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Section 7**

Enclosure 1 contains the subject partial ESBWR Probabilistic Risk Assessment (PRA) document (Revision 1). The complete PRA document (including the sections transmitted herein and via the Reference 1 letter) will be issued in accordance with Reference 2.

If you have any questions about the information provided here, please let me know.

Sincerely,

David H. Hinds
Manager, ESBWR

D068

References:

1. MFN 06-049, Letter from David H. Hinds to U.S. Nuclear Regulatory Commission, *NEDO-33201, Revision 1, "ESBWR Probabilistic Risk Assessment," Sections 2 through 6*, February 8, 2006
2. MFN 06-015, Letter from David H. Hinds to U.S. Nuclear Regulatory Commission, *Submittal Schedule for Documents Related to ESBWR Probabilistic Risk Assessment*, January 16, 2006

Enclosure:

MFN 06-058 – NEDO-33201, Revision 1, "ESBWR Probabilistic Risk Assessment," Section 7, "Core Damage Frequency Quantification"

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Enclosure 1

ENCLOSURE 1

MFN 06-058

NEDO-33201, Revision 1, "ESBWR Probabilistic
Risk Assessment"

Section 7, "Core Damage Frequency Quantification"

7 CORE DAMAGE FREQUENCY QUANTIFICATION

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7 CORE DAMAGE FREQUENCY QUANTIFICATION

7.1 INTRODUCTION AND SCOPE

The purpose of this section is to document the calculation of the core damage frequency (CDF) due to events that occur when the plant is operating at full power. It covers internal events only. Sections 12 through 15 describe the CDF due to external events.

The ESBWR PRA model consists of event trees and fault trees that are quantified using a fault tree linking process. The event trees are described in Section 3, while the fault trees are described in Section 4.

The calculation of the CDF is performed on a sequence-by-sequence basis. The individual sequence results can then be combined as necessary for reporting, analyzing, or to be used as input for the containment performance portion of the PRA.

Section 7.2 presents the results of the quantification.

Section 7.3 is provided to further describe the details of the quantification process.

7.2 PRA RESULTS

The total core damage frequency (CDF) resulting from accident sequences is $2.92\text{E-}08/\text{year}$.

7.2.1 Initiating Event Contribution

Table 7.2-1 shows the contribution of initiating events to CDF. Figure 7.2-1 shows this contribution in the form of a pie chart.

The initiating events that have the largest contributors to CDF are identified to provide a perspective on the results.

Transients contribute approximately 99% to CDF. The most significant initiators in this group are the loss of offsite power transient (T-LOPP) and the loss of feedwater transient (T-FDW), which represent 57.04% and 41.09% of the total CDF, respectively.

LOCAs inside containment contribute approximately 1%. The most significant LOCA initiator relative to CDF contribution is the Medium Liquid LOCA (ML-L), which represents 0.76% of the overall CDF, thus becoming the third most important initiating event.

Lastly, breaks outside containment represent altogether 0.02% of the total value of the CDF.

7.2.2 Accident Class Contribution

An additional perspective on the Level 1 PRA results is provided by examining the relative contributions to the CDF of the accident classes used to define the Level 1 end states.

Table 7.2-2 shows the CDF contribution of each of these accident classes.

Figure 7.2-2 illustrates the CDF contribution of each accident class in the form of a pie chart.

The largest accident class contributor is Class I, which involves core damage events occurring at low RPV pressures with the containment initially intact. The Class I accident sequences contribute 97.95% to CDF.

The second largest accident class contributor is Class III, which involves core damage events occurring at high RPV pressures with the containment initially intact. The Class III accident sequences contribute 1.41% to CDF.

The third largest accident class contributor is Class IV, which involves the failure to insert negative reactivity in ATWS conditions. The Class IV accident sequences contribute approximately 0.63% to CDF.

The lowest frequency contributing accident class is Class V, which involves the condition of the containment bypassed at the time of core damage. The Class V accident sequences contribute approximately 0.01% to CDF.

As explained in Section 3.2.4, Class II events are not included in the baseline CDF for ESBWR. Section 11 provides a sensitivity evaluation that assesses this modeling

decision. Note that the event trees presented in Appendix A.3 include this end state so that a separate set of event trees specifically for the sensitivity analysis do not need to be presented.

7.2.3 Accident Sequences

A total of 46 quantified accident sequences exceed the truncation value of $1\text{E-}13/\text{year}$.

The sequence with the highest core damage frequency is the sequence number 44 of the Loss of Preferred Power event tree. This sequence includes a loss of preferred power, failure of two CRD pumps to maintain RPV water level above level 1.5, RPV depressurizes successfully, and low-pressure injection is unavailable. This Class I accident sequence has a frequency of $1.63\text{E-}8$ per year, and represents 55.91% of total CDF.

Table 7.2-3 summarizes the 46 quantified accident sequences, the corresponding frequencies, and the resulting percentage contribution to CDF

Table 7.2-5 describes the top ten accident sequences from Level 1.

7.2.4 Top Cutsets Contributing to CDF

The quantified CDF results from 16,534 minimal cutsets distributed by order of magnitude of their frequency, as follows:

Frequency (per yr)	No. of minimal cutsets
$\geq 1.00\text{E-}10$	42
$\geq 1.00\text{E-}11$	326
$\geq 1.00\text{E-}12$	2,764
$\geq 1.00\text{E-}13$	16,534

Table 7.2-6 provides the top 200 contributing cutsets to CDF. These cutsets represent approximately 60% of the overall CDF

The following is a description of the top ten minimal cutsets (MCs) contributing to CDF. They represent 16.5% of the overall CDF.

The highest frequency minimal cutset (MCS) stems from a Loss of Feedwater transient with human errors involving mispositioning of injection valves, successful depressurization, common cause failure of the GDCS squib valves, and a failure of the operator to recognize the need for manually aligning injection. This MCS is of Accident Class I type, and represents 1.8% of the total CDF.

The next seven cutsets are similar to the first cutset, being generated by Sequence 44 of the Loss of Feedwater transient.

Cutsets number 9 and 10, also of Class I type, are similar to the previous cutsets except the human errors associated with mispositioned valves are replaced by a check valve failure.

Tables 7.2-7 to 7.2-16 provide the top 25 contributing cutsets from the top ten Accident Sequences listed in Table 7.2-5.

7.2.5 Accident Subclasses Based on Lower Drywell Water Level

In order to fully describe the containment state for the Level 2 analysis, Class I events must be broken down further into subclasses based on the height of the water pool in the lower drywell at the time of vessel breach.

Section 21 shows that the challenge to the containment structure and systems due to steam explosions is highly dependent upon any pre-existing water pool in the lower drywell at the time the core is deposited into the containment. If the water pool is less than 0.7 m deep, the challenge to the containment structure and to the ex-vessel cooling system (BiMAC) is negligible. If the water pool is more than 1.5 m deep and is sub-cooled, there is a possibility that the containment structure will be over-stressed due to a steam explosion shortly after vessel breach. If the water pool is in the intermediate range, there is a challenge to the containment, but it is well within the containment capacity (see Section 21).

The design of the ESBWR containment reflects this unique challenge. Liquid LOCAs provide the only means for depositing a large amount of water in the lower drywell. The rules presented in Table 7.2-4 are used to bin the Class I sequences into these subclasses.

Table 7.2-5 contains the results of the water level analysis for each of the Class I sequences. This was done by reviewing the cutsets for each of the sequences with a contribution of more than 0.025% of Class I using the rules presented in Table 7.2-4. The conditional probability for each subclass, given a Class I core damage, is as follows:

- Low LDW Water 0.991
- Medium LDW Water 0.001
- High LDW Water 0.008

None of the sequences showed any significant contribution to the medium category, so 0.001 was taken from the low level and conservatively assigned to the medium category.

Table 7.2-1
CDF Contribution by Initiating Event

Initiating Event	CDF [/yr]	Contribution
T-LOPP	1.67E-08	57.04%
T-FDW	1.20E-08	41.09%
ML-L	2.23E-10	0.76%
T-GEN	1.30E-10	0.44%
T-IORV	1.17E-10	0.40%
T-PCS	3.70E-11	0.13%
LL-S-FDWB	2.36E-11	0.08%
BOC-FDWB	4.04E-12	0.01%
LL-S	3.55E-12	0.01%
SL-L-RWCU	2.89E-12	0.01%
BOC-MS	2.07E-12	0.01%
ML-L-RWCU	1.27E-12	0.00%
LL-S-FDWA	1.02E-12	0.00%
T-SW	5.70E-13	0.00%
SL-L	5.45E-13	0.00%
SL-S	5.31E-13	0.00%
BOC_FDW_A	<1.00E-13	0.00%
BOC_MS	<1.00E-130	0.00%
Total	2.92E-08	100%

Table 7.2-2
CDF Contribution by Accident Class

ACCIDENT CLASSES		CDF [/yr]	CONTRIBUTION
CDI	CD at low RPV pressure and containment intact	2.86E-08	97.95%
CDIII	CD at high RPV pressure with containment intact	4.11E-10	1.41%
CDIV	CD resulting from failure to insert negative reactivity in ATWS conditions	1.83E-10	0.63%
CDV	Containment bypassed at the beginning of the accident	4.27E-12	0.01%
Total		2.92E-08	100.00%

Table 7.2-3
Sequences Resulting in CDF above Truncation Limit

Class	Initiating Event	Acc. Sequence	CDF [yr]	% of Class	% of Total
CDI	T-LOPP	T-LOPP044	1.63E-08	57.07%	55.91%
CDI	T-FDW	T-FDW044	1.20E-08	41.90%	41.04%
CDI	ML-L	ML-L-014	2.23E-10	0.78%	0.76%
CDI	LL-S-FDWB	LL-S-FDWB013	2.36E-11	0.08%	0.08%
CDI	T-IORV	T-IORV014	2.13E-11	0.07%	0.07%
CDI	T-IORV	T-IORV028	1.15E-11	0.04%	0.04%
CDI	AT-T-LOPP	AT-T-LOPP011	5.66E-12	0.02%	0.02%
CDI	AT-T-FDW	AT-T-FDW011	4.94E-12	0.02%	0.02%
CDI	ML-L-RWCU	ML-L-RWCU013	1.27E-12	0.00%	0.00%
CDI	LL-S-FDWA	LL-S-FDWA013	1.03E-12	0.00%	0.00%
CDI	SL-L-RWCU	SL-L-RWCU014	8.07E-13	0.00%	0.00%
CDI	AT-T-SW	AT-T-SW003	5.70E-13	0.00%	0.00%
CDI	SL-L	SL-L-015	4.39E-13	0.00%	0.00%
CDI	SL-L-RWCU	SL-L-RWCU027	2.64E-13	0.00%	0.00%
CDI	LL-S	LL-S-014	2.16E-13	0.00%	0.00%
CDI	SL-L	SL-L-029	1.06E-13	0.00%	0.00%
CDIII	T-LOPP	T-LOPP049	3.19E-10	77.64%	1.09%
CDIII	T-IORV	T-IORV029	7.13E-11	17.36%	0.24%
CDIII	T-IORV	T-IORV015	1.07E-11	2.59%	0.04%
CDIII	T-GEN	T-GEN031	4.64E-12	1.13%	0.02%
CDIII	T-PCSB	T-PCSB030	2.07E-12	0.50%	0.01%
CDIII	T-PCS	T-PCS030	1.30E-12	0.32%	0.00%
CDIII	T-LOPP	T-LOPP030	8.72E-13	0.21%	0.00%
CDIII	SL-S	SL-S-029	5.31E-13	0.13%	0.00%
CDIII	T-FDW	T-FDW049	2.26E-13	0.06%	0.00%
CDIII	ML-L	ML-L-015	1.21E-13	0.03%	0.00%
CDIII	SL-L-RWCU	SL-L-RWCU028	1.11E-13	0.03%	0.00%
CDIV	AT-T-GEN	AT-T-GEN012	1.19E-10	65.22%	0.41%
CDIV	AT-T-PCS	AT-T-PCS012	3.31E-11	18.12%	0.11%
CDIV	AT-T-FDW	AT-T-FDW012	8.47E-12	4.63%	0.03%
CDIV	AT-T-GEN	AT-T-GEN013	5.49E-12	3.00%	0.02%
CDIV	AT-T-IORV	AT-T-IORV006	4.07E-12	2.23%	0.01%
CDIV	AT-T-LOPP	AT-T-LOPP012	4.07E-12	2.23%	0.01%
CDIV	LL-S	LL-S-016	3.33E-12	1.82%	0.01%
CDIV	SL-L-RWCU	SL-L-RWCU029	1.71E-12	0.94%	0.01%
CDIV	AT-T-PCS	AT-T-PCS015	1.41E-12	0.77%	0.00%
CDIV	AT-T-PCS	AT-T-PCS013	1.11E-12	0.61%	0.00%
CDIV	AT-T-FDW	AT-T-FDW013	2.75E-13	0.15%	0.00%
CDIV	ML-L	ML-L-017	2.51E-13	0.14%	0.00%

Table 7.2-3
Sequences Resulting in CDF above Truncation Limit

Class	Initiating Event	Acc. Sequence	CDF [yr]	% of Class	% of Total
CDIV	AT-T-IORV	AT-T-IORV007	1.37E-13	0.07%	0.00%
CDIV	AT-T-LOPP	AT-T-LOPP013	1.37E-13	0.07%	0.00%
CDV	BOC-FDWB	BOC-FDWB046	2.04E-12	47.83%	0.01%
CDV	BOC-FDWB	BOC-FDWB041	9.79E-13	22.90%	0.00%
CDV	BOC-FDWB	BOC-FDWB045	5.29E-13	12.37%	0.00%
CDV	BOC-FDWB	BOC-FDWB042	4.90E-13	11.45%	0.00%
CDV	BOC-RWCU	BOC-RWCU045	2.33E-13	5.44%	0.00%

