCC0004-S 3.090E-04 - COMMON CAUSE FAILURE -MP-S --> G50A AND G50B

Top Event: S01SSL04 Top Event Probability: 2.089E-06

This file was created on 4-12-1991 at 10:35:32

Rank	Cutset Importance	Cutset Probability	
11	1.020E-02	2.132E-08	
	D-MV1100C--N	3.000E-03	- MTR-OPERATED VLV MOV-1100C FT CLOSE ON DEMAND
	D-MV1100C--Y	1.000E+00	- OPS FAILS TO RECOVER MOV-1100C
	INIT-I---SSL	2.300E-02	- INITIATING EVENT I FOR EVENT TREE 'S01SSL'
	V-NVCC0005-P	3.090E-04	- COMMON CAUSE FAILURE -NV-P --> 851A AND 851B
12	3.335E-03	6.969E-09	
	D-MS1100C--J	3.000E-03	- MTR STARTER MOV-1100C FT ACTUATE ON DEMAND
	D-MS1100C--Y	1.000E+00	- OPER. FAILS TO RECOVER MOV-1100C MOTOR STARTER
	INIT-I---SSL	2.300E-02	- INITIATING EVENT I FOR EVENT TREE 'S01SSL'
	V-NV854A---Y	1.000E+00	- OPERATOR FAILS TO RECOVER HV-854A/SIS SYSTEM
	V-NV854B---Y	1.000E+00	- OPERATOR FAILS TO RECOVER HV-854B/SIS SYSTEM
	V-NVCC0004-N	1.010E-04	- COMMON CAUSE FAILURE -NV-N --> 854A AND 854B
12	3.335E-03	6.969E-09	
	D-MV1100C--N	3.000E-03	- MTR-OPERATED VLV MOV-1100C FT CLOSE ON DEMAND
	D-MV1100C--Y	1.000E+00	- OPS FAILS TO RECOVER MOV-1100C
	INIT-I---SSL	2.300E-02	- INITIATING EVENT I FOR EVENT TREE 'S01SSL'
	V-NV854A---Y	1.000E+00	- OPERATOR FAILS TO RECOVER HV-854A/SIS SYSTEM
	V-NV854B---Y	1.000E+00	- OPERATOR FAILS TO RECOVER HV-854B/SIS SYSTEM
	V-NVCC0004-N	1.010E-04	- COMMON CAUSE FAILURE -NV-N --> 854A AND 854B
13	3.302E-03	6.900E-09	
	DDSYCHARG--U	1.000E-02	- OP FAILS TO ALIGN CHR G SYSTEM PER PROC IN TIME
	INIT-I---SSL	2.300E-02	- INITIATING EVENT I FOR EVENT TREE 'S01SSL'
	V-LXRWST---L	3.000E-03	- SPUR MFW PP TRIP SIGNAL FROM RWST LOW LVL SWITCH
	VDMPG3A/B--V	1.000E-02	- OPERATOR FAILS TO RESET SI & START MFW PUMPS W/O PROC.
14	2.832E-03	5.917E-09	
	DDSV115XI--U	5.000E-02	- OP FT ACT N2 TO SV-1115 AD,BE,CF PER PROC/IMMED LOA
	INIT-I---SSL	2.300E-02	- INITIATING EVENT I FOR EVENT TREE 'S01SSL'
	U-DGCC0002-R	5.145E-03	- COMMON CAUSE FAILURE -DG-R --> 1 AND 2
	U-OOCNDLP--Z	1.000E-03	- CONDITIONAL LOSS OF OFFSITE POWER GIVEN TURBINE TRIP
14	2.832E-03	5.917E-09	
	DDSV115XL--V	5.000E-02	- OP FTA N2 TO SV1115AD,BE,CF W/OUT PROC/LATE LOCA
	INIT-I---SSL	2.300E-02	- INITIATING EVENT I FOR EVENT TREE 'S01SSL'
	U-DGCC0002-R	5.145E-03	- COMMON CAUSE FAILURE -DG-R --> 1 AND 2
	U-OOCNDLP--Z	1.000E-03	- CONDITIONAL LOSS OF OFFSITE POWER GIVEN TURBINE TRIP

Top Event: S01SSL04 Top Event Probability: 2.089E-06

This file was created on 4-12-1991 at 10:35:32

Rank	Cutset Importance	Cutset Probability
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15 2.449E-03 5.117E-09

D-MPG8A--1DR 7.200E-04 - CHARGING PUMP G-8A FAILS TO RUN FOR 24 HOURS (MECH)
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-C211C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50B BREAKER 11C05/SIS
V-C212C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3A BREAKER 12C04/SIS
V-C2CC0006-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C05 AND 12C04

15 2.449E-03 5.117E-09

D-MPG8A--1DR 7.200E-04 - CHARGING PUMP G-8A FAILS TO RUN FOR 24 HOURS (MECH)
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-NV853B---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853B/SIS SYSTEM
V-NVCC0007-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 851A AND 853B

15 2.449E-03 5.117E-09

D-MPG8A--1DR 7.200E-04 - CHARGING PUMP G-8A FAILS TO RUN FOR 24 HOURS (MECH)
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-C211C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3B BREAKER 11C04/SIS
V-C212C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50A BREAKER 12C05/SIS
V-C2CC0009-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C04 AND 12C05

15 2.449E-03 5.117E-09

D-MPG8A--1DR 7.200E-04 - CHARGING PUMP G-8A FAILS TO RUN FOR 24 HOURS (MECH)
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-MPCC0004-S 3.090E-04 - COMMON CAUSE FAILURE -MP-S --> G50A AND G50B

15 2.449E-03 5.117E-09

D-MPG8A--1DR 7.200E-04 - CHARGING PUMP G-8A FAILS TO RUN FOR 24 HOURS (MECH)
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-C211C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3B BREAKER 11C04/SIS
V-C212C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3A BREAKER 12C04/SIS
V-C2CC0008-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C04 AND 12C04

15 2.449E-03 5.117E-09

D-MPG8A--1DR 7.200E-04 - CHARGING PUMP G-8A FAILS TO RUN FOR 24 HOURS (MECH)
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-C2CC0001-P 3.090E-04 - COMMON CAUSE FAILURE -C2-P --> 11C04 AND 12C04

Top Event: S01SSL04 Top Event Probability: 2.089E-06

This file was created on 4-12-1991 at 10:35:32

Rank	Cutset Importance	Cutset Probability	
15	2.449E-03	5.117E-09	
	D-MPG8A--1DR	7.200E-04	- CHARGING PUMP G-8A FAILS TO RUN FOR 24 HOURS (MECH)
	INIT-I---SSL	2.300E-02	- INITIATING EVENT I FOR EVENT TREE 'S01SSL'
	V-NV853A---Y	1.000E+00	- OPERATOR FAILS TO RECOVER HV-853A/SIS SYSTEM
	V-NV853B---Y	1.000E+00	- OPERATOR FAILS TO RECOVER HV-853B/SIS SYSTEM
	V-NVCC0010-P	3.090E-04	- COMMON CAUSE FAILURE -NV-P --> 853A AND 853B
15	2.449E-03	5.117E-09	
	D-MPG8A--1DR	7.200E-04	- CHARGING PUMP G-8A FAILS TO RUN FOR 24 HOURS (MECH)
	INIT-I---SSL	2.300E-02	- INITIATING EVENT I FOR EVENT TREE 'S01SSL'
	V-NVCC0005-P	3.090E-04	- COMMON CAUSE FAILURE -NV-P --> 851A AND 851B
15	2.449E-03	5.117E-09	
	D-MPG8A--1DR	7.200E-04	- CHARGING PUMP G-8A FAILS TO RUN FOR 24 HOURS (MECH)
	INIT-I---SSL	2.300E-02	- INITIATING EVENT I FOR EVENT TREE 'S01SSL'
	V-C211C05--Y	1.000E+00	- OPERATOR FAILS TO RECOVER G-50B BREAKER 11C05/SIS
	V-C212C05--Y	1.000E+00	- OPERATOR FAILS TO RECOVER G-50A BREAKER 12C05 /SIS
	V-C2CC0007-N	3.090E-04	- COMMON CAUSE FAILURE -C2-N --> 11C05 AND 12C05
15	2.449E-03	5.117E-09	
	D-MPG8A--1DR	7.200E-04	- CHARGING PUMP G-8A FAILS TO RUN FOR 24 HOURS (MECH)
	INIT-I---SSL	2.300E-02	- INITIATING EVENT I FOR EVENT TREE 'S01SSL'
	V-NV853A---Y	1.000E+00	- OPERATOR FAILS TO RECOVER HV-853A/SIS SYSTEM
	V-NVCC0008-P	3.090E-04	- COMMON CAUSE FAILURE -NV-P --> 851B AND 853A
16	1.792E-03	3.745E-09	
	DDSV115XL--V	5.000E-02	- OP FTA N2 TO SV1115AD,BE,CF W/OUT PROC/LATE LOCA
	INIT-I---SSL	2.300E-02	- INITIATING EVENT I FOR EVENT TREE 'S01SSL'
	U-DG1-----S	5.900E-02	- DIESEL GENERATOR 1 FT START ON DEMAND
	U-DG2----1DR	5.520E-02	- DIESEL GENERATOR 2 FT RUN FOR 24 HOURS
	U-OOCNDLP--Z	1.000E-03	- CONDITIONAL LOSS OF OFFSITE POWER GIVEN TURBINE TRIP
16	1.792E-03	3.745E-09	
	DDSV115X1--U	5.000E-02	- OP FT ACT N2 TO SV-1115 AD,BE,CF PER PROC/IMMED LOA
	INIT-I---SSL	2.300E-02	- INITIATING EVENT I FOR EVENT TREE 'S01SSL'
	U-DG1-----S	5.900E-02	- DIESEL GENERATOR 1 FT START ON DEMAND
	U-DG2----1DR	5.520E-02	- DIESEL GENERATOR 2 FT RUN FOR 24 HOURS
	U-OOCNDLP--Z	1.000E-03	- CONDITIONAL LOSS OF OFFSITE POWER GIVEN TURBINE TRIP

