# 14 HIGH WIND RISK

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# 14 HIGH WIND RISK

This section documents the high winds analysis of the ESBWR PRA.

## 14.1 INTRODUCTION

The probabilistic high winds analysis is performed to assess the impacts of high wind forces on the safe operation of the ESBWR plant.

The ESBWR high wind analysis explicitly quantifies accident sequences and containment releases initiated by tornado and hurricane winds. Straight winds are lesser velocity winds that pose minimal challenges to the plant design.

The analysis shows that the core damage frequency due to high winds is not a significant contributor to ESBWR core damage risk.

The scope of the analysis includes both at-power and shutdown high wind-induced accident scenarios.

## 14.2 METHODOLOGY

The high wind risk analysis involves the following major steps:

(1) Tornado hazard frequency

(2) Tornado-induced plant impacts

(3) Calculation of tornado-induced core damage frequencies and release frequencies

(4) Hurricane hazard frequency

(5) Hurricane-induced plant impacts, and

(6) Calculation of hurricane-induced core damage frequencies and release frequencies.

The tornado hazard frequency is based on NOAA data (Reference 14-1). The hurricane hazard frequency is also based on NOAA data (Reference 14-5). The high wind-induced plant impacts are based on a qualitative evaluation based on ESBWR plant civil engineering design criteria (Reference 14-2). The internal events PRA accident sequence structures, system fault trees and success criteria are used in the calculation of the at power high winds CDF and releases. The shutdown PRA accident sequence structures, system fault trees and success criteria are used in the calculation of shutdown high winds CDF and releases.

Both at-power and shutdown high wind-induced accident scenarios and releases are quantified.

## 14.3 IDENTIFICATION OF PLANT HIGH WIND STRIKE AREAS

The ESBWR high wind risk analysis assumes the following impacts occur with a probability of 1.0 given an F2, F3, F4, or F5 tornado or a Category 3, 4, or 5 hurricane strike:

- Switchyard component failures (i.e., loss of preferred power)
- No offsite power recovery within the analysis period following a high wind strike

## 14.4 CALCULATION OF THE HIGH WIND STRIKE FREQUENCY

### 14.4.1 Tornado Strike Frequency

This section documents the calculation of the annual exceedance frequency for the tornado hazard. The tornado hazard is a function of tornado strike frequency and intensity. A commonly used definition of tornado intensity is the Fujita, or F-scale, tornado wind speed intensity relationship developed by Dr. Theodore Fujita of the University of Chicago. The Fujita F-scale is a classification based on increasing intensity from F-0 to F-6, with each level corresponding to a range of wind speeds. Although the Fujita Scale has been in use for 33 years, the limitations of the scale, such as a lack of damage indicators and lack of a clear correlation between wind speed and damage, have led to the development of the Enhanced Fujita Scale (EF) by the Wind Science and Engineering Center at Texas Tech University in Lubbock, Texas.

The intensity levels and associated wind speeds are summarized in Table 14-1.

The first step in determining the tornado strike frequency was to download the raw tornado data covering the period 1950 through 2005 from the NOAA website (Reference 14-1). Listed values of "–9F" were deleted from the data because there was no estimate available. Blank F values were also deleted because the data could not be determined. The remaining data was sorted based on F rating.

As shown in Table 14-1, the F rating and EF rating can be used interchangeably. It is assumed that all structures, Cat I, Cat II, and the non-seismic structures, can withstand the winds associated with an F0 or F1. The only impact to the site is expected to be a loss of preferred power with no additional equipment failures associated with the tornado. These loss of preferred power events are covered by the internal events PRA and have been included under the initiating events for Loss of Preferred Power, Weather Related (See Section 2 of this document). No additional evaluation of EF0 or EF1 events is required here.

EF2 and EF3 tornados would exceed the wind speed design of non-seismic structures but would not affect RTNSS or Seismic Category I or Cat II structures. Therefore, for EF2 and EF3 tornados the equipment located in non-seismic structures or in the yard will be assumed to fail. The occurrence rate per square mile per year for EF2 and EF3 tornados is the number of occurrences of EF2 and EF3 tornados divided by the number of square miles in the United States (3,537,438 sq mi) divided by the number of years in the data (56).

Probability of EF2/EF3 = ((7,855 + 2061)/3,537,438)/56 = 5.01E-05 occurrences/sq mi/yr

The site area is approximately 0.14 square miles.

The probability of occurrence of an EF2/EF3 tornado per year to the ESBWR site is:

5.01E-5 occurrences/sq mi/yr * 0.14 sq mi = **7.01E-06 occurrences/yr**

This will be used for the at power EF2/EF3 tornado strike frequency.

If the reactor well is flooded (Mode 6-Flooded), the risk associated to loss of preferred power due to a tornado strike has been judged to be negligible because the large amount of water stored above the core assures core cooling during a long period of time. This time would be significantly longer than 24 hours. This long period could be used to establish an adequate path

from an external water source to the reactor well. CRD pumps, FAPCS pumps, RWCU/SDC pumps, or firewater pumps which are all housed in Seismic Category I structures and therefore would be available, could provide the cooling function when powered from on site power. The long period of time available makes it practically certain that sufficient inventory can be supplied.

Therefore, the loss of preferred power, the assumed initiator for tornados, is not analyzed in detail for the case when the reactor well is flooded (Mode 6-Flooded).

The EF2/EF3 tornado strike frequency for Mode 5 will be the number of hours in Mode 5 per year divided by the number of hours in a year times the EF2/EF3 tornado strike frequency. From subsection 16.2.1.2 of this document, the number of hours in Mode 5 per refueling is 192. Since there is one refueling every two years, the number of hours in Mode 5 per year would be 96.

The EF2/EF3 tornado strike frequency in Mode 5 would be:

(96 hours/8760 hours) * 7.01E-06 occurrences/year = **7.68E-08 occurrences/year.**

The EF2/EF3 tornado strike frequency for Mode 5 Open will be the number of hours in Mode 5 Open per year divided by the number of hours in a year times the EF2/EF3 tornado strike frequency. From subsection 16.2.1.2 of this document, the number of hours in Mode 5 Open per refueling is 48. Since there is one refueling every two years, the number of hours in Mode 5 Open per year would be 24.

The EF2/EF3 tornado strike frequency in Mode 5O would be:

(24 hours/8760 hours) * 7.01E-06 occurrences/year = **1.93E-08 occurrences/year.**

The EF2/EF3 tornado strike frequency for Mode 6 Unflooded (6U) will be the number of hours in Mode 6 Unflooded per year divided by the number of hours in a year times the EF2/EF3 tornado strike frequency. From subsection 16.2.1.2 of this document, the number of hours in Mode 6 Unflooded per refueling is 59. Since there is one refueling every two years, the number of hours in Mode 6 Unflooded per year would be 29.5.

The EF2/EF3 tornado strike frequency in Mode 6U would be:

(29.5 hrs/8760 hrs) * 7.01E-06 occurrences/year **= 2.36E-08 occurrences/year.**

EF4, and EF5 tornados would exceed the wind speed design of RTNSS structures, but not Seismic Category I or Seismic Category II buildings. Therefore, for EF4, and EF5 tornados, the equipment located in RTNSS structures and the yard will be assumed to fail. The occurrence rate per square mile per year for EF4 and EF5 tornados combined is the number of occurrences of EF4 and EF5 tornados divided by the number of square miles in the United States (3,537,438 sq mi) divided by the number of years in the data (56).

Probability of EF4/EF5=[(489+50)/3,537,438]/56=2.72E-06 occurrences/sq mi/yr

The site is approximately 0.14 square miles.

The probability of occurrence of an F4, or F5 tornado per year to the ESBWR site is:

2.72E-06 occurrences/sq mi/yr * 0.14 sq mi = **3.81E-07 occurrences/year**

This will be used for the EF4/EF5 tornado strike frequency.

The EF4/EF5 tornado strike frequency for Mode 5 will be the number of hours in Mode 5 per year divided by the number of hours in a year times the EF4/EF5 tornado strike frequency. From subsection 16.2.1.2 of this document, the number of hours in Mode 5 per refueling is 192. Since there is one refueling every two years, the number of hours in Mode 5 per year would be 96.

The EF4/EF5 tornado strike frequency in Mode 5 would be:

(96 hours/8760 hours) * 3.81E-07 occurrences/year = **4.18E-09 occurrences/year.**

The EF4/EF5 tornado strike frequency for Mode 5 Open will be the number of hours in Mode 5 Open per year divided by the number of hours in a year times the EF4/EF5 tornado strike frequency. From subsection 16.2.1.2 of this document, the number of hours in Mode 5 Open per refueling is 48. Since there is one refueling every two years, the number of hours in Mode 5 Open per year would be 24.

The EF4/EF5 tornado strike frequency in Mode 5O would be:

(24 hours/8760 hours) * 3.81E-07 occurrences/year = **1.04E-09 occurrences/year.**

The EF4/EF5 tornado strike frequency for Mode 6 Unflooded (6U) will be the number of hours in Mode 6 Unflooded per year divided by the number of hours in a year times the EF4/EF5 tornado strike frequency. From subsection 16.2.1.2 of this document, the number of hours in Mode 6 Unflooded per refueling is 59. Since there is one refueling every two years, the number of hours in Mode 6 Unflooded per year would be 29.5.

The EF4/EF5 tornado strike frequency in Mode 6U would be:

(29.5 hrs/8760 hrs) * 3.81E-07 occurrences/year = **1.28E-09 occurrences/year.**

### 14.4.2 Hurricane Strike Frequency

NUREG/CR-6890, Volume 1, "Reevaluation of Station Blackout Risk at Nuclear Power Plants Analysis of Loss of Offsite Power Events: 1986-2004" (Reference 14-4) provides data for Loss of Offsite Power due to hurricanes. Per Table A-2 of Reference 14-4, there were 5 hurricane related loss of offsite power events at nuclear power plants during the time covered by the study. Only coastal plants are considered vulnerable to hurricanes. Table A-3 of Reference 14-4 lists the coastal plants. Table D-1 of Reference 14-4 provides the reactor critical years (rcry) and reactor shutdown years (rsy) for all plants. The totals for coastal plants during the study is 292.65 rcry and 35.37 rsy for a total of 328.02 reactor calendar years (rcy).

The initiating event frequency for hurricane related loss of offsite power events is the number of loss of offsite power events caused by hurricanes at power divided by the rcy for coastal plants. The initiating event frequency for hurricane related losses of offsite power is 5/328.02 = 1.52E-02 events/rcy.

The only impact to the site from Category One and Category Two hurricanes is expected to be a loss of preferred power with no additional equipment failures associated with the hurricanes. These loss of preferred power events are covered by the internal events PRA and have been included under the initiating events for Loss of Preferred Power, Weather Related (See Section 2 of this document). No additional evaluation of Category One or Category Two hurricanes is required. To prevent double counting, they will be excluded from the hurricane initiating event data.

If the reactor well is flooded (Mode 6-Flooded), the risk associated to loss of preferred power due to a hurricane strike has been judged to be negligible because the large amount of water stored above the core assures core cooling during a long period of time. This time would be significantly longer than 24 hours. This long period could be used to establish an adequate path from an external water source to the reactor well. CRD pumps, FAPCS pumps, RWCU/SDC pumps, or firewater pumps which are all housed in Seismic Category I buildings and therefore would be available, could provide the cooling function when powered from on site power. The long period of time available makes it practically certain that sufficient inventory can be supplied.

Therefore, the loss of preferred power, the assumed initiator for hurricanes, is not analyzed in detail for the case when the reactor well is flooded (Mode 6-Flooded).

The hurricane strike frequency for Mode 5 will be the number of hours in Mode 5 per year divided by the number of hours in a year times the hurricane strike frequency. From subsection 16.2.1.2 of this document, the number of hours in Mode 5 per refueling is 192. Since there is one refueling every two years, the number of hours in Mode 5 per year would be 96.

The hurricane strike frequency in Mode 5 would be:

(96 hours/8760 hours) * 1.52E-02 occurrences/year = **1.67E-04 occurrences/year.**

Because of the long advanced warning for an approaching hurricane, the staff will have adequate time to at a minimum set the head in place resulting in a Mode 5 Open configuration. Shutdown Hurricane Mode 6 unflooded high wind strike frequency has been added to Shutdown Hurricane Mode 5 Open.

The hurricane strike frequency for Mode 5 Open will be the number of hours in Mode 5 Open per year plus the number of hours in Mode 6 Unflooded divided by the number of hours in a year times the hurricane strike frequency. From subsection 16.2.1.2 of this document, the number of hours in Mode 5 Open per refueling is 48 and the number of hours in Mode 6 Unflooded is 59. Since there is one refueling every two years, the number of hours in Mode 5 Open per year would be 24 and the number of hours in Mode 6 Unflooded would be 29.5.

The hurricane strike frequency in Mode 5 Open would be:

(24+29.5 hours/8760 hours) * 1.52E-02 occurrences/year = **9.31E-05 occurrences/year.**

## 14.5 CALCULATION OF CORE DAMAGE FREQUENCY

The internal events PRA accident sequence structures and system fault trees and success criteria are used in the calculation of the high winds CDF. The CDF and release quantifications are performed at a quantification truncation limit of 1E-15/yr.

Both at-power and shutdown high wind-induced accident sequences and releases are quantified.

### 14.5.1 At-Power Core Damage and Release Frequencies

To assess the ESBWR at-power high wind-induced core damage risk, the loss of offsite power event tree of Section 3 is quantified using the frequency of high wind strikes per year at-power as the initiating event frequency.

The ESBWR structures are designed for several different wind loadings. Seismic Category I and Category II buildings are designed to be tornado resistant for maximum tornado wind speeds of 330 mph. Structures which house RTNSS equipment are designed for Category 5 hurricanes with a maximum wind speed of 195 mph. Non-seismic structures are designed for extreme winds of 110 mph (Reference 14-2).

For wind speeds less than approximately 110 mph, EF0 and EF1 tornados as well as Category 1 and Category 2 hurricanes, no quantification is required because no additional equipment failures as a result of the winds are expected. These events have been addressed in the internal events loss of preferred power, weather related, failures.

For wind speeds exceeding approximately 110 mph but less than approximately 195 mph, EF2 and EF3 tornados as well as Category 3, Category 4 and Category 5 hurricanes, all equipment which is not located in RTNSS structures or Seismic Category I and Category II structures is assumed to fail. Equipment in RTNSS, Seismic Category I and Seismic Category II structures is credited.

For wind speeds exceeding approximately 195 mph, EF4 and EF5 tornados, all equipment in RTNSS structures is assumed to fail as well as all equipment located in non-seismic, non-RTNSS buildings. Only equipment in Seismic Category I and Category II structures is credited.

### 14.5.2 Shutdown Core Damage and Release Frequencies

The shutdown mode high wind initiating event frequencies are used in the internal events shutdown LOPP event tree, with the same modeling discussed previously.

A shutdown initiating event is defined as any event that provokes a disturbance in the desired state of the plant and that requires some kind of action to prevent damage to the core. The postulated shutdown initiating events related to internal events, fire and flooding will challenge:

- Decay Heat Removal (includes Loss of RWCU/SDC, Loss of Preferred Power, and Loss of all Service Water), or
- Reactor Coolant System Inventory Control (includes several postulated LOCAs during shutdown).

Tornado and hurricane scenarios during Mode 5, Mode 5-Open and Mode 6-Unflooded are explicitly quantified. Scenarios during Mode 6-Flooded are not explicitly quantified in the

accident sequence analysis since adequate water remains above the core to prevent core damage for more than 24 hours.

## 14.6 RESULTS

The core damage frequency results of the ESBWR high wind risk analysis are summarized in Table 14-2. The total core damage frequency for both at-power and shutdown conditions is 2.53E-09/yr (1.34E-09/yr at-power and 1.19E-09/yr during shutdown). This frequency is not significant in comparison to the internal events result and the core damage frequency goal.

The Level 2 PRA release categories are described in Section 8.2.1.4. Technical specifications leakage (TSL) is the Level 2 success state and indicates an intact, controlled containment boundary. The high winds analysis produces a total non-TSL release frequency of 1.22E-09. The at-power non-TSL release frequency is 3.00E-11/yr. The shutdown non-TSL release frequency is 1.19E-09, the same as the shutdown CDF. This is because the containment is assumed to be open during all Mode 5 and Mode 6 operations. This leads to containment bypass for all shutdown sequences.

The dominant cutsets for the at-power high winds CDF are provided in Table 14-3, and those for shutdown high winds CDF are provided in Table 14-4.

The risk importance measures for the at-power high winds CDF are provided in Table 14-5, and those for shutdown high winds CDF are provided in Table 14-6.

The probability of each release category is summarized in Table 14-7.

The frequency of severe winds tends to be regional in nature, and thus varies. To ensure that this analysis bounds the potential ESBWR sites, a set of sensitivity analyses is performed. The premise of the high wind risk analysis is that these scenarios are not significant contributors to risk. Therefore, if large changes in the high wind frequencies only cause small, insignificant changes in the CDF and LRF, then the base model is considered appropriate for any specific site.

The hurricane frequencies are generated based on the plant being in a coastal (that is, hurricane susceptible) area, so a site that is not located on or near the coast would tend to have a reduced high wind impact. The sensitivity analyses confirm that the overall significance is not increased and no new insights are generated for hurricanes.

The tornado frequencies are generated based on a national average for US sites. The underlying data is not amenable to generating site-specific values. For this sensitivity, the tornado frequency (all categories) is increased by a factor of 10. This is considered bounding for any ESBWR site. The sensitivity analyses confirm that the CDF and LRF values do not increase to the level at which high wind risk becomes significant. In addition, no new insights are generated and no additional risk significant components are identified.