Table 7.2-4
LDW Water Level Subclass Rules

Break Location	Break Size	Injection Status	Lower Drywell Water Level
No Break			Low
Steam Line			Low
Drain Line			High
Feedwater Line			High
Outside Containment			Low
Other	Small		Medium
	Medium	No Injection	Medium
		Any Injection	High
	Large	No Injection	Medium
		Any Injection	High

Table 7.2-5
Top Ten Level 1 Accident Sequences

Sequence	T-LOPP044 - Sequence No. 1	
CDF		1.63E-08
% of Class I CDF		57.07%
% of total CDF		55.91%
Initiating event	Loss of Preferred Power	
Scram is successful		
Initial water drop causes level to go below L1.5		
2 CRD Pumps fail to restore water before 15 minute timer expires, or the injection valves of more than 1 ICS train fail to open		
ADS is successful		
Depressurization causes ICS to be ineffective		
Injection systems fail		
Vessel fails at low pressure		
Lower drywell water level is LOW		

Table 7.2-5
Top Ten Level 1 Accident Sequences

Sequence		T-FDW044 – Sequence No. 2
CDF		1.20E-08
% of Class I CDF		41.90%
% of total CDF		41.04%
Initiating event	Loss of Feedwater	
Scram is successful		
Initial water drop causes level to go below L1.5		
2 CRD Pumps fail to restore water before 15 minute timer expires, or the injection valves of more than 1 ICS train fail to open		
ADS is successful		
Depressurization causes ICS to be ineffective		
Injection systems fail		
Vessel fails at low pressure		
Lower drywell water level is LOW		

Table 7.2-5
Top Ten Level 1 Accident Sequences

Sequence		T-LOPP049 – Sequence No. 3
CDF		3.19E-10
% of Class III CDF		77.64%
% of total CDF		1.09%
Initiating event	Loss of Preferred Power	
Scram is successful		
Initial water drop causes level to go below L1.5		
Failure to recover power within 15 minutes		
2 CRD Pumps fail to restore water before 15 minute timer expires, or the injection valves of more than 1 ICS train fail to open		
Depressurization fails		
IC fails		
SRVs prevent vessel overpressurization		
CRD Pumps fails to provide injection		
Operators fail to manually depressurize the plant		
Vessel fails at high pressure		

Table 7.2-5
Top Ten Level 1 Accident Sequences

Sequence	ML-L-014 – Sequence No. 4	
CDF		2.23E-10
% of Class I CDF		0.78%
% of total CDF		0.76%
Initiating event	Medium Liquid LOCA	
Scram is Successful		
Vacuum breakers seat successfully		
Feedwater fails to inject at high pressure		
Fire Protection System Fails to Inject		
ADS is successful		
GDSCS or equalizing lines fail to inject		
FAPCS cannot provide long term injection because of insufficient water in suppression pool		
CRD is not asked in this event tree. Inadequate water supply.		
Lower drywell water level is HIGH		

Table 7.2-5
Top Ten Level 1 Accident Sequences

Sequence	AT-T-GEN012 – Sequence No. 5	
CDF		1.19E-10
% of Class IV CDF		65.22%
% of total CDF		0.41%
Initiating event	General Transient	
Control Rods fail to go in		
SRVs prevent vessel failure		
ADS inhibit is successful		
SLC fails to inject cold shutdown weight of boron		
Depressurization is available		
Lower drywell water level is LOW		

Table 7.2-5

Top Ten Level 1 Accident Sequences

Sequence	T-IORV029 – Sequence No. 6	
CDF		7.13E-11
% of Class III CDF		17.36%
% of total CDF		0.24%
Initiating event	Inadvertent Open Relief Valve	
Scram is Successful		
High Pressure injection fails		
Depressurization fails		
Core damage starts at high pressure		
Vessel fails at low pressure		

Table 7.2-5
Top Ten Level 1 Accident Sequences

Sequence	AT-T-PCS12 – Sequence No. 7	
CDF		3.31E-11
% of Class IV CDF		18.12%
% of CDF		0.11%
Initiating event	Loss of Power Conversion Transient	
Control Rods fail to go in		
Feedwater runback is successful		
SRVs prevent vessel failure		
ADS inhibit is successful		
SLC fails to inject cold shutdown weight of boron		
Depressurization is available		
Lower drywell water level is LOW		

Table 7.2-5
Top Ten Level 1 Accident Sequences

Sequence		LL-S-FDWB013 – Sequence No. 8
CDF		2.36E-11
% of Class I CDF		0.08%
% of total CDF		0.08%
Initiating event	Large LOCA	
Scram is successful		
Vacuum breakers seat successfully		
FAPCS and Fire Protection System fail to inject		
GDSC or Equalizing Lines fail to provide cooling water		
Lower drywell water level is LOW		

Table 7.2-5
Top Ten Level 1 Accident Sequences

Sequence		T-IORV014 – Sequence No. 9
CDF		2.13E-11
% of Class I CDF		0.07%
% of total CDF		0.07%
Initiating event	Inadvertent Open Relief Valve	
Scram is successful		
High Pressure injection fails		
Manual depressurization is successful to the level needed for FAPCS and FPS		
FAPCS and FPS fail to inject		
ADS is successful		
GDCS or Equalizing Lines fail to provide cooling water		
Lower drywell water level is LOW		

Table 7.2-5
Top Ten Level 1 Accident Sequences

Sequence		T-IORV028 – Sequence No. 10
CDF		1.15E-11
% of Class I		0.04%
% of CDF		0.04%
Initiating event	Inadvertent Open Relief Valve	
Scram is successful		
High Pressure injection fails		
Manual depressurization fails		
ADS is successful		
GDACS or Equalizing Lines fail to provide cooling water		
FAPCS and FPS fail to inject		
Lower drywell water level is LOW		

Table 7.2-6
Top 200 Cutsets Contributing to CDF

#	Cutset Probability	Event Probability	Event Name	Event Description
1	5.15E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
2	5.15E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
3	5.15E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
4	5.15E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
5	5.15E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
6	5.15E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER

Table 7.2-6
Top 200 Cutsets Contributing to CDF

#	Cutset Probability	Event Probability	Event Name	Event Description
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
7	5.15E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
8	5.15E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
9	3.57E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		1.60E-03	B21-UV -CC-F102B	CHECK VALVE #1 IN FEEDWATER LINE B FAILS TO REOPEN
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
10	3.57E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		1.60E-03	B21-UV -CC-F102B	CHECK VALVE #1 IN FEEDWATER LINE B FAILS TO REOPEN
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
11	3.57E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		1.60E-03	B21-UV -CC-F103B	CHECK VALVE #2 IN FEEDWATER LINE B FAILS TO REOPEN
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
12	3.57E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		1.60E-03	B21-UV -CC-F103B	CHECK VALVE #2 IN FEEDWATER LINE B FAILS TO REOPEN

Table 7.2-6
Top 200 Cutsets Contributing to CDF

#	Cutset Probability	Event Probability	Event Name	Event Description
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
13	3.57E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		1.60E-03	C12-UV_-CC-F022	CHECK VALVE F022 FAILS TO OPEN
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
14	3.57E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		1.60E-03	C12-UV_-CC-F022	CHECK VALVE F022 FAILS TO OPEN
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
15	2.56E-10	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
16	2.56E-10	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
17	2.56E-10	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
18	2.56E-10	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B

Table 7.2-6
Top 200 Cutsets Contributing to CDF

#	Cutset Probability	Event Probability	Event Name	Event Description
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
19	2.56E-10	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
20	2.56E-10	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
21	2.56E-10	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
22	2.56E-10	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
23	1.78E-10	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.60E-03	B21-UV -CC-F102B	CHECK VALVE #1 IN FEEDWATER LINE B FAILS TO REOPEN
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
24	1.78E-10	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.60E-03	B21-UV -CC-F102B	CHECK VALVE #1 IN FEEDWATER LINE B FAILS TO REOPEN

Table 7.2-6
Top 200 Cutsets Contributing to CDF

#	Cutset Probability	Event Probability	Event Name	Event Description
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
25	1.78E-10	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.60E-03	B21-UV _CC-F103B	CHECK VALVE #2 IN FEEDWATER LINE B FAILS TO REOPEN
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
26	1.78E-10	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.60E-03	B21-UV _CC-F103B	CHECK VALVE #2 IN FEEDWATER LINE B FAILS TO REOPEN
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
27	1.78E-10	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.60E-03	C12-UV _CC-F022	CHECK VALVE F022 FAILS TO OPEN
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
28	1.78E-10	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.60E-03	C12-UV _CC-F022	CHECK VALVE F022 FAILS TO OPEN
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
29	1.53E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
30	1.53E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334

Table 7.2-6
Top 200 Cutsets Contributing to CDF

#	Cutset Probability	Event Probability	Event Name	Event Description
31	1.53E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
32	1.53E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
33	1.53E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
34	1.53E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
35	1.53E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
36	1.53E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B

Table 7.2-6
Top 200 Cutsets Contributing to CDF

#	Cutset Probability	Event Probability	Event Name	Event Description
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
37	1.06E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		1.60E-03	B21-UV -CC-F102B	CHECK VALVE #1 IN FEEDWATER LINE B FAILS TO REOPEN
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
38	1.06E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		1.60E-03	B21-UV -CC-F102B	CHECK VALVE #1 IN FEEDWATER LINE B FAILS TO REOPEN
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
39	1.06E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		1.60E-03	B21-UV -CC-F103B	CHECK VALVE #2 IN FEEDWATER LINE B FAILS TO REOPEN
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
40	1.06E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		1.60E-03	B21-UV -CC-F103B	CHECK VALVE #2 IN FEEDWATER LINE B FAILS TO REOPEN
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
41	1.06E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		1.60E-03	C12-UV -CC-F022	CHECK VALVE F022 FAILS TO OPEN
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
42	1.06E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		1.60E-03	C12-UV -CC-F022	CHECK VALVE F022 FAILS TO OPEN
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
43	8.98E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY

Table 7.2-6
Top 200 Cutsets Contributing to CDF

#	Cutset Probability	Event Probability	Event Name	Event Description
		1.77E-01	R11-SYS-FF-NOREC24	Conditional Probability that offsite power is recovered within 24 hours
		9.00E-06	R16-BT -CF-ALLBATT	BATTERY CCF #2
		2.00E-03	U43-SYS-FF-YARD	HARDWARE FAILURES IN YARD AREA
44	7.95E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		1.77E-01	R11-SYS-FF-NOREC24	Conditional Probability that offsite power is recovered within 24 hours
		9.00E-06	R16-BT -CF-ALLBATT	BATTERY CCF #2
		1.77E-03	U43-XHE-FO-YARD	OPERATOR FAILS TO MAKE UP FROM YARD AREA
45	7.63E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
46	7.63E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
47	7.63E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
48	7.63E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334

Table 7.2-6
Top 200 Cutsets Contributing to CDF

#	Cutset Probability	Event Probability	Event Name	Event Description
49	7.63E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
50	7.63E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
51	7.63E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
52	7.63E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
53	7.23E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		1.77E-01	R11-SYS-FF-NOREC24	Conditional Probability that offsite power is recovered within 24 hours
		9.00E-06	R16-BT -CF-ALLBATT	BATTERY CCF #2
		1.61E-03	XXX-XHE-FO-ICPCCS	OPERATOR FAILS TO RECOGNIZE NEED OF MAKE UP TO IC/PCCS POOLS
54	6.81E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY

Table 7.2-6
Top 200 Cutsets Contributing to CDF

#	Cutset Probability	Event Probability	Event Name	Event Description
		1.00E-03	R16-BT -TM-R16BTA2	BATTERY R16-BTA2 IN TEST
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
55	6.81E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		1.00E-03	R16-BT -TM-R16BTB2	BATTERY R16-BTB2 IN TEST
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
56	6.81E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		1.00E-03	R16-BT -TM-R16BTA2	BATTERY R16-BTA2 IN TEST
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
57	6.81E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		1.00E-03	R16-BT -TM-R16BTB2	BATTERY R16-BTB2 IN TEST
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
58	5.81E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		8.52E-04	R21-DG -CS-ALLDG	CCF OF DIESEL GENERATORS TO START AND LOAD
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
59	5.81E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		8.52E-04	R21-DG -CS-ALLDG	CCF OF DIESEL GENERATORS TO START AND LOAD
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
60	5.34E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT

Table 7.2-6
Top 200 Cutsets Contributing to CDF

#	Cutset Probability	Event Probability	Event Name	Event Description
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGA	DIESEL GENERATOR "A" FAILS TO RUN GIVEN START
		1.40E-02	R21-DG -FS-DGB	D/G "B" FAILS TO START AND LOAD
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
61	5.34E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGB	DIESEL GENERATOR "B" FAILS TO RUN GIVEN START
		1.40E-02	R21-DG -FS-DGA	DIESEL GENERATOR "A" FAILS TO START
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
62	5.34E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGA	DIESEL GENERATOR "A" FAILS TO RUN GIVEN START
		1.40E-02	R21-DG -FS-DGB	D/G "B" FAILS TO START AND LOAD
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
63	5.34E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGB	DIESEL GENERATOR "B" FAILS TO RUN GIVEN START
		1.40E-02	R21-DG -FS-DGA	DIESEL GENERATOR "A" FAILS TO START
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
64	5.29E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.60E-03	B21-UV -CC-F102B	CHECK VALVE #1 IN FEEDWATER LINE B FAILS TO REOPEN
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
65	5.29E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT

Table 7.2-6
Top 200 Cutsets Contributing to CDF

#	Cutset Probability	Event Probability	Event Name	Event Description
		1.60E-03	B21-UV -CC-F102B	CHECK VALVE #1 IN FEEDWATER LINE B FAILS TO REOPEN
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
66	5.29E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.60E-03	B21-UV -CC-F103B	CHECK VALVE #2 IN FEEDWATER LINE B FAILS TO REOPEN
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
67	5.29E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.60E-03	B21-UV -CC-F103B	CHECK VALVE #2 IN FEEDWATER LINE B FAILS TO REOPEN
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
68	5.29E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.60E-03	C12-UV -CC-F022	CHECK VALVE F022 FAILS TO OPEN
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
69	5.29E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.60E-03	C12-UV -CC-F022	CHECK VALVE F022 FAILS TO OPEN
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
70	4.58E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		1.40E-02	R21-DG -FS-DGA	DIESEL GENERATOR "A" FAILS TO START
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
71	4.58E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T