Top Event: S01SSL04 Top Event Probability: 2.089E-06

This file was created on 4-12-1991 at 10:35:32

Rank	Cutset Importance	Cutset Probability	
17	1.494E-03	3.121E-09	
	DDSV115XI--U	5.000E-02	- OP FT ACT N2 TO SV-1115 AD,BE,CF PER PROC/IMMED LOA
	INIT-I---SSL	2.300E-02	- INITIATING EVENT I FOR EVENT TREE 'S01SSL'
	U-DG1-----S	5.900E-02	- DIESEL GENERATOR 1 FT START ON DEMAND
	U-DG2-----M	4.600E-02	- DIESEL GENERATOR NO. 2 IN MAINTENANCE
	U-OOCNDLP--Z	1.000E-03	- CONDITIONAL LOSS OF OFFSITE POWER GIVEN TURBINE TRIP
17	1.494E-03	3.121E-09	
	DDSV115XL--V	5.000E-02	- OP FTA N2 TO SV1115AD,BE,CF W/OUT PROC/LATE LOCA
	INIT-I---SSL	2.300E-02	- INITIATING EVENT I FOR EVENT TREE 'S01SSL'
	U-DG1-----S	5.900E-02	- DIESEL GENERATOR 1 FT START ON DEMAND
	U-DG2-----M	4.600E-02	- DIESEL GENERATOR NO. 2 IN MAINTENANCE
	U-OOCNDLP--Z	1.000E-03	- CONDITIONAL LOSS OF OFFSITE POWER GIVEN TURBINE TRIP
18	1.398E-03	2.920E-09	
	DDSV115XL--V	5.000E-02	- OP FTA N2 TO SV1115AD,BE,CF W/OUT PROC/LATE LOCA
	INIT-I---SSL	2.300E-02	- INITIATING EVENT I FOR EVENT TREE 'S01SSL'
	U-DG1----1DR	5.520E-02	- DIESEL GENERATOR 1 FT RUN FOR 24 HOURS
	U-DG2-----M	4.600E-02	- DIESEL GENERATOR NO. 2 IN MAINTENANCE
	U-OOCNDLP--Z	1.000E-03	- CONDITIONAL LOSS OF OFFSITE POWER GIVEN TURBINE TRIP
18	1.398E-03	2.920E-09	
	DDSV115XL--V	5.000E-02	- OP FTA N2 TO SV1115AD,BE,CF W/OUT PROC/LATE LOCA
	INIT-I---SSL	2.300E-02	- INITIATING EVENT I FOR EVENT TREE 'S01SSL'
	U-DG1-----M	4.600E-02	- DIESEL GENERATOR NO. 1 IN MAINTENANCE
	U-DG2----1DR	5.520E-02	- DIESEL GENERATOR 2 FT RUN FOR 24 HOURS
	U-OOCNDLP--Z	1.000E-03	- CONDITIONAL LOSS OF OFFSITE POWER GIVEN TURBINE TRIP
18	1.398E-03	2.920E-09	
	DDSV115XI--U	5.000E-02	- OP FT ACT N2 TO SV-1115 AD,BE,CF PER PROC/IMMED LOA
	INIT-I---SSL	2.300E-02	- INITIATING EVENT I FOR EVENT TREE 'S01SSL'
	U-DG1-----M	4.600E-02	- DIESEL GENERATOR NO. 1 IN MAINTENANCE
	U-DG2----1DR	5.520E-02	- DIESEL GENERATOR 2 FT RUN FOR 24 HOURS
	U-OOCNDLP--Z	1.000E-03	- CONDITIONAL LOSS OF OFFSITE POWER GIVEN TURBINE TRIP
18	1.398E-03	2.920E-09	
	DDSV115XI--U	5.000E-02	- OP FT ACT N2 TO SV-1115 AD,BE,CF PER PROC/IMMED LOA
	INIT-I---SSL	2.300E-02	- INITIATING EVENT I FOR EVENT TREE 'S01SSL'
	U-DG1----1DR	5.520E-02	- DIESEL GENERATOR 1 FT RUN FOR 24 HOURS
	U-DG2-----M	4.600E-02	- DIESEL GENERATOR NO. 2 IN MAINTENANCE
	U-OOCNDLP--Z	1.000E-03	- CONDITIONAL LOSS OF OFFSITE POWER GIVEN TURBINE TRIP

Top Event: S01SSL04 Top Event Probability: 2.089E-06

This file was created on 4-12-1991 at 10:35:32

Rank	Cutset Importance	Cutset Probability	
19	1.222E-03	2.553E-09	
	DDSYCHARG--U	1.000E-02	- OP FAILS TO ALIGN CHRГ SYSTEM PER PROC IN TIME
	INIT-I---SSL	2.300E-02	- INITIATING EVENT I FOR EVENT TREE 'S01SSL'
	V-C212C04--N	3.000E-03	- BKR (CONTROL) 4160V 12C04 FT CLOSE ON DEMAND -G-3A/SIS
	V-C212C04--Y	1.000E+00	- OPERATOR FAILS TO RECOVER G-3A BREAKER 12C04/SIS
	V-MPG50B---M	3.700E-03	- SI PUMP G-50B IN MAINTENANCE SIS SYSTEM
19	1.222E-03	2.553E-09	
	DDSYCHARG--U	1.000E-02	- OP FAILS TO ALIGN CHRГ SYSTEM PER PROC IN TIME
	INIT-I---SSL	2.300E-02	- INITIATING EVENT I FOR EVENT TREE 'S01SSL'
	V-C212C05--N	3.000E-03	- BKR (CONTROL) 4160V 12C05 FT CLOSE ON DEMAND-G-50A/SIS
	V-C212C05--Y	1.000E+00	- OPERATOR FAILS TO RECOVER G-50A BREAKER 12C05 /SIS
	V-MPG50B---M	3.700E-03	- SI PUMP G-50B IN MAINTENANCE SIS SYSTEM
19	1.222E-03	2.553E-09	
	DDSYCHARG--U	1.000E-02	- OP FAILS TO ALIGN CHRГ SYSTEM PER PROC IN TIME
	INIT-I---SSL	2.300E-02	- INITIATING EVENT I FOR EVENT TREE 'S01SSL'
	V-MPG50A---M	3.700E-03	- SI PUMP G-50A IN MAINTENANCE SIS
	V-NV853B---P	3.000E-03	- HV-853B FAILS TO OPEN (MECH)/SIS SYSTEM
	V-NV853B---Y	1.000E+00	- OPERATOR FAILS TO RECOVER HV-853B/SIS SYSTEM
19	1.222E-03	2.553E-09	
	DDSYCHARG--U	1.000E-02	- OP FAILS TO ALIGN CHRГ SYSTEM PER PROC IN TIME
	INIT-I---SSL	2.300E-02	- INITIATING EVENT I FOR EVENT TREE 'S01SSL'
	V-C211C04--P	3.000E-03	- BKR (CONTROL) 4160V 11C04 FT OPEN ON DEMAND G-3B/SIS
	V-MPG50A---M	3.700E-03	- SI PUMP G-50A IN MAINTENANCE SIS
19	1.222E-03	2.553E-09	
	DDSYCHARG--U	1.000E-02	- OP FAILS TO ALIGN CHRГ SYSTEM PER PROC IN TIME
	INIT-I---SSL	2.300E-02	- INITIATING EVENT I FOR EVENT TREE 'S01SSL'
	V-MPG50B---M	3.700E-03	- SI PUMP G-50B IN MAINTENANCE SIS SYSTEM
	V-NV853A---P	3.000E-03	- HV-853A FAILS TO OPEN (MECH)/SIS SYSTEM
	V-NV853A---Y	1.000E+00	- OPERATOR FAILS TO RECOVER HV-853A/SIS SYSTEM
19	1.222E-03	2.553E-09	
	DDSYCHARG--U	1.000E-02	- OP FAILS TO ALIGN CHRГ SYSTEM PER PROC IN TIME
	INIT-I---SSL	2.300E-02	- INITIATING EVENT I FOR EVENT TREE 'S01SSL'
	V-C212C04--P	3.000E-03	- BKR (CONTROL) 4160V 12C04 FT OPEN ON DEMAND-G-3A/SIS
	V-MPG50B---M	3.700E-03	- SI PUMP G-50B IN MAINTENANCE SIS SYSTEM