The conclusion of the sensitivity evaluation is that the ESBWR high wind risk evaluation is appropriate for any ESBWR nuclear power plant site.

## 14.7 INSIGHTS

The plant should not be in a Mode 6 Unflooded condition when a hurricane strike occurs. This is because in Mode 6 unflooded the containment is open, the reactor vessel is open and the water above the core will not keep the core cool for an extended period of time.

## 14.8 CONCLUSIONS

The main conclusion that can be drawn from the ESBWR high wind risk analysis is that the risk from tornado or hurricane strikes on the plant is acceptably low. The estimated core damage frequency (both at-power and shutdown conditions) from high winds is 2.53E-09 per calendar year. The core damage frequency for high winds is not additive with core damage frequencies from other sections.

The ESBWR is inherently safe with respect to high wind events and the plant can be safely shut down at low risk to plant personnel and the general public.

The conclusion of the sensitivity evaluation is that the ESBWR high wind risk evaluation is appropriate for any ESBWR nuclear power plant site.

## 14.9 REFERENCES

14-1 National Oceanic & Atmospheric Administration, U. S. Department of Commerce, August 22, 2007, http://www.spc.noaa.gov/wcm/ONETOR5005.txt

14-2 ESBWR Design Specification 26A6558, Rev. 3, "General Civil Design Criteria",

14-3 Summit, R.L., Estimation of Core Damage Frequency for Advanced Light Water Reactors Due to Tornado Events (Task 4.3.2.1), Advanced Reactor Severe Accident Program, U.S. Department of Energy, December 1988.

14-4 NUREG/CR-6890, Volume 1, "Reevaluation of Station Blackout Risk at Nuclear Power Plants Analysis of Loss of Offsite Power Events: 1986-2004"

14-5 National Oceanic & Atmospheric Administration, U. S. Department of Commerce, August 22, 2007, http://www.nhc.noaa.gov/pastdec.shtml

**Table 14-1**

**Tornado F-Scale Intensities**

| Fujita Scale | | | EF Scale | |
|---|---|---|---|---|
| Fujita Scale | Number of Tornados | 3-Second Gust Speed mph | EF Scale | 3-Second Gust Speed mph |
| F0 | 20,043 | 45 - 78 | EF0 | 65 - 85 |
| F1 | 15,850 | 79 - 117 | EF1 | 86 - 109 |
| F2 | 7,855 | 118 - 161 | EF2 | 110 - 137 |
| F3 | 2,061 | 162 - 209 | EF3 | 138 - 167 |
| F4 | 489 | 210 - 261 | EF4 | 168 - 199 |
| F5 | 50 | 262 - 317 | EF5 | 200 - 234 |

**Table 14-2**

**High Wind-Induced CDF**

| Plant Mode | High Wind Strike Frequency (per year) | CDF (per year) | Non-TSL (per year) |
|---|---|---|---|
| At-Power Tornado F2/F3 | 7.01E-06 | 4E-13 | 0(1) |
| At-Power Tornado F4/F5 | 3.81E-07 | 4.86E-11 | 9.0E-12 |
| At-Power Hurricane | 1.52E-02 | 1.29E-09 | 2.10E-11 |
| **Total At Power High Winds** | | **1.34E-09** | **3.00E-11** |
| Shutdown Tornado F2/F3 Mode 5 | 7.68E-08 | ε(3) | ε(3) |
| Shutdown Tornado F2/F3 Mode 5 Open | 1.93E-08 | ε(3) | ε(3) |
| Shutdown Tornado F2/F3 Mode 6 Unflooded | 2.36E-08 | 1.20E-11 | 1.20E-11 |
| Shutdown Tornado F4/F5 Mode 5 | 1.18E-08 | 4E-13 | 4E-13 |
| Shutdown Tornado F4/F5 Mode 5 Open | 1.04E-09 | ε(3) | ε(3) |
| Shutdown Tornado F4/F5 Mode 6 Unflooded | 1.28E-09 | 8E-13 | 8E-13 |
| Shutdown Hurricane Mode 5 | 1.67E-04 | 7.01E-10 | 7.01E-10 |
| Shutdown Hurricane Mode 5 Open | 9.31E-05 | 4.75E-10 | 4.75E-10 |
| Shutdown Hurricane Mode 6 Unflooded | NA(2) | NA(2) | NA(2) |
| Total Shutdown High Winds | | **1.19E-09** | **1.19E-09** |
| **Total High Winds** | | **2.53E-09** | **1.22E-09** |

Notes:

(1) No accident sequence cutsets contributed to non-TSL.

(2) Because of the long advanced warning for an approaching hurricane, the staff will have adequate time to at a minimum set the head in place resulting in a Mode 5 Open configuration. Shutdown Hurricane Mode 6 Unflooded high wind strike frequency has been added to Shutdown Hurricane Mode 5 Open.

Calculated frequencies less than 1E-13 are reported as "ε".

## Table 14-3

## High Winds Full-Power Cutset Report

| Cutsets with Descriptions Report<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09<br>Top 200 Cutsets | | | | |
|---|---|---|---|---|
| | | | | |
| | | | | |
| # | Cutset Prob | Event Prob | Event | Description |
| 1 | 1.52E-10 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 1.00E-04 | C72-CCFSOFTWARE | COMMON CAUSE FAILURE OF DPS PROCESSORS |
| 2 | 7.35E-11 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E+00 | B32-NONCONDENSE | Non condensable gasses form in ICS sufficiently to require venting |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 3 | 7.35E-11 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-04 | C63-CCFSOFTWARE_S | Common cause failure of software, for spurious |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 4 | 3.81E-11 | 3.81E-07 | %T-LOPP-WRF4_F5 | WEATHER RELATED LOSS OF PREFERRED POWER F4/F5 TORNADO |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| 5 | 3.67E-11 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E+00 | B32-NONCONDENSE | Non condensable gasses form in ICS sufficiently to require venting |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 1.61E-01 | XXX-XHE-FO-DEPRESS | OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION |

## Table 14-3

## High Winds Full-Power Cutset Report

| Cutsets with Descriptions Report<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09<br>Top 200 Cutsets | | | | |
|---|---|---|---|---|
| 6 | 3.67E-11 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-04 | C63-CCFSOFTWARE_S | Common cause failure of software, for spurious |
| | | 1.61E-01 | XXX-XHE-FO-DEPRESS | OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION |
| 7 | 3.67E-11 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E+00 | B32-NONCONDENSE | Non condensable gasses form in ICS sufficiently to require venting |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 1.50E-04 | E50-SQV-CC_ALL | CCF of all components in group 'E50-SQV-CC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 8 | 3.67E-11 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-04 | C63-CCFSOFTWARE_S | Common cause failure of software, for spurious |
| | | 1.50E-04 | E50-SQV-CC_ALL | CCF of all components in group 'E50-SQV-CC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 9 | 2.28E-11 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-ANYSRV1 | SAFETY/RELIEF VALVE FAILS TO RE-CLOSE |
| | | 2.50E-07 | C12-ROD-CF-SCRAM | CCF OF CONTROL RODS TO INSERT |
| 10 | 2.28E-11 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-ANYSRV10 | SAFETY/RELIEF VALVE FAILS TO RE-CLOSE |
| | | 2.50E-07 | C12-ROD-CF-SCRAM | CCF OF CONTROL RODS TO INSERT |
| 11 | 2.28E-11 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-ANYSRV11 | SAFETY/RELIEF VALVE FAILS TO RE-CLOSE |
| | | 2.50E-07 | C12-ROD-CF-SCRAM | CCF OF CONTROL RODS TO INSERT |
| 12 | 2.28E-11 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-ANYSRV12 | SAFETY/RELIEF VALVE FAILS TO RE-CLOSE |

## Table 14-3

## High Winds Full-Power Cutset Report

| Cutsets with Descriptions Report<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09<br>Top 200 Cutsets | | | | |
|---|---|---|---|---|
| | | 2.50E-07 | C12-ROD-CF-SCRAM | CCF OF CONTROL RODS TO INSERT |
| 13 | 2.28E-11 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-ANYSRV13 | SAFETY/RELIEF VALVE FAILS TO RE-CLOSE |
| | | 2.50E-07 | C12-ROD-CF-SCRAM | CCF OF CONTROL RODS TO INSERT |
| 14 | 2.28E-11 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-ANYSRV14 | SAFETY/RELIEF VALVE FAILS TO RE-CLOSE |
| | | 2.50E-07 | C12-ROD-CF-SCRAM | CCF OF CONTROL RODS TO INSERT |
| 15 | 2.28E-11 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-ANYSRV15 | SAFETY/RELIEF VALVE FAILS TO RE-CLOSE |
| | | 2.50E-07 | C12-ROD-CF-SCRAM | CCF OF CONTROL RODS TO INSERT |
| 16 | 2.28E-11 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-ANYSRV16 | SAFETY/RELIEF VALVE FAILS TO RE-CLOSE |
| | | 2.50E-07 | C12-ROD-CF-SCRAM | CCF OF CONTROL RODS TO INSERT |
| 17 | 2.28E-11 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-ANYSRV17 | SAFETY/RELIEF VALVE FAILS TO RE-CLOSE |
| | | 2.50E-07 | C12-ROD-CF-SCRAM | CCF OF CONTROL RODS TO INSERT |
| 18 | 2.28E-11 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-ANYSRV18 | SAFETY/RELIEF VALVE FAILS TO RE-CLOSE |
| | | 2.50E-07 | C12-ROD-CF-SCRAM | CCF OF CONTROL RODS TO INSERT |
| 19 | 2.28E-11 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-ANYSRV2 | SAFETY/RELIEF VALVE FAILS TO RE-CLOSE |
| | | 2.50E-07 | C12-ROD-CF-SCRAM | CCF OF CONTROL RODS TO INSERT |
| 20 | 2.28E-11 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-ANYSRV3 | SAFETY/RELIEF VALVE FAILS TO RE-CLOSE |

## Table 14-3

## High Winds Full-Power Cutset Report

| Cutsets with Descriptions Report<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09<br>Top 200 Cutsets | | | | |
|---|---|---|---|---|
| | | 2.50E-07 | C12-ROD-CF-SCRAM | CCF OF CONTROL RODS TO INSERT |
| 21 | 2.28E-11 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-ANYSRV4 | SAFETY/RELIEF VALVE FAILS TO RE-CLOSE |
| | | 2.50E-07 | C12-ROD-CF-SCRAM | CCF OF CONTROL RODS TO INSERT |
| 22 | 2.28E-11 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-ANYSRV5 | SAFETY/RELIEF VALVE FAILS TO RE-CLOSE |
| | | 2.50E-07 | C12-ROD-CF-SCRAM | CCF OF CONTROL RODS TO INSERT |
| 23 | 2.28E-11 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-ANYSRV6 | SAFETY/RELIEF VALVE FAILS TO RE-CLOSE |
| | | 2.50E-07 | C12-ROD-CF-SCRAM | CCF OF CONTROL RODS TO INSERT |
| 24 | 2.28E-11 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-ANYSRV7 | SAFETY/RELIEF VALVE FAILS TO RE-CLOSE |
| | | 2.50E-07 | C12-ROD-CF-SCRAM | CCF OF CONTROL RODS TO INSERT |
| 25 | 2.28E-11 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-ANYSRV8 | SAFETY/RELIEF VALVE FAILS TO RE-CLOSE |
| | | 2.50E-07 | C12-ROD-CF-SCRAM | CCF OF CONTROL RODS TO INSERT |
| 26 | 2.28E-11 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-ANYSRV9 | SAFETY/RELIEF VALVE FAILS TO RE-CLOSE |
| | | 2.50E-07 | C12-ROD-CF-SCRAM | CCF OF CONTROL RODS TO INSERT |
| 27 | 2.21E-11 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E+00 | B32-NONCONDENSE | Non condensable gasses form in ICS sufficiently to require venting |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |

## Table 14-3

## High Winds Full-Power Cutset Report

| Cutsets with Descriptions Report<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09<br>Top 200 Cutsets | | | | |
|---|---|---|---|---|
| 28 | 2.21E-11 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-04 | C63-CCFSOFTWARE_S | Common cause failure of software, for spurious |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 29 | 1.73E-11 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 1.14E-05 | R13-INV-FC-CCFNSR_ALL | CCF of all components in group 'R13-INV-FC-CCFNSR' |
| 30 | 1.10E-11 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E+00 | B32-NONCONDENSE | Non condensable gasses form in ICS sufficiently to require venting |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 31 | 1.10E-11 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-04 | C63-CCFSOFTWARE_S | Common cause failure of software, for spurious |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 32 | 1.10E-11 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E+00 | B32-NONCONDENSE | Non condensable gasses form in ICS sufficiently to require venting |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 1.50E-04 | E50-SQV-CC_ALL | CCF of all components in group 'E50-SQV-CC' |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 33 | 1.10E-11 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-04 | C63-CCFSOFTWARE_S | Common cause failure of software, for spurious |
| | | 1.50E-04 | E50-SQV-CC_ALL | CCF of all components in group 'E50-SQV-CC' |

## Table 14-3

## High Winds Full-Power Cutset Report

| Cutsets with Descriptions Report<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09<br>Top 200 Cutsets | | | | |
|---|---|---|---|---|
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 34 | 1.01E-11 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 6.67E-06 | C72-LOG-FC-D_1_2_3 | CCF of three components: C72-LOG-FC-D1DPS & C72-LOG-FC-D2DPS & C72-LOG-FC-D3DPS |
| 35 | 5.07E-12 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 3.33E-06 | C72-LOG-FC-D_1_2 | CCF of two components: C72-LOG-FC-D1DPS & C72-LOG-FC-D2DPS |
| 36 | 5.07E-12 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 3.33E-06 | C72-LOG-FC-D_1_3 | CCF of two components: C72-LOG-FC-D1DPS & C72-LOG-FC-D3DPS |
| 37 | 5.07E-12 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 3.33E-06 | C72-LOG-FC-D_2_3 | CCF of two components: C72-LOG-FC-D2DPS & C72-LOG-FC-D3DPS |
| 38 | 4.33E-12 | 3.81E-07 | %T-LOPP-WRF4_F5 | WEATHER RELATED LOSS OF PREFERRED POWER F4/F5 TORNADO |
| | | 1.14E-05 | R13-INV-FC-CCFSR_ALL | CCF of all components in group 'R13-INV-FC-CCFSR' |
| 39 | 3.67E-12 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E+00 | B32-NONCONDENSE | Non condensable gasses form in ICS sufficiently to require venting |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 1.50E-05 | E50-SQV-CF-4OPEN | CCF OF 4 OR MORE SQUIB VALVES TO OPEN |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 40 | 3.04E-12 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 2.50E-07 | C12-ROD-CF-SCRAM | CCF OF CONTROL RODS TO INSERT |
| | | 7.99E-04 | C41-UV_-CC-F004A | CHECK VALVE F004A FAILS TO OPEN |
| 41 | 3.04E-12 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |

## Table 14-3

## High Winds Full-Power Cutset Report

| Cutsets with Descriptions Report<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09<br>Top 200 Cutsets | | | | |
|---|---|---|---|---|
| | | 2.50E-07 | C12-ROD-CF-SCRAM | CCF OF CONTROL RODS TO INSERT |
| | | 7.99E-04 | C41-UV_-CC-F004B | CHECK VALVE F004B FAILS TO OPEN |
| 42 | 3.04E-12 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 2.50E-07 | C12-ROD-CF-SCRAM | CCF OF CONTROL RODS TO INSERT |
| | | 7.99E-04 | C41-UV_-CC-F005A | CHECK VALVE F005A FAILS TO OPEN |
| 43 | 3.04E-12 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 2.50E-07 | C12-ROD-CF-SCRAM | CCF OF CONTROL RODS TO INSERT |
| | | 7.99E-04 | C41-UV_-CC-F005B | CHECK VALVE F005B FAILS TO OPEN |
| 44 | 2.83E-12 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 1.86E-06 | C72-LDD-CF-LOADS | COMMON CAUSE FAILURE OF DPS LOAD DRIVERS |
| 45 | 1.22E-12 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 5.00E-06 | C72-ATM-FC-L1_ALL | CCF of all components in group 'C72-ATM-FC-L1' |
| | | 1.61E-01 | XXX-XHE-FO-DEPRESS | OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION |
| 46 | 1.10E-12 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E+00 | B32-NONCONDENSE | Non condensable gasses form in ICS sufficiently to require venting |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 1.50E-05 | E50-SQV-CF-4OPEN | CCF OF 4 OR MORE SQUIB VALVES TO OPEN |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 47 | 9.12E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-F006A | SAFETY/RELIEF VALVE F006A FAILS TO RE-CLOSE |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 1.00E-04 | C72-CCFSOFTWARE | COMMON CAUSE FAILURE OF DPS PROCESSORS |