Table 7.2-6
Top 200 Cutsets Contributing to CDF

#	Cutset Probability	Event Probability	Event Name	Event Description
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		1.40E-02	R21-DG -FS-DGB	D/G "B" FAILS TO START AND LOAD
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
72	4.58E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		1.40E-02	R21-DG -FS-DGA	DIESEL GENERATOR "A" FAILS TO START
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
73	4.58E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		1.40E-02	R21-DG -FS-DGB	D/G "B" FAILS TO START AND LOAD
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
74	4.57E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.20E-02	C12-XHE-MH-F003B	MISPOSITION OF VALVE F003B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGA	DIESEL GENERATOR "A" FAILS TO RUN GIVEN START
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
75	4.57E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.20E-02	C12-XHE-MH-F003B	MISPOSITION OF VALVE F003B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGA	DIESEL GENERATOR "A" FAILS TO RUN GIVEN START
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
76	4.57E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT

Table 7.2-6
Top 200 Cutsets Contributing to CDF

#	Cutset Probability	Event Probability	Event Name	Event Description
		1.20E-02	C12-XHE-MH-F018A	MISPOSITION OF VALVE F018A
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGB	DIESEL GENERATOR "B" FAILS TO RUN GIVEN START
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
77	4.57E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.20E-02	C12-XHE-MH-F018A	MISPOSITION OF VALVE F018A
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGB	DIESEL GENERATOR "B" FAILS TO RUN GIVEN START
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
78	4.57E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.20E-02	C12-XHE-MH-F018B	MISPOSITION OF VALVE F018B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGA	DIESEL GENERATOR "A" FAILS TO RUN GIVEN START
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
79	4.57E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.20E-02	C12-XHE-MH-F018B	MISPOSITION OF VALVE F018B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGA	DIESEL GENERATOR "A" FAILS TO RUN GIVEN START
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
80	4.57E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.20E-02	C12-XHE-MH-F021A	MISPOSITION OF VALVE F021A
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGB	DIESEL GENERATOR "B" FAILS TO RUN GIVEN START

Table 7.2-6
Top 200 Cutsets Contributing to CDF

#	Cutset Probability	Event Probability	Event Name	Event Description
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
81	4.57E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.20E-02	C12-XHE-MH-F021A	MISPOSITION OF VALVE F021A
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGB	DIESEL GENERATOR "B" FAILS TO RUN GIVEN START
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
82	4.57E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.20E-02	C12-XHE-MH-F021B	MISPOSITION OF VALVE F021B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGA	DIESEL GENERATOR "A" FAILS TO RUN GIVEN START
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
83	4.57E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.20E-02	C12-XHE-MH-F021B	MISPOSITION OF VALVE F021B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGA	DIESEL GENERATOR "A" FAILS TO RUN GIVEN START
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
84	4.33E-11	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		3.12E-05	C62-VLU-CF-DIDALL	CCF OF VOTER LOGIC UNITS
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
85	4.33E-11	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		3.12E-05	C62-VLU-CF-DIDALL	CCF OF VOTER LOGIC UNITS
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
86	4.29E-11	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		4.00E-03	C12-MOV-CC-F014A	MOTOR OPER. VALVE F014A FAILS TO OPEN
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B

Table 7.2-6
Top 200 Cutsets Contributing to CDF

#	Cutset Probability	Event Probability	Event Name	Event Description
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
87	4.29E-11	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		4.00E-03	C12-MOV-CC-F014A	MOTOR OPER. VALVE F014A FAILS TO OPEN
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
88	4.29E-11	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		4.00E-03	C12-MOV-CC-F014A	MOTOR OPER. VALVE F014A FAILS TO OPEN
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
89	4.29E-11	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		4.00E-03	C12-MOV-CC-F014A	MOTOR OPER. VALVE F014A FAILS TO OPEN
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
90	4.29E-11	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		4.00E-03	C12-MOV-CC-F014B	MOTOR OPER. VALVE F014B FAILS TO OPEN
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
91	4.29E-11	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		4.00E-03	C12-MOV-CC-F014B	MOTOR OPER. VALVE F014B FAILS TO OPEN
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
92	4.29E-11	9.25E-02	%T-FDW	LOSS OF FEEDWATER

Table 7.2-6
Top 200 Cutsets Contributing to CDF

#	Cutset Probability	Event Probability	Event Name	Event Description
		4.00E-03	C12-MOV-CC-F014B	MOTOR OPER. VALVE F014B FAILS TO OPEN
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
93	4.29E-11	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		4.00E-03	C12-MOV-CC-F014B	MOTOR OPER. VALVE F014B FAILS TO OPEN
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
94	3.92E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.20E-02	C12-XHE-MH-F003B	MISPOSITION OF VALVE F003B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
95	3.92E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.20E-02	C12-XHE-MH-F003B	MISPOSITION OF VALVE F003B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
96	3.92E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.20E-02	C12-XHE-MH-F018A	MISPOSITION OF VALVE F018A
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
97	3.92E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT

Table 7.2-6
Top 200 Cutsets Contributing to CDF

#	Cutset Probability	Event Probability	Event Name	Event Description
		1.20E-02	C12-XHE-MH-F018A	MISPOSITION OF VALVE F018A
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
98	3.92E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.20E-02	C12-XHE-MH-F018B	MISPOSITION OF VALVE F018B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
99	3.92E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.20E-02	C12-XHE-MH-F018B	MISPOSITION OF VALVE F018B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
100	3.92E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.20E-02	C12-XHE-MH-F021A	MISPOSITION OF VALVE F021A
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
101	3.92E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.20E-02	C12-XHE-MH-F021A	MISPOSITION OF VALVE F021A
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY

Table 7.2-6
Top 200 Cutsets Contributing to CDF

#	Cutset Probability	Event Probability	Event Name	Event Description
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
102	3.92E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.20E-02	C12-XHE-MH-F021B	MISPOSITION OF VALVE F021B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
103	3.92E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.20E-02	C12-XHE-MH-F021B	MISPOSITION OF VALVE F021B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
104	3.40E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.00E-04	R16-BT -LP-R16BTA2	BATTERY R16-BTA2 FAILS TO PROVIDE OUTPUT
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
105	3.40E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.00E-04	R16-BT -LP-R16BTB2	BATTERY R16-BTB2 FAILS TO PROVIDE OUTPUT
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
106	3.40E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.00E-04	R16-BT -LP-R16BTA2	BATTERY R16-BTA2 FAILS TO PROVIDE OUTPUT
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)

Table 7.2-6
Top 200 Cutsets Contributing to CDF

#	Cutset Probability	Event Probability	Event Name	Event Description
107	3.40E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.00E-04	R16-BT -LP-R16BTB2	BATTERY R16-BTB2 FAILS TO PROVIDE OUTPUT
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
108	3.27E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		4.80E-04	R13-INV-FC-R13A2	INVERTER TO R13-A2 FAILS
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
109	3.27E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		4.80E-04	R13-INV-FC-R13B2	INVERTER TO R13-B2 FAILS
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
110	3.27E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		4.80E-04	R13-INV-FC-R13A2	INVERTER TO R13-A2 FAILS
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
111	3.27E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		4.80E-04	R13-INV-FC-R13B2	INVERTER TO R13-B2 FAILS
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
112	3.22E-11	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		1.20E-02	C12-XHE-MH-F003B	MISPOSITION OF VALVE F003B
		1.20E-02	C12-XHE-MH-F018A	MISPOSITION OF VALVE F018A

Table 7.2-6
Top 200 Cutsets Contributing to CDF

#	Cutset Probability	Event Probability	Event Name	Event Description
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
113	3.22E-11	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		1.20E-02	C12-XHE-MH-F003B	MISPOSITION OF VALVE F003B
		1.20E-02	C12-XHE-MH-F018A	MISPOSITION OF VALVE F018A
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
114	3.22E-11	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		1.20E-02	C12-XHE-MH-F003B	MISPOSITION OF VALVE F003B
		1.20E-02	C12-XHE-MH-F021A	MISPOSITION OF VALVE F021A
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
115	3.22E-11	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		1.20E-02	C12-XHE-MH-F003B	MISPOSITION OF VALVE F003B
		1.20E-02	C12-XHE-MH-F021A	MISPOSITION OF VALVE F021A
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
116	3.22E-11	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		1.20E-02	C12-XHE-MH-F018A	MISPOSITION OF VALVE F018A
		1.20E-02	C12-XHE-MH-F018B	MISPOSITION OF VALVE F018B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
117	3.22E-11	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		1.20E-02	C12-XHE-MH-F018A	MISPOSITION OF VALVE F018A
		1.20E-02	C12-XHE-MH-F018B	MISPOSITION OF VALVE F018B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
118	3.22E-11	9.25E-02	%T-FDW	LOSS OF FEEDWATER

Table 7.2-6
Top 200 Cutsets Contributing to CDF

#	Cutset Probability	Event Probability	Event Name	Event Description
		1.20E-02	C12-XHE-MH-F018A	MISPOSITION OF VALVE F018A
		1.20E-02	C12-XHE-MH-F021B	MISPOSITION OF VALVE F021B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
119	3.22E-11	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		1.20E-02	C12-XHE-MH-F018A	MISPOSITION OF VALVE F018A
		1.20E-02	C12-XHE-MH-F021B	MISPOSITION OF VALVE F021B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
120	3.22E-11	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		1.20E-02	C12-XHE-MH-F018B	MISPOSITION OF VALVE F018B
		1.20E-02	C12-XHE-MH-F021A	MISPOSITION OF VALVE F021A
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
121	3.22E-11	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		1.20E-02	C12-XHE-MH-F018B	MISPOSITION OF VALVE F018B
		1.20E-02	C12-XHE-MH-F021A	MISPOSITION OF VALVE F021A
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
122	3.22E-11	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		1.20E-02	C12-XHE-MH-F021A	MISPOSITION OF VALVE F021A
		1.20E-02	C12-XHE-MH-F021B	MISPOSITION OF VALVE F021B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
123	3.22E-11	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		1.20E-02	C12-XHE-MH-F021A	MISPOSITION OF VALVE F021A
		1.20E-02	C12-XHE-MH-F021B	MISPOSITION OF VALVE F021B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN

Table 7.2-6
Top 200 Cutsets Contributing to CDF

#	Cutset Probability	Event Probability	Event Name	Event Description
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
124	3.03E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		7.96E-03	R11-MCB-CC-XFRMAA2	CIRCUIT BREAKER FROM XFRM-A FAILS TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGB	DIESEL GENERATOR "B" FAILS TO RUN GIVEN START
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
125	3.03E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		7.96E-03	R11-MCB-CC-XFRMBB2	CIRCUIT BREAKER FROM XFRM-B FAILS TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGA	DIESEL GENERATOR "A" FAILS TO RUN GIVEN START
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
126	3.03E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGA	DIESEL GENERATOR "A" FAILS TO RUN GIVEN START
		7.96E-03	R22-MCB-CC-2LOAD1	CIRCUIT BREAKER TO LOAD 1 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
127	3.03E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGA	DIESEL GENERATOR "A" FAILS TO RUN GIVEN START
		7.96E-03	R22-MCB-CC-2LOAD2	CIRCUIT BREAKER TO LOAD 2 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
128	3.03E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY

Table 7.2-6
Top 200 Cutsets Contributing to CDF

#	Cutset Probability	Event Probability	Event Name	Event Description
		5.60E-02	R21-DG -FR-DGA	DIESEL GENERATOR "A" FAILS TO RUN GIVEN START
		7.96E-03	R22-MCB-CC-2LOAD3	CIRCUIT BREAKER TO LOAD 3 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
129	3.03E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGA	DIESEL GENERATOR "A" FAILS TO RUN GIVEN START
		7.96E-03	R22-MCB-CC-2LOAD4	CIRCUIT BREAKER TO LOAD 4 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
130	3.03E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGA	DIESEL GENERATOR "A" FAILS TO RUN GIVEN START
		7.96E-03	R22-MCB-CC-2LOAD5	CIRCUIT BREAKER TO LOAD 5 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
131	3.03E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGB	DIESEL GENERATOR "B" FAILS TO RUN GIVEN START
		7.96E-03	R22-MCB-CC-1LOAD1	CIRCUIT BREAKER TO LOAD 1 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
132	3.03E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGB	DIESEL GENERATOR "B" FAILS TO RUN GIVEN START
		7.96E-03	R22-MCB-CC-1LOAD2	CIRCUIT BREAKER TO LOAD 2 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
133	3.03E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT

Table 7.2-6
Top 200 Cutsets Contributing to CDF

#	Cutset Probability	Event Probability	Event Name	Event Description
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGB	DIESEL GENERATOR "B" FAILS TO RUN GIVEN START
		7.96E-03	R22-MCB-CC-1LOAD3	CIRCUIT BREAKER TO LOAD 3 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
134	3.03E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGB	DIESEL GENERATOR "B" FAILS TO RUN GIVEN START
		7.96E-03	R22-MCB-CC-1LOAD4	CIRCUIT BREAKER TO LOAD 4 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
135	3.03E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGB	DIESEL GENERATOR "B" FAILS TO RUN GIVEN START
		7.96E-03	R22-MCB-CC-1LOAD5	CIRCUIT BREAKER TO LOAD 5 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
136	3.03E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		7.96E-03	R11-MCB-CC-XFRMAA2	CIRCUIT BREAKER FROM XFRM-A FAILS TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGB	DIESEL GENERATOR "B" FAILS TO RUN GIVEN START
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
137	3.03E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		7.96E-03	R11-MCB-CC-XFRMBB2	CIRCUIT BREAKER FROM XFRM-B FAILS TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGA	DIESEL GENERATOR "A" FAILS TO RUN GIVEN START