Top Event: S01SSL04 Top Event Probability: 2.089E-06

This file was created on 4-12-1991 at 10:35:32

Rank	Cutset Importance	Cutset Probability
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19 1.222E-03 2.553E-09

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHR G SYSTEM PER PROC IN TIME
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-MPG3B----S 3.000E-03 - MFW PUMP G-3B FAILS TO RESTART
V-MPG50A---M 3.700E-03 - SI PUMP G-50A IN MAINTENANCE SIS

19 1.222E-03 2.553E-09

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHR G SYSTEM PER PROC IN TIME
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-C211C05--N 3.000E-03 - BKR (CONTROL) 4160V 11C05 FT CLOSE ON DEMAND G-50B/SIS
V-C211C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50B BREAKER 11C05/SIS
V-MPG50A---M 3.700E-03 - SI PUMP G-50A IN MAINTENANCE SIS

19 1.222E-03 2.553E-09

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHR G SYSTEM PER PROC IN TIME
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-MPG50A---M 3.700E-03 - SI PUMP G-50A IN MAINTENANCE SIS
V-MPG50B---S 3.000E-03 - SI PUMP G-50B FAILS TO START SIS SYSTEM

19 1.222E-03 2.553E-09

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHR G SYSTEM PER PROC IN TIME
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-MPG50A---S 3.000E-03 - SI PUMP G-50A FAILS TO START SIS
V-MPG50B---M 3.700E-03 - SI PUMP G-50B IN MAINTENANCE SIS SYSTEM

19 1.222E-03 2.553E-09

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHR G SYSTEM PER PROC IN TIME
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-C211C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3B BREAKER 11C04/SIS
V-C211C04--N 3.000E-03 - BKR (CONTROL) 4160V 11C04 FT CLOSE ON DEMAND-G-3B/SIS
V-MPG50A---M 3.700E-03 - SI PUMP G-50A IN MAINTENANCE SIS

19 1.222E-03 2.553E-09

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHR G SYSTEM PER PROC IN TIME
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-MPG50A---M 3.700E-03 - SI PUMP G-50A IN MAINTENANCE SIS
V-NV851B---P 3.000E-03 - HV-851B FAILS TO OPEN RAND SIS SYSTEM

Top Event: S01SSL04 Top Event Probability: 2.089E-06

This file was created on 4-12-1991 at 10:35:32

Rank	Cutset Importance	Cutset Probability
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19 1.222E-03 2.553E-09

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHR G SYSTEM PER PROC IN TIME
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-MPG50B---M 3.700E-03 - SI PUMP G-50B IN MAINTENANCE SIS SYSTEM
V-NV851A---P 3.000E-03 - HYDRAULIC VLV 851A FT OPEN ON DEMAND SIS SYSTEM

19 1.222E-03 2.553E-09

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHR G SYSTEM PER PROC IN TIME
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-MPG3A---Z 3.000E-03 - MFW PUMP G-3A DAMAGE DUE TO INADEQUATE MINIFLOW
V-MPG50B---M 3.700E-03 - SI PUMP G-50B IN MAINTENANCE SIS SYSTEM

19 1.222E-03 2.553E-09

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHR G SYSTEM PER PROC IN TIME
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-MPG3B---Z 3.000E-03 - MFW PP G-3B DAMAGE DUE TO INADEQUATE MINIFLOW
V-MPG50A---M 3.700E-03 - SI PUMP G-50A IN MAINTENANCE SIS

20 1.051E-03 2.196E-09

D-MSCC0002-J 3.090E-04 - COMMON CAUSE FAILURE -MS-J --> 18 AND 19
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-NV853A---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853A/SIS SYSTEM
V-NV853B---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853B/SIS SYSTEM
V-NVCC0010-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 853A AND 853B

20 1.051E-03 2.196E-09

D-MSCC0002-J 3.090E-04 - COMMON CAUSE FAILURE -MS-J --> 18 AND 19
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-C211C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50B BREAKER 11C05/SIS
V-C212C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50A BREAKER 12C05 /SIS
V-C2CC0007-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C05 AND 12C05

20 1.051E-03 2.196E-09

D-MSCC0002-J 3.090E-04 - COMMON CAUSE FAILURE -MS-J --> 18 AND 19
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-C2CC0001-P 3.090E-04 - COMMON CAUSE FAILURE -C2-P --> 11C04 AND 12C04

20 1.051E-03 2.196E-09

D-MSCC0002-J 3.090E-04 - COMMON CAUSE FAILURE -MS-J --> 18 AND 19
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-MPCC0004-S 3.090E-04 - COMMON CAUSE FAILURE -MP-S --> G50A AND G50B

Top Event: S01SSL04 Top Event Probability: 2.089E-06

This file was created on 4-12-1991 at 10:35:32

Rank	Cutset Importance	Cutset Probability
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20 1.051E-03 2.196E-09

D-MSCC0002-J 3.090E-04 - COMMON CAUSE FAILURE -MS-J --> 18 AND 19
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-C211C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50B BREAKER 11C05/SIS
V-C212C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3A BREAKER 12C04/SIS
V-C2CC0006-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C05 AND 12C04

20 1.051E-03 2.196E-09

D-MSCC0002-J 3.090E-04 - COMMON CAUSE FAILURE -MS-J --> 18 AND 19
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-C211C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3B BREAKER 11C04/SIS
V-C212C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50A BREAKER 12C05 /SIS
V-C2CC0009-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C04 AND 12C05

20 1.051E-03 2.196E-09

D-MSCC0002-J 3.090E-04 - COMMON CAUSE FAILURE -MS-J --> 18 AND 19
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-NVCC0005-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 851A AND 851B

20 1.051E-03 2.196E-09

D-MSCC0002-J 3.090E-04 - COMMON CAUSE FAILURE -MS-J --> 18 AND 19
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-C211C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3B BREAKER 11C04/SIS
V-C212C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3A BREAKER 12C04/SIS
V-C2CC0008-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C04 AND 12C04

20 1.051E-03 2.196E-09

D-MSCC0002-J 3.090E-04 - COMMON CAUSE FAILURE -MS-J --> 18 AND 19
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-NV853A---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853A/SIS SYSTEM
V-NVCC0008-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 851B AND 853A

20 1.051E-03 2.196E-09

D-MSCC0002-J 3.090E-04 - COMMON CAUSE FAILURE -MS-J --> 18 AND 19
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-NV853B---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853B/SIS SYSTEM
V-NVCC0007-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 851A AND 853B

Top Event: S01SSL04 Top Event Probability: 2.089E-06

This file was created on 4-12-1991 at 10:35:32

Rank	Cutset Importance	Cutset Probability
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21 9.907E-04 2.070E-09

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHRГ SYSTEM PER PROC IN TIME
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-MPG3A----Z 3.000E-03 - MFW PUMP G-3A DAMAGE DUE TO INADEQUATE MINIFLOW
V-MPG3B----S 3.000E-03 - MFW PUMP G-3B FAILS TO RESTART

21 9.907E-04 2.070E-09

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHRГ SYSTEM PER PROC IN TIME
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-C211C05--N 3.000E-03 - BKR (CONTROL) 4160V 11C05 FT CLOSE ON DEMAND G-50B/SIS
V-C211C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50B BREAKER 11C05/SIS
V-MPG3A----Z 3.000E-03 - MFW PUMP G-3A DAMAGE DUE TO INADEQUATE MINIFLOW

21 9.907E-04 2.070E-09

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHRГ SYSTEM PER PROC IN TIME
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-C212C05--N 3.000E-03 - BKR (CONTROL) 4160V 12C05 FT CLOSE ON DEMAND-G-50A/SIS
V-C212C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50A BREAKER 12C05 /SIS
V-MPG3B----Z 3.000E-03 - MFW PP G-3B DAMAGE DUE TO INADEQUATE MINIFLOW

21 9.907E-04 2.070E-09

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHRГ SYSTEM PER PROC IN TIME
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-C212C04--N 3.000E-03 - BKR (CONTROL) 4160V 12C04 FT CLOSE ON DEMAND -G-3A/SIS
V-C212C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3A BREAKER 12C04/SIS
V-NV853B---P 3.000E-03 - HV-853B FAILS TO OPEN (MECH)/SIS SYSTEM
V-NV853B---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853B/SIS SYSTEM

21 9.907E-04 2.070E-09

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHRГ SYSTEM PER PROC IN TIME
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-C212C04--P 3.000E-03 - BKR (CONTROL) 4160V 12C04 FT OPEN ON DEMAND-G-3A/SIS
V-NV851B---P 3.000E-03 - HV-851B FAILS TO OPEN RAND SIS SYSTEM