## Table 14-3

## High Winds Full-Power Cutset Report

| Cutsets with Descriptions Report<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09<br>Top 200 Cutsets | | | | |
|---|---|---|---|---|
| | | 1.00E+00 | FL_T-IORV065 | |
| 48 | 9.12E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-F006B | SAFETY/RELIEF VALVE F006B FAILS TO RE-CLOSE |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 1.00E-04 | C72-CCFSOFTWARE | COMMON CAUSE FAILURE OF DPS PROCESSORS |
| 49 | 9.12E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-F006C | SAFETY/RELIEF VALVE F006C FAILS TO RE-CLOSE |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 1.00E-04 | C72-CCFSOFTWARE | COMMON CAUSE FAILURE OF DPS PROCESSORS |
| 50 | 9.12E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-F006D | SAFETY/RELIEF VALVE F006D FAILS TO RE-CLOSE |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 1.00E-04 | C72-CCFSOFTWARE | COMMON CAUSE FAILURE OF DPS PROCESSORS |
| 51 | 9.12E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-F006E | SAFETY/RELIEF VALVE F006E FAILS TO RE-CLOSE |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 1.00E-04 | C72-CCFSOFTWARE | COMMON CAUSE FAILURE OF DPS PROCESSORS |
| 52 | 9.12E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-F006F | SAFETY/RELIEF VALVE F006F FAILS TO RE-CLOSE |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 1.00E-04 | C72-CCFSOFTWARE | COMMON CAUSE FAILURE OF DPS PROCESSORS |
| 53 | 9.12E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-F006G | SAFETY/RELIEF VALVE F006G FAILS TO RE-CLOSE |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |

## Table 14-3

## High Winds Full-Power Cutset Report

| Cutsets with Descriptions Report<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09<br>Top 200 Cutsets | | | | |
|---|---|---|---|---|
| | | 1.00E-04 | C72-CCFSOFTWARE | COMMON CAUSE FAILURE OF DPS PROCESSORS |
| 54 | 9.12E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-F006H | SAFETY/RELIEF VALVE F006H FAILS TO RE-CLOSE |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 1.00E-04 | C72-CCFSOFTWARE | COMMON CAUSE FAILURE OF DPS PROCESSORS |
| 55 | 9.12E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-F006J | SAFETY/RELIEF VALVE F006J FAILS TO RE-CLOSE |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 1.00E-04 | C72-CCFSOFTWARE | COMMON CAUSE FAILURE OF DPS PROCESSORS |
| 56 | 9.12E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-F006K | SAFETY/RELIEF VALVE F006K FAILS TO RE-CLOSE |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 1.00E-04 | C72-CCFSOFTWARE | COMMON CAUSE FAILURE OF DPS PROCESSORS |
| 57 | 7.96E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E+00 | B32-NONCONDENSE | Non condensable gasses form in ICS sufficiently to require venting |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 5.23E-07 | T10-UV_-CC-VBISVS_1_2_3 | CCF of three components: T10-UV_-CC-ISV1 & T10-UV_-CC-ISV2 & T10-UV_-CC-ISV3 |
| 58 | 7.96E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-04 | C63-CCFSOFTWARE_S | Common cause failure of software, for spurious |
| | | 5.23E-07 | T10-UV_-CC-VBISVS_1_2_3 | CCF of three components: T10-UV_-CC-ISV1 & T10-UV_-CC-ISV2 & T10-UV_-CC-ISV3 |
| 59 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR59 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |

## Table 14-3

## High Winds Full-Power Cutset Report

| Cutsets with Descriptions Report<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09<br>Top 200 Cutsets | | | | |
|---|---|---|---|---|
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 60 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR60 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 61 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR61 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 62 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR63 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 63 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR64 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 64 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR65 | Undeveloped spurious hardware failure |

## Table 14-3

## High Winds Full-Power Cutset Report

| Cutsets with Descriptions Report<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09<br>Top 200 Cutsets | | | | |
|---|---|---|---|---|
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 65 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR67 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 66 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR68 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 67 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR69 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 68 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR71 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 69 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |

## Table 14-3

## High Winds Full-Power Cutset Report

| Cutsets with Descriptions Report<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09<br>Top 200 Cutsets | | | | |
|---|---|---|---|---|
| | | 1.00E-03 | C63-UNDEVSPUR72 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 70 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR73 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 71 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR59 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR60 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 72 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR59 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR61 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 73 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR59 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR62 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 74 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |

## Table 14-3

## High Winds Full-Power Cutset Report

| Cutsets with Descriptions Report<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09<br>Top 200 Cutsets | | | | |
|---|---|---|---|---|
| | | 1.00E-03 | C63-UNDEVSPUR59 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR64 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 75 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR59 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR65 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 76 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR59 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR66 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 77 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR59 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR68 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 78 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR59 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR69 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.00E+00 | FL_T-LOPP050 | |

## Table 14-3

## High Winds Full-Power Cutset Report

| Cutsets with Descriptions Report<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09<br>Top 200 Cutsets | | | | |
|---|---|---|---|---|
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 79 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR59 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR70 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 80 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR59 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR72 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 81 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR59 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR73 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 82 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR60 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR61 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 83 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR60 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR62 | Undeveloped spurious hardware failure |

## Table 14-3

## High Winds Full-Power Cutset Report

| Cutsets with Descriptions Report<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09<br>Top 200 Cutsets | | | | |
|---|---|---|---|---|
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 84 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR60 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR63 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 85 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR60 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR65 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 86 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR60 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR66 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 87 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR60 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR67 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 88 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR60 | Undeveloped spurious hardware failure |

## Table 14-3

## High Winds Full-Power Cutset Report

| Cutsets with Descriptions Report<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09<br>Top 200 Cutsets | | | | |
|---|---|---|---|---|
| | | 1.00E-03 | C63-UNDEVSPUR69 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 89 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR60 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR70 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 90 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR60 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR71 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 91 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR60 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR73 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 92 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR61 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR62 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 93 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |

## Table 14-3

## High Winds Full-Power Cutset Report

| Cutsets with Descriptions Report<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09<br>Top 200 Cutsets | | | | |
|---|---|---|---|---|
| | | 1.00E-03 | C63-UNDEVSPUR61 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR63 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 94 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR61 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR64 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 95 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR61 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR66 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 96 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR61 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR67 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 97 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR61 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR68 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |

## Table 14-3

## High Winds Full-Power Cutset Report

| Cutsets with Descriptions Report<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09<br>Top 200 Cutsets | | | | |
|---|---|---|---|---|
| 98 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR61 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR70 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 99 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR61 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR71 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 100 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR61 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR72 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 101 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR62 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR63 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 102 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR62 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR64 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |

## Table 14-3

## High Winds Full-Power Cutset Report

| Cutsets with Descriptions Report<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09<br>Top 200 Cutsets | | | | |
|---|---|---|---|---|
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 103 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR62 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR65 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 104 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR62 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR67 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 105 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR62 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR68 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 106 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR62 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR69 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 107 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR62 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR71 | Undeveloped spurious hardware failure |

## Table 14-3

## High Winds Full-Power Cutset Report

| Cutsets with Descriptions Report<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09<br>Top 200 Cutsets | | | | |
|---|---|---|---|---|
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 108 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR62 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR72 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 109 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR62 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR73 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 110 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR63 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR64 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 111 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR63 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR65 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 112 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR63 | Undeveloped spurious hardware failure |

## Table 14-3

## High Winds Full-Power Cutset Report

| Cutsets with Descriptions Report<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09<br>Top 200 Cutsets | | | | |
|---|---|---|---|---|
| | | 1.00E-03 | C63-UNDEVSPUR66 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 113 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR63 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR68 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 114 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR63 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR69 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 115 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR63 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR70 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 116 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR63 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR72 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 117 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |

## Table 14-3

## High Winds Full-Power Cutset Report

| Cutsets with Descriptions Report<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09<br>Top 200 Cutsets | | | | |
|---|---|---|---|---|
| | | 1.00E-03 | C63-UNDEVSPUR63 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR73 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 118 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR64 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR65 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 119 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR64 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR66 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 120 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR64 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR67 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 121 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR64 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR69 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |

## Table 14-3

## High Winds Full-Power Cutset Report

| Cutsets with Descriptions Report<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09<br>Top 200 Cutsets | | | | |
|---|---|---|---|---|
| 122 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR64 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR70 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 123 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR64 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR71 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 124 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR64 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR73 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 125 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR65 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR66 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 126 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR65 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR67 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |

## Table 14-3

## High Winds Full-Power Cutset Report

| Cutsets with Descriptions Report<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09<br>Top 200 Cutsets | | | | |
|---|---|---|---|---|
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 127 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR65 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR68 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 128 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR65 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR70 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 129 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR65 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR71 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 130 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR65 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR72 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 131 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR66 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR67 | Undeveloped spurious hardware failure |

## Table 14-3

## High Winds Full-Power Cutset Report

| Cutsets with Descriptions Report<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09<br>Top 200 Cutsets | | | | |
|---|---|---|---|---|
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 132 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR66 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR68 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 133 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR66 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR69 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 134 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR66 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR71 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 135 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR66 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR72 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 136 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR66 | Undeveloped spurious hardware failure |

## Table 14-3

## High Winds Full-Power Cutset Report

| Cutsets with Descriptions Report<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09<br>Top 200 Cutsets | | | | |
|---|---|---|---|---|
| | | 1.00E-03 | C63-UNDEVSPUR73 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 137 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR67 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR68 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 138 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR67 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR69 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 139 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR67 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR70 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 140 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR67 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR72 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 141 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |

## Table 14-3

## High Winds Full-Power Cutset Report

| Cutsets with Descriptions Report<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09<br>Top 200 Cutsets | | | | |
|---|---|---|---|---|
| | | 1.00E-03 | C63-UNDEVSPUR67 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR73 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 142 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR68 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR69 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 143 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR68 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR70 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 144 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR68 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR71 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 145 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR68 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR73 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |

## Table 14-3

## High Winds Full-Power Cutset Report

| Cutsets with Descriptions Report<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09<br>Top 200 Cutsets | | | | |
|---|---|---|---|---|
| 146 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR69 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR70 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 147 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR69 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR71 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 148 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR69 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR72 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 149 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR70 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR71 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 150 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR70 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR72 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |

## Table 14-3

## High Winds Full-Power Cutset Report

| Cutsets with Descriptions Report<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09<br>Top 200 Cutsets | | | | |
|---|---|---|---|---|
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 151 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR70 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR73 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 152 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR71 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR72 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 153 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR71 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR73 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 154 | 7.35E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR72 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR73 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 155 | 6.37E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E+00 | B32-NONCONDENSE | Non condensable gasses form in ICS sufficiently to require venting |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |

## Table 14-3

## High Winds Full-Power Cutset Report

| Cutsets with Descriptions Report<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09<br>Top 200 Cutsets | | | | |
|---|---|---|---|---|
| | | 4.19E-07 | T10-VB_-CC_1_2_3 | CCF of three components: T10-VB_-CC-VB1 & T10-VB_-CC-VB2 & T10-VB_-CC-VB3 |
| 156 | 6.37E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-04 | C63-CCFSOFTWARE_S | Common cause failure of software, for spurious |
| | | 4.19E-07 | T10-VB_-CC_1_2_3 | CCF of three components: T10-VB_-CC-VB1 & T10-VB_-CC-VB2 & T10-VB_-CC-VB3 |
| 157 | 6.19E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 4.07E-07 | R16-BT_-LP-CCFNSR_ALL | CCF of all components in group 'R16-BT_-LP-CCFNSR' |
| 158 | 5.70E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 2.50E-07 | C12-ROD-CF-SCRAM | CCF OF CONTROL RODS TO INSERT |
| | | 1.50E-04 | C41-SQV-CC_ALL | CCF of all components in group 'C41-SQV-CC' |
| 159 | 4.82E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E+00 | B32-NONCONDENSE | Non condensable gasses form in ICS sufficiently to require venting |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.14E-05 | R13-INV-FC-CCFSR_ALL | CCF of all components in group 'R13-INV-FC-CCFSR' |
| | | 5.76E-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 AFTER DEPRESSURIZATION |
| 160 | 4.82E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E+00 | B32-NONCONDENSE | Non condensable gasses form in ICS sufficiently to require venting |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.14E-05 | R13-INV-FC-CCFSR_ALL | CCF of all components in group 'R13-INV-FC-CCFSR' |
| | | 5.76E-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 AFTER DEPRESSURIZATION |
| 161 | 4.41E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-F006A | SAFETY/RELIEF VALVE F006A FAILS TO RE-CLOSE |

## Table 14-3

## High Winds Full-Power Cutset Report

| Cutsets with Descriptions Report<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09<br>Top 200 Cutsets | | | | |
|---|---|---|---|---|
| | | 1.00E+00 | B32-NONCONDENSE | Non condensable gasses form in ICS sufficiently to require venting |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-DEPRESS | OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION |
| 162 | 4.41E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-F006A | SAFETY/RELIEF VALVE F006A FAILS TO RE-CLOSE |
| | | 1.00E-04 | C63-CCFSOFTWARE_S | Common cause failure of software, for spurious |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-DEPRESS | OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION |
| 163 | 4.41E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-F006B | SAFETY/RELIEF VALVE F006B FAILS TO RE-CLOSE |
| | | 1.00E+00 | B32-NONCONDENSE | Non condensable gasses form in ICS sufficiently to require venting |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-DEPRESS | OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION |
| 164 | 4.41E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-F006B | SAFETY/RELIEF VALVE F006B FAILS TO RE-CLOSE |
| | | 1.00E-04 | C63-CCFSOFTWARE_S | Common cause failure of software, for spurious |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-DEPRESS | OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION |
| 165 | 4.41E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-F006C | SAFETY/RELIEF VALVE F006C FAILS TO RE-CLOSE |
| | | 1.00E+00 | B32-NONCONDENSE | Non condensable gasses form in ICS sufficiently to require venting |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |

## Table 14-3

## High Winds Full-Power Cutset Report

| Cutsets with Descriptions Report<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09<br>Top 200 Cutsets | | | | |
|---|---|---|---|---|
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-DEPRESS | OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION |
| 166 | 4.41E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-F006C | SAFETY/RELIEF VALVE F006C FAILS TO RE-CLOSE |
| | | 1.00E-04 | C63-CCFSOFTWARE_S | Common cause failure of software, for spurious |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-DEPRESS | OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION |
| 167 | 4.41E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-F006D | SAFETY/RELIEF VALVE F006D FAILS TO RE-CLOSE |
| | | 1.00E+00 | B32-NONCONDENSE | Non condensable gasses form in ICS sufficiently to require venting |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-DEPRESS | OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION |
| 168 | 4.41E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-F006D | SAFETY/RELIEF VALVE F006D FAILS TO RE-CLOSE |
| | | 1.00E-04 | C63-CCFSOFTWARE_S | Common cause failure of software, for spurious |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-DEPRESS | OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION |
| 169 | 4.41E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-F006E | SAFETY/RELIEF VALVE F006E FAILS TO RE-CLOSE |
| | | 1.00E+00 | B32-NONCONDENSE | Non condensable gasses form in ICS sufficiently to require venting |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-DEPRESS | OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION |

## Table 14-3

## High Winds Full-Power Cutset Report

| Cutsets with Descriptions Report<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09<br>Top 200 Cutsets | | | | |
|---|---|---|---|---|
| 170 | 4.41E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-F006E | SAFETY/RELIEF VALVE F006E FAILS TO RE-CLOSE |
| | | 1.00E-04 | C63-CCFSOFTWARE_S | Common cause failure of software, for spurious |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-DEPRESS | OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION |
| 171 | 4.41E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-F006F | SAFETY/RELIEF VALVE F006F FAILS TO RE-CLOSE |
| | | 1.00E+00 | B32-NONCONDENSE | Non condensable gasses form in ICS sufficiently to require venting |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-DEPRESS | OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION |
| 172 | 4.41E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-F006F | SAFETY/RELIEF VALVE F006F FAILS TO RE-CLOSE |
| | | 1.00E-04 | C63-CCFSOFTWARE_S | Common cause failure of software, for spurious |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-DEPRESS | OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION |
| 173 | 4.41E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-F006G | SAFETY/RELIEF VALVE F006G FAILS TO RE-CLOSE |
| | | 1.00E+00 | B32-NONCONDENSE | Non condensable gasses form in ICS sufficiently to require venting |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-DEPRESS | OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION |
| 174 | 4.41E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-F006G | SAFETY/RELIEF VALVE F006G FAILS TO RE-CLOSE |

## Table 14-3

## High Winds Full-Power Cutset Report

| Cutsets with Descriptions Report<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09<br>Top 200 Cutsets | | | | |
|---|---|---|---|---|
| | | 1.00E-04 | C63-CCFSOFTWARE_S | Common cause failure of software, for spurious |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-DEPRESS | OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION |
| 175 | 4.41E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-F006H | SAFETY/RELIEF VALVE F006H FAILS TO RE-CLOSE |
| | | 1.00E+00 | B32-NONCONDENSE | Non condensable gasses form in ICS sufficiently to require venting |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-DEPRESS | OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION |
| 176 | 4.41E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-F006H | SAFETY/RELIEF VALVE F006H FAILS TO RE-CLOSE |
| | | 1.00E-04 | C63-CCFSOFTWARE_S | Common cause failure of software, for spurious |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-DEPRESS | OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION |
| 177 | 4.41E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-F006J | SAFETY/RELIEF VALVE F006J FAILS TO RE-CLOSE |
| | | 1.00E+00 | B32-NONCONDENSE | Non condensable gasses form in ICS sufficiently to require venting |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-DEPRESS | OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION |
| 178 | 4.41E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-F006J | SAFETY/RELIEF VALVE F006J FAILS TO RE-CLOSE |
| | | 1.00E-04 | C63-CCFSOFTWARE_S | Common cause failure of software, for spurious |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |

## Table 14-3

## High Winds Full-Power Cutset Report

| Cutsets with Descriptions Report<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09<br>Top 200 Cutsets | | | | |
|---|---|---|---|---|
| | | 1.61E-01 | XXX-XHE-FO-DEPRESS | OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION |
| 179 | 4.41E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-F006K | SAFETY/RELIEF VALVE F006K FAILS TO RE-CLOSE |
| | | 1.00E+00 | B32-NONCONDENSE | Non condensable gasses form in ICS sufficiently to require venting |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-DEPRESS | OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION |
| 180 | 4.41E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 6.00E-03 | B21-SRV-OO-F006K | SAFETY/RELIEF VALVE F006K FAILS TO RE-CLOSE |
| | | 1.00E-04 | C63-CCFSOFTWARE_S | Common cause failure of software, for spurious |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-DEPRESS | OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION |
| 181 | 3.85E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E+00 | B32-NONCONDENSE | Non condensable gasses form in ICS sufficiently to require venting |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.14E-05 | R13-INV-FC-CCFSR_ALL | CCF of all components in group 'R13-INV-FC-CCFSR' |
| | | 4.60E-02 | 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 AFTER DEPRESSURIZATION |
| 182 | 3.85E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E+00 | B32-NONCONDENSE | Non condensable gasses form in ICS sufficiently to require venting |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.14E-05 | R13-INV-FC-CCFSR_ALL | CCF of all components in group 'R13-INV-FC-CCFSR' |
| | | 4.60E-02 | 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 AFTER DEPRESSURIZATION |

## Table 14-3

## High Winds Full-Power Cutset Report

| Cutsets with Descriptions Report<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09<br>Top 200 Cutsets | | | | |
|---|---|---|---|---|
| 183 | 3.80E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 2.50E-07 | C12-ROD-CF-SCRAM | CCF OF CONTROL RODS TO INSERT |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| 184 | 3.80E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 2.50E-07 | C12-ROD-CF-SCRAM | CCF OF CONTROL RODS TO INSERT |
| | | 1.00E-04 | C63-CCFSOFTWARE_S | Common cause failure of software, for spurious |
| 185 | 3.68E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 5.00E-06 | C72-ATM-FC-L1_ALL | CCF of all components in group 'C72-ATM-FC-L1' |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 186 | 3.67E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR59 | Undeveloped spurious hardware failure |
| | | 1.61E-01 | XXX-XHE-FO-DEPRESS | OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION |
| 187 | 3.67E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR60 | Undeveloped spurious hardware failure |
| | | 1.61E-01 | XXX-XHE-FO-DEPRESS | OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION |
| 188 | 3.67E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR61 | Undeveloped spurious hardware failure |

## Table 14-3

## High Winds Full-Power Cutset Report

| Cutsets with Descriptions Report<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09<br>Top 200 Cutsets | | | | |
|---|---|---|---|---|
| | | 1.61E-01 | XXX-XHE-FO-DEPRESS | OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION |
| 189 | 3.67E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR63 | Undeveloped spurious hardware failure |
| | | 1.61E-01 | XXX-XHE-FO-DEPRESS | OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION |
| 190 | 3.67E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR64 | Undeveloped spurious hardware failure |
| | | 1.61E-01 | XXX-XHE-FO-DEPRESS | OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION |
| 191 | 3.67E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR65 | Undeveloped spurious hardware failure |
| | | 1.61E-01 | XXX-XHE-FO-DEPRESS | OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION |
| 192 | 3.67E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR67 | Undeveloped spurious hardware failure |
| | | 1.61E-01 | XXX-XHE-FO-DEPRESS | OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION |
| 193 | 3.67E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |

## Table 14-3

## High Winds Full-Power Cutset Report

| Cutsets with Descriptions Report<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09<br>Top 200 Cutsets | | | | |
|---|---|---|---|---|
| | | 1.00E-03 | C63-UNDEVSPUR68 | Undeveloped spurious hardware failure |
| | | 1.61E-01 | XXX-XHE-FO-DEPRESS | OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION |
| 194 | 3.67E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR69 | Undeveloped spurious hardware failure |
| | | 1.61E-01 | XXX-XHE-FO-DEPRESS | OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION |
| 195 | 3.67E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR71 | Undeveloped spurious hardware failure |
| | | 1.61E-01 | XXX-XHE-FO-DEPRESS | OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION |
| 196 | 3.67E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR72 | Undeveloped spurious hardware failure |
| | | 1.61E-01 | XXX-XHE-FO-DEPRESS | OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION |
| 197 | 3.67E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR73 | Undeveloped spurious hardware failure |
| | | 1.61E-01 | XXX-XHE-FO-DEPRESS | OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION |
| 198 | 3.67E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |

## Table 14-3

## High Winds Full-Power Cutset Report

| Cutsets with Descriptions Report<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09<br>Top 200 Cutsets | | | | |
|---|---|---|---|---|
| | | 1.00E-03 | C63-UNDEVSPUR59 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR60 | Undeveloped spurious hardware failure |
| | | 1.61E-01 | XXX-XHE-FO-DEPRESS | OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION |
| 199 | 3.67E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR59 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR61 | Undeveloped spurious hardware failure |
| | | 1.61E-01 | XXX-XHE-FO-DEPRESS | OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION |
| 200 | 3.67E-13 | 1.52E-02 | %T-LOPP-WRH | WEATHER RELATED LOSS OF PREFERRED POWER HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR59 | Undeveloped spurious hardware failure |
| | | 1.00E-03 | C63-UNDEVSPUR62 | Undeveloped spurious hardware failure |
| | | 1.61E-01 | XXX-XHE-FO-DEPRESS | OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION |

## Table 14-4

## High Winds Shutdown Cutset Report

**Cutsets with Descriptions Report**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**
**Top 200 Cutsets**

| # | Cutset Prob | Event Prob | Event | Description |
|---|---|---|---|---|
| 1 | 5.10E-11 | 2.11E-03 | %M5-LOPP | LOSS OF PREF POWER - MODE 5 |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 2 | 5.10E-11 | 2.11E-03 | %M5-LOPP | LOSS OF PREF POWER - MODE 5 |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR59 | Undeveloped spurious hardware failure |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 3 | 5.10E-11 | 2.11E-03 | %M5-LOPP | LOSS OF PREF POWER - MODE 5 |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR62 | Undeveloped spurious hardware failure |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 4 | 5.10E-11 | 2.11E-03 | %M5-LOPP | LOSS OF PREF POWER - MODE 5 |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR63 | Undeveloped spurious hardware failure |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 5 | 5.10E-11 | 2.11E-03 | %M5-LOPP | LOSS OF PREF POWER - MODE 5 |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR66 | Undeveloped spurious hardware failure |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 6 | 5.10E-11 | 2.11E-03 | %M5-LOPP | LOSS OF PREF POWER - MODE 5 |

## Table 14-4

## High Winds Shutdown Cutset Report

**Cutsets with Descriptions Report**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**
**Top 200 Cutsets**

| | | | | |
|---|---|---|---|---|
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR67 | Undeveloped spurious hardware failure |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 7 | 5.10E-11 | 2.11E-03 | %M5-LOPP | LOSS OF PREF POWER - MODE 5 |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR70 | Undeveloped spurious hardware failure |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 8 | 5.10E-11 | 2.11E-03 | %M5-LOPP | LOSS OF PREF POWER - MODE 5 |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR71 | Undeveloped spurious hardware failure |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 9 | 1.60E-11 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E+00 | B32-NONCONDENSE | Non condensable gasses form in ICS sufficiently to require venting |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 1.07E-02 | E50-STR-PG-D002B | STRAINER D002B PLUGGED |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 10 | 1.58E-11 | 2.11E-03 | %M5-LOPP | LOSS OF PREF POWER - MODE 5 |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 5.00E-02 | MS-TOP2 | TWO DPVs FAIL TO OPEN |
| 11 | 1.58E-11 | 2.11E-03 | %M5-LOPP | LOSS OF PREF POWER - MODE 5 |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR59 | Undeveloped spurious hardware failure |
| | | 5.00E-02 | MS-TOP2 | TWO DPVs FAIL TO OPEN |

## Table 14-4

## High Winds Shutdown Cutset Report

**Cutsets with Descriptions Report**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**
**Top 200 Cutsets**

| | | | | |
|---|---|---|---|---|
| 12 | 1.58E-11 | 2.11E-03 | %M5-LOPP | LOSS OF PREF POWER - MODE 5 |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR62 | Undeveloped spurious hardware failure |
| | | 5.00E-02 | MS-TOP2 | TWO DPVs FAIL TO OPEN |
| 13 | 1.58E-11 | 2.11E-03 | %M5-LOPP | LOSS OF PREF POWER - MODE 5 |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR63 | Undeveloped spurious hardware failure |
| | | 5.00E-02 | MS-TOP2 | TWO DPVs FAIL TO OPEN |
| 14 | 1.58E-11 | 2.11E-03 | %M5-LOPP | LOSS OF PREF POWER - MODE 5 |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR66 | Undeveloped spurious hardware failure |
| | | 5.00E-02 | MS-TOP2 | TWO DPVs FAIL TO OPEN |
| 15 | 1.58E-11 | 2.11E-03 | %M5-LOPP | LOSS OF PREF POWER - MODE 5 |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR67 | Undeveloped spurious hardware failure |
| | | 5.00E-02 | MS-TOP2 | TWO DPVs FAIL TO OPEN |
| 16 | 1.58E-11 | 2.11E-03 | %M5-LOPP | LOSS OF PREF POWER - MODE 5 |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR70 | Undeveloped spurious hardware failure |
| | | 5.00E-02 | MS-TOP2 | TWO DPVs FAIL TO OPEN |
| 17 | 1.58E-11 | 2.11E-03 | %M5-LOPP | LOSS OF PREF POWER - MODE 5 |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR71 | Undeveloped spurious hardware failure |
| | | 5.00E-02 | MS-TOP2 | TWO DPVs FAIL TO OPEN |

## Table 14-4

## High Winds Shutdown Cutset Report

**Cutsets with Descriptions Report**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**
**Top 200 Cutsets**

| | | | | |
|---|---|---|---|---|
| 18 | 1.53E-11 | 2.11E-03 | %M5-LOPP | LOSS OF PREF POWER - MODE 5 |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 19 | 1.53E-11 | 2.11E-03 | %M5-LOPP | LOSS OF PREF POWER - MODE 5 |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR59 | Undeveloped spurious hardware failure |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 20 | 1.53E-11 | 2.11E-03 | %M5-LOPP | LOSS OF PREF POWER - MODE 5 |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR62 | Undeveloped spurious hardware failure |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 21 | 1.53E-11 | 2.11E-03 | %M5-LOPP | LOSS OF PREF POWER - MODE 5 |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR63 | Undeveloped spurious hardware failure |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 22 | 1.53E-11 | 2.11E-03 | %M5-LOPP | LOSS OF PREF POWER - MODE 5 |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR66 | Undeveloped spurious hardware failure |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 23 | 1.53E-11 | 2.11E-03 | %M5-LOPP | LOSS OF PREF POWER - MODE 5 |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR67 | Undeveloped spurious hardware failure |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |

## Table 14-4

## High Winds Shutdown Cutset Report

**Cutsets with Descriptions Report**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**
**Top 200 Cutsets**

| | | | | |
|---|---|---|---|---|
| 24 | 1.53E-11 | 2.11E-03 | %M5-LOPP | LOSS OF PREF POWER - MODE 5 |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR70 | Undeveloped spurious hardware failure |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 25 | 1.53E-11 | 2.11E-03 | %M5-LOPP | LOSS OF PREF POWER - MODE 5 |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR71 | Undeveloped spurious hardware failure |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 26 | 8.99E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E+00 | B32-NONCONDENSE | Non condensable gasses form in ICS sufficiently to require venting |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 6.00E-03 | E50-SQV-CC-F006B | SQUIB VALVE F006B FAILS TO OPERATE IN EXTREME CONDITIONS |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 27 | 8.02E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 5.35E-04 | E50-STR-PG_ALL | CCF of all components in group 'E50-STR-PG' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 28 | 8.02E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR59 | Undeveloped spurious hardware failure |
| | | 5.35E-04 | E50-STR-PG_ALL | CCF of all components in group 'E50-STR-PG' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 29 | 8.02E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR62 | Undeveloped spurious hardware failure |
| | | 5.35E-04 | E50-STR-PG_ALL | CCF of all components in group 'E50-STR-PG' |

## Table 14-4

## High Winds Shutdown Cutset Report

**Cutsets with Descriptions Report**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**
**Top 200 Cutsets**

| | | | | |
|---|---|---|---|---|
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 30 | 8.02E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR63 | Undeveloped spurious hardware failure |
| | | 5.35E-04 | E50-STR-PG_ALL | CCF of all components in group 'E50-STR-PG' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 31 | 8.02E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR66 | Undeveloped spurious hardware failure |
| | | 5.35E-04 | E50-STR-PG_ALL | CCF of all components in group 'E50-STR-PG' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 32 | 8.02E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR67 | Undeveloped spurious hardware failure |
| | | 5.35E-04 | E50-STR-PG_ALL | CCF of all components in group 'E50-STR-PG' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 33 | 8.02E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR70 | Undeveloped spurious hardware failure |
| | | 5.35E-04 | E50-STR-PG_ALL | CCF of all components in group 'E50-STR-PG' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 34 | 8.02E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR71 | Undeveloped spurious hardware failure |
| | | 5.35E-04 | E50-STR-PG_ALL | CCF of all components in group 'E50-STR-PG' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 35 | 5.10E-12 | 2.11E-03 | %M5-LOPP | LOSS OF PREF POWER - MODE 5 |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E+00 | B32-NONCONDENSE | Non condensable gasses form in ICS sufficiently to require venting |

## Table 14-4

## High Winds Shutdown Cutset Report

**Cutsets with Descriptions Report**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**
**Top 200 Cutsets**

| | | | | |
|---|---|---|---|---|
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 36 | 5.10E-12 | 2.11E-03 | %M5-LOPP | LOSS OF PREF POWER - MODE 5 |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-04 | C63-CCFSOFTWARE_S | Common cause failure of software, for spurious |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 37 | 4.82E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E+00 | B32-NONCONDENSE | Non condensable gasses form in ICS sufficiently to require venting |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 1.07E-02 | E50-STR-PG-D002B | STRAINER D002B PLUGGED |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 38 | 4.59E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 1.75E-02 | E50-UV_-OC-F003A | CHECK VALVE F003A FAILS TO REMAIN OPEN OR PLUG |
| | | 1.75E-02 | E50-UV_-OC-F003E | CHECK VALVE F003E FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 39 | 4.59E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 1.75E-02 | E50-UV_-OC-F003D | CHECK VALVE F003D FAILS TO REMAIN OPEN OR PLUG |
| | | 1.75E-02 | E50-UV_-OC-F003H | CHECK VALVE F003H FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 40 | 4.59E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR59 | Undeveloped spurious hardware failure |
| | | 1.75E-02 | E50-UV_-OC-F003A | CHECK VALVE F003A FAILS TO REMAIN OPEN OR PLUG |

## Table 14-4

## High Winds Shutdown Cutset Report

**Cutsets with Descriptions Report**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**
**Top 200 Cutsets**

| | | | | |
|---|---|---|---|---|
| | | 1.75E-02 | E50-UV_-OC-F003E | CHECK VALVE F003E FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 41 | 4.59E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR59 | Undeveloped spurious hardware failure |
| | | 1.75E-02 | E50-UV_-OC-F003D | CHECK VALVE F003D FAILS TO REMAIN OPEN OR PLUG |
| | | 1.75E-02 | E50-UV_-OC-F003H | CHECK VALVE F003H FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 42 | 4.59E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR62 | Undeveloped spurious hardware failure |
| | | 1.75E-02 | E50-UV_-OC-F003A | CHECK VALVE F003A FAILS TO REMAIN OPEN OR PLUG |
| | | 1.75E-02 | E50-UV_-OC-F003E | CHECK VALVE F003E FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 43 | 4.59E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR62 | Undeveloped spurious hardware failure |
| | | 1.75E-02 | E50-UV_-OC-F003D | CHECK VALVE F003D FAILS TO REMAIN OPEN OR PLUG |
| | | 1.75E-02 | E50-UV_-OC-F003H | CHECK VALVE F003H FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 44 | 4.59E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR63 | Undeveloped spurious hardware failure |
| | | 1.75E-02 | E50-UV_-OC-F003A | CHECK VALVE F003A FAILS TO REMAIN OPEN OR PLUG |
| | | 1.75E-02 | E50-UV_-OC-F003E | CHECK VALVE F003E FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 45 | 4.59E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR63 | Undeveloped spurious hardware failure |

## Table 14-4

## High Winds Shutdown Cutset Report

**Cutsets with Descriptions Report**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**
**Top 200 Cutsets**

| | | | | |
|---|---|---|---|---|
| | | 1.75E-02 | E50-UV_-OC-F003D | CHECK VALVE F003D FAILS TO REMAIN OPEN OR PLUG |
| | | 1.75E-02 | E50-UV_-OC-F003H | CHECK VALVE F003H FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 46 | 4.59E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR66 | Undeveloped spurious hardware failure |
| | | 1.75E-02 | E50-UV_-OC-F003A | CHECK VALVE F003A FAILS TO REMAIN OPEN OR PLUG |
| | | 1.75E-02 | E50-UV_-OC-F003E | CHECK VALVE F003E FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 47 | 4.59E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR66 | Undeveloped spurious hardware failure |
| | | 1.75E-02 | E50-UV_-OC-F003D | CHECK VALVE F003D FAILS TO REMAIN OPEN OR PLUG |
| | | 1.75E-02 | E50-UV_-OC-F003H | CHECK VALVE F003H FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 48 | 4.59E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR67 | Undeveloped spurious hardware failure |
| | | 1.75E-02 | E50-UV_-OC-F003A | CHECK VALVE F003A FAILS TO REMAIN OPEN OR PLUG |
| | | 1.75E-02 | E50-UV_-OC-F003E | CHECK VALVE F003E FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 49 | 4.59E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR67 | Undeveloped spurious hardware failure |
| | | 1.75E-02 | E50-UV_-OC-F003D | CHECK VALVE F003D FAILS TO REMAIN OPEN OR PLUG |
| | | 1.75E-02 | E50-UV_-OC-F003H | CHECK VALVE F003H FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 50 | 4.59E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |

## Table 14-4

## High Winds Shutdown Cutset Report

**Cutsets with Descriptions Report**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**
**Top 200 Cutsets**

| | | | | |
|---|---|---|---|---|
| | | 1.00E-03 | C63-UNDEVSPUR70 | Undeveloped spurious hardware failure |
| | | 1.75E-02 | E50-UV_-OC-F003A | CHECK VALVE F003A FAILS TO REMAIN OPEN OR PLUG |
| | | 1.75E-02 | E50-UV_-OC-F003E | CHECK VALVE F003E FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 51 | 4.59E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR70 | Undeveloped spurious hardware failure |
| | | 1.75E-02 | E50-UV_-OC-F003D | CHECK VALVE F003D FAILS TO REMAIN OPEN OR PLUG |
| | | 1.75E-02 | E50-UV_-OC-F003H | CHECK VALVE F003H FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 52 | 4.59E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR71 | Undeveloped spurious hardware failure |
| | | 1.75E-02 | E50-UV_-OC-F003A | CHECK VALVE F003A FAILS TO REMAIN OPEN OR PLUG |
| | | 1.75E-02 | E50-UV_-OC-F003E | CHECK VALVE F003E FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 53 | 4.59E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR71 | Undeveloped spurious hardware failure |
| | | 1.75E-02 | E50-UV_-OC-F003D | CHECK VALVE F003D FAILS TO REMAIN OPEN OR PLUG |
| | | 1.75E-02 | E50-UV_-OC-F003H | CHECK VALVE F003H FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 54 | 4.50E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 55 | 4.50E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |

## Table 14-4

## High Winds Shutdown Cutset Report

**Cutsets with Descriptions Report**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**
**Top 200 Cutsets**

| | | | | |
|---|---|---|---|---|
| | | 1.00E-03 | C63-UNDEVSPUR59 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 56 | 4.50E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR62 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 57 | 4.50E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR63 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 58 | 4.50E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR66 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 59 | 4.50E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR67 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 60 | 4.50E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR70 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 61 | 4.50E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |

## Table 14-4

## High Winds Shutdown Cutset Report

**Cutsets with Descriptions Report**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**
**Top 200 Cutsets**

| | | | | |
|---|---|---|---|---|
| | | 1.00E-03 | C63-UNDEVSPUR71 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 62 | 4.50E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-SQV-CC-EQU_ALL | CCF of all components in group 'E50-SQV-CC-EQU' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 63 | 4.50E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR59 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-SQV-CC-EQU_ALL | CCF of all components in group 'E50-SQV-CC-EQU' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 64 | 4.50E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR62 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-SQV-CC-EQU_ALL | CCF of all components in group 'E50-SQV-CC-EQU' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 65 | 4.50E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR63 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-SQV-CC-EQU_ALL | CCF of all components in group 'E50-SQV-CC-EQU' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 66 | 4.50E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR66 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-SQV-CC-EQU_ALL | CCF of all components in group 'E50-SQV-CC-EQU' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 67 | 4.50E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |

## Table 14-4

## High Winds Shutdown Cutset Report

**Cutsets with Descriptions Report**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**
**Top 200 Cutsets**

| | | | | |
|---|---|---|---|---|
| | | 1.00E-03 | C63-UNDEVSPUR67 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-SQV-CC-EQU_ALL | CCF of all components in group 'E50-SQV-CC-EQU' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 68 | 4.50E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR70 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-SQV-CC-EQU_ALL | CCF of all components in group 'E50-SQV-CC-EQU' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 69 | 4.50E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR71 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-SQV-CC-EQU_ALL | CCF of all components in group 'E50-SQV-CC-EQU' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 70 | 3.40E-12 | 2.11E-03 | %M5-LOPP | LOSS OF PREF POWER - MODE 5 |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 1.00E-04 | C72-CCFSOFTWARE | COMMON CAUSE FAILURE OF DPS PROCESSORS |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 71 | 2.70E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E+00 | B32-NONCONDENSE | Non condensable gasses form in ICS sufficiently to require venting |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 6.00E-03 | E50-SQV-CC-F006B | SQUIB VALVE F006B FAILS TO OPERATE IN EXTREME CONDITIONS |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 72 | 2.62E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E+00 | B32-NONCONDENSE | Non condensable gasses form in ICS sufficiently to require venting |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 1.75E-03 | E50-UV_-OC-F007B | CHECK VALVE F007B FAILS TO REMAIN OPEN OR PLUG |

## Table 14-4

## High Winds Shutdown Cutset Report

**Cutsets with Descriptions Report**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**
**Top 200 Cutsets**

| | | | | |
|---|---|---|---|---|
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 73 | 2.41E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 5.35E-04 | E50-STR-PG_ALL | CCF of all components in group 'E50-STR-PG' |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 74 | 2.41E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR59 | Undeveloped spurious hardware failure |
| | | 5.35E-04 | E50-STR-PG_ALL | CCF of all components in group 'E50-STR-PG' |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 75 | 2.41E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR62 | Undeveloped spurious hardware failure |
| | | 5.35E-04 | E50-STR-PG_ALL | CCF of all components in group 'E50-STR-PG' |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 76 | 2.41E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR63 | Undeveloped spurious hardware failure |
| | | 5.35E-04 | E50-STR-PG_ALL | CCF of all components in group 'E50-STR-PG' |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 77 | 2.41E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR66 | Undeveloped spurious hardware failure |
| | | 5.35E-04 | E50-STR-PG_ALL | CCF of all components in group 'E50-STR-PG' |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 78 | 2.41E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR67 | Undeveloped spurious hardware failure |
| | | 5.35E-04 | E50-STR-PG_ALL | CCF of all components in group 'E50-STR-PG' |

## Table 14-4

## High Winds Shutdown Cutset Report

**Cutsets with Descriptions Report**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**
**Top 200 Cutsets**

| | | | | |
|---|---|---|---|---|
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 79 | 2.41E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR70 | Undeveloped spurious hardware failure |
| | | 5.35E-04 | E50-STR-PG_ALL | CCF of all components in group 'E50-STR-PG' |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 80 | 2.41E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR71 | Undeveloped spurious hardware failure |
| | | 5.35E-04 | E50-STR-PG_ALL | CCF of all components in group 'E50-STR-PG' |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 81 | 2.25E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 82 | 2.25E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR59 | Undeveloped spurious hardware failure |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 83 | 2.25E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR62 | Undeveloped spurious hardware failure |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 84 | 2.25E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR63 | Undeveloped spurious hardware failure |

## Table 14-4

## High Winds Shutdown Cutset Report

**Cutsets with Descriptions Report**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**
**Top 200 Cutsets**

| | | | | |
|---|---|---|---|---|
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 85 | 2.25E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR66 | Undeveloped spurious hardware failure |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 86 | 2.25E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR67 | Undeveloped spurious hardware failure |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 87 | 2.25E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR70 | Undeveloped spurious hardware failure |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 88 | 2.25E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR71 | Undeveloped spurious hardware failure |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 89 | 2.25E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 1.50E-04 | E50-SQV-CC_ALL | CCF of all components in group 'E50-SQV-CC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 90 | 2.25E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR59 | Undeveloped spurious hardware failure |
| | | 1.50E-04 | E50-SQV-CC_ALL | CCF of all components in group 'E50-SQV-CC' |

## Table 14-4

## High Winds Shutdown Cutset Report

**Cutsets with Descriptions Report**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**
**Top 200 Cutsets**

| | | | | |
|---|---|---|---|---|
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 91 | 2.25E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR62 | Undeveloped spurious hardware failure |
| | | 1.50E-04 | E50-SQV-CC_ALL | CCF of all components in group 'E50-SQV-CC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 92 | 2.25E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR63 | Undeveloped spurious hardware failure |
| | | 1.50E-04 | E50-SQV-CC_ALL | CCF of all components in group 'E50-SQV-CC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 93 | 2.25E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR66 | Undeveloped spurious hardware failure |
| | | 1.50E-04 | E50-SQV-CC_ALL | CCF of all components in group 'E50-SQV-CC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 94 | 2.25E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR67 | Undeveloped spurious hardware failure |
| | | 1.50E-04 | E50-SQV-CC_ALL | CCF of all components in group 'E50-SQV-CC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 95 | 2.25E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR70 | Undeveloped spurious hardware failure |
| | | 1.50E-04 | E50-SQV-CC_ALL | CCF of all components in group 'E50-SQV-CC' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 96 | 2.25E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR71 | Undeveloped spurious hardware failure |
| | | 1.50E-04 | E50-SQV-CC_ALL | CCF of all components in group 'E50-SQV-CC' |

## Table 14-4

## High Winds Shutdown Cutset Report

**Cutsets with Descriptions Report**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**
**Top 200 Cutsets**

| | | | | |
|---|---|---|---|---|
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 97 | 2.03E-12 | 2.36E-08 | %M6U_LOPPF2_F3 | LOSS OF PREF POWER - MODE 6 UNFLOODED F2/F3 TORNADO |
| | | 5.35E-04 | E50-STR-PG_ALL | CCF of all components in group 'E50-STR-PG' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 98 | 1.58E-12 | 2.11E-03 | %M5-LOPP | LOSS OF PREF POWER - MODE 5 |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E+00 | B32-NONCONDENSE | Non condensable gasses form in ICS sufficiently to require venting |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 5.00E-02 | MS-TOP2 | TWO DPVs FAIL TO OPEN |
| 99 | 1.58E-12 | 2.11E-03 | %M5-LOPP | LOSS OF PREF POWER - MODE 5 |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-04 | C63-CCFSOFTWARE_S | Common cause failure of software, for spurious |
| | | 5.00E-02 | MS-TOP2 | TWO DPVs FAIL TO OPEN |
| 100 | 1.53E-12 | 2.11E-03 | %M5-LOPP | LOSS OF PREF POWER - MODE 5 |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E+00 | B32-NONCONDENSE | Non condensable gasses form in ICS sufficiently to require venting |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 101 | 1.53E-12 | 2.11E-03 | %M5-LOPP | LOSS OF PREF POWER - MODE 5 |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-04 | C63-CCFSOFTWARE_S | Common cause failure of software, for spurious |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 102 | 1.38E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |

## Table 14-4

## High Winds Shutdown Cutset Report

**Cutsets with Descriptions Report**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**
**Top 200 Cutsets**

| | | | | |
|---|---|---|---|---|
| | | 1.75E-02 | E50-UV_-OC-F003A | CHECK VALVE F003A FAILS TO REMAIN OPEN OR PLUG |
| | | 1.75E-02 | E50-UV_-OC-F003E | CHECK VALVE F003E FAILS TO REMAIN OPEN OR PLUG |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 103 | 1.38E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 1.75E-02 | E50-UV_-OC-F003D | CHECK VALVE F003D FAILS TO REMAIN OPEN OR PLUG |
| | | 1.75E-02 | E50-UV_-OC-F003H | CHECK VALVE F003H FAILS TO REMAIN OPEN OR PLUG |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 104 | 1.38E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR59 | Undeveloped spurious hardware failure |
| | | 1.75E-02 | E50-UV_-OC-F003A | CHECK VALVE F003A FAILS TO REMAIN OPEN OR PLUG |
| | | 1.75E-02 | E50-UV_-OC-F003E | CHECK VALVE F003E FAILS TO REMAIN OPEN OR PLUG |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 105 | 1.38E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR59 | Undeveloped spurious hardware failure |
| | | 1.75E-02 | E50-UV_-OC-F003D | CHECK VALVE F003D FAILS TO REMAIN OPEN OR PLUG |
| | | 1.75E-02 | E50-UV_-OC-F003H | CHECK VALVE F003H FAILS TO REMAIN OPEN OR PLUG |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 106 | 1.38E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR62 | Undeveloped spurious hardware failure |
| | | 1.75E-02 | E50-UV_-OC-F003A | CHECK VALVE F003A FAILS TO REMAIN OPEN OR PLUG |
| | | 1.75E-02 | E50-UV_-OC-F003E | CHECK VALVE F003E FAILS TO REMAIN OPEN OR PLUG |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 107 | 1.38E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |

## Table 14-4

## High Winds Shutdown Cutset Report

**Cutsets with Descriptions Report**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**
**Top 200 Cutsets**

| | | | | |
|---|---|---|---|---|
| | | 1.00E-03 | C63-UNDEVSPUR62 | Undeveloped spurious hardware failure |
| | | 1.75E-02 | E50-UV_-OC-F003D | CHECK VALVE F003D FAILS TO REMAIN OPEN OR PLUG |
| | | 1.75E-02 | E50-UV_-OC-F003H | CHECK VALVE F003H FAILS TO REMAIN OPEN OR PLUG |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 108 | 1.38E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR63 | Undeveloped spurious hardware failure |
| | | 1.75E-02 | E50-UV_-OC-F003A | CHECK VALVE F003A FAILS TO REMAIN OPEN OR PLUG |
| | | 1.75E-02 | E50-UV_-OC-F003E | CHECK VALVE F003E FAILS TO REMAIN OPEN OR PLUG |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 109 | 1.38E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR63 | Undeveloped spurious hardware failure |
| | | 1.75E-02 | E50-UV_-OC-F003D | CHECK VALVE F003D FAILS TO REMAIN OPEN OR PLUG |
| | | 1.75E-02 | E50-UV_-OC-F003H | CHECK VALVE F003H FAILS TO REMAIN OPEN OR PLUG |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 110 | 1.38E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR66 | Undeveloped spurious hardware failure |
| | | 1.75E-02 | E50-UV_-OC-F003A | CHECK VALVE F003A FAILS TO REMAIN OPEN OR PLUG |
| | | 1.75E-02 | E50-UV_-OC-F003E | CHECK VALVE F003E FAILS TO REMAIN OPEN OR PLUG |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 111 | 1.38E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR66 | Undeveloped spurious hardware failure |
| | | 1.75E-02 | E50-UV_-OC-F003D | CHECK VALVE F003D FAILS TO REMAIN OPEN OR PLUG |
| | | 1.75E-02 | E50-UV_-OC-F003H | CHECK VALVE F003H FAILS TO REMAIN OPEN OR PLUG |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |

## Table 14-4

## High Winds Shutdown Cutset Report

**Cutsets with Descriptions Report**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**
**Top 200 Cutsets**

| | | | | |
|---|---|---|---|---|
| 112 | 1.38E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR67 | Undeveloped spurious hardware failure |
| | | 1.75E-02 | E50-UV_-OC-F003A | CHECK VALVE F003A FAILS TO REMAIN OPEN OR PLUG |
| | | 1.75E-02 | E50-UV_-OC-F003E | CHECK VALVE F003E FAILS TO REMAIN OPEN OR PLUG |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 113 | 1.38E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR67 | Undeveloped spurious hardware failure |
| | | 1.75E-02 | E50-UV_-OC-F003D | CHECK VALVE F003D FAILS TO REMAIN OPEN OR PLUG |
| | | 1.75E-02 | E50-UV_-OC-F003H | CHECK VALVE F003H FAILS TO REMAIN OPEN OR PLUG |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 114 | 1.38E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR70 | Undeveloped spurious hardware failure |
| | | 1.75E-02 | E50-UV_-OC-F003A | CHECK VALVE F003A FAILS TO REMAIN OPEN OR PLUG |
| | | 1.75E-02 | E50-UV_-OC-F003E | CHECK VALVE F003E FAILS TO REMAIN OPEN OR PLUG |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 115 | 1.38E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR70 | Undeveloped spurious hardware failure |
| | | 1.75E-02 | E50-UV_-OC-F003D | CHECK VALVE F003D FAILS TO REMAIN OPEN OR PLUG |
| | | 1.75E-02 | E50-UV_-OC-F003H | CHECK VALVE F003H FAILS TO REMAIN OPEN OR PLUG |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 116 | 1.38E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR71 | Undeveloped spurious hardware failure |
| | | 1.75E-02 | E50-UV_-OC-F003A | CHECK VALVE F003A FAILS TO REMAIN OPEN OR PLUG |
| | | 1.75E-02 | E50-UV_-OC-F003E | CHECK VALVE F003E FAILS TO REMAIN OPEN OR PLUG |

## Table 14-4

## High Winds Shutdown Cutset Report

**Cutsets with Descriptions Report**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**
**Top 200 Cutsets**

| | | | | |
|---|---|---|---|---|
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 117 | 1.38E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR71 | Undeveloped spurious hardware failure |
| | | 1.75E-02 | E50-UV_-OC-F003D | CHECK VALVE F003D FAILS TO REMAIN OPEN OR PLUG |
| | | 1.75E-02 | E50-UV_-OC-F003H | CHECK VALVE F003H FAILS TO REMAIN OPEN OR PLUG |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 118 | 1.35E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 119 | 1.35E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR59 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 120 | 1.35E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR62 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 121 | 1.35E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR63 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 122 | 1.35E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR66 | Undeveloped spurious hardware failure |