Table 7.2-6
Top 200 Cutsets Contributing to CDF

#	Cutset Probability	Event Probability	Event Name	Event Description
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
138	3.03E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGA	DIESEL GENERATOR "A" FAILS TO RUN GIVEN START
		7.96E-03	R22-MCB-CC-2LOAD1	CIRCUIT BREAKER TO LOAD 1 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
139	3.03E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGA	DIESEL GENERATOR "A" FAILS TO RUN GIVEN START
		7.96E-03	R22-MCB-CC-2LOAD2	CIRCUIT BREAKER TO LOAD 2 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
140	3.03E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGA	DIESEL GENERATOR "A" FAILS TO RUN GIVEN START
		7.96E-03	R22-MCB-CC-2LOAD3	CIRCUIT BREAKER TO LOAD 3 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
141	3.03E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGA	DIESEL GENERATOR "A" FAILS TO RUN GIVEN START
		7.96E-03	R22-MCB-CC-2LOAD4	CIRCUIT BREAKER TO LOAD 4 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
142	3.03E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY

Table 7.2-6
Top 200 Cutsets Contributing to CDF

#	Cutset Probability	Event Probability	Event Name	Event Description
		5.60E-02	R21-DG -FR-DGA	DIESEL GENERATOR "A" FAILS TO RUN GIVEN START
		7.96E-03	R22-MCB-CC-2LOAD5	CIRCUIT BREAKER TO LOAD 5 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
143	3.03E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGB	DIESEL GENERATOR "B" FAILS TO RUN GIVEN START
		7.96E-03	R22-MCB-CC-1LOAD1	CIRCUIT BREAKER TO LOAD 1 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
144	3.03E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGB	DIESEL GENERATOR "B" FAILS TO RUN GIVEN START
		7.96E-03	R22-MCB-CC-1LOAD2	CIRCUIT BREAKER TO LOAD 2 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
145	3.03E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGB	DIESEL GENERATOR "B" FAILS TO RUN GIVEN START
		7.96E-03	R22-MCB-CC-1LOAD3	CIRCUIT BREAKER TO LOAD 3 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
146	3.03E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGB	DIESEL GENERATOR "B" FAILS TO RUN GIVEN START
		7.96E-03	R22-MCB-CC-1LOAD4	CIRCUIT BREAKER TO LOAD 4 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
147	3.03E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT

Table 7.2-6
Top 200 Cutsets Contributing to CDF

#	Cutset Probability	Event Probability	Event Name	Event Description
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGB	DIESEL GENERATOR "B" FAILS TO RUN GIVEN START
		7.96E-03	R22-MCB-CC-ILOAD5	CIRCUIT BREAKER TO LOAD 5 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
148	2.98E-11	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		7.20E-05	R10-CBU-FC-PRE500KV	500KV TRANSMISSION LINE FAILS
		9.00E-06	R16-BT -CF-ALLBATT	BATTERY CCF #2
149	2.60E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		7.96E-03	R11-MCB-CC-XFRMAA2	CIRCUIT BREAKER FROM XFRM-A FAILS TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
150	2.60E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		7.96E-03	R11-MCB-CC-XFRMBB2	CIRCUIT BREAKER FROM XFRM-B FAILS TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
151	2.60E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		7.96E-03	R22-MCB-CC-ILOAD1	CIRCUIT BREAKER TO LOAD 1 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
152	2.60E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN

Table 7.2-6
Top 200 Cutsets Contributing to CDF

#	Cutset Probability	Event Probability	Event Name	Event Description
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		7.96E-03	R22-MCB-CC-1LOAD2	CIRCUIT BREAKER TO LOAD 2 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
153	2.60E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		7.96E-03	R22-MCB-CC-1LOAD3	CIRCUIT BREAKER TO LOAD 3 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
154	2.60E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		7.96E-03	R22-MCB-CC-1LOAD4	CIRCUIT BREAKER TO LOAD 4 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
155	2.60E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		7.96E-03	R22-MCB-CC-1LOAD5	CIRCUIT BREAKER TO LOAD 5 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
156	2.60E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		7.96E-03	R22-MCB-CC-2LOAD1	CIRCUIT BREAKER TO LOAD 1 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)

Table 7.2-6
Top 200 Cutsets Contributing to CDF

#	Cutset Probability	Event Probability	Event Name	Event Description
157	2.60E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		7.96E-03	R22-MCB-CC-2LOAD2	CIRCUIT BREAKER TO LOAD 2 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
158	2.60E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		7.96E-03	R22-MCB-CC-2LOAD3	CIRCUIT BREAKER TO LOAD 3 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
159	2.60E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		7.96E-03	R22-MCB-CC-2LOAD4	CIRCUIT BREAKER TO LOAD 4 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
160	2.60E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		7.96E-03	R22-MCB-CC-2LOAD5	CIRCUIT BREAKER TO LOAD 5 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
161	2.60E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		7.96E-03	R11-MCB-CC-XFRMAA2	CIRCUIT BREAKER FROM XFRM-A FAILS TO OPEN

Table 7.2-6
Top 200 Cutsets Contributing to CDF

#	Cutset Probability	Event Probability	Event Name	Event Description
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
162	2.60E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		7.96E-03	R11-MCB-CC-XFRMBB2	CIRCUIT BREAKER FROM XFRM-B FAILS TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
163	2.60E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		7.96E-03	R22-MCB-CC-1LOAD1	CIRCUIT BREAKER TO LOAD 1 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
164	2.60E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		7.96E-03	R22-MCB-CC-1LOAD2	CIRCUIT BREAKER TO LOAD 2 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
165	2.60E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		7.96E-03	R22-MCB-CC-1LOAD3	CIRCUIT BREAKER TO LOAD 3 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
166	2.60E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN

Table 7.2-6
Top 200 Cutsets Contributing to CDF

#	Cutset Probability	Event Probability	Event Name	Event Description
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		7.96E-03	R22-MCB-CC-1LOAD4	CIRCUIT BREAKER TO LOAD 4 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
167	2.60E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		7.96E-03	R22-MCB-CC-1LOAD5	CIRCUIT BREAKER TO LOAD 5 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
168	2.60E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		7.96E-03	R22-MCB-CC-2LOAD1	CIRCUIT BREAKER TO LOAD 1 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
169	2.60E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		7.96E-03	R22-MCB-CC-2LOAD2	CIRCUIT BREAKER TO LOAD 2 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
170	2.60E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		7.96E-03	R22-MCB-CC-2LOAD3	CIRCUIT BREAKER TO LOAD 3 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)

Table 7.2-6
Top 200 Cutsets Contributing to CDF

#	Cutset Probability	Event Probability	Event Name	Event Description
171	2.60E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		7.96E-03	R22-MCB-CC-2LOAD4	CIRCUIT BREAKER TO LOAD 4 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
172	2.60E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		7.96E-03	R22-MCB-CC-2LOAD5	CIRCUIT BREAKER TO LOAD 5 FAILS TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
173	2.29E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGA	DIESEL GENERATOR "A" FAILS TO RUN GIVEN START
		6.00E-03	R21-DG -TM-DGB	STANDBY DIESEL GENERATOR "B" IN MAINTENANCE
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
174	2.29E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGB	DIESEL GENERATOR "B" FAILS TO RUN GIVEN START
		6.00E-03	R21-DG -TM-DGA	STANDBY DIESEL GENERATOR "A" IN MAINTENANCE
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
175	2.29E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGA	DIESEL GENERATOR "A" FAILS TO RUN GIVEN START

Table 7.2-6
Top 200 Cutsets Contributing to CDF

#	Cutset Probability	Event Probability	Event Name	Event Description
		6.00E-03	R21-DG -TM-DGB	STANDBY DIESEL GENERATOR "B" IN MAINTENANCE
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
176	2.29E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		5.60E-02	R21-DG -FR-DGB	DIESEL GENERATOR "B" FAILS TO RUN GIVEN START
		6.00E-03	R21-DG -TM-DGA	STANDBY DIESEL GENERATOR "A" IN MAINTENANCE
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
177	2.15E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		3.12E-05	C62-VLU-CF-DIDALL	CCF OF VOTER LOGIC UNITS
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
178	2.15E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		3.12E-05	C62-VLU-CF-DIDALL	CCF OF VOTER LOGIC UNITS
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
179	2.13E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.00E-03	C12-MOV-CC-F014A	MOTOR OPER. VALVE F014A FAILS TO OPEN
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
180	2.13E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.00E-03	C12-MOV-CC-F014A	MOTOR OPER. VALVE F014A FAILS TO OPEN
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
181	2.13E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.00E-03	C12-MOV-CC-F014A	MOTOR OPER. VALVE F014A FAILS TO OPEN
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN

Table 7.2-6
Top 200 Cutsets Contributing to CDF

#	Cutset Probability	Event Probability	Event Name	Event Description
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
182	2.13E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.00E-03	C12-MOV-CC-F014A	MOTOR OPER. VALVE F014A FAILS TO OPEN
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
183	2.13E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.00E-03	C12-MOV-CC-F014B	MOTOR OPER. VALVE F014B FAILS TO OPEN
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
184	2.13E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.00E-03	C12-MOV-CC-F014B	MOTOR OPER. VALVE F014B FAILS TO OPEN
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
185	2.13E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.00E-03	C12-MOV-CC-F014B	MOTOR OPER. VALVE F014B FAILS TO OPEN
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
186	2.13E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.00E-03	C12-MOV-CC-F014B	MOTOR OPER. VALVE F014B FAILS TO OPEN
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
187	2.11E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		2.00E-03	B32-ACV-CC-F006B	AIR OPERATED VALVE F006B FAILS TO OP. TO DEENERG. POSIT.

Table 7.2-6
Top 200 Cutsets Contributing to CDF

#	Cutset Probability	Event Probability	Event Name	Event Description
		4.16E-02	B32-SYS-TM-ICA	IC "A" UNAVAILABLE [# 7]
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		9.00E-06	R16-BT -CF-ALLBATT	BATTERY CCF #2
188	2.11E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		2.00E-03	B32-ACV-CC-F006C	AIR OPERATED VALVE F006A FAILS TO OP. TO DEENERG. POSIT.
		4.16E-02	B32-SYS-TM-ICA	IC "A" UNAVAILABLE [# 7]
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		9.00E-06	R16-BT -CF-ALLBATT	BATTERY CCF #2
189	2.11E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		2.00E-03	B32-ACV-CC-F006D	AIR OPERATED VALVE F006D FAILS TO OP. TO DEENERG. POSIT.
		4.16E-02	B32-SYS-TM-ICA	IC "A" UNAVAILABLE [# 7]
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		9.00E-06	R16-BT -CF-ALLBATT	BATTERY CCF #2
190	2.08E-11	1.30E+00	%T-GEN	GENERIC TRANSIENT
		1.60E-03	C41-UV -CC-F004A	CHECK VALVE F004A FAILS TO OPEN
		1.00E-08	C71-SYS-FF-SCRAM	SCRAM FAILURE
191	2.08E-11	1.30E+00	%T-GEN	GENERIC TRANSIENT
		1.60E-03	C41-UV -CC-F004B	CHECK VALVE F004B FAILS TO OPEN
		1.00E-08	C71-SYS-FF-SCRAM	SCRAM FAILURE
192	2.08E-11	1.30E+00	%T-GEN	GENERIC TRANSIENT
		1.60E-03	C41-UV -CC-F005A	CHECK VALVE F005A FAILS TO OPEN
		1.00E-08	C71-SYS-FF-SCRAM	SCRAM FAILURE
193	2.08E-11	1.30E+00	%T-GEN	GENERIC TRANSIENT
		1.60E-03	C41-UV -CC-F005B	CHECK VALVE F005B FAILS TO OPEN
		1.00E-08	C71-SYS-FF-SCRAM	SCRAM FAILURE
194	2.03E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334

Table 7.2-6
Top 200 Cutsets Contributing to CDF

#	Cutset Probability	Event Probability	Event Name	Event Description
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		1.00E-03	R16-BT -TM-R16BTA2	BATTERY R16-BTA2 IN TEST
195	2.03E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		1.00E-03	R16-BT -TM-R16BTB2	BATTERY R16-BTB2 IN TEST
196	2.03E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		1.00E-03	R16-BT -TM-R16BTA2	BATTERY R16-BTA2 IN TEST
197	2.03E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		1.00E-03	R16-BT -TM-R16BTB2	BATTERY R16-BTB2 IN TEST
198	1.96E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		6.00E-03	R21-DG -TM-DGA	STANDBY DIESEL GENERATOR "A" IN MAINTENANCE
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
199	1.96E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		6.00E-03	R21-DG -TM-DGB	STANDBY DIESEL GENERATOR "B" IN MAINTENANCE

Table 7.2-6
Top 200 Cutsets Contributing to CDF

#	Cutset Probability	Event Probability	Event Name	Event Description
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
200	1.96E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		6.00E-03	R21-DG -TM-DGA	STANDBY DIESEL GENERATOR "A" IN MAINTENANCE
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)

Table 7.2-7

Sequence 1 - Loss of Preferred Power Transient (T-LOPP044)

#	Cutset Probability	Event Probability	Event Name	Event Description
1	2.56E-10	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
		4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
2	2.56E-10	4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
		4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
3	2.56E-10	4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
		4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
4	2.56E-10	1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
		4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
5	2.56E-10	1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
		4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
6	2.56E-10	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B

Table 7.2-7

Sequence 1 - Loss of Preferred Power Transient (T-LOPP044)