21 9.907E-04 2.070E-09

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHRГ SYSTEM PER PROC IN TIME
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-C211C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3B BREAKER 11C04/SIS
V-C211C04--N 3.000E-03 - BKR (CONTROL) 4160V 11C04 FT CLOSE ON DEMAND-G-3B/SIS
V-NV853A---P 3.000E-03 - HV-853A FAILS TO OPEN (MECH)/SIS SYSTEM
V-NV853A---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853A/SIS SYSTEM

Top Event: S01SSL04 Top Event Probability: 2.089E-06

This file was created on 4-12-1991 at 10:35:32

Rank	Cutset Importance	Cutset Probability
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21 9.907E-04 2.070E-09

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHRГ SYSTEM PER PROC IN TIME
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-C211C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3B BREAKER 11C04/SIS
V-C211C04--N 3.000E-03 - BKR (CONTROL) 4160V 11C04 FT CLOSE ON DEMAND-G-3B/SIS
V-MPG50A---S 3.000E-03 - SI PUMP G-50A FAILS TO START SIS

21 9.907E-04 2.070E-09

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHRГ SYSTEM PER PROC IN TIME
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-C211C04--P 3.000E-03 - BKR (CONTROL) 4160V 11C04 FT OPEN ON DEMAND G-3B/SIS
V-C212C05--N 3.000E-03 - BKR (CONTROL) 4160V 12C05 FT CLOSE ON DEMAND-G-50A/SIS
V-C212C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50A BREAKER 12C05 /SIS

21 9.907E-04 2.070E-09

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHRГ SYSTEM PER PROC IN TIME
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-MPG3B----Z 3.000E-03 - MFW PP G-3B DAMAGE DUE TO INADEQUATE MINIFLOW
V-NV853A---P 3.000E-03 - HV-853A FAILS TO OPEN (MECH)/SIS SYSTEM
V-NV853A---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853A/SIS SYSTEM

21 9.907E-04 2.070E-09

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHRГ SYSTEM PER PROC IN TIME
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-C211C04--P 3.000E-03 - BKR (CONTROL) 4160V 11C04 FT OPEN ON DEMAND G-3B/SIS
V-NV851A---P 3.000E-03 - HYDRAULIC VLV 851A FT OPEN ON DEMAND SIS SYSTEM

21 9.907E-04 2.070E-09

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHRГ SYSTEM PER PROC IN TIME
INIT-I---SSL 2.300E-02 - INITIATING EVENT I FOR EVENT TREE 'S01SSL'
V-C211C05--N 3.000E-03 - BKR (CONTROL) 4160V 11C05 FT CLOSE ON DEMAND G-50B/SIS
V-C211C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50B BREAKER 11C05/SIS
V-C212C04--P 3.000E-03 - BKR (CONTROL) 4160V 12C04 FT OPEN ON DEMAND-G-3A/SIS

Top Event: S01CCW05 Top Event Probability: 1.040E-07

This file was created on 4-12-1991 at 10:22:20

Rank	Cutset Importance	Cutset Probability
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1 6.170E-02 6.418E-09

D-GBADSD---V 1.000E+00 - OP FAILS TO CONNECT CHR G PUMP G-8A TO DSD DIESEL W/O PROC.
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
U-DGCC0002-R 5.145E-03 - COMMON CAUSE FAILURE -DG-R --> 1 AND 2
U-OOCNDLP--Z 1.000E-03 - CONDITIONAL LOSS OF OFFSITE POWER GIVEN TURBINE TRIP

2 3.906E-02 4.063E-09

D-GBADSD---V 1.000E+00 - OP FAILS TO CONNECT CHR G PUMP G-8A TO DSD DIESEL W/O PROC.
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
U-DG1-----S 5.900E-02 - DIESEL GENERATOR 1 FT START ON DEMAND
U-DG2----1DR 5.520E-02 - DIESEL GENERATOR 2 FT RUN FOR 24 HOURS
U-OOCNDLP--Z 1.000E-03 - CONDITIONAL LOSS OF OFFSITE POWER GIVEN TURBINE TRIP

3 3.705E-02 3.854E-09

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHR G SYSTEM PER PROC IN TIME
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-C211C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3B BREAKER 11C04/SIS
V-C212C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50A BREAKER 12C05 /SIS
V-C2CC0009-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C04 AND 12C05

3 3.705E-02 3.854E-09

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHR G SYSTEM PER PROC IN TIME
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-C211C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50B BREAKER 11C05/SIS
V-C212C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3A BREAKER 12C04/SIS
V-C2CC0006-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C05 AND 12C04

3 3.705E-02 3.854E-09

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHR G SYSTEM PER PROC IN TIME
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-NVCC0005-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 851A AND 851B

Top Event: S01CCW05 Top Event Probability: 1.040E-07

This file was created on 4-12-1991 at 10:22:20

Rank	Cutset Importance	Cutset Probability
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3 3.705E-02 3.854E-09

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHRГ SYSTEM PER PROC IN TIME
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-NV853A---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853A/SIS SYSTEM
V-NV853B---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853B/SIS SYSTEM
V-NVCC0010-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 853A AND 853B

3 3.705E-02 3.854E-09

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHRГ SYSTEM PER PROC IN TIME
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-C2CC0001-P 3.090E-04 - COMMON CAUSE FAILURE -C2-P --> 11C04 AND 12C04

3 3.705E-02 3.854E-09

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHRГ SYSTEM PER PROC IN TIME
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-NV853B---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853B/SIS SYSTEM
V-NVCC0007-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 851A AND 853B

3 3.705E-02 3.854E-09

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHRГ SYSTEM PER PROC IN TIME
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-NV853A---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853A/SIS SYSTEM
V-NVCC0008-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 851B AND 853A

3 3.705E-02 3.854E-09

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHRГ SYSTEM PER PROC IN TIME
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-C211C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50B BREAKER 11C05/SIS
V-C212C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50A BREAKER 12C05 /SIS
V-C2CC0007-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C05 AND 12C05

Top Event: SO1CCW05 Top Event Probability: 1.040E-07

This file was created on 4-12-1991 at 10:22:20

Rank	Cutset Importance	Cutset Probability
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3 3.705E-02 3.854E-09

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHR G SYSTEM PER PROC IN TIME
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'SO1CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'SO1CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'SO1CCW'
V-C211C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3B BREAKER 11C04/SIS
V-C212C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3A BREAKER 12C04/SIS
V-C2CC0008-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C04 AND 12C04

3 3.705E-02 3.854E-09

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHR G SYSTEM PER PROC IN TIME
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'SO1CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'SO1CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'SO1CCW'
V-MPCC0004-S 3.090E-04 - COMMON CAUSE FAILURE -MP-S --> G50A AND G50B

4 3.255E-02 3.385E-09

D-G8ADSD---V 1.000E+00 - OP FAILS TO CONNECT CHR G PUMP G-8A TO DSD DIESEL W/O PROC.
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'SO1CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'SO1CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'SO1CCW'
U-DG1-----S 5.900E-02 - DIESEL GENERATOR 1 FT START ON DEMAND
U-DG2-----M 4.600E-02 - DIESEL GENERATOR NO. 2 IN MAINTENANCE
U-OOCNDLP--Z 1.000E-03 - CONDITIONAL LOSS OF OFFSITE POWER GIVEN TURBINE TRIP

5 3.085E-02 3.209E-09

FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'SO1CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'SO1CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'SO1CCW'
U-DGCC0002-R 5.145E-03 - COMMON CAUSE FAILURE -DG-R --> 1 AND 2
U-OOCNDLP--Z 1.000E-03 - CONDITIONAL LOSS OF OFFSITE POWER GIVEN TURBINE TRIP
U-OOSDG&E--Z 5.000E-01 - SDG&E LINE UNAVAILABLE

6 3.045E-02 3.167E-09

D-G8ADSD---V 1.000E+00 - OP FAILS TO CONNECT CHR G PUMP G-8A TO DSD DIESEL W/O PROC.
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'SO1CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'SO1CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'SO1CCW'
U-DG1-----M 4.600E-02 - DIESEL GENERATOR NO. 1 IN MAINTENANCE
U-DG2----1DR 5.520E-02 - DIESEL GENERATOR 2 FT RUN FOR 24 HOURS
U-OOCNDLP--Z 1.000E-03 - CONDITIONAL LOSS OF OFFSITE POWER GIVEN TURBINE TRIP

Top Event: S01CCW05 Top Event Probability: 1.040E-07

This file was created on 4-12-1991 at 10:22:20

Rank	Cutset Importance	Cutset Probability
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6 3.045E-02 3.167E-09