## Table 14-4

## High Winds Shutdown Cutset Report

**Cutsets with Descriptions Report**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**
**Top 200 Cutsets**

| | | | | |
|---|---|---|---|---|
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 123 | 1.35E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR67 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 124 | 1.35E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR70 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 125 | 1.35E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR71 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 126 | 1.35E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-SQV-CC-EQU_ALL | CCF of all components in group 'E50-SQV-CC-EQU' |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 127 | 1.35E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR59 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-SQV-CC-EQU_ALL | CCF of all components in group 'E50-SQV-CC-EQU' |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 128 | 1.35E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR62 | Undeveloped spurious hardware failure |

## Table 14-4

## High Winds Shutdown Cutset Report

**Cutsets with Descriptions Report**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**
**Top 200 Cutsets**

| | | | | |
|---|---|---|---|---|
| | | 3.00E-04 | E50-SQV-CC-EQU_ALL | CCF of all components in group 'E50-SQV-CC-EQU' |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 129 | 1.35E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR63 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-SQV-CC-EQU_ALL | CCF of all components in group 'E50-SQV-CC-EQU' |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 130 | 1.35E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR66 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-SQV-CC-EQU_ALL | CCF of all components in group 'E50-SQV-CC-EQU' |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 131 | 1.35E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR67 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-SQV-CC-EQU_ALL | CCF of all components in group 'E50-SQV-CC-EQU' |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 132 | 1.35E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR70 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-SQV-CC-EQU_ALL | CCF of all components in group 'E50-SQV-CC-EQU' |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 133 | 1.35E-12 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR71 | Undeveloped spurious hardware failure |
| | | 3.00E-04 | E50-SQV-CC-EQU_ALL | CCF of all components in group 'E50-SQV-CC-EQU' |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 134 | 1.22E-12 | 2.11E-03 | %M5-LOPP | LOSS OF PREF POWER - MODE 5 |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |

## Table 14-4

## High Winds Shutdown Cutset Report

**Cutsets with Descriptions Report**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**
**Top 200 Cutsets**

| | | | | |
|---|---|---|---|---|
| | | 2.40E-05 | B32-HX_-PG-HX001A | Heat Exchanger HX001A Plugs |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 135 | 1.22E-12 | 2.11E-03 | %M5-LOPP | LOSS OF PREF POWER - MODE 5 |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 2.40E-05 | B32-HX_-PG-HX001B | Heat Exchanger HX001B Plugs |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 136 | 1.22E-12 | 2.11E-03 | %M5-LOPP | LOSS OF PREF POWER - MODE 5 |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 2.40E-05 | B32-HX_-PG-HX002A | Heat Exchanger HX002A Plugs |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 137 | 1.22E-12 | 2.11E-03 | %M5-LOPP | LOSS OF PREF POWER - MODE 5 |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 2.40E-05 | B32-HX_-PG-HX002B | Heat Exchanger HX002B Plugs |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 138 | 1.16E-12 | 2.36E-08 | %M6U_LOPPF2_F3 | LOSS OF PREF POWER - MODE 6 UNFLOODED F2/F3 TORNADO |
| | | 1.75E-02 | E50-UV_-OC-F003A | CHECK VALVE F003A FAILS TO REMAIN OPEN OR PLUG |
| | | 1.75E-02 | E50-UV_-OC-F003E | CHECK VALVE F003E FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 139 | 1.16E-12 | 2.36E-08 | %M6U_LOPPF2_F3 | LOSS OF PREF POWER - MODE 6 UNFLOODED F2/F3 TORNADO |
| | | 1.75E-02 | E50-UV_-OC-F003D | CHECK VALVE F003D FAILS TO REMAIN OPEN OR PLUG |
| | | 1.75E-02 | E50-UV_-OC-F003H | CHECK VALVE F003H FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 140 | 1.14E-12 | 2.36E-08 | %M6U_LOPPF2_F3 | LOSS OF PREF POWER - MODE 6 UNFLOODED F2/F3 TORNADO |
| | | 3.00E-04 | E50-UV_OC_ALL | CCF of all components in group 'E50-UV_OC' |

## Table 14-4

## High Winds Shutdown Cutset Report

**Cutsets with Descriptions Report**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**
**Top 200 Cutsets**

| | | | | |
|---|---|---|---|---|
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 141 | 1.14E-12 | 2.36E-08 | %M6U_LOPPF2_F3 | LOSS OF PREF POWER - MODE 6 UNFLOODED F2/F3 TORNADO |
| | | 3.00E-04 | E50-SQV-CC-EQU_ALL | CCF of all components in group 'E50-SQV-CC-EQU' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 142 | 1.05E-12 | 2.11E-03 | %M5-LOPP | LOSS OF PREF POWER - MODE 5 |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 1.00E-04 | C72-CCFSOFTWARE | COMMON CAUSE FAILURE OF DPS PROCESSORS |
| | | 5.00E-02 | MS-TOP2 | TWO DPVs FAIL TO OPEN |
| 143 | 1.02E-12 | 2.11E-03 | %M5-LOPP | LOSS OF PREF POWER - MODE 5 |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 1.00E-04 | C72-CCFSOFTWARE | COMMON CAUSE FAILURE OF DPS PROCESSORS |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 144 | 8.02E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E+00 | B32-NONCONDENSE | Non condensable gasses form in ICS sufficiently to require venting |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |
| | | 5.35E-04 | E50-STR-PG_ALL | CCF of all components in group 'E50-STR-PG' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 145 | 8.02E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-04 | C63-CCFSOFTWARE_S | Common cause failure of software, for spurious |
| | | 5.35E-04 | E50-STR-PG_ALL | CCF of all components in group 'E50-STR-PG' |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 146 | 7.89E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E+00 | B32-NONCONDENSE | Non condensable gasses form in ICS sufficiently to require venting |
| | | 1.00E-04 | C63-CCFSOFTWARE | Common cause failure of software |

## Table 14-4

## High Winds Shutdown Cutset Report

**Cutsets with Descriptions Report**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**
**Top 200 Cutsets**

| | | | | |
|---|---|---|---|---|
| | | 1.75E-03 | E50-UV_-OC-F007B | CHECK VALVE F007B FAILS TO REMAIN OPEN OR PLUG |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 147 | 7.87E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 3.00E-03 | E50-SQV-CC-F002A | SQUIB VALVE F002A FAILS TO OPERATE |
| | | 1.75E-02 | E50-UV_-OC-F003E | CHECK VALVE F003E FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 148 | 7.87E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 3.00E-03 | E50-SQV-CC-F002D | SQUIB VALVE F002D FAILS TO OPERATE |
| | | 1.75E-02 | E50-UV_-OC-F003H | CHECK VALVE F003H FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 149 | 7.87E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 3.00E-03 | E50-SQV-CC-F002E | SQUIB VALVE F002E FAILS TO OPERATE |
| | | 1.75E-02 | E50-UV_-OC-F003A | CHECK VALVE F003A FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 150 | 7.87E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 3.00E-03 | E50-SQV-CC-F002H | SQUIB VALVE F002H FAILS TO OPERATE |
| | | 1.75E-02 | E50-UV_-OC-F003D | CHECK VALVE F003D FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 151 | 7.87E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR59 | Undeveloped spurious hardware failure |

## Table 14-4

## High Winds Shutdown Cutset Report

**Cutsets with Descriptions Report**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**
**Top 200 Cutsets**

| | | | | |
|---|---|---|---|---|
| | | 3.00E-03 | E50-SQV-CC-F002A | SQUIB VALVE F002A FAILS TO OPERATE |
| | | 1.75E-02 | E50-UV_-OC-F003E | CHECK VALVE F003E FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 152 | 7.87E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR59 | Undeveloped spurious hardware failure |
| | | 3.00E-03 | E50-SQV-CC-F002D | SQUIB VALVE F002D FAILS TO OPERATE |
| | | 1.75E-02 | E50-UV_-OC-F003H | CHECK VALVE F003H FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 153 | 7.87E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR59 | Undeveloped spurious hardware failure |
| | | 3.00E-03 | E50-SQV-CC-F002E | SQUIB VALVE F002E FAILS TO OPERATE |
| | | 1.75E-02 | E50-UV_-OC-F003A | CHECK VALVE F003A FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 154 | 7.87E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR59 | Undeveloped spurious hardware failure |
| | | 3.00E-03 | E50-SQV-CC-F002H | SQUIB VALVE F002H FAILS TO OPERATE |
| | | 1.75E-02 | E50-UV_-OC-F003D | CHECK VALVE F003D FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 155 | 7.87E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR62 | Undeveloped spurious hardware failure |
| | | 3.00E-03 | E50-SQV-CC-F002A | SQUIB VALVE F002A FAILS TO OPERATE |
| | | 1.75E-02 | E50-UV_-OC-F003E | CHECK VALVE F003E FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 156 | 7.87E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |

## Table 14-4

## High Winds Shutdown Cutset Report

**Cutsets with Descriptions Report**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**
**Top 200 Cutsets**

| | | | | |
|---|---|---|---|---|
| | | 1.00E-03 | C63-UNDEVSPUR62 | Undeveloped spurious hardware failure |
| | | 3.00E-03 | E50-SQV-CC-F002D | SQUIB VALVE F002D FAILS TO OPERATE |
| | | 1.75E-02 | E50-UV_-OC-F003H | CHECK VALVE F003H FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 157 | 7.87E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR62 | Undeveloped spurious hardware failure |
| | | 3.00E-03 | E50-SQV-CC-F002E | SQUIB VALVE F002E FAILS TO OPERATE |
| | | 1.75E-02 | E50-UV_-OC-F003A | CHECK VALVE F003A FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 158 | 7.87E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR62 | Undeveloped spurious hardware failure |
| | | 3.00E-03 | E50-SQV-CC-F002H | SQUIB VALVE F002H FAILS TO OPERATE |
| | | 1.75E-02 | E50-UV_-OC-F003D | CHECK VALVE F003D FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 159 | 7.87E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR63 | Undeveloped spurious hardware failure |
| | | 3.00E-03 | E50-SQV-CC-F002A | SQUIB VALVE F002A FAILS TO OPERATE |
| | | 1.75E-02 | E50-UV_-OC-F003E | CHECK VALVE F003E FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 160 | 7.87E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR63 | Undeveloped spurious hardware failure |
| | | 3.00E-03 | E50-SQV-CC-F002D | SQUIB VALVE F002D FAILS TO OPERATE |
| | | 1.75E-02 | E50-UV_-OC-F003H | CHECK VALVE F003H FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |

## Table 14-4

## High Winds Shutdown Cutset Report

**Cutsets with Descriptions Report**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**
**Top 200 Cutsets**

| | | | | |
|---|---|---|---|---|
| 161 | 7.87E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR63 | Undeveloped spurious hardware failure |
| | | 3.00E-03 | E50-SQV-CC-F002E | SQUIB VALVE F002E FAILS TO OPERATE |
| | | 1.75E-02 | E50-UV_-OC-F003A | CHECK VALVE F003A FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 162 | 7.87E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR63 | Undeveloped spurious hardware failure |
| | | 3.00E-03 | E50-SQV-CC-F002H | SQUIB VALVE F002H FAILS TO OPERATE |
| | | 1.75E-02 | E50-UV_-OC-F003D | CHECK VALVE F003D FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 163 | 7.87E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR66 | Undeveloped spurious hardware failure |
| | | 3.00E-03 | E50-SQV-CC-F002A | SQUIB VALVE F002A FAILS TO OPERATE |
| | | 1.75E-02 | E50-UV_-OC-F003E | CHECK VALVE F003E FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 164 | 7.87E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR66 | Undeveloped spurious hardware failure |
| | | 3.00E-03 | E50-SQV-CC-F002D | SQUIB VALVE F002D FAILS TO OPERATE |
| | | 1.75E-02 | E50-UV_-OC-F003H | CHECK VALVE F003H FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 165 | 7.87E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR66 | Undeveloped spurious hardware failure |
| | | 3.00E-03 | E50-SQV-CC-F002E | SQUIB VALVE F002E FAILS TO OPERATE |
| | | 1.75E-02 | E50-UV_-OC-F003A | CHECK VALVE F003A FAILS TO REMAIN OPEN OR PLUG |

## Table 14-4

## High Winds Shutdown Cutset Report

**Cutsets with Descriptions Report**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**
**Top 200 Cutsets**

| | | | | |
|---|---|---|---|---|
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 166 | 7.87E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR66 | Undeveloped spurious hardware failure |
| | | 3.00E-03 | E50-SQV-CC-F002H | SQUIB VALVE F002H FAILS TO OPERATE |
| | | 1.75E-02 | E50-UV_-OC-F003D | CHECK VALVE F003D FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 167 | 7.87E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR67 | Undeveloped spurious hardware failure |
| | | 3.00E-03 | E50-SQV-CC-F002A | SQUIB VALVE F002A FAILS TO OPERATE |
| | | 1.75E-02 | E50-UV_-OC-F003E | CHECK VALVE F003E FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 168 | 7.87E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR67 | Undeveloped spurious hardware failure |
| | | 3.00E-03 | E50-SQV-CC-F002D | SQUIB VALVE F002D FAILS TO OPERATE |
| | | 1.75E-02 | E50-UV_-OC-F003H | CHECK VALVE F003H FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 169 | 7.87E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR67 | Undeveloped spurious hardware failure |
| | | 3.00E-03 | E50-SQV-CC-F002E | SQUIB VALVE F002E FAILS TO OPERATE |
| | | 1.75E-02 | E50-UV_-OC-F003A | CHECK VALVE F003A FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 170 | 7.87E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR67 | Undeveloped spurious hardware failure |
| | | 3.00E-03 | E50-SQV-CC-F002H | SQUIB VALVE F002H FAILS TO OPERATE |

## Table 14-4

## High Winds Shutdown Cutset Report

**Cutsets with Descriptions Report**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**
**Top 200 Cutsets**

| | | | | |
|---|---|---|---|---|
| | | 1.75E-02 | E50-UV_-OC-F003D | CHECK VALVE F003D FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 171 | 7.87E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR70 | Undeveloped spurious hardware failure |
| | | 3.00E-03 | E50-SQV-CC-F002A | SQUIB VALVE F002A FAILS TO OPERATE |
| | | 1.75E-02 | E50-UV_-OC-F003E | CHECK VALVE F003E FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 172 | 7.87E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR70 | Undeveloped spurious hardware failure |
| | | 3.00E-03 | E50-SQV-CC-F002D | SQUIB VALVE F002D FAILS TO OPERATE |
| | | 1.75E-02 | E50-UV_-OC-F003H | CHECK VALVE F003H FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 173 | 7.87E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR70 | Undeveloped spurious hardware failure |
| | | 3.00E-03 | E50-SQV-CC-F002E | SQUIB VALVE F002E FAILS TO OPERATE |
| | | 1.75E-02 | E50-UV_-OC-F003A | CHECK VALVE F003A FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 174 | 7.87E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR70 | Undeveloped spurious hardware failure |
| | | 3.00E-03 | E50-SQV-CC-F002H | SQUIB VALVE F002H FAILS TO OPERATE |
| | | 1.75E-02 | E50-UV_-OC-F003D | CHECK VALVE F003D FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 175 | 7.87E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR71 | Undeveloped spurious hardware failure |

## Table 14-4

## High Winds Shutdown Cutset Report

**Cutsets with Descriptions Report**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**
**Top 200 Cutsets**

| | | | | |
|---|---|---|---|---|
| | | 3.00E-03 | E50-SQV-CC-F002A | SQUIB VALVE F002A FAILS TO OPERATE |
| | | 1.75E-02 | E50-UV_-OC-F003E | CHECK VALVE F003E FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 176 | 7.87E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR71 | Undeveloped spurious hardware failure |
| | | 3.00E-03 | E50-SQV-CC-F002D | SQUIB VALVE F002D FAILS TO OPERATE |
| | | 1.75E-02 | E50-UV_-OC-F003H | CHECK VALVE F003H FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 177 | 7.87E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR71 | Undeveloped spurious hardware failure |
| | | 3.00E-03 | E50-SQV-CC-F002E | SQUIB VALVE F002E FAILS TO OPERATE |
| | | 1.75E-02 | E50-UV_-OC-F003A | CHECK VALVE F003A FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 178 | 7.87E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR71 | Undeveloped spurious hardware failure |
| | | 3.00E-03 | E50-SQV-CC-F002H | SQUIB VALVE F002H FAILS TO OPERATE |
| | | 1.75E-02 | E50-UV_-OC-F003D | CHECK VALVE F003D FAILS TO REMAIN OPEN OR PLUG |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 179 | 7.73E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E+00 | B32-NONCONDENSE | Non condensable gasses form in ICS sufficiently to require venting |
| | | 1.14E-05 | R13-INV-FC-CCFSR_ALL | CCF of all components in group 'R13-INV-FC-CCFSR' |
| | | 4.54E-03 | R21-DG_-FR-CCF_1_2 | CCF of two components: R21-DG_-FR-DGA & R21-DG_-FR-DGB |
| | | 1.61E-01 | XXX-XHE-FO-LPMAKEUP | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |
| 180 | 6.98E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |

## Table 14-4

## High Winds Shutdown Cutset Report

**Cutsets with Descriptions Report**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**
**Top 200 Cutsets**

| | | | | |
|---|---|---|---|---|
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 5.00E-02 | MS-TOP2 | TWO DPVs FAIL TO OPEN |
| 181 | 6.98E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR59 | Undeveloped spurious hardware failure |
| | | 5.00E-02 | MS-TOP2 | TWO DPVs FAIL TO OPEN |
| 182 | 6.98E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR62 | Undeveloped spurious hardware failure |
| | | 5.00E-02 | MS-TOP2 | TWO DPVs FAIL TO OPEN |
| 183 | 6.98E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR63 | Undeveloped spurious hardware failure |
| | | 5.00E-02 | MS-TOP2 | TWO DPVs FAIL TO OPEN |
| 184 | 6.98E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR66 | Undeveloped spurious hardware failure |
| | | 5.00E-02 | MS-TOP2 | TWO DPVs FAIL TO OPEN |
| 185 | 6.98E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR67 | Undeveloped spurious hardware failure |
| | | 5.00E-02 | MS-TOP2 | TWO DPVs FAIL TO OPEN |
| 186 | 6.98E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |

## Table 14-4

## High Winds Shutdown Cutset Report

**Cutsets with Descriptions Report**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**
**Top 200 Cutsets**

| | | | | |
|---|---|---|---|---|
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR70 | Undeveloped spurious hardware failure |
| | | 5.00E-02 | MS-TOP2 | TWO DPVs FAIL TO OPEN |
| 187 | 6.98E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR71 | Undeveloped spurious hardware failure |
| | | 5.00E-02 | MS-TOP2 | TWO DPVs FAIL TO OPEN |
| 188 | 6.76E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 189 | 6.76E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR59 | Undeveloped spurious hardware failure |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 190 | 6.76E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR62 | Undeveloped spurious hardware failure |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 191 | 6.76E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR63 | Undeveloped spurious hardware failure |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 192 | 6.76E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |

## Table 14-4

## High Winds Shutdown Cutset Report

**Cutsets with Descriptions Report**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**
**Top 200 Cutsets**

| | | | | |
|---|---|---|---|---|
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR66 | Undeveloped spurious hardware failure |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 193 | 6.76E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR67 | Undeveloped spurious hardware failure |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 194 | 6.76E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR70 | Undeveloped spurious hardware failure |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 195 | 6.76E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.50E-04 | B21-SQV-CC_ALL | CCF of all components in group 'B21-SQV-CC' |
| | | 1.00E-03 | C63-UNDEVSPUR71 | Undeveloped spurious hardware failure |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 196 | 6.76E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR58 | Undeveloped spurious hardware failure |
| | | 1.50E-04 | E50-SQV-CC_ALL | CCF of all components in group 'E50-SQV-CC' |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 197 | 6.76E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR59 | Undeveloped spurious hardware failure |
| | | 1.50E-04 | E50-SQV-CC_ALL | CCF of all components in group 'E50-SQV-CC' |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 198 | 6.76E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |

## Table 14-4

## High Winds Shutdown Cutset Report

**Cutsets with Descriptions Report**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**
**Top 200 Cutsets**

| | | | | |
|---|---|---|---|---|
| | | 1.00E-03 | C63-UNDEVSPUR62 | Undeveloped spurious hardware failure |
| | | 1.50E-04 | E50-SQV-CC_ALL | CCF of all components in group 'E50-SQV-CC' |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 199 | 6.76E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR63 | Undeveloped spurious hardware failure |
| | | 1.50E-04 | E50-SQV-CC_ALL | CCF of all components in group 'E50-SQV-CC' |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |
| 200 | 6.76E-13 | 9.31E-05 | %M5O_LOPPH | LOSS OF PREF POWER - MODE 5 OPEN HURRICANE |
| | | 1.00E-03 | C63-UNDEVSPUR66 | Undeveloped spurious hardware failure |
| | | 1.50E-04 | E50-SQV-CC_ALL | CCF of all components in group 'E50-SQV-CC' |
| | | 4.84E-02 | G21-BV_-RE-F334 | MISPOSITION OF VALVE F334 |

## Table 14-5

## High Winds Full-Power Importance Measure Report

**F-V and RAW Importance Measures Report**
**(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)**
**High Winds Full Power**
**Core Damage Frequency = 1.34E-09**

| Event Name | Probability | Fus Ves | RAW | Description |
|---|---|---|---|---|
| B21-SQV-CC_ALL | 1.50E-04 | 1.24E-01 | 827.05 | CCF of all components in group 'B21-SQV-CC' |
| B21-SRV-CC_ALL | 5.85E-04 | 2.98E-04 | 1.51 | CCF of all components in group 'B21-SRV-CC' |
| B21-SRV-OO-ANYSRV1 | 6.00E-03 | 1.72E-02 | 3.84 | SAFETY/RELIEF VALVE FAILS TO RE-CLOSE |
| B21-SRV-OO-ANYSRV10 | 6.00E-03 | 1.72E-02 | 3.84 | SAFETY/RELIEF VALVE FAILS TO RE-CLOSE |
| B21-SRV-OO-ANYSRV11 | 6.00E-03 | 1.72E-02 | 3.84 | SAFETY/RELIEF VALVE FAILS TO RE-CLOSE |
| B21-SRV-OO-ANYSRV12 | 6.00E-03 | 1.72E-02 | 3.84 | SAFETY/RELIEF VALVE FAILS TO RE-CLOSE |
| B21-SRV-OO-ANYSRV13 | 6.00E-03 | 1.72E-02 | 3.84 | SAFETY/RELIEF VALVE FAILS TO RE-CLOSE |
| B21-SRV-OO-ANYSRV14 | 6.00E-03 | 1.72E-02 | 3.84 | SAFETY/RELIEF VALVE FAILS TO RE-CLOSE |
| B21-SRV-OO-ANYSRV15 | 6.00E-03 | 1.72E-02 | 3.84 | SAFETY/RELIEF VALVE FAILS TO RE-CLOSE |
| B21-SRV-OO-ANYSRV16 | 6.00E-03 | 1.72E-02 | 3.84 | SAFETY/RELIEF VALVE FAILS TO RE-CLOSE |
| B21-SRV-OO-ANYSRV17 | 6.00E-03 | 1.72E-02 | 3.84 | SAFETY/RELIEF VALVE FAILS TO RE-CLOSE |
| B21-SRV-OO-ANYSRV18 | 6.00E-03 | 1.72E-02 | 3.84 | SAFETY/RELIEF VALVE FAILS TO RE-CLOSE |
| B21-SRV-OO-ANYSRV2 | 6.00E-03 | 1.72E-02 | 3.84 | SAFETY/RELIEF VALVE FAILS TO RE-CLOSE |
| B21-SRV-OO-ANYSRV3 | 6.00E-03 | 1.72E-02 | 3.84 | SAFETY/RELIEF VALVE FAILS TO RE-CLOSE |
| B21-SRV-OO-ANYSRV4 | 6.00E-03 | 1.72E-02 | 3.84 | SAFETY/RELIEF VALVE FAILS TO RE-CLOSE |
| B21-SRV-OO-ANYSRV5 | 6.00E-03 | 1.72E-02 | 3.84 | SAFETY/RELIEF VALVE FAILS TO RE-CLOSE |
| B21-SRV-OO-ANYSRV6 | 6.00E-03 | 1.72E-02 | 3.84 | SAFETY/RELIEF VALVE FAILS TO RE-CLOSE |

## Table 14-5

## High Winds Full-Power Importance Measure Report

| F-V and RAW Importance Measures Report<br>(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09 | | | | |
|---|---|---|---|---|
| B21-SRV-OO-ANYSRV7 | 6.00E-03 | 1.72E-02 | 3.84 | SAFETY/RELIEF VALVE FAILS TO RE-CLOSE |
| B21-SRV-OO-ANYSRV8 | 6.00E-03 | 1.72E-02 | 3.84 | SAFETY/RELIEF VALVE FAILS TO RE-CLOSE |
| B21-SRV-OO-ANYSRV9 | 6.00E-03 | 1.72E-02 | 3.84 | SAFETY/RELIEF VALVE FAILS TO RE-CLOSE |
| B21-SRV-OO-F006A | 6.00E-03 | 4.11E-03 | 1.68 | SAFETY/RELIEF VALVE F006A FAILS TO RE-CLOSE |
| B21-SRV-OO-F006B | 6.00E-03 | 4.11E-03 | 1.68 | SAFETY/RELIEF VALVE F006B FAILS TO RE-CLOSE |
| B21-SRV-OO-F006C | 6.00E-03 | 4.11E-03 | 1.68 | SAFETY/RELIEF VALVE F006C FAILS TO RE-CLOSE |
| B21-SRV-OO-F006D | 6.00E-03 | 4.11E-03 | 1.68 | SAFETY/RELIEF VALVE F006D FAILS TO RE-CLOSE |
| B21-SRV-OO-F006E | 6.00E-03 | 4.11E-03 | 1.68 | SAFETY/RELIEF VALVE F006E FAILS TO RE-CLOSE |
| B21-SRV-OO-F006F | 6.00E-03 | 4.11E-03 | 1.68 | SAFETY/RELIEF VALVE F006F FAILS TO RE-CLOSE |
| B21-SRV-OO-F006G | 6.00E-03 | 4.11E-03 | 1.68 | SAFETY/RELIEF VALVE F006G FAILS TO RE-CLOSE |
| B21-SRV-OO-F006H | 6.00E-03 | 4.11E-03 | 1.68 | SAFETY/RELIEF VALVE F006H FAILS TO RE-CLOSE |
| B21-SRV-OO-F006J | 6.00E-03 | 4.11E-03 | 1.68 | SAFETY/RELIEF VALVE F006J FAILS TO RE-CLOSE |
| B21-SRV-OO-F006K | 6.00E-03 | 4.11E-03 | 1.68 | SAFETY/RELIEF VALVE F006K FAILS TO RE-CLOSE |
| B21-SRV-RO-F006_ALL | 4.74E-07 | 1.32E-06 | 3.8 | CCF of all components in group 'B21-SRV-RO-F006' |
| B21-UV_-CC-F102A | 1.00E-04 | 1.38E-04 | 2.38 | CHECK VALVE F102A IN FEEDWATER LINE A FAILS TO OPEN |
| B21-UV_-CC-F103A | 1.00E-04 | 1.38E-04 | 2.38 | CHECK VALVE F103A IN FEEDWATER LINE A FAILS TO OPEN |
| B21-UV_-OO_ALL | 1.72E-05 | 5.96E-06 | 1.34 | CCF of all components in group 'B21-UV_-OO' |
| B21-XHE-FO-6OPEN | 1.61E-03 | 8.90E-04 | 1.55 | OPERATOR FAILS TO OPEN 6/10 SRVs |
| B32-HX_-PG_1_2 | 3.43E-07 | 5.06E-04 | 1.48E+03 | CCF of two components: B32-HX_-PG-HX001A & B32-HX_-PG-HX001B |
| B32-HX_-PG_1_2_3 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001A & B32-HX_-PG-HX001B & B32-HX_-PG-HX00 |
| B32-HX_-PG_1_2_4 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001A & B32-HX_-PG-HX001B & B32-HX_-PG-HX00 |
| B32-HX_-PG_1_2_5 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001A & B32-HX_-PG-HX001B & B32-HX_-PG-HX00 |
| B32-HX_-PG_1_2_6 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001A & B32-HX_-PG-HX001B & B32-HX_-PG-HX00 |

## Table 14-5

## High Winds Full-Power Importance Measure Report

| F-V and RAW Importance Measures Report<br>(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09 | | | | |
|---|---|---|---|---|
| B32-HX_-PG_1_2_7 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001A & B32-HX_-PG-HX001B & B32-HX_-PG-HX00 |
| B32-HX_-PG_1_2_8 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001A & B32-HX_-PG-HX001B & B32-HX_-PG-HX00 |
| B32-HX_-PG_1_3 | 3.43E-07 | 5.06E-04 | 1.48E+03 | CCF of two components: B32-HX_-PG-HX001A & B32-HX_-PG-HX001C |
| B32-HX_-PG_1_3_4 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001A & B32-HX_-PG-HX001C & B32-HX_-PG-HX00 |
| B32-HX_-PG_1_3_5 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001A & B32-HX_-PG-HX001C & B32-HX_-PG-HX00 |
| B32-HX_-PG_1_3_6 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001A & B32-HX_-PG-HX001C & B32-HX_-PG-HX00 |
| B32-HX_-PG_1_3_7 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001A & B32-HX_-PG-HX001C & B32-HX_-PG-HX00 |
| B32-HX_-PG_1_3_8 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001A & B32-HX_-PG-HX001C & B32-HX_-PG-HX00 |
| B32-HX_-PG_1_4 | 3.43E-07 | 5.06E-04 | 1.48E+03 | CCF of two components: B32-HX_-PG-HX001A & B32-HX_-PG-HX001D |
| B32-HX_-PG_1_4_5 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001A & B32-HX_-PG-HX001D & B32-HX_-PG-HX00 |
| B32-HX_-PG_1_4_6 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001A & B32-HX_-PG-HX001D & B32-HX_-PG-HX00 |
| B32-HX_-PG_1_4_7 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001A & B32-HX_-PG-HX001D & B32-HX_-PG-HX00 |
| B32-HX_-PG_1_4_8 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001A & B32-HX_-PG-HX001D & B32-HX_-PG-HX00 |
| B32-HX_-PG_1_5_6 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001A & B32-HX_-PG-HX002A & B32-HX_-PG-HX00 |
| B32-HX_-PG_1_5_7 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001A & B32-HX_-PG-HX002A & B32-HX_-PG-HX00 |
| B32-HX_-PG_1_5_8 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001A & B32-HX_-PG-HX002A & B32-HX_-PG-HX00 |
| B32-HX_-PG_1_6 | 3.43E-07 | 5.06E-04 | 1.48E+03 | CCF of two components: B32-HX_-PG-HX001A & B32-HX_-PG-HX002B |
| B32-HX_-PG_1_6_7 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001A & B32-HX_-PG-HX002B & B32-HX_-PG-HX00 |
| B32-HX_-PG_1_6_8 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001A & B32-HX_-PG-HX002B & B32-HX_-PG-HX00 |
| B32-HX_-PG_1_7 | 3.43E-07 | 5.06E-04 | 1.48E+03 | CCF of two components: B32-HX_-PG-HX001A & B32-HX_-PG-HX002C |
| B32-HX_-PG_1_7_8 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001A & B32-HX_-PG-HX002C & B32-HX_-PG-HX00 |
| B32-HX_-PG_1_8 | 3.43E-07 | 5.06E-04 | 1.48E+03 | CCF of two components: B32-HX_-PG-HX001A & B32-HX_-PG-HX002D |
| B32-HX_-PG_2_3 | 3.43E-07 | 5.06E-04 | 1.48E+03 | CCF of two components: B32-HX_-PG-HX001B & B32-HX_-PG-HX001C |

## Table 14-5

## High Winds Full-Power Importance Measure Report

| F-V and RAW Importance Measures Report<br>(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09 | | | | |
|---|---|---|---|---|
| B32-HX_-PG_2_3_4 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001B & B32-HX_-PG-HX001C & B32-HX_-PG-HX00 |
| B32-HX_-PG_2_3_5 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001B & B32-HX_-PG-HX001C & B32-HX_-PG-HX00 |
| B32-HX_-PG_2_3_6 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001B & B32-HX_-PG-HX001C & B32-HX_-PG-HX00 |
| B32-HX_-PG_2_3_7 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001B & B32-HX_-PG-HX001C & B32-HX_-PG-HX00 |
| B32-HX_-PG_2_3_8 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001B & B32-HX_-PG-HX001C & B32-HX_-PG-HX00 |
| B32-HX_-PG_2_4 | 3.43E-07 | 5.06E-04 | 1.48E+03 | CCF of two components: B32-HX_-PG-HX001B & B32-HX_-PG-HX001D |
| B32-HX_-PG_2_4_5 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001B & B32-HX_-PG-HX001D & B32-HX_-PG-HX00 |
| B32-HX_-PG_2_4_6 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001B & B32-HX_-PG-HX001D & B32-HX_-PG-HX00 |
| B32-HX_-PG_2_4_7 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001B & B32-HX_-PG-HX001D & B32-HX_-PG-HX00 |
| B32-HX_-PG_2_4_8 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001B & B32-HX_-PG-HX001D & B32-HX_-PG-HX00 |
| B32-HX_-PG_2_5 | 3.43E-07 | 5.06E-04 | 1.48E+03 | CCF of two components: B32-HX_-PG-HX001B & B32-HX_-PG-HX002A |
| B32-HX_-PG_2_5_6 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001B & B32-HX_-PG-HX002A & B32-HX_-PG-HX00 |
| B32-HX_-PG_2_5_7 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001B & B32-HX_-PG-HX002A & B32-HX_-PG-HX00 |
| B32-HX_-PG_2_5_8 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001B & B32-HX_-PG-HX002A & B32-HX_-PG-HX00 |
| B32-HX_-PG_2_6_7 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001B & B32-HX_-PG-HX002B & B32-HX_-PG-HX00 |
| B32-HX_-PG_2_6_8 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001B & B32-HX_-PG-HX002B & B32-HX_-PG-HX00 |
| B32-HX_-PG_2_7 | 3.43E-07 | 5.06E-04 | 1.48E+03 | CCF of two components: B32-HX_-PG-HX001B & B32-HX_-PG-HX002C |
| B32-HX_-PG_2_7_8 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001B & B32-HX_-PG-HX002C & B32-HX_-PG-HX00 |
| B32-HX_-PG_2_8 | 3.43E-07 | 5.06E-04 | 1.48E+03 | CCF of two components: B32-HX_-PG-HX001B & B32-HX_-PG-HX002D |
| B32-HX_-PG_3_4 | 3.43E-07 | 5.06E-04 | 1.48E+03 | CCF of two components: B32-HX_-PG-HX001C & B32-HX_-PG-HX001D |
| B32-HX_-PG_3_4_5 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001C & B32-HX_-PG-HX001D & B32-HX_-PG-HX00 |
| B32-HX_-PG_3_4_6 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001C & B32-HX_-PG-HX001D & B32-HX_-PG-HX00 |
| B32-HX_-PG_3_4_7 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001C & B32-HX_-PG-HX001D & B32-HX_-PG-HX00 |