#	Cutset Probability	Event Probability	Event Name	Event Description
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
7	2.56E-10	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
8	2.56E-10	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
9	1.78E-10	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.60E-03	B21-UV -CC-F102B	CHECK VALVE #1 IN FEEDWATER LINE B FAILS TO REOPEN
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
10	1.78E-10	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.60E-03	B21-UV -CC-F102B	CHECK VALVE #1 IN FEEDWATER LINE B FAILS TO REOPEN
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
11	1.78E-10	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.60E-03	B21-UV -CC-F103B	CHECK VALVE #2 IN FEEDWATER LINE B FAILS TO REOPEN
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
12	1.78E-10	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.60E-03	B21-UV -CC-F103B	CHECK VALVE #2 IN FEEDWATER LINE B FAILS TO REOPEN
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN

Table 7.2-7

Sequence 1 - Loss of Preferred Power Transient (T-LOPP044)

#	Cutset Probability	Event Probability	Event Name	Event Description
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
13	1.78E-10	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.60E-03	C12-UV -CC-F022	CHECK VALVE F022 FAILS TO OPEN
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
14	1.78E-10	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.60E-03	C12-UV -CC-F022	CHECK VALVE F022 FAILS TO OPEN
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
15	7.63E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
16	7.63E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
17	7.63E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
18	7.63E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN

Table 7.2-7

Sequence 1 - Loss of Preferred Power Transient (T-LOPP044)

#	Cutset Probability	Event Probability	Event Name	Event Description
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
19	7.63E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
20	7.63E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
21	7.63E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
22	7.63E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
23	6.81E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		1.00E-03	R16-BT -TM-R16BTA2	BATTERY R16-BTA2 IN TEST
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
24	6.81E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN

Table 7.2-7**Sequence 1 - Loss of Preferred Power Transient (T-LOPP044)**

#	Cutset Probability	Event Probability	Event Name	Event Description
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		1.00E-03	R16-BT_-TM-R16BTB2	BATTERY R16-BTB2 IN TEST
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
25	6.81E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		1.00E-03	R16-BT_-TM-R16BTA2	BATTERY R16-BTA2 IN TEST
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)

Table 7.2-8
Sequence 2 - Loss of Feedwater (T-FDW044)

#	Cutset Probability	Event Probability	Event Name	Event Description
1	5.15E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
2	5.15E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
3	5.15E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
4	5.15E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
5	5.15E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
6	5.15E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B

Table 7.2-8

Sequence 2 - Loss of Feedwater (T-FDW044)

#	Cutset Probability	Event Probability	Event Name	Event Description
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
7	5.15E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
8	5.15E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
9	3.57E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		1.60E-03	B21-UV -CC-F102B	CHECK VALVE #1 IN FEEDWATER LINE B FAILS TO REOPEN
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
10	3.57E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		1.60E-03	B21-UV -CC-F102B	CHECK VALVE #1 IN FEEDWATER LINE B FAILS TO REOPEN
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
11	3.57E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		1.60E-03	B21-UV -CC-F103B	CHECK VALVE #2 IN FEEDWATER LINE B FAILS TO REOPEN
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
12	3.57E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		1.60E-03	B21-UV -CC-F103B	CHECK VALVE #2 IN FEEDWATER LINE B FAILS TO REOPEN
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN

Table 7.2-8
Sequence 2 - Loss of Feedwater (T-FDW044)

#	Cutset Probability	Event Probability	Event Name	Event Description
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
13	3.57E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		1.60E-03	C12-UV -CC-F022	CHECK VALVE F022 FAILS TO OPEN
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
14	3.57E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		1.60E-03	C12-UV -CC-F022	CHECK VALVE F022 FAILS TO OPEN
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
15	1.53E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
16	1.53E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
17	1.53E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
18	1.53E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN

Table 7.2-8
Sequence 2 - Loss of Feedwater (T-FDW044)

#	Cutset Probability	Event Probability	Event Name	Event Description
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
19	1.53E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
20	1.53E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
21	1.53E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
22	1.53E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
23	1.06E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		1.60E-03	B21-UV -CC-F102B	CHECK VALVE #1 IN FEEDWATER LINE B FAILS TO REOPEN
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
24	1.06E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		1.60E-03	B21-UV -CC-F102B	CHECK VALVE #1 IN FEEDWATER LINE B FAILS TO REOPEN
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN

Table 7.2-8
Sequence 2 - Loss of Feedwater (T-FDW044)

#	Cutset Probability	Event Probability	Event Name	Event Description
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
25	1.06E-10	9.25E-02	%T-FDW	LOSS OF FEEDWATER
		1.60E-03	B21-UV -CC-F103B	CHECK VALVE #2 IN FEEDWATER LINE B FAILS TO REOPEN
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334

Table 7.2-9

Sequence 3 - Loss of Offsite Power Transient (T-LOPP049)

#	Cutset Probability	Event Probability	Event Name	Event Description
1	8.98E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		9.00E-06	R16-BT -CF-ALLBATT	BATTERY CCF #2
		2.00E-03	U43-SYS-FF-YARD	HARDWARE FAILURES IN YARD AREA
		1.77E-01	R11-SYS-FF-NOREC24	Conditional Probability that offsite power is recovered within 24 hours
2	7.95E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		9.00E-06	R16-BT -CF-ALLBATT	BATTERY CCF #2
		1.77E-03	U43-XHE-FO-YARD	OPERATOR FAILS TO MAKE UP FROM YARD AREA
		1.77E-01	R11-SYS-FF-NOREC24	Conditional Probability that offsite power is recovered within 24 hours
3	7.23E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		9.00E-06	R16-BT -CF-ALLBATT	BATTERY CCF #2
		1.61E-03	XXX-XHE-FO-ICPCCS	OPERATOR FAILS TO RECOGNIZE NEED OF MAKE UP TO IC/PCCS POOLS
		1.77E-01	R11-SYS-FF-NOREC24	Conditional Probability that offsite power is recovered within 24 hours
4	2.11E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		2.00E-03	B32-ACV-CC-F006B	AIR OPERATED VALVE F006B FAILS TO OP. TO DEENERG. POSIT.
		4.16E-02	B32-SYS-TM-ICA	IC "A" UNAVAILABLE [# 7]
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		9.00E-06	R16-BT -CF-ALLBATT	BATTERY CCF #2
5	2.11E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		2.00E-03	B32-ACV-CC-F006C	AIR OPERATED VALVE F006A FAILS TO OP. TO DEENERG. POSIT.
		4.16E-02	B32-SYS-TM-ICA	IC "A" UNAVAILABLE [# 7]
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		9.00E-06	R16-BT -CF-ALLBATT	BATTERY CCF #2
6	2.11E-11	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT

Table 7.2-9

Sequence 3 - Loss of Offsite Power Transient (T-LOPP049)

#	Cutset Probability	Event Probability	Event Name	Event Description
		2.00E-03	B32-ACV-CC-F006D	AIR OPERATED VALVE F006D FAILS TO OP. TO DEENERG. POSIT.
		4.16E-02	B32-SYS-TM-JCA	IC "A" UNAVAILABLE [# 7]
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		9.00E-06	R16-BT -CF-ALLBATT	BATTERY CCF #2
7	3.93E-12	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.55E-05	B32-ACV-CF-2ICABCD	CCF TO OPEN 2/4 ACV VALVES TRAINS A,B,C,D
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		9.00E-06	R16-BT -CF-ALLBATT	BATTERY CCF #2
8	2.05E-12	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		8.08E-06	B32-MOV-CF-2ICABCD	CCF TO OPEN 2/4 MOV VALVES TRAINS A,B,C,D
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		9.00E-06	R16-BT -CF-ALLBATT	BATTERY CCF #2
9	1.02E-12	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		2.00E-03	B32-ACV-CC-F006A	AIR OPERATED VALVE F006A FAILS TO OP. TO DEENERG. POSIT.
		2.00E-03	B32-ACV-CC-F006B	AIR OPERATED VALVE F006B FAILS TO OP. TO DEENERG. POSIT.
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		9.00E-06	R16-BT -CF-ALLBATT	BATTERY CCF #2
10	1.02E-12	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		2.00E-03	B32-ACV-CC-F006A	AIR OPERATED VALVE F006A FAILS TO OP. TO DEENERG. POSIT.
		2.00E-03	B32-ACV-CC-F006C	AIR OPERATED VALVE F006A FAILS TO OP. TO DEENERG. POSIT.
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		9.00E-06	R16-BT -CF-ALLBATT	BATTERY CCF #2
11	1.02E-12	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		2.00E-03	B32-ACV-CC-F006A	AIR OPERATED VALVE F006A FAILS TO OP. TO DEENERG. POSIT.
		2.00E-03	B32-ACV-CC-F006D	AIR OPERATED VALVE F006D FAILS TO OP. TO DEENERG. POSIT.
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		9.00E-06	R16-BT -CF-ALLBATT	BATTERY CCF #2
12	1.02E-12	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT

Table 7.2-9

Sequence 3 - Loss of Offsite Power Transient (T-LOPP049)

#	Cutset Probability	Event Probability	Event Name	Event Description
		2.00E-03	B32-ACV-CC-F006B	AIR OPERATED VALVE F006B FAILS TO OP. TO DEENERG. POSIT.
		2.00E-03	B32-ACV-CC-F006C	AIR OPERATED VALVE F006A FAILS TO OP. TO DEENERG. POSIT.
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		9.00E-06	R16-BT -CF-ALLBATT	BATTERY CCF #2
13	1.02E-12	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		2.00E-03	B32-ACV-CC-F006B	AIR OPERATED VALVE F006B FAILS TO OP. TO DEENERG. POSIT.
		2.00E-03	B32-ACV-CC-F006D	AIR OPERATED VALVE F006D FAILS TO OP. TO DEENERG. POSIT.
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		9.00E-06	R16-BT -CF-ALLBATT	BATTERY CCF #2
14	1.02E-12	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		2.00E-03	B32-ACV-CC-F006C	AIR OPERATED VALVE F006A FAILS TO OP. TO DEENERG. POSIT.
		2.00E-03	B32-ACV-CC-F006D	AIR OPERATED VALVE F006D FAILS TO OP. TO DEENERG. POSIT.
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		9.00E-06	R16-BT -CF-ALLBATT	BATTERY CCF #2
15	7.92E-13	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		3.12E-06	C74-VLU-CF-ALL	CCF OF VOTER LOGIC UNITS
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		9.00E-06	R16-BT -CF-ALLBATT	BATTERY CCF #2
16	4.57E-13	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		1.80E-06	H23-EMS-CF-ALL	CCF OF ESSENTIAL MULTIPLEXING SYSTEM DIV 1/2/3/4
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		9.00E-06	R16-BT -CF-ALLBATT	BATTERY CCF #2
17	2.28E-13	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		9.00E-07	H23-RMU-CF-ALL	CCF OF REMOTE MULTIPLEXING UNITS TO OPERATE
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		9.00E-06	R16-BT -CF-ALLBATT	BATTERY CCF #2
18	1.03E-13	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		9.71E-06	B32-PDT-CF-3ICBHIGH	CCF 3/4 PDT'S ISOLATION CONDENSER B SPURIOUS ACTUATION

Table 7.2-9

Sequence 3 - Loss of Offsite Power Transient (T-LOPP049)

#	Cutset Probability	Event Probability	Event Name	Event Description
		4.16E-02	B32-SYS-TM-ICA	IC "A" UNAVAILABLE [# 7]
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		9.00E-06	R16-BT -CF-ALLBATT	BATTERY CCF #2
19	1.03E-13	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		9.71E-06	B32-PDT-CF-3ICCHIGH	CCF 3/4 PDT'S ISOLATION CONDENSER C SPURIOUS ACTUATION
		4.16E-02	B32-SYS-TM-ICA	IC "A" UNAVAILABLE [# 7]
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		9.00E-06	R16-BT -CF-ALLBATT	BATTERY CCF #2
20	1.03E-13	4.60E-02	%T-LOPP	LOSS OF PREFERRED POWER TRANSIENT
		9.71E-06	B32-PDT-CF-3ICDHIGH	CCF 3/4 PDT'S ISOLATION CONDENSER D SPURIOUS ACTUATION
		4.16E-02	B32-SYS-TM-ICA	IC "A" UNAVAILABLE [# 7]
		6.13E-01	R11-SYS-FF-NOREC	FAILURE IN OFFSITE POWER RECOVERY
		9.00E-06	R16-BT -CF-ALLBATT	BATTERY CCF #2

Table 7.2-10
Sequence 4 - Medium Liquid LOCA (ML-L-014)

#	Cutset Probability	Event Probability	Event Name	Event Description
1	1.07E-11	2.51E-05	%ML-L	MEDIUM LIQUID LOCA
		3.50E-03	E50-SQV-CO-F009A	SQUIB DELUGE VALVE F009A SPUR. OPENING [#7]
		3.79E-01	E50-SYS-FF-MLLOCA	PROBABILITY OF MEDIUM LOCA IN GDCS LINES
		2.00E-03	P22-ACV-FT-BYPASS	HEAT EXCHANGERS BYPASS VALVE FAILS TO REGULATE
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
2	1.07E-11	2.51E-05	%ML-L	MEDIUM LIQUID LOCA
		3.50E-03	E50-SQV-CO-F009D	SQUIB DELUGE VALVE F009D SPUR. OPENING [#7]
		3.79E-01	E50-SYS-FF-MLLOCA	PROBABILITY OF MEDIUM LOCA IN GDCS LINES
		2.00E-03	P22-ACV-FT-BYPASS	HEAT EXCHANGERS BYPASS VALVE FAILS TO REGULATE
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
3	1.07E-11	2.51E-05	%ML-L	MEDIUM LIQUID LOCA
		3.50E-03	E50-SQV-CO-F009E	SQUIB DELUGE VALVE F009E SPUR. OPENING [#7]
		3.79E-01	E50-SYS-FF-MLLOCA	PROBABILITY OF MEDIUM LOCA IN GDCS LINES
		2.00E-03	P22-ACV-FT-BYPASS	HEAT EXCHANGERS BYPASS VALVE FAILS TO REGULATE
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
4	1.07E-11	2.51E-05	%ML-L	MEDIUM LIQUID LOCA
		3.50E-03	E50-SQV-CO-F009H	SQUIB DELUGE VALVE F009H SPUR. OPENING [#7]
		3.79E-01	E50-SYS-FF-MLLOCA	PROBABILITY OF MEDIUM LOCA IN GDCS LINES
		2.00E-03	P22-ACV-FT-BYPASS	HEAT EXCHANGERS BYPASS VALVE FAILS TO REGULATE
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
5	1.07E-11	2.51E-05	%ML-L	MEDIUM LIQUID LOCA
		3.50E-03	E50-SQV-CO-F009I	SQUIB DELUGE VALVE F009I SPUR. OPENING [#7]
		3.79E-01	E50-SYS-FF-MLLOCA	PROBABILITY OF MEDIUM LOCA IN GDCS LINES
		2.00E-03	P22-ACV-FT-BYPASS	HEAT EXCHANGERS BYPASS VALVE FAILS TO REGULATE
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
6	1.07E-11	2.51E-05	%ML-L	MEDIUM LIQUID LOCA
		3.50E-03	E50-SQV-CO-F009L	SQUIB DELUGE VALVE F009L SPUR. OPENING [#7]