D-G8ADSD---V 1.000E+00 - OP FAILS TO CONNECT CHR9 PUMP G-8A TO DSD DIESEL W/O PROC.
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
U-DG1----1DR 5.520E-02 - DIESEL GENERATOR 1 FT RUN FOR 24 HOURS
U-DG2-----M 4.600E-02 - DIESEL GENERATOR NO. 2 IN MAINTENANCE
U-OOCNDLP--Z 1.000E-03 - CONDITIONAL LOSS OF OFFSITE POWER GIVEN TURBINE TRIP

7 1.953E-02 2.031E-09

FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
U-DG1-----S 5.900E-02 - DIESEL GENERATOR 1 FT START ON DEMAND
U-DG2----1DR 5.520E-02 - DIESEL GENERATOR 2 FT RUN FOR 24 HOURS
U-OOCNDLP--Z 1.000E-03 - CONDITIONAL LOSS OF OFFSITE POWER GIVEN TURBINE TRIP
U-OOSDG&E--Z 5.000E-01 - SDG&E LINE UNAVAILABLE

8 1.627E-02 1.693E-09

FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
U-DG1-----S 5.900E-02 - DIESEL GENERATOR 1 FT START ON DEMAND
U-DG2-----M 4.600E-02 - DIESEL GENERATOR NO. 2 IN MAINTENANCE
U-OOCNDLP--Z 1.000E-03 - CONDITIONAL LOSS OF OFFSITE POWER GIVEN TURBINE TRIP
U-OOSDG&E--Z 5.000E-01 - SDG&E LINE UNAVAILABLE

9 1.522E-02 1.584E-09

FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
U-DG1----1DR 5.520E-02 - DIESEL GENERATOR 1 FT RUN FOR 24 HOURS
U-DG2-----M 4.600E-02 - DIESEL GENERATOR NO. 2 IN MAINTENANCE
U-OOCNDLP--Z 1.000E-03 - CONDITIONAL LOSS OF OFFSITE POWER GIVEN TURBINE TRIP
U-OOSDG&E--Z 5.000E-01 - SDG&E LINE UNAVAILABLE

Top Event: S01CCW05 Top Event Probability: 1.040E-07

This file was created on 4-12-1991 at 10:22:20

Rank	Cutset Importance	Cutset Probability
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9 1.522E-02 1.584E-09

FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
U-DG1-----M 4.600E-02 - DIESEL GENERATOR NO. 1 IN MAINTENANCE
U-DG2----1DR 5.520E-02 - DIESEL GENERATOR 2 FT RUN FOR 24 HOURS
U-OOCNDLP--Z 1.000E-03 - CONDITIONAL LOSS OF OFFSITE POWER GIVEN TURBINE TRIP
U-OOSDG&E--Z 5.000E-01 - SDG&E LINE UNAVAILABLE

10 1.211E-02 1.260E-09

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHRGE SYSTEM PER PROC IN TIME
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-NV854A---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-854A/SIS SYSTEM
V-NV854B---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-854B/SIS SYSTEM
V-NVCC0004-N 1.010E-04 - COMMON CAUSE FAILURE -NV-N --> 854A AND 854B

11 1.112E-02 1.156E-09

D-MV1100C--N 3.000E-03 - MTR-OPERATED VLV MOV-1100C FT CLOSE ON DEMAND
D-MV1100C--Y 1.000E+00 - OPS FAILS TO RECOVER MOV-1100C
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-C211C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50B BREAKER 11C05/SIS
V-C212C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3A BREAKER 12C04/SIS
V-C2CC0006-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C05 AND 12C04

11 1.112E-02 1.156E-09

D-MV1100C--N 3.000E-03 - MTR-OPERATED VLV MOV-1100C FT CLOSE ON DEMAND
D-MV1100C--Y 1.000E+00 - OPS FAILS TO RECOVER MOV-1100C
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-C2CC0001-P 3.090E-04 - COMMON CAUSE FAILURE -C2-P --> 11C04 AND 12C04

Top Event: S01CCW05 Top Event Probability: 1.040E-07

This file was created on 4-12-1991 at 10:22:20

Rank	Cutset Importance	Cutset Probability
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11 1.112E-02 1.156E-09

D-MV1100C--N 3.000E-03 - MTR-OPERATED VLV MOV-1100C FT CLOSE ON DEMAND
D-MV1100C--Y 1.000E+00 - OPS FAILS TO RECOVER MOV-1100C
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-C211C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3B BREAKER 11C04/SIS
V-C212C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50A BREAKER 12C05 /SIS
V-C2CC0009-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C04 AND 12C05

11 1.112E-02 1.156E-09

D-MS1100C--J 3.000E-03 - MTR STARTER MOV-1100C FT ACTUATE ON DEMAND
D-MS1100C--Y 1.000E+00 - OPER. FAILS TO RECOVER MOV-1100C MOTOR STARTER
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-C2CC0001-P 3.090E-04 - COMMON CAUSE FAILURE -C2-P --> 11C04 AND 12C04

11 1.112E-02 1.156E-09

D-MV1100C--N 3.000E-03 - MTR-OPERATED VLV MOV-1100C FT CLOSE ON DEMAND
D-MV1100C--Y 1.000E+00 - OPS FAILS TO RECOVER MOV-1100C
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-C211C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50B BREAKER 11C05/SIS
V-C212C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50A BREAKER 12C05 /SIS
V-C2CC0007-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C05 AND 12C05

11 1.112E-02 1.156E-09

D-MV1100C--N 3.000E-03 - MTR-OPERATED VLV MOV-1100C FT CLOSE ON DEMAND
D-MV1100C--Y 1.000E+00 - OPS FAILS TO RECOVER MOV-1100C
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-NVCC0005-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 851A AND 851B

Top Event: S01CCW05 Top Event Probability: 1.040E-07

This file was created on 4-12-1991 at 10:22:20

Rank	Cutset Importance	Cutset Probability
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11 1.112E-02 1.156E-09

- D-MS1100C--J 3.000E-03 - MTR STARTER MOV-1100C FT ACTUATE ON DEMAND
- D-MS1100C--Y 1.000E+00 - OPER. FAILS TO RECOVER MOV-1100C MOTOR STARTER
- FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
- FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
- INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
- V-NV853A---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853A/SIS SYSTEM
- V-NVCC0008-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 851B AND 853A

11 1.112E-02 1.156E-09

- D-MV1100C--N 3.000E-03 - MTR-OPERATED VLV MOV-1100C FT CLOSE ON DEMAND
- D-MV1100C--Y 1.000E+00 - OPS FAILS TO RECOVER MOV-1100C
- FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
- FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
- INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
- V-NV853B---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853B/SIS SYSTEM
- V-NVCC0007-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 851A AND 853B

11 1.112E-02 1.156E-09

- D-MS1100C--J 3.000E-03 - MTR STARTER MOV-1100C FT ACTUATE ON DEMAND
- D-MS1100C--Y 1.000E+00 - OPER. FAILS TO RECOVER MOV-1100C MOTOR STARTER
- FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
- FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
- INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
- V-C211C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3B BREAKER 11C04/SIS
- V-C212C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50A BREAKER 12C05 /SIS
- V-C2CC0009-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C04 AND 12C05

11 1.112E-02 1.156E-09

- D-MS1100C--J 3.000E-03 - MTR STARTER MOV-1100C FT ACTUATE ON DEMAND
- D-MS1100C--Y 1.000E+00 - OPER. FAILS TO RECOVER MOV-1100C MOTOR STARTER
- FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
- FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
- INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
- V-C211C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50B BREAKER 11C05/SIS
- V-C212C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50A BREAKER 12C05 /SIS
- V-C2CC0007-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C05 AND 12C05

Top Event: S01CCW05 Top Event Probability: 1.040E-07

This file was created on 4-12-1991 at 10:22:20

Rank	Cutset Importance	Cutset Probability
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11 1.112E-02 1.156E-09

D-MV1100C--N 3.000E-03 - MTR-OPERATED VLV MOV-1100C FT CLOSE ON DEMAND
D-MV1100C--Y 1.000E+00 - OPS FAILS TO RECOVER MOV-1100C
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-MPCC0004-S 3.090E-04 - COMMON CAUSE FAILURE -MP-S --> G50A AND G50B

11 1.112E-02 1.156E-09

D-MS1100C--J 3.000E-03 - MTR STARTER MOV-1100C FT ACTUATE ON DEMAND
D-MS1100C--Y 1.000E+00 - OPER. FAILS TO RECOVER MOV-1100C MOTOR STARTER
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-NV853A---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853A/SIS SYSTEM
V-NV853B---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853B/SIS SYSTEM
V-NVCC0010-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 853A AND 853B

11 1.112E-02 1.156E-09

D-MV1100C--N 3.000E-03 - MTR-OPERATED VLV MOV-1100C FT CLOSE ON DEMAND
D-MV1100C--Y 1.000E+00 - OPS FAILS TO RECOVER MOV-1100C
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-NV853A---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853A/SIS SYSTEM
V-NV853B---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853B/SIS SYSTEM
V-NVCC0010-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 853A AND 853B