Table 7.2-10

Sequence 4 - Medium Liquid LOCA (ML-L-014)

#	Cutset Probability	Event Probability	Event Name	Event Description
		3.79E-01	E50-SYS-FF-MLLOCA	PROBABILITY OF MEDIUM LOCA IN GDCS LINES
		2.00E-03	P22-ACV-FT-BYPASS	HEAT EXCHANGERS BYPASS VALVE FAILS TO REGULATE
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
7	7.03E-12	2.51E-05	%ML-L	MEDIUM LIQUID LOCA
		3.50E-03	E50-SQV-CO-F009A	SQUIB DELUGE VALVE F009A SPUR. OPENING [#7]
		3.79E-01	E50-SYS-FF-MLLOCA	PROBABILITY OF MEDIUM LOCA IN GDCS LINES
		1.31E-03	N21-ACV-OC-F018	AIR OPERATED VALVE N21-F018 FAILS TO REMAIN OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
8	7.03E-12	2.51E-05	%ML-L	MEDIUM LIQUID LOCA
		3.50E-03	E50-SQV-CO-F009D	SQUIB DELUGE VALVE F009D SPUR. OPENING [#7]
		3.79E-01	E50-SYS-FF-MLLOCA	PROBABILITY OF MEDIUM LOCA IN GDCS LINES
		1.31E-03	N21-ACV-OC-F018	AIR OPERATED VALVE N21-F018 FAILS TO REMAIN OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
9	7.03E-12	2.51E-05	%ML-L	MEDIUM LIQUID LOCA
		3.50E-03	E50-SQV-CO-F009E	SQUIB DELUGE VALVE F009E SPUR. OPENING [#7]
		3.79E-01	E50-SYS-FF-MLLOCA	PROBABILITY OF MEDIUM LOCA IN GDCS LINES
		1.31E-03	N21-ACV-OC-F018	AIR OPERATED VALVE N21-F018 FAILS TO REMAIN OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
10	7.03E-12	2.51E-05	%ML-L	MEDIUM LIQUID LOCA
		3.50E-03	E50-SQV-CO-F009H	SQUIB DELUGE VALVE F009H SPUR. OPENING [#7]
		3.79E-01	E50-SYS-FF-MLLOCA	PROBABILITY OF MEDIUM LOCA IN GDCS LINES
		1.31E-03	N21-ACV-OC-F018	AIR OPERATED VALVE N21-F018 FAILS TO REMAIN OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
11	7.03E-12	2.51E-05	%ML-L	MEDIUM LIQUID LOCA
		3.50E-03	E50-SQV-CO-F009I	SQUIB DELUGE VALVE F009I SPUR. OPENING [#7]
		3.79E-01	E50-SYS-FF-MLLOCA	PROBABILITY OF MEDIUM LOCA IN GDCS LINES
		1.31E-03	N21-ACV-OC-F018	AIR OPERATED VALVE N21-F018 FAILS TO REMAIN OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)

Table 7.2-10
Sequence 4 - Medium Liquid LOCA (ML-L-014)

#	Cutset Probability	Event Probability	Event Name	Event Description
12	7.03E-12	2.51E-05	%ML-L	MEDIUM LIQUID LOCA
		3.50E-03	E50-SQV-CO-F009L	SQUIB DELUGE VALVE F009L SPUR. OPENING [#7]
		3.79E-01	E50-SYS-FF-MLLOCA	PROBABILITY OF MEDIUM LOCA IN GDCS LINES
		1.31E-03	N21-ACV-OC-F018	AIR OPERATED VALVE N21-F018 FAILS TO REMAIN OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
13	3.19E-12	2.51E-05	%ML-L	MEDIUM LIQUID LOCA
		3.50E-03	E50-SQV-CO-F009A	SQUIB DELUGE VALVE F009A SPUR. OPENING [#7]
		3.79E-01	E50-SYS-FF-MLLOCA	PROBABILITY OF MEDIUM LOCA IN GDCS LINES
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		2.00E-03	P22-ACV-FT-BYPASS	HEAT EXCHANGERS BYPASS VALVE FAILS TO REGULATE
14	3.19E-12	2.51E-05	%ML-L	MEDIUM LIQUID LOCA
		3.50E-03	E50-SQV-CO-F009D	SQUIB DELUGE VALVE F009D SPUR. OPENING [#7]
		3.79E-01	E50-SYS-FF-MLLOCA	PROBABILITY OF MEDIUM LOCA IN GDCS LINES
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		2.00E-03	P22-ACV-FT-BYPASS	HEAT EXCHANGERS BYPASS VALVE FAILS TO REGULATE
15	3.19E-12	2.51E-05	%ML-L	MEDIUM LIQUID LOCA
		3.50E-03	E50-SQV-CO-F009E	SQUIB DELUGE VALVE F009E SPUR. OPENING [#7]
		3.79E-01	E50-SYS-FF-MLLOCA	PROBABILITY OF MEDIUM LOCA IN GDCS LINES
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		2.00E-03	P22-ACV-FT-BYPASS	HEAT EXCHANGERS BYPASS VALVE FAILS TO REGULATE
16	3.19E-12	2.51E-05	%ML-L	MEDIUM LIQUID LOCA
		3.50E-03	E50-SQV-CO-F009H	SQUIB DELUGE VALVE F009H SPUR. OPENING [#7]
		3.79E-01	E50-SYS-FF-MLLOCA	PROBABILITY OF MEDIUM LOCA IN GDCS LINES
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		2.00E-03	P22-ACV-FT-BYPASS	HEAT EXCHANGERS BYPASS VALVE FAILS TO REGULATE
17	3.19E-12	2.51E-05	%ML-L	MEDIUM LIQUID LOCA
		3.50E-03	E50-SQV-CO-F009I	SQUIB DELUGE VALVE F009I SPUR. OPENING [#7]
		3.79E-01	E50-SYS-FF-MLLOCA	PROBABILITY OF MEDIUM LOCA IN GDCS LINES

Table 7.2-10
Sequence 4 - Medium Liquid LOCA (ML-L-014)

#	Cutset Probability	Event Probability	Event Name	Event Description
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		2.00E-03	P22-ACV-FT-BYPASS	HEAT EXCHANGERS BYPASS VALVE FAILS TO REGULATE
18	3.19E-12	2.51E-05	%ML-L	MEDIUM LIQUID LOCA
		3.50E-03	E50-SQV-CO-F009L	SQUIB DELUGE VALVE F009L SPUR. OPENING [#7]
		3.79E-01	E50-SYS-FF-MLLOCA	PROBABILITY OF MEDIUM LOCA IN GDACS LINES
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		2.00E-03	P22-ACV-FT-BYPASS	HEAT EXCHANGERS BYPASS VALVE FAILS TO REGULATE
19	3.03E-12	2.51E-05	%ML-L	MEDIUM LIQUID LOCA
		3.75E-04	E50-STR-CF-SPPLUG	CCF FILTER/STRAINER IN PSP TO PLUG
		2.00E-03	P22-ACV-FT-BYPASS	HEAT EXCHANGERS BYPASS VALVE FAILS TO REGULATE
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
20	2.10E-12	2.51E-05	%ML-L	MEDIUM LIQUID LOCA
		3.50E-03	E50-SQV-CO-F009A	SQUIB DELUGE VALVE F009A SPUR. OPENING [#7]
		3.79E-01	E50-SYS-FF-MLLOCA	PROBABILITY OF MEDIUM LOCA IN GDACS LINES
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		1.31E-03	N21-ACV-OC-F018	AIR OPERATED VALVE N21-F018 FAILS TO REMAIN OPEN
21	2.10E-12	2.51E-05	%ML-L	MEDIUM LIQUID LOCA
		3.50E-03	E50-SQV-CO-F009D	SQUIB DELUGE VALVE F009D SPUR. OPENING [#7]
		3.79E-01	E50-SYS-FF-MLLOCA	PROBABILITY OF MEDIUM LOCA IN GDACS LINES
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		1.31E-03	N21-ACV-OC-F018	AIR OPERATED VALVE N21-F018 FAILS TO REMAIN OPEN
22	2.10E-12	2.51E-05	%ML-L	MEDIUM LIQUID LOCA
		3.50E-03	E50-SQV-CO-F009E	SQUIB DELUGE VALVE F009E SPUR. OPENING [#7]
		3.79E-01	E50-SYS-FF-MLLOCA	PROBABILITY OF MEDIUM LOCA IN GDACS LINES
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		1.31E-03	N21-ACV-OC-F018	AIR OPERATED VALVE N21-F018 FAILS TO REMAIN OPEN
23	2.10E-12	2.51E-05	%ML-L	MEDIUM LIQUID LOCA
		3.50E-03	E50-SQV-CO-F009H	SQUIB DELUGE VALVE F009H SPUR. OPENING [#7]

Table 7.2-10

Sequence 4 - Medium Liquid LOCA (ML-L-014)

#	Cutset Probability	Event Probability	Event Name	Event Description
		3.79E-01	E50-SYS-FF-MLLOCA	PROBABILITY OF MEDIUM LOCA IN GDCS LINES
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		1.31E-03	N21-ACV-OC-F018	AIR OPERATED VALVE N21-F018 FAILS TO REMAIN OPEN
24	2.10E-12	2.51E-05	%ML-L	MEDIUM LIQUID LOCA
		3.50E-03	E50-SQV-CO-F009I	SQUIB DELUGE VALVE F009I SPUR. OPENING [#7]
		3.79E-01	E50-SYS-FF-MLLOCA	PROBABILITY OF MEDIUM LOCA IN GDCS LINES
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		1.31E-03	N21-ACV-OC-F018	AIR OPERATED VALVE N21-F018 FAILS TO REMAIN OPEN
25	2.10E-12	2.51E-05	%ML-L	MEDIUM LIQUID LOCA
		3.50E-03	E50-SQV-CO-F009L	SQUIB DELUGE VALVE F009L SPUR. OPENING [#7]
		3.79E-01	E50-SYS-FF-MLLOCA	PROBABILITY OF MEDIUM LOCA IN GDCS LINES
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		1.31E-03	N21-ACV-OC-F018	AIR OPERATED VALVE N21-F018 FAILS TO REMAIN OPEN

Table 7.2-11
Sequence 5 - General Transient (AT-T-GEN012)

#	Cutset Probability	Event Probability	Event Name	Event Description
1	2.08E-11	1.30E+00	%T-GEN	GENERIC TRANSIENT
		1.60E-03	C41-UV -CC-F004A	CHECK VALVE F004A FAILS TO OPEN
		1.00E-08	C71-SYS-FF-SCRAM	SCRAM FAILURE
2	2.08E-11	1.30E+00	%T-GEN	GENERIC TRANSIENT
		1.60E-03	C41-UV -CC-F004B	CHECK VALVE F004B FAILS TO OPEN
		1.00E-08	C71-SYS-FF-SCRAM	SCRAM FAILURE
3	2.08E-11	1.30E+00	%T-GEN	GENERIC TRANSIENT
		1.60E-03	C41-UV -CC-F005A	CHECK VALVE F005A FAILS TO OPEN
		1.00E-08	C71-SYS-FF-SCRAM	SCRAM FAILURE
4	2.08E-11	1.30E+00	%T-GEN	GENERIC TRANSIENT
		1.60E-03	C41-UV -CC-F005B	CHECK VALVE F005B FAILS TO OPEN
		1.00E-08	C71-SYS-FF-SCRAM	SCRAM FAILURE
5	1.41E-11	1.30E+00	%T-GEN	GENERIC TRANSIENT
		2.69E-01	C41-XHE-FO-OPENF002A	OPERATOR FAILS TO OPEN VALVE F002A (AFTER INADV.CLOS.)
		4.03E-03	C41-XHE-MH-F002A	MISPOSITION OF VALVE F002A
		1.00E-08	C71-SYS-FF-SCRAM	SCRAM FAILURE
6	1.41E-11	1.30E+00	%T-GEN	GENERIC TRANSIENT
		2.69E-01	C41-XHE-FO-OPENF002B	OPERATOR FAILS TO OPEN VALVE F002B (AFTER INADV.CLOS.)
		4.03E-03	C41-XHE-MH-F002B	MISPOSITION OF VALVE F002B
		1.00E-08	C71-SYS-FF-SCRAM	SCRAM FAILURE
7	3.87E-12	1.30E+00	%T-GEN	GENERIC TRANSIENT
		2.98E-04	C51-ACT-CF-SRNM	CCF OF SRNM CORE FLUX CHANNELS
		1.00E-08	C71-SYS-FF-SCRAM	SCRAM FAILURE
8	1.95E-12	1.30E+00	%T-GEN	GENERIC TRANSIENT
		1.50E-04	C41-SQV-CF-F003AC	CCF TO OPERATE OF SQUIB VALVES ON SLCS-A
		1.00E-08	C71-SYS-FF-SCRAM	SCRAM FAILURE
9	1.95E-12	1.30E+00	%T-GEN	GENERIC TRANSIENT

Table 7.2-11**Sequence 5 - General Transient (AT-T-GEN012)**

#	Cutset Probability	Event Probability	Event Name	Event Description
		1.50E-04	C41-SQV-CF-F003BD	CCF TO OPERATE OF SQUIB VALVES ON SLCS-B
		1.00E-08	C71-SYS-FF-SCRAM	SCRAM FAILURE
10	1.17E-13	1.30E+00	%T-GEN	GENERIC TRANSIENT
		3.00E-03	C41-SQV-CC-F003A	EXPLOSIVE VALVE F003A FAILS TO OPERATE
		3.00E-03	C41-SQV-CC-F003C	EXPLOSIVE VALVE F003C FAILS TO OPERATE
		1.00E-08	C71-SYS-FF-SCRAM	SCRAM FAILURE
11	1.17E-13	1.30E+00	%T-GEN	GENERIC TRANSIENT
		3.00E-03	C41-SQV-CC-F003B	EXPLOSIVE VALVE F003B FAILS TO OPERATE
		3.00E-03	C41-SQV-CC-F003D	EXPLOSIVE VALVE F003D FAILS TO OPERATE
		1.00E-08	C71-SYS-FF-SCRAM	SCRAM FAILURE

Table 7.2-12

Sequence 6 - Inadvertent Open Relief Valve (T-IORV029)

#	Cutset Probability	Event Probability	Event Name	Event Description
1	2.98E-11	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		7.20E-05	R10-CBU-FC-PRE500KV	500KV TRANSMISSION LINE FAILS
		9.00E-06	R16-BT -CF-ALLBATT	BATTERY CCF #2
2	1.07E-11	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	B21-SQV-CF-DPVOPEN	CCF OF DPV'S TO OPEN
		2.00E-03	P22-ACV-FT-BYPASS	HEAT EXCHANGERS BYPASS VALVE FAILS TO REGULATE
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
3	7.00E-12	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	B21-SQV-CF-DPVOPEN	CCF OF DPV'S TO OPEN
		1.31E-03	N21-ACV-OC-F018	AIR OPERATED VALVE N21-F018 FAILS TO REMAIN OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
4	6.11E-12	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	B21-SQV-CF-DPVOPEN	CCF OF DPV'S TO OPEN
		5.50E-05	C62-DTM-CF-N1EALL	CCF OF DIGITAL TRIP MODULES NO 1E
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
5	1.99E-12	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		4.80E-06	R10-BAC-LP-500KVMAIN	500 KV MAIN DISTRIBUTION BUS FAILS DURING OPERATION
		9.00E-06	R16-BT -CF-ALLBATT	BATTERY CCF #2
6	1.30E-12	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	B21-SQV-CF-DPVOPEN	CCF OF DPV'S TO OPEN
		1.17E-05	P41-MP -CR-3ALL	CCF TO RUN 3 PUMPS TRAINS A AND B
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
7	1.19E-12	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	B21-SQV-CF-DPVOPEN	CCF OF DPV'S TO OPEN
		1.07E-05	P41-STR-CF-3ALL	CCF 3 STRAINERS PLUGGED

Table 7.2-12

Sequence 6 - Inadvertent Open Relief Valve (T-IORV029)

#	Cutset Probability	Event Probability	Event Name	Event Description
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
8	9.27E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		2.10E-07	C51-ACT-CF-APRMSTUCK	CCF APRM DETECTORS STUCK AT POWER LEVEL
		2.00E-03	P22-ACV-FT-BYPASS	HEAT EXCHANGERS BYPASS VALVE FAILS TO REGULATE
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
9	8.00E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	B21-SQV-CF-DPVOPEN	CCF OF DPV'S TO OPEN
		7.20E-06	P41-FAN-CS-2ALL	CCF TO START 2 FAN UNITS
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
10	7.95E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	B21-SQV-CF-DPVOPEN	CCF OF DPV'S TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		1.49E-04	P51-CMP-CR-RUN	CCF OF P51 COMPRESSORS TO RUN
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
11	6.95E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	B21-SQV-CF-DPVOPEN	CCF OF DPV'S TO OPEN
		6.26E-06	P41-MP -CS-3ALL	CCF TO START PUMPS TRAINS A AND B
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
12	6.09E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		2.10E-07	C51-ACT-CF-APRMSTUCK	CCF APRM DETECTORS STUCK AT POWER LEVEL
		1.31E-03	N21-ACV-OC-F018	AIR OPERATED VALVE N21-F018 FAILS TO REMAIN OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
13	5.31E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		2.10E-07	C51-ACT-CF-APRMSTUCK	CCF APRM DETECTORS STUCK AT POWER LEVEL
		5.50E-05	C62-DTM-CF-N1EALL	CCF OF DIGITAL TRIP MODULES NO 1E
14	5.12E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	B21-SQV-CF-DPVOPEN	CCF OF DPV'S TO OPEN
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A

Table 7.2-12

Sequence 6 - Inadvertent Open Relief Valve (T-IORV029)

#	Cutset Probability	Event Probability	Event Name	Event Description
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		2.00E-03	P22-ACV-FT-BYPASS	HEAT EXCHANGERS BYPASS VALVE FAILS TO REGULATE
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
15	5.12E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	B21-SQV-CF-DPVOPEN	CCF OF DPV'S TO OPEN
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		2.00E-03	P22-ACV-FT-BYPASS	HEAT EXCHANGERS BYPASS VALVE FAILS TO REGULATE
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
16	5.12E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	B21-SQV-CF-DPVOPEN	CCF OF DPV'S TO OPEN
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		2.00E-03	P22-ACV-FT-BYPASS	HEAT EXCHANGERS BYPASS VALVE FAILS TO REGULATE
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
17	5.12E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	B21-SQV-CF-DPVOPEN	CCF OF DPV'S TO OPEN
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		2.00E-03	P22-ACV-FT-BYPASS	HEAT EXCHANGERS BYPASS VALVE FAILS TO REGULATE
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
18	4.97E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.20E-06	R10-SYS-FF-500KV	500KV SWITCHYARD FAILS DURING OPERATION
		9.00E-06	R16-BT -CF-ALLBATT	BATTERY CCF #2
19	4.04E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	B21-SQV-CF-DPVOPEN	CCF OF DPV'S TO OPEN
		8.71E-03	N21-LT -NO-FWTKA	LEVEL TRANSMITTER TRAIN A FAILS
		8.71E-03	N21-LT -NO-FWTKB	LEVEL TRANSMITTER TRAIN B FAILS

Table 7.2-12

Sequence 6 - Inadvertent Open Relief Valve (T-IORV029)

#	Cutset Probability	Event Probability	Event Name	Event Description
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
20	4.04E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	B21-SQV-CF-DPVOPEN	CCF OF DPV'S TO OPEN
		8.71E-03	N21-LT -NO-FWTKA	LEVEL TRANSMITTER TRAIN A FAILS
		8.71E-03	N21-LT -NO-FWTKC	LEVEL TRANSMITTER TRAIN C FAILS
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
21	4.04E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	B21-SQV-CF-DPVOPEN	CCF OF DPV'S TO OPEN
		8.71E-03	N21-LT -NO-FWTKB	LEVEL TRANSMITTER TRAIN B FAILS
		8.71E-03	N21-LT -NO-FWTKC	LEVEL TRANSMITTER TRAIN C FAILS
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
22	3.55E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	B21-SQV-CF-DPVOPEN	CCF OF DPV'S TO OPEN
		1.60E-03	B21-UV -CC-F102B	CHECK VALVE #1 IN FEEDWATER LINE B FAILS TO REOPEN
		2.00E-03	P22-ACV-FT-BYPASS	HEAT EXCHANGERS BYPASS VALVE FAILS TO REGULATE
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
23	3.55E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	B21-SQV-CF-DPVOPEN	CCF OF DPV'S TO OPEN
		1.60E-03	B21-UV -CC-F103B	CHECK VALVE #2 IN FEEDWATER LINE B FAILS TO REOPEN
		2.00E-03	P22-ACV-FT-BYPASS	HEAT EXCHANGERS BYPASS VALVE FAILS TO REGULATE
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
24	3.55E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	B21-SQV-CF-DPVOPEN	CCF OF DPV'S TO OPEN
		1.60E-03	C12-UV -CC-F022	CHECK VALVE F022 FAILS TO OPEN
		2.00E-03	P22-ACV-FT-BYPASS	HEAT EXCHANGERS BYPASS VALVE FAILS TO REGULATE

Table 7.2-12**Sequence 6 - Inadvertent Open Relief Valve (T-IORV029)**

#	Cutset Probability	Event Probability	Event Name	Event Description
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
25	3.36E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	B21-SQV-CF-DPVOPEN	CCF OF DPV'S TO OPEN
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		1.31E-03	N21-ACV-OC-F018	AIR OPERATED VALVE N21-F018 FAILS TO REMAIN OPEN
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION

Table 7.2-13**Sequence 7 - Transient with PCS Unavailable (AT-T-PCS012)**

#	Cutset Probability	Event Probability	Event Name	Event Description
1	5.98E-12	3.74E-01	%T-PCS	LOSS OF POWER CONVERSION SYSTEM
		1.60E-03	C41-UV -CC-F004A	CHECK VALVE F004A FAILS TO OPEN
		1.00E-08	C71-SYS-FF-SCRAM	SCRAM FAILURE
2	5.98E-12	3.74E-01	%T-PCS	LOSS OF POWER CONVERSION SYSTEM
		1.60E-03	C41-UV -CC-F004B	CHECK VALVE F004B FAILS TO OPEN
		1.00E-08	C71-SYS-FF-SCRAM	SCRAM FAILURE
3	5.98E-12	3.74E-01	%T-PCS	LOSS OF POWER CONVERSION SYSTEM
		1.60E-03	C41-UV -CC-F005A	CHECK VALVE F005A FAILS TO OPEN
		1.00E-08	C71-SYS-FF-SCRAM	SCRAM FAILURE
4	5.98E-12	3.74E-01	%T-PCS	LOSS OF POWER CONVERSION SYSTEM
		1.60E-03	C41-UV -CC-F005B	CHECK VALVE F005B FAILS TO OPEN
		1.00E-08	C71-SYS-FF-SCRAM	SCRAM FAILURE
5	4.05E-12	3.74E-01	%T-PCS	LOSS OF POWER CONVERSION SYSTEM
		2.69E-01	C41-XHE-FO-OPENF002A	OPERATOR FAILS TO OPEN VALVE F002A (AFTER INADV.CLOS.)
		4.03E-03	C41-XHE-MH-F002A	MISPOSITION OF VALVE F002A
		1.00E-08	C71-SYS-FF-SCRAM	SCRAM FAILURE
6	4.05E-12	3.74E-01	%T-PCS	LOSS OF POWER CONVERSION SYSTEM
		2.69E-01	C41-XHE-FO-OPENF002B	OPERATOR FAILS TO OPEN VALVE F002B (AFTER INADV.CLOS.)
		4.03E-03	C41-XHE-MH-F002B	MISPOSITION OF VALVE F002B
		1.00E-08	C71-SYS-FF-SCRAM	SCRAM FAILURE
7	5.61E-13	3.74E-01	%T-PCS	LOSS OF POWER CONVERSION SYSTEM
		1.50E-04	C41-SQV-CF-F003AC	CCF TO OPERATE OF SQUIB VALVES ON SLCS-A
		1.00E-08	C71-SYS-FF-SCRAM	SCRAM FAILURE
8	5.61E-13	3.74E-01	%T-PCS	LOSS OF POWER CONVERSION SYSTEM
		1.50E-04	C41-SQV-CF-F003BD	CCF TO OPERATE OF SQUIB VALVES ON SLCS-B
		1.00E-08	C71-SYS-FF-SCRAM	SCRAM FAILURE

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Table 7.2-14

Sequence 8 - Large Steam LOCA in FDW Line B (LL-S-FDWB013)

#	Cutset Probability	Event Probability	Event Name	Event Description
1	8.96E-12	3.71E-06	%LL-S-FDWB	LARGE LOCA IN FEEDWATER LINE B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
2	8.96E-12	3.71E-06	%LL-S-FDWB	LARGE LOCA IN FEEDWATER LINE B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
3	2.67E-12	3.71E-06	%LL-S-FDWB	LARGE LOCA IN FEEDWATER LINE B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
4	2.67E-12	3.71E-06	%LL-S-FDWB	LARGE LOCA IN FEEDWATER LINE B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
5	1.25E-13	3.71E-06	%LL-S-FDWB	LARGE LOCA IN FEEDWATER LINE B
		2.10E-07	C51-ACT-CF-APRMSTUCK	CCF APRM DETECTORS STUCK AT POWER LEVEL
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
6	1.11E-13	3.71E-06	%LL-S-FDWB	LARGE LOCA IN FEEDWATER LINE B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		2.00E-03	G21-ACV-CC-F332	AOV F332 FAILS TO OPERATE TO NOT DEENERG.POS.
7	1.11E-13	3.71E-06	%LL-S-FDWB	LARGE LOCA IN FEEDWATER LINE B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		2.00E-03	G21-ACV-CC-F332	AOV F332 FAILS TO OPERATE TO NOT DEENERG.POS.