11 1.112E-02 1.156E-09

D-MS1100C--J 3.000E-03 - MTR STARTER MOV-1100C FT ACTUATE ON DEMAND
D-MS1100C--Y 1.000E+00 - OPER. FAILS TO RECOVER MOV-1100C MOTOR STARTER
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-NVCC0005-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 851A AND 851B

Top Event: S01CCW05 Top Event Probability: 1.040E-07

This file was created on 4-12-1991 at 10:22:20

Rank	Cutset Importance	Cutset Probability
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11 1.112E-02 1.156E-09

D-MS1100C--J 3.000E-03 - MTR STARTER MOV-1100C FT ACTUATE ON DEMAND
D-MS1100C--Y 1.000E+00 - OPER. FAILS TO RECOVER MOV-1100C MOTOR STARTER
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-C211C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3B BREAKER 11C04/SIS
V-C212C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3A BREAKER 12C04/SIS
V-C2CC0008-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C04 AND 12C04

11 1.112E-02 1.156E-09

D-MV1100C--N 3.000E-03 - MTR-OPERATED VLV MOV-1100C FT CLOSE ON DEMAND
D-MV1100C--Y 1.000E+00 - OPS FAILS TO RECOVER MOV-1100C
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-NV853A---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853A/SIS SYSTEM
V-NVCC0008-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 851B AND 853A

11 1.112E-02 1.156E-09

D-MV1100C--N 3.000E-03 - MTR-OPERATED VLV MOV-1100C FT CLOSE ON DEMAND
D-MV1100C--Y 1.000E+00 - OPS FAILS TO RECOVER MOV-1100C
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-C211C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3B BREAKER 11C04/SIS
V-C212C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3A BREAKER 12C04/SIS
V-C2CC0008-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C04 AND 12C04

11 1.112E-02 1.156E-09

D-MS1100C--J 3.000E-03 - MTR STARTER MOV-1100C FT ACTUATE ON DEMAND
D-MS1100C--Y 1.000E+00 - OPER. FAILS TO RECOVER MOV-1100C MOTOR STARTER
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-C211C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50B BREAKER 11C05/SIS
V-C212C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3A BREAKER 12C04/SIS
V-C2CC0006-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C05 AND 12C04

Top Event: S01CCW05 Top Event Probability: 1.040E-07

This file was created on 4-12-1991 at 10:22:20

Rank	Cutset Importance	Cutset Probability
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11 1.112E-02 1.156E-09

D-MS1100C--J 3.000E-03 - MTR STARTER MOV-1100C FT ACTUATE ON DEMAND
D-MS1100C--Y 1.000E+00 - OPER. FAILS TO RECOVER MOV-1100C MOTOR STARTER
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-MPCC0004-S 3.090E-04 - COMMON CAUSE FAILURE -MP-S --> G50A AND G50B

11 1.112E-02 1.156E-09

D-MS1100C--J 3.000E-03 - MTR STARTER MOV-1100C FT ACTUATE ON DEMAND
D-MS1100C--Y 1.000E+00 - OPER. FAILS TO RECOVER MOV-1100C MOTOR STARTER
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-NV853B---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853B/SIS SYSTEM
V-NVCC0007-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 851A AND 853B

12 3.634E-03 3.780E-10

D-MV1100C--N 3.000E-03 - MTR-OPERATED VLV MOV-1100C FT CLOSE ON DEMAND
D-MV1100C--Y 1.000E+00 - OPS FAILS TO RECOVER MOV-1100C
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-NV854A---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-854A/SIS SYSTEM
V-NV854B---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-854B/SIS SYSTEM
V-NVCC0004-N 1.010E-04 - COMMON CAUSE FAILURE -NV-N --> 854A AND 854B

12 3.634E-03 3.780E-10

D-MS1100C--J 3.000E-03 - MTR STARTER MOV-1100C FT ACTUATE ON DEMAND
D-MS1100C--Y 1.000E+00 - OPER. FAILS TO RECOVER MOV-1100C MOTOR STARTER
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-NV854A---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-854A/SIS SYSTEM
V-NV854B---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-854B/SIS SYSTEM
V-NVCC0004-N 1.010E-04 - COMMON CAUSE FAILURE -NV-N --> 854A AND 854B

Top Event: S01CCW05 Top Event Probability: 1.040E-07

This file was created on 4-12-1991 at 10:22:20

Rank	Cutset Importance	Cutset Probability
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13 3.085E-03 3.209E-10

DDSV115XL--V 5.000E-02 - OP FTA N2 TO SV1115AD,BE,CF W/OUT PROC/LATE LOCA
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
U-DGCC0002-R 5.145E-03 - COMMON CAUSE FAILURE -DG-R --> 1 AND 2
U-OCCNDLP--Z 1.000E-03 - CONDITIONAL LOSS OF OFFSITE POWER GIVEN TURBINE TRIP

13 3.085E-03 3.209E-10

DDSV115XI--U 5.000E-02 - OP FT ACT N2 TO SV-1115 AD,BE,CF PER PROC/IMMED LOA
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
U-DGCC0002-R 5.145E-03 - COMMON CAUSE FAILURE -DG-R --> 1 AND 2
U-OCCNDLP--Z 1.000E-03 - CONDITIONAL LOSS OF OFFSITE POWER GIVEN TURBINE TRIP

14 2.668E-03 2.775E-10

D-MPG8A--1DR 7.200E-04 - CHARGING PUMP G-8A FAILS TO RUN FOR 24 HOURS (MECH)
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-C211C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3B BREAKER 11C04/SIS
V-C212C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50A BREAKER 12C05 /SIS
V-C2CC0009-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C04 AND 12C05

14 2.668E-03 2.775E-10

D-MPG8A--1DR 7.200E-04 - CHARGING PUMP G-8A FAILS TO RUN FOR 24 HOURS (MECH)
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-NV853B---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853B/SIS SYSTEM
V-NVCC0007-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 851A AND 853B

14 2.668E-03 2.775E-10

D-MPG8A--1DR 7.200E-04 - CHARGING PUMP G-8A FAILS TO RUN FOR 24 HOURS (MECH)
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-MPCC0004-S 3.090E-04 - COMMON CAUSE FAILURE -MP-S --> G50A AND G50B

Top Event: S01CCW05 Top Event Probability: 1.040E-07

This file was created on 4-12-1991 at 10:22:20

Rank	Cutset Importance	Cutset Probability
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14 2.668E-03 2.775E-10

D-MPG8A--1DR 7.200E-04 - CHARGING PUMP G-8A FAILS TO RUN FOR 24 HOURS (MECH)
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-C2CC0001-P 3.090E-04 - COMMON CAUSE FAILURE -C2-P --> 11C04 AND 12C04

14 2.668E-03 2.775E-10

D-MPG8A--1DR 7.200E-04 - CHARGING PUMP G-8A FAILS TO RUN FOR 24 HOURS (MECH)
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-NV853A---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853A/SIS SYSTEM
V-NVCC0008-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 851B AND 853A

14 2.668E-03 2.775E-10

D-MPG8A--1DR 7.200E-04 - CHARGING PUMP G-8A FAILS TO RUN FOR 24 HOURS (MECH)
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-NV853A---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853A/SIS SYSTEM
V-NV853B---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853B/SIS SYSTEM
V-NVCC0010-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 853A AND 853B

14 2.668E-03 2.775E-10

D-MPG8A--1DR 7.200E-04 - CHARGING PUMP G-8A FAILS TO RUN FOR 24 HOURS (MECH)
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-C211C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3B BREAKER 11C04/SIS
V-C212C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3A BREAKER 12C04/SIS
V-C2CC0008-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C04 AND 12C04

14 2.668E-03 2.775E-10

D-MPG8A--1DR 7.200E-04 - CHARGING PUMP G-8A FAILS TO RUN FOR 24 HOURS (MECH)
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-C211C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50B BREAKER 11C05/SIS
V-C212C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3A BREAKER 12C04/SIS
V-C2CC0006-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C05 AND 12C04

Top Event: S01CCW05 Top Event Probability: 1.040E-07

This file was created on 4-12-1991 at 10:22:20

Rank	Cutset Importance	Cutset Probability
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14 2.668E-03 2.775E-10

D-MPG8A--1DR 7.200E-04 - CHARGING PUMP G-8A FAILS TO RUN FOR 24 HOURS (MECH)
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-C211C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50B BREAKER 11C05/SIS
V-C212C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50A BREAKER 12C05 /SIS
V-C2CC0007-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C05 AND 12C05

14 2.668E-03 2.775E-10

D-MPG8A--1DR 7.200E-04 - CHARGING PUMP G-8A FAILS TO RUN FOR 24 HOURS (MECH)
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-NVCC0005-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 851A AND 851B

15 1.145E-03 1.191E-10

D-MSCC0002-J 3.090E-04 - COMMON CAUSE FAILURE -MS-J --> 18 AND 19
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-NV853A---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853A/SIS SYSTEM
V-NV853B---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853B/SIS SYSTEM
V-NVCC0010-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 853A AND 853B

15 1.145E-03 1.191E-10

D-MSCC0002-J 3.090E-04 - COMMON CAUSE FAILURE -MS-J --> 18 AND 19
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-NVCC0005-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 851A AND 851B

15 1.145E-03 1.191E-10

D-MSCC0002-J 3.090E-04 - COMMON CAUSE FAILURE -MS-J --> 18 AND 19
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-MPCC0004-S 3.090E-04 - COMMON CAUSE FAILURE -MP-S --> G50A AND G50B

Top Event: S01CCW05 Top Event Probability: 1.040E-07

This file was created on 4-12-1991 at 10:22:20

Rank	Cutset Importance	Cutset Probability
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15 1.145E-03 1.191E-10

D-MSCC0002-J 3.090E-04 - COMMON CAUSE FAILURE -MS-J --> 18 AND 19
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-C211C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50B BREAKER 11C05/SIS
V-C212C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3A BREAKER 12C04/SIS
V-C2CC0006-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C05 AND 12C04

15 1.145E-03 1.191E-10

D-MSCC0002-J 3.090E-04 - COMMON CAUSE FAILURE -MS-J --> 18 AND 19
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-NV853B---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853B/SIS SYSTEM
V-NVCC0007-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 851A AND 853B

15 1.145E-03 1.191E-10

D-MSCC0002-J 3.090E-04 - COMMON CAUSE FAILURE -MS-J --> 18 AND 19
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-NV853A---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853A/SIS SYSTEM
V-NVCC0008-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 851B AND 853A

15 1.145E-03 1.191E-10

D-MSCC0002-J 3.090E-04 - COMMON CAUSE FAILURE -MS-J --> 18 AND 19
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-C211C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50B BREAKER 11C05/SIS
V-C212C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50A BREAKER 12C05 /SIS
V-C2CC0007-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C05 AND 12C05

15 1.145E-03 1.191E-10

D-MSCC0002-J 3.090E-04 - COMMON CAUSE FAILURE -MS-J --> 18 AND 19
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-C2CC0001-P 3.090E-04 - COMMON CAUSE FAILURE -C2-P --> 11C04 AND 12C04

Top Event: S01CCW05 Top Event Probability: 1.040E-07

This file was created on 4-12-1991 at 10:22:20

Rank	Cutset Importance	Cutset Probability
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15 1.145E-03 1.191E-10

D-MSCC0002-J 3.090E-04 - COMMON CAUSE FAILURE -MS-J --> 18 AND 19
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-C211C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3B BREAKER 11C04/SIS
V-C212C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50A BREAKER 12C05 /SIS
V-C2CC0009-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C04 AND 12C05

15 1.145E-03 1.191E-10

D-MSCC0002-J 3.090E-04 - COMMON CAUSE FAILURE -MS-J --> 18 AND 19
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-C211C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3B BREAKER 11C04/SIS
V-C212C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3A BREAKER 12C04/SIS
V-C2CC0008-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C04 AND 12C04

16 1.012E-03 1.052E-10

D-MVCC0047-P 2.730E-04 - COMMON CAUSE FAILURE -MV-P --> 18 AND 19
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-C211C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3B BREAKER 11C04/SIS
V-C212C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3A BREAKER 12C04/SIS
V-C2CC0008-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C04 AND 12C04

16 1.012E-03 1.052E-10

D-MVCC0047-P 2.730E-04 - COMMON CAUSE FAILURE -MV-P --> 18 AND 19
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-C211C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3B BREAKER 11C04/SIS
V-C212C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50A BREAKER 12C05 /SIS
V-C2CC0009-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C04 AND 12C05

16 1.012E-03 1.052E-10

D-MVCC0047-P 2.730E-04 - COMMON CAUSE FAILURE -MV-P --> 18 AND 19
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-MPCC0004-S 3.090E-04 - COMMON CAUSE FAILURE -MP-S --> G50A AND G50B

Top Event: S01CCW05 Top Event Probability: 1.040E-07

This file was created on 4-12-1991 at 10:22:20

<u>Rank</u>	<u>Cutset Importance</u>	<u>Cutset Probability</u>
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16 1.012E-03 1.052E-10

D-MVCC0047-P 2.730E-04 - COMMON CAUSE FAILURE -MV-P --> 18 AND 19
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-C2CC0001-P 3.090E-04 - COMMON CAUSE FAILURE -C2-P --> 11C04 AND 12C04

16 1.012E-03 1.052E-10

D-MVCC0047-P 2.730E-04 - COMMON CAUSE FAILURE -MV-P --> 18 AND 19
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
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INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-C211C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50B BREAKER 11C05/SIS
V-C212C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50A BREAKER 12C05 /SIS
V-C2CC0007-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C05 AND 12C05

16 1.012E-03 1.052E-10

D-MVCC0047-P 2.730E-04 - COMMON CAUSE FAILURE -MV-P --> 18 AND 19
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-NV853B---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853B/SIS SYSTEM
V-NVCC0007-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 851A AND 853B

16 1.012E-03 1.052E-10

D-MVCC0047-P 2.730E-04 - COMMON CAUSE FAILURE -MV-P --> 18 AND 19
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-NV853A---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853A/SIS SYSTEM
V-NVCC0008-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 851B AND 853A

16 1.012E-03 1.052E-10

D-MVCC0047-P 2.730E-04 - COMMON CAUSE FAILURE -MV-P --> 18 AND 19
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-NVCC0005-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 851A AND 851B

Top Event: S01CCW05 Top Event Probability: 1.040E-07

This file was created on 4-12-1991 at 10:22:20

Rank	Cutset Importance	Cutset Probability
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16 1.012E-03 1.052E-10

D-MVCC0047-P 2.730E-04 - COMMON CAUSE FAILURE -MV-P --> 18 AND 19
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-C211C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50B BREAKER 11C05/SIS
V-C212C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3A BREAKER 12C04/SIS
V-C2CC0006-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C05 AND 12C04

16 1.012E-03 1.052E-10

D-MVCC0047-P 2.730E-04 - COMMON CAUSE FAILURE -MV-P --> 18 AND 19
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-NV853A---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853A/SIS SYSTEM
V-NV853B---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853B/SIS SYSTEM
V-NVCC0010-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 853A AND 853B

17 8.721E-04 9.071E-11

D-MPG8A--1DR 7.200E-04 - CHARGING PUMP G-8A FAILS TO RUN FOR 24 HOURS (MECH)
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-NV854A---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-854A/SIS SYSTEM
V-NV854B---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-854B/SIS SYSTEM
V-NVCC0004-N 1.010E-04 - COMMON CAUSE FAILURE -NV-N --> 854A AND 854B

18 6.170E-04 6.418E-11

DDSYCHARG--U 1.000E-02 - OP FAILS TO ALIGN CHR G SYSTEM PER PROC IN TIME
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
U-DGCC0002-R 5.145E-03 - COMMON CAUSE FAILURE -DG-R --> 1 AND 2
U-OCNDLP--Z 1.000E-03 - CONDITIONAL LOSS OF OFFSITE POWER GIVEN TURBINE TRIP

19 3.778E-04 3.930E-11

D-AVCC0008-P 3.090E-04 - COMMON CAUSE FAILURE -AV-P --> 1115E AND 1115F
D-LOCAA----D 3.300E-01 - FLOW SPILLAGE FROM RCS LOOP A
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-NV853A---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853A/SIS SYSTEM
V-NVCC0008-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 851B AND 853A

Top Event: S01CCW05 Top Event Probability: 1.040E-07

This file was created on 4-12-1991 at 10:22:20

Rank	Cutset Importance	Cutset Probability
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19 3.778E-04 3.930E-11

D-AVCC0008-P 3.090E-04 - COMMON CAUSE FAILURE -AV-P --> 1115E AND 1115F
D-LOCAA----D 3.300E-01 - FLOW SPILLAGE FROM RCS LOOP A
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-C211C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3B BREAKER 11C04/SIS
V-C212C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50A BREAKER 12C05 /SIS
V-C2CC0009-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C04 AND 12C05

19 3.778E-04 3.930E-11

D-AVCC0008-P 3.090E-04 - COMMON CAUSE FAILURE -AV-P --> 1115E AND 1115F
D-LOCAA----D 3.300E-01 - FLOW SPILLAGE FROM RCS LOOP A
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-NV853B---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853B/SIS SYSTEM
V-NVCC0007-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 851A AND 853B

19 3.778E-04 3.930E-11

D-AVCC0008-P 3.090E-04 - COMMON CAUSE FAILURE -AV-P --> 1115E AND 1115F
D-LOCAA----D 3.300E-01 - FLOW SPILLAGE FROM RCS LOOP A
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-C211C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3B BREAKER 11C04/SIS
V-C212C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3A BREAKER 12C04/SIS
V-C2CC0008-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C04 AND 12C04