Table 7.2-15**Sequence 9 - Inadvertent Open Relief Valve (T-IORV014)**

#	Cutset Probability	Event Probability	Event Name	Event Description
1	3.18E-12	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		2.00E-03	P22-ACV-FT-BYPASS	HEAT EXCHANGERS BYPASS VALVE FAILS TO REGULATE
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
2	3.18E-12	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		2.00E-03	P22-ACV-FT-BYPASS	HEAT EXCHANGERS BYPASS VALVE FAILS TO REGULATE
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
3	2.09E-12	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		1.31E-03	N21-ACV-OC-F018	AIR OPERATED VALVE N21-F018 FAILS TO REMAIN OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
4	2.09E-12	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		1.31E-03	N21-ACV-OC-F018	AIR OPERATED VALVE N21-F018 FAILS TO REMAIN OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
5	1.82E-12	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		5.50E-05	C62-DTM-CF-N1EALL	CCF OF DIGITAL TRIP MODULES NO 1E
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
6	1.82E-12	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		5.50E-05	C62-DTM-CF-N1EALL	CCF OF DIGITAL TRIP MODULES NO 1E
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN

Table 7.2-15

Sequence 9 - Inadvertent Open Relief Valve (T-IORV014)

#	Cutset Probability	Event Probability	Event Name	Event Description
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
7	3.88E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		1.17E-05	P41-MP -CR-3ALL	CCF TO RUN 3 PUMPS TRAINS A AND B
8	3.88E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		1.17E-05	P41-MP -CR-3ALL	CCF TO RUN 3 PUMPS TRAINS A AND B
9	3.54E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		1.07E-05	P41-STR-CF-3ALL	CCF 3 STRAINERS PLUGGED
10	3.54E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		1.07E-05	P41-STR-CF-3ALL	CCF 3 STRAINERS PLUGGED
11	2.38E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		7.20E-06	P41-FAN-CS-2ALL	CCF TO START 2 FAN UNITS
12	2.38E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		7.20E-06	P41-FAN-CS-2ALL	CCF TO START 2 FAN UNITS
13	2.37E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334

Table 7.2-15

Sequence 9 - Inadvertent Open Relief Valve (T-IORV014)

#	Cutset Probability	Event Probability	Event Name	Event Description
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		1.49E-04	P51-CMP-CR-RUN	CCF OF P51 COMPRESSORS TO RUN
14	2.37E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		1.49E-04	P51-CMP-CR-RUN	CCF OF P51 COMPRESSORS TO RUN
15	2.07E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		6.26E-06	P41-MP -CS-3ALL	CCF TO START PUMPS TRAINS A AND B
16	2.07E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		6.26E-06	P41-MP -CS-3ALL	CCF TO START PUMPS TRAINS A AND B
17	1.53E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		2.00E-03	P22-ACV-FT-BYPASS	HEAT EXCHANGERS BYPASS VALVE FAILS TO REGULATE
18	1.53E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		2.00E-03	P22-ACV-FT-BYPASS	HEAT EXCHANGERS BYPASS VALVE FAILS TO REGULATE
19	1.53E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE

Table 7.2-15

Sequence 9 - Inadvertent Open Relief Valve (T-IORV014)

#	Cutset Probability	Event Probability	Event Name	Event Description
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		2.00E-03	P22-ACV-FT-BYPASS	HEAT EXCHANGERS BYPASS VALVE FAILS TO REGULATE
20	1.53E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		4.80E-02	C12-XHE-MH-F013A	MISPOSITION OF VALVE F013A
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		2.00E-03	P22-ACV-FT-BYPASS	HEAT EXCHANGERS BYPASS VALVE FAILS TO REGULATE
21	1.53E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		2.00E-03	P22-ACV-FT-BYPASS	HEAT EXCHANGERS BYPASS VALVE FAILS TO REGULATE
22	1.53E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		4.80E-02	C12-XHE-MH-F013B	MISPOSITION OF VALVE F013B
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		2.00E-03	P22-ACV-FT-BYPASS	HEAT EXCHANGERS BYPASS VALVE FAILS TO REGULATE
23	1.53E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334

Table 7.2-15**Sequence 9 - Inadvertent Open Relief Valve (T-IORV014)**

#	Cutset Probability	Event Probability	Event Name	Event Description
		2.00E-03	P22-ACV-FT-BYPASS	HEAT EXCHANGERS BYPASS VALVE FAILS TO REGULATE
24	1.53E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		4.80E-02	C12-XHE-MH-F015A	MISPOSITION OF VALVE F015A
		4.80E-02	C12-XHE-MH-F015B	MISPOSITION OF VALVE F015B
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		2.00E-03	P22-ACV-FT-BYPASS	HEAT EXCHANGERS BYPASS VALVE FAILS TO REGULATE
25	1.32E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		2.00E-03	G21-ACV-CC-F332	AOV F332 FAILS TO OPERATE TO NOT DEENERG.POS.
		2.00E-03	P22-ACV-FT-BYPASS	HEAT EXCHANGERS BYPASS VALVE FAILS TO REGULATE
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T

Table 7.2-16

Sequence 10 - Inadvertent Open Relief Valve (T-IORV028)

#	Cutset Probability	Event Probability	Event Name	Event Description
1	1.72E-12	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		2.00E-03	P22-ACV-FT-BYPASS	HEAT EXCHANGERS BYPASS VALVE FAILS TO REGULATE
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
2	1.72E-12	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		2.00E-03	P22-ACV-FT-BYPASS	HEAT EXCHANGERS BYPASS VALVE FAILS TO REGULATE
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
3	1.13E-12	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.31E-03	N21-ACV-OC-F018	AIR OPERATED VALVE N21-F018 FAILS TO REMAIN OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
4	1.13E-12	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.31E-03	N21-ACV-OC-F018	AIR OPERATED VALVE N21-F018 FAILS TO REMAIN OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
5	9.84E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		5.50E-05	C62-DTM-CF-N1EALL	CCF OF DIGITAL TRIP MODULES NO 1E
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN

Table 7.2-16

Sequence 10 - Inadvertent Open Relief Valve (T-IORV028)

#	Cutset Probability	Event Probability	Event Name	Event Description
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
6	9.84E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		5.50E-05	C62-DTM-CF-NIEALL	CCF OF DIGITAL TRIP MODULES NO 1E
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
7	5.12E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		2.00E-03	P22-ACV-FT-BYPASS	HEAT EXCHANGERS BYPASS VALVE FAILS TO REGULATE
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
8	5.12E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		2.00E-03	P22-ACV-FT-BYPASS	HEAT EXCHANGERS BYPASS VALVE FAILS TO REGULATE
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
9	3.36E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		1.31E-03	N21-ACV-OC-F018	AIR OPERATED VALVE N21-F018 FAILS TO REMAIN OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
10	3.36E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334

Table 7.2-16

Sequence 10 - Inadvertent Open Relief Valve (T-IORV028)

#	Cutset Probability	Event Probability	Event Name	Event Description
		1.31E-03	N21-ACV-OC-F018	AIR OPERATED VALVE N21-F018 FAILS TO REMAIN OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
11	2.93E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		5.50E-05	C62-DTM-CF-N1EALL	CCF OF DIGITAL TRIP MODULES NO 1E
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
12	2.93E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		5.50E-05	C62-DTM-CF-N1EALL	CCF OF DIGITAL TRIP MODULES NO 1E
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	G21-XHE-MH-F334	MISPOSITION OF VALVE F334
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
13	2.09E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.17E-05	P41-MP -CR-3ALL	CCF TO RUN 3 PUMPS TRAINS A AND B
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
14	2.09E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.17E-05	P41-MP -CR-3ALL	CCF TO RUN 3 PUMPS TRAINS A AND B
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
15	1.91E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		1.07E-05	P41-STR-CF-3ALL	CCF 3 STRAINERS PLUGGED
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)

Table 7.2-16

Sequence 10 - Inadvertent Open Relief Valve (T-IORV028)

#	Cutset Probability	Event Probability	Event Name	Event Description
16	1.91E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		1.07E-05	P41-STR-CF-3ALL	CCF 3 STRAINERS PLUGGED
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
17	1.29E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		7.20E-06	P41-FAN-CS-2ALL	CCF TO START 2 FAN UNITS
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
18	1.29E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		7.20E-06	P41-FAN-CS-2ALL	CCF TO START 2 FAN UNITS
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
19	1.28E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		1.49E-04	P51-CMP-CR-RUN	CCF OF P51 COMPRESSORS TO RUN
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
20	1.28E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		4.80E-02	P30-XHE-MH-F015	MISPOSITION OF VALVE F01T
		1.49E-04	P51-CMP-CR-RUN	CCF OF P51 COMPRESSORS TO RUN
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
21	1.12E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE

Table 7.2-16**Sequence 10 - Inadvertent Open Relief Valve (T-IORV028)**

#	Cutset Probability	Event Probability	Event Name	Event Description
		1.50E-05	E50-SQV-CF-GDCS7OPEN	CCF OF 7 SQUIB VALVES IN GDCS LINES TO OPEN
		6.26E-06	P41-MP -CS-3ALL	CCF TO START PUMPS TRAINS A AND B
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)
22	1.12E-13	4.60E-02	%T-IORV	INADVERTENT OPEN RELIEF VALVE
		1.50E-05	E50-SQV-CF-OPENALL	CCF OF ALL SQUIB VALVES TO OPEN
		6.26E-06	P41-MP -CS-3ALL	CCF TO START PUMPS TRAINS A AND B
		1.61E-01	XXX-XHE-FO-DEPRESS	OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION
		1.61E-01	XXX-XHE-FO-LPMAKEUP	OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP (LOCA)

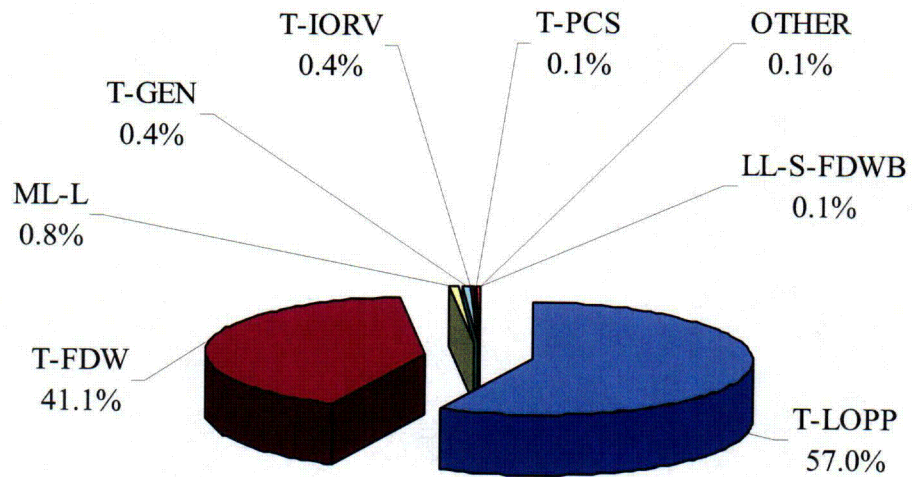


Figure 7.2-1
Contribution to CDF by Initiating Event

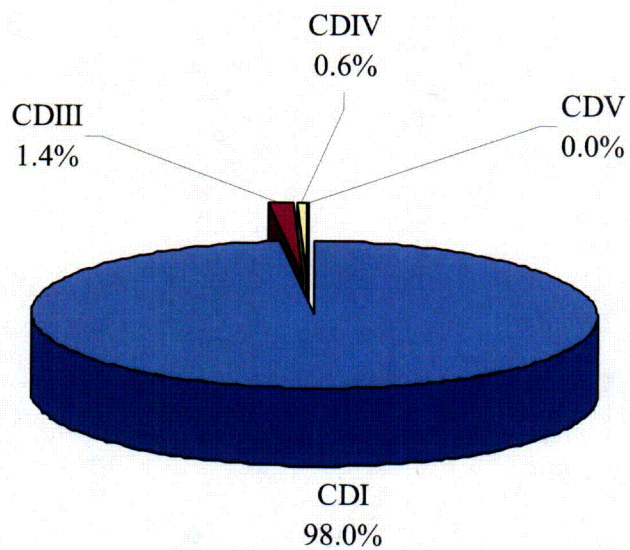


Figure 7.2-2
Contribution to CDF by Accident Class

7.3 QUANTIFICATION PROCESS

The quantification process requires all the necessary information generated in the other PRA tasks.

7.3.1 Quantification Overview

The purpose of the core damage frequency quantification is to obtain the Boolean equation corresponding to the final event: "Core Damage". The quantification is developed in terms of minimal cutsets (MCS), which represent the minimal combinations of events that result in core damage.

The following key aspects characterize the core damage frequency quantification process:

- a. Event trees to model plant response to each group of initiating events.
- b. Fault trees to model the behavior of front-line and support systems.
- c. Integration of event tree and fault tree structures into a single linked model.
- d. Quantification of the linked Boolean model with the probabilistic database and boundary condition files (Flag files).

7.3.2 File Structure

Descriptions of the key model and quantification files are provided below.

7.3.2.1 Event Tree Files

These files contain the event tree structures for each group of initiating events. The core damage sequences of these models are converted into fault tree logic and integrated into the Master Fault Tree File along with the system fault tree logic.

7.3.2.2 Fault Tree File

A single fault tree file ("master.caf") contains all the core damage sequences, with all the front-line and support systems linked. Each sequence subtree includes a top gate that combines the initiating event and the functional failures and successes of the sequence.

7.3.2.3 Database File

The database contains the probabilities and frequencies of each of the events associated with the fault tree.

7.3.2.4 Quantification File

This file contains the conditions for quantifying the different accident sequences. The quantification file identifies the following:

- Master fault tree file name
- Database file name
- Sequences to be quantified

- Quantification truncation limits for each sequence
- Flag files for each sequence
- Accident class for each sequence

7.3.2.5 “Flag” Files

“Flag” files contain boundary conditions (e.g., type of initiating event, assumed plant configuration) used in the quantification of the accident sequences. Binary model elements (that have either “True” or “False” values) called “Flags” (also known as “house events”) are used to identify boundary conditions in the model structure. Flag files identify the flag events and associated binary values used in the quantification of the different accident sequences.

7.3.3 Quantification Output

Quantification of the model results in the following key outputs:

- Overall core damage frequency
- Core damage frequency as a function of:
 - Initiating event
 - Accident sequence
 - Accident class
- Importance characterization of individual events (in terms of industry standard risk importance measures, e.g., Fussell-Vesely; Risk Achievement Worth, etc.) relative to the core damage frequency.

7.4 REFERENCES

None