19 3.778E-04 3.930E-11

D-AVCC0008-P 3.090E-04 - COMMON CAUSE FAILURE -AV-P --> 1115E AND 1115F
D-LOCAA----D 3.300E-01 - FLOW SPILLAGE FROM RCS LOOP A
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-C2CC0001-P 3.090E-04 - COMMON CAUSE FAILURE -C2-P --> 11C04 AND 12C04

Top Event: S01CCW05 Top Event Probability: 1.040E-07

This file was created on 4-12-1991 at 10:22:20

Rank	Cutset Importance	Cutset Probability
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19 3.778E-04 3.930E-11

D-LOCAA----D 3.300E-01 - FLOW SPILLAGE FROM RCS LOOP A
D-MSCC0006-J 3.090E-04 - COMMON CAUSE FAILURE -MS-J --> 357 AND 358
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-NV853A---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853A/SIS SYSTEM
V-NVCC0008-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 851B AND 853A

19 3.778E-04 3.930E-11

D-LOCAA----D 3.300E-01 - FLOW SPILLAGE FROM RCS LOOP A
D-MSCC0006-J 3.090E-04 - COMMON CAUSE FAILURE -MS-J --> 357 AND 358
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-C211C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3B BREAKER 11C04/SIS
V-C212C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3A BREAKER 12C04/SIS
V-C2CC0008-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C04 AND 12C04

19 3.778E-04 3.930E-11

D-AVCC0008-P 3.090E-04 - COMMON CAUSE FAILURE -AV-P --> 1115E AND 1115F
D-LOCAA----D 3.300E-01 - FLOW SPILLAGE FROM RCS LOOP A
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-MPCC0004-S 3.090E-04 - COMMON CAUSE FAILURE -MP-S --> G50A AND G50B

19 3.778E-04 3.930E-11

D-AVCC0008-P 3.090E-04 - COMMON CAUSE FAILURE -AV-P --> 1115E AND 1115F
D-LOCAA----D 3.300E-01 - FLOW SPILLAGE FROM RCS LOOP A
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-C211C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50B BREAKER 11C05/SIS
V-C212C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50A BREAKER 12C05 /SIS
V-C2CC0007-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C05 AND 12C05

Top Event: S01CCW05 Top Event Probability: 1.040E-07

This file was created on 4-12-1991 at 10:22:20

Rank	Cutset Importance	Cutset Probability
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19 3.778E-04 3.930E-11

D-LOCAA----D 3.300E-01 - FLOW SPILLAGE FROM RCS LOOP A
D-MSCC0006-J 3.090E-04 - COMMON CAUSE FAILURE -MS-J --> 357 AND 358
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-C211C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50B BREAKER 11C05/SIS
V-C212C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3A BREAKER 12C04/SIS
V-C2CC0006-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C05 AND 12C04

19 3.778E-04 3.930E-11

D-LOCAA----D 3.300E-01 - FLOW SPILLAGE FROM RCS LOOP A
D-MSCC0006-J 3.090E-04 - COMMON CAUSE FAILURE -MS-J --> 357 AND 358
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-NV853A---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853A/SIS SYSTEM
V-NV853B---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853B/SIS SYSTEM
V-NVCC0010-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 853A AND 853B

19 3.778E-04 3.930E-11

D-LOCAA----D 3.300E-01 - FLOW SPILLAGE FROM RCS LOOP A
D-MSCC0006-J 3.090E-04 - COMMON CAUSE FAILURE -MS-J --> 357 AND 358
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-C211C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50B BREAKER 11C05/SIS
V-C212C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50A BREAKER 12C05 /SIS
V-C2CC0007-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C05 AND 12C05

19 3.778E-04 3.930E-11

D-AVCC0008-P 3.090E-04 - COMMON CAUSE FAILURE -AV-P --> 1115E AND 1115F
D-LOCAA----D 3.300E-01 - FLOW SPILLAGE FROM RCS LOOP A
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-NVCC0005-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 851A AND 851B

Top Event: S01CCW05 Top Event Probability: 1.040E-07

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Rank	Cutset Importance	Cutset Probability
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19 3.778E-04 3.930E-11

D-LOCAA----D 3.300E-01 - FLOW SPILLAGE FROM RCS LOOP A
D-MSCC0006-J 3.090E-04 - COMMON CAUSE FAILURE -MS-J --> 357 AND 358
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-MPCC0004-S 3.090E-04 - COMMON CAUSE FAILURE -MP-S --> G50A AND G50B

19 3.778E-04 3.930E-11

D-AVCC0008-P 3.090E-04 - COMMON CAUSE FAILURE -AV-P --> 1115E AND 1115F
D-LOCAA----D 3.300E-01 - FLOW SPILLAGE FROM RCS LOOP A
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-NV853A---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853A/SIS SYSTEM
V-NV853B---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853B/SIS SYSTEM
V-NVCC0010-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 853A AND 853B

19 3.778E-04 3.930E-11

D-LOCAA----D 3.300E-01 - FLOW SPILLAGE FROM RCS LOOP A
D-MSCC0006-J 3.090E-04 - COMMON CAUSE FAILURE -MS-J --> 357 AND 358
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-NVCC0005-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 851A AND 851B

19 3.778E-04 3.930E-11

D-AVCC0008-P 3.090E-04 - COMMON CAUSE FAILURE -AV-P --> 1115E AND 1115F
D-LOCAA----D 3.300E-01 - FLOW SPILLAGE FROM RCS LOOP A
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-C211C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50B BREAKER 11C05/SIS
V-C212C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3A BREAKER 12C04/SIS
V-C2CC0006-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C05 AND 12C04

Top Event: S01CCW05 Top Event Probability: 1.040E-07

This file was created on 4-12-1991 at 10:22:20

Rank	Cutset Importance	Cutset Probability
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19 3.778E-04 3.930E-11

D-LOCAA----D 3.300E-01 - FLOW SPILLAGE FROM RCS LOOP A
D-MSCC0006-J 3.090E-04 - COMMON CAUSE FAILURE -MS-J --> 357 AND 358
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-C211C04--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-3B BREAKER 11C04/SIS
V-C212C05--Y 1.000E+00 - OPERATOR FAILS TO RECOVER G-50A BREAKER 12C05 /SIS
V-C2CC0009-N 3.090E-04 - COMMON CAUSE FAILURE -C2-N --> 11C04 AND 12C05

19 3.778E-04 3.930E-11

D-LOCAA----D 3.300E-01 - FLOW SPILLAGE FROM RCS LOOP A
D-MSCC0006-J 3.090E-04 - COMMON CAUSE FAILURE -MS-J --> 357 AND 358
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-NV853B---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853B/SIS SYSTEM
V-NVCC0007-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 851A AND 853B

19 3.778E-04 3.930E-11

D-LOCAA----D 3.300E-01 - FLOW SPILLAGE FROM RCS LOOP A
D-MSCC0006-J 3.090E-04 - COMMON CAUSE FAILURE -MS-J --> 357 AND 358
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-C2CC0001-P 3.090E-04 - COMMON CAUSE FAILURE -C2-P --> 11C04 AND 12C04

20 3.743E-04 3.893E-11

D-MSCC0002-J 3.090E-04 - COMMON CAUSE FAILURE -MS-J --> 18 AND 19
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-NV854A---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-854A/SIS SYSTEM
V-NV854B---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-854B/SIS SYSTEM
V-NVCC0004-N 1.010E-04 - COMMON CAUSE FAILURE -NV-N --> 854A AND 854B

21 3.705E-04 3.854E-11

D-CV301----P 1.000E-04 - CHECK VALVE CRS-301 FT OPEN ON DEMAND
FTPE-C1--CCW 9.000E-01 - FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW 9.900E-01 - FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW 1.400E-03 - INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-NV853B---Y 1.000E+00 - OPERATOR FAILS TO RECOVER HV-853B/SIS SYSTEM
V-NVCC0007-P 3.090E-04 - COMMON CAUSE FAILURE -NV-P --> 851A AND 853B

Top Event: S01CCW05 Top Event Probability: 1.040E-07

This file was created on 4-12-1991 at 10:22:20

<u>Rank</u>	<u>Cutset Importance</u>	<u>Cutset Probability</u>
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21	3.705E-04	3.854E-11
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D-XV425---X	1.000E-04	-	MANUAL VLV CRS-425 LEFT INOP POST-MAINT
FTPE-C1--CCW	9.000E-01	-	FT POINT ESTIMATE 'C1' FOR EVENT TREE 'S01CCW'
FTPE-V1--CCW	9.900E-01	-	FT POINT ESTIMATE 'V1' FOR EVENT TREE 'S01CCW'
INIT-TC--CCW	1.400E-03	-	INITIATING EVENT TC FOR EVENT TREE 'S01CCW'
V-C211C05--Y	1.000E+00	-	OPERATOR FAILS TO RECOVER G-50B BREAKER 11C05/SIS
V-C212C05--Y	1.000E+00	-	OPERATOR FAILS TO RECOVER G-50A BREAKER 12C05 /SIS
V-C2CC0007-N	3.090E-04	-	COMMON CAUSE FAILURE -C2-N --> 11C05 AND 12C05