## Table 14-5

## High Winds Full-Power Importance Measure Report

| F-V and RAW Importance Measures Report<br>(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09 | | | | |
|---|---|---|---|---|
| B32-HX_-PG_3_4_8 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001C & B32-HX_-PG-HX001D & B32-HX_-PG-HX00 |
| B32-HX_-PG_3_5 | 3.43E-07 | 5.06E-04 | 1.48E+03 | CCF of two components: B32-HX_-PG-HX001C & B32-HX_-PG-HX002A |
| B32-HX_-PG_3_5_6 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001C & B32-HX_-PG-HX002A & B32-HX_-PG-HX00 |
| B32-HX_-PG_3_5_7 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001C & B32-HX_-PG-HX002A & B32-HX_-PG-HX00 |
| B32-HX_-PG_3_5_8 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001C & B32-HX_-PG-HX002A & B32-HX_-PG-HX00 |
| B32-HX_-PG_3_6 | 3.43E-07 | 5.06E-04 | 1.48E+03 | CCF of two components: B32-HX_-PG-HX001C & B32-HX_-PG-HX002B |
| B32-HX_-PG_3_6_7 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001C & B32-HX_-PG-HX002B & B32-HX_-PG-HX00 |
| B32-HX_-PG_3_6_8 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001C & B32-HX_-PG-HX002B & B32-HX_-PG-HX00 |
| B32-HX_-PG_3_7_8 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001C & B32-HX_-PG-HX002C & B32-HX_-PG-HX00 |
| B32-HX_-PG_3_8 | 3.43E-07 | 5.06E-04 | 1.48E+03 | CCF of two components: B32-HX_-PG-HX001C & B32-HX_-PG-HX002D |
| B32-HX_-PG_4_5 | 3.43E-07 | 5.06E-04 | 1.48E+03 | CCF of two components: B32-HX_-PG-HX001D & B32-HX_-PG-HX002A |
| B32-HX_-PG_4_5_6 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001D & B32-HX_-PG-HX002A & B32-HX_-PG-HX00 |
| B32-HX_-PG_4_5_7 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001D & B32-HX_-PG-HX002A & B32-HX_-PG-HX00 |
| B32-HX_-PG_4_5_8 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001D & B32-HX_-PG-HX002A & B32-HX_-PG-HX00 |
| B32-HX_-PG_4_6 | 3.43E-07 | 5.06E-04 | 1.48E+03 | CCF of two components: B32-HX_-PG-HX001D & B32-HX_-PG-HX002B |
| B32-HX_-PG_4_6_7 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001D & B32-HX_-PG-HX002B & B32-HX_-PG-HX00 |
| B32-HX_-PG_4_6_8 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001D & B32-HX_-PG-HX002B & B32-HX_-PG-HX00 |
| B32-HX_-PG_4_7 | 3.43E-07 | 5.06E-04 | 1.48E+03 | CCF of two components: B32-HX_-PG-HX001D & B32-HX_-PG-HX002C |
| B32-HX_-PG_4_7_8 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX001D & B32-HX_-PG-HX002C & B32-HX_-PG-HX00 |
| B32-HX_-PG_5_6 | 3.43E-07 | 5.06E-04 | 1.48E+03 | CCF of two components: B32-HX_-PG-HX002A & B32-HX_-PG-HX002B |
| B32-HX_-PG_5_6_7 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX002A & B32-HX_-PG-HX002B & B32-HX_-PG-HX00 |
| B32-HX_-PG_5_6_8 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX002A & B32-HX_-PG-HX002B & B32-HX_-PG-HX00 |
| B32-HX_-PG_5_7 | 3.43E-07 | 5.06E-04 | 1.48E+03 | CCF of two components: B32-HX_-PG-HX002A & B32-HX_-PG-HX002C |

## Table 14-5

## High Winds Full-Power Importance Measure Report

| F-V and RAW Importance Measures Report<br>(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09 | | | | |
|---|---|---|---|---|
| B32-HX_-PG_5_7_8 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX002A & B32-HX_-PG-HX002C & B32-HX_-PG-HX00 |
| B32-HX_-PG_5_8 | 3.43E-07 | 5.06E-04 | 1.48E+03 | CCF of two components: B32-HX_-PG-HX002A & B32-HX_-PG-HX002D |
| B32-HX_-PG_6_7 | 3.43E-07 | 5.06E-04 | 1.48E+03 | CCF of two components: B32-HX_-PG-HX002B & B32-HX_-PG-HX002C |
| B32-HX_-PG_6_7_8 | 1.14E-08 | 1.66E-05 | 1.43E+03 | CCF of three components: B32-HX_-PG-HX002B & B32-HX_-PG-HX002C & B32-HX_-PG-HX00 |
| B32-HX_-PG_6_8 | 3.43E-07 | 5.06E-04 | 1.48E+03 | CCF of two components: B32-HX_-PG-HX002B & B32-HX_-PG-HX002D |
| B32-HX_-PG_7_8 | 3.43E-07 | 5.06E-04 | 1.48E+03 | CCF of two components: B32-HX_-PG-HX002C & B32-HX_-PG-HX002D |
| B32-HX_-PG_ALL | 2.67E-08 | 3.84E-05 | 1.43E+03 | CCF of all components in group 'B32-HX_-PG' |
| B32-HX_-PG-HX001A | 2.40E-05 | 4.13E-04 | 18.09 | Heat Exchanger HX001A Plugs |
| B32-HX_-PG-HX001B | 2.40E-05 | 4.13E-04 | 18.09 | Heat Exchanger HX001B Plugs |
| B32-HX_-PG-HX001C | 2.40E-05 | 4.13E-04 | 18.09 | Heat Exchanger HX001C Plugs |
| B32-HX_-PG-HX001D | 2.40E-05 | 4.13E-04 | 18.09 | Heat Exchanger HX001D Plugs |
| B32-HX_-PG-HX002A | 2.40E-05 | 4.13E-04 | 18.09 | Heat Exchanger HX002A Plugs |
| B32-HX_-PG-HX002B | 2.40E-05 | 4.13E-04 | 18.09 | Heat Exchanger HX002B Plugs |
| B32-HX_-PG-HX002C | 2.40E-05 | 4.13E-04 | 18.09 | Heat Exchanger HX002A Plugs |
| B32-HX_-PG-HX002D | 2.40E-05 | 4.13E-04 | 18.09 | Heat Exchanger HX002D Plugs |
| B32-NMO-OC-F001A | 2.40E-06 | 1.59E-05 | 7.62 | F001A Spuriously closes |
| B32-NMO-OC-F001B | 2.40E-06 | 1.59E-05 | 7.62 | Nitrogen Motor Operated Valve Transfers Closed |
| B32-NMO-OC-F001C | 2.40E-06 | 1.59E-05 | 7.62 | Nitrogen Motor Operated Valve Transfers Closed |
| B32-NMO-OC-F001D | 2.40E-06 | 1.59E-05 | 7.62 | Nitrogen Motor Operated Valve Transfers Closed |
| B32-NMO-OC-F004A | 2.40E-06 | 1.59E-05 | 7.62 | F004A Spuriously closes |
| B32-NMO-OC-F004B | 2.40E-06 | 1.59E-05 | 7.62 | Nitrogen Motor Operated Valve Transfers Closed |
| B32-NMO-OC-F004C | 2.40E-06 | 1.59E-05 | 7.62 | Nitrogen Motor Operated Valve Transfers Closed |
| B32-NMO-OC-F004D | 2.40E-06 | 1.59E-05 | 7.62 | Nitrogen Motor Operated Valve Transfers Closed |

## Table 14-5

## High Winds Full-Power Importance Measure Report

| F-V and RAW Importance Measures Report<br>(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09 | | | | |
|---|---|---|---|---|
| B32-NONCONDENSE | 1.00E+00 | 1.69E-01 | 1 | Non condensable gasses form in ICS sufficiently to require venting |
| B32-NPO-CC_ALL | 1.11E-07 | 1.58E-04 | 1.42E+03 | CCF of all components in group 'B32-NPO-CC' |
| B32-NPO-OC-F002A | 2.40E-06 | 1.59E-05 | 7.62 | F002A Spuriously closes |
| B32-NPO-OC-F002B | 2.40E-06 | 1.59E-05 | 7.62 | F002B Spuriously closes |
| B32-NPO-OC-F002C | 2.40E-06 | 1.59E-05 | 7.62 | F002C Spuriously closes |
| B32-NPO-OC-F002D | 2.40E-06 | 1.59E-05 | 7.62 | F002D Spuriously closes |
| B32-NPO-OC-F003A | 2.40E-06 | 1.59E-05 | 7.62 | F003A Spuriously closes |
| B32-NPO-OC-F003B | 2.40E-06 | 1.59E-05 | 7.62 | F003B Spuriously closes |
| B32-NPO-OC-F003C | 2.40E-06 | 1.59E-05 | 7.62 | F003C Spuriously closes |
| B32-NPO-OC-F003D | 2.40E-06 | 1.59E-05 | 7.62 | F003D Spuriously closes |
| B32-SOV-FE_10_18 | 4.35E-06 | 5.76E-05 | 14.02 | CCF of two components: B32-SOV-FE-F009B & B32-SOV-FE-F011B |
| B32-SOV-FE_10_22 | 4.35E-06 | 5.76E-05 | 14.02 | CCF of two components: B32-SOV-FE-F009B & B32-SOV-FE-F012B |
| B32-SOV-FE_11_19 | 4.35E-06 | 5.76E-05 | 14.02 | CCF of two components: B32-SOV-FE-F009C & B32-SOV-FE-F011C |
| B32-SOV-FE_11_23 | 4.35E-06 | 5.76E-05 | 14.02 | CCF of two components: B32-SOV-FE-F009C & B32-SOV-FE-F012C |
| B32-SOV-FE_12_20 | 4.35E-06 | 5.76E-05 | 14.02 | CCF of two components: B32-SOV-FE-F009D & B32-SOV-FE-F011D |
| B32-SOV-FE_12_24 | 4.35E-06 | 5.76E-05 | 14.02 | CCF of two components: B32-SOV-FE-F009D & B32-SOV-FE-F012D |
| B32-SOV-FE_13_17 | 4.35E-06 | 5.76E-05 | 14.02 | CCF of two components: B32-SOV-FE-F010A & B32-SOV-FE-F011A |
| B32-SOV-FE_13_21 | 4.35E-06 | 5.76E-05 | 14.02 | CCF of two components: B32-SOV-FE-F010A & B32-SOV-FE-F012A |
| B32-SOV-FE_14_18 | 4.35E-06 | 5.76E-05 | 14.02 | CCF of two components: B32-SOV-FE-F010B & B32-SOV-FE-F011B |
| B32-SOV-FE_14_22 | 4.35E-06 | 5.76E-05 | 14.02 | CCF of two components: B32-SOV-FE-F010B & B32-SOV-FE-F012B |
| B32-SOV-FE_15_19 | 4.35E-06 | 5.76E-05 | 14.02 | CCF of two components: B32-SOV-FE-F010C & B32-SOV-FE-F011C |
| B32-SOV-FE_15_23 | 4.35E-06 | 5.76E-05 | 14.02 | CCF of two components: B32-SOV-FE-F010C & B32-SOV-FE-F012C |
| B32-SOV-FE_16_20 | 4.35E-06 | 5.76E-05 | 14.02 | CCF of two components: B32-SOV-FE-F010D & B32-SOV-FE-F011D |

## Table 14-5

## High Winds Full-Power Importance Measure Report

| F-V and RAW Importance Measures Report<br>(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09 | | | | |
|---|---|---|---|---|
| B32-SOV-FE_16_24 | 4.35E-06 | 5.76E-05 | 14.02 | CCF of two components: B32-SOV-FE-F010D & B32-SOV-FE-F012D |
| B32-SOV-FE_9_17 | 4.35E-06 | 5.76E-05 | 14.02 | CCF of two components: B32-SOV-FE-F009A & B32-SOV-FE-F011A |
| B32-SOV-FE_9_21 | 4.35E-06 | 5.76E-05 | 14.02 | CCF of two components: B32-SOV-FE-F009A & B32-SOV-FE-F012A |
| C12-AOV-CF-SCRV126 | 6.90E-09 | 2.06E-04 | 2.81E+04 | CCF TO OPEN OF AIR OPERATED SCRAM VALVE AOV-126 |
| C12-ROD-CF-SCRAM | 2.50E-07 | 3.18E-01 | 1.27E+06 | CCF OF CONTROL RODS TO INSERT |
| C41-ACV-OC-F002A | 2.40E-05 | 6.80E-05 | 3.83 | AIR OPERATED VALVE F002A FAILS TO REMAIN OPEN |
| C41-ACV-OC-F002B | 2.40E-05 | 6.80E-05 | 3.83 | AIR OPERATED VALVE F002B FAILS TO REMAIN OPEN |
| C41-ACV-OC-F002C | 2.40E-05 | 6.80E-05 | 3.83 | AIR OPERATED VALVE F002C FAILS TO REMAIN OPEN |
| C41-ACV-OC-F002D | 2.40E-05 | 6.80E-05 | 3.83 | AIR OPERATED VALVE FAILS TO REMAIN OPEN |
| C41-SQV-CC_1_2_3 | 5.56E-06 | 1.57E-05 | 3.83 | CCF of three components: C41-SQV-CC-F003A & C41-SQV-CC-F003B & C41-SQV-CC-F003C |
| C41-SQV-CC_1_2_4 | 5.56E-06 | 1.57E-05 | 3.83 | CCF of three components: C41-SQV-CC-F003A & C41-SQV-CC-F003B & C41-SQV-CC-F003D |
| C41-SQV-CC_1_3 | 5.56E-05 | 1.57E-04 | 3.83 | CCF of two components: C41-SQV-CC-F003A & C41-SQV-CC-F003C |
| C41-SQV-CC_1_3_4 | 5.56E-06 | 1.57E-05 | 3.83 | CCF of three components: C41-SQV-CC-F003A & C41-SQV-CC-F003C & C41-SQV-CC-F003D |
| C41-SQV-CC_2_3_4 | 5.56E-06 | 1.57E-05 | 3.83 | CCF of three components: C41-SQV-CC-F003B & C41-SQV-CC-F003C & C41-SQV-CC-F003D |
| C41-SQV-CC_2_4 | 5.56E-05 | 1.57E-04 | 3.83 | CCF of two components: C41-SQV-CC-F003B & C41-SQV-CC-F003D |
| C41-SQV-CC_ALL | 1.50E-04 | 4.28E-04 | 3.85 | CCF of all components in group 'C41-SQV-CC' |
| C41-SQV-CC-F003A | 3.00E-03 | 2.55E-05 | 1.01 | EXPLOSIVE VALVE F003A FAILS TO OPERATE |
| C41-SQV-CC-F003B | 3.00E-03 | 2.55E-05 | 1.01 | EXPLOSIVE VALVE F003B FAILS TO OPERATE |
| C41-SQV-CC-F003C | 3.00E-03 | 2.55E-05 | 1.01 | EXPLOSIVE VALVE F003C FAILS TO OPERATE |
| C41-SQV-CC-F003D | 3.00E-03 | 2.55E-05 | 1.01 | EXPLOSIVE VALVE F003D FAILS TO OPERATE |
| C41-TNK-RP-A001A | 2.40E-06 | 6.79E-06 | 3.83 | ACCUMULATOR A001A FAILS CATASTROPHICALLY |
| C41-TNK-RP-A001B | 2.40E-06 | 6.79E-06 | 3.83 | ACCUMULATOR A001B FAILS CATASTROPHICALLY |
| C41-UV_-CC_1_2 | 2.85E-07 | 8.28E-07 | 3.91 | CCF of two components: C41-UV_-CC-F004A & C41-UV_-CC-F004B |

## Table 14-5

## High Winds Full-Power Importance Measure Report

| F-V and RAW Importance Measures Report<br>(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09 | | | | |
|---|---|---|---|---|
| C41-UV_-CC_1_2_3 | 2.25E-06 | 6.46E-06 | 3.83 | CCF of three components: C41-UV_-CC-F004A & C41-UV_-CC-F004B & C41-UV_-CC-F005A |
| C41-UV_-CC_1_2_4 | 2.25E-06 | 6.46E-06 | 3.83 | CCF of three components: C41-UV_-CC-F004A & C41-UV_-CC-F004B & C41-UV_-CC-F005B |
| C41-UV_-CC_1_3 | 2.85E-07 | 8.28E-07 | 3.91 | CCF of two components: C41-UV_-CC-F004A & C41-UV_-CC-F005A |
| C41-UV_-CC_1_3_4 | 2.25E-06 | 6.46E-06 | 3.83 | CCF of three components: C41-UV_-CC-F004A & C41-UV_-CC-F005A & C41-UV_-CC-F005B |
| C41-UV_-CC_1_4 | 2.85E-07 | 8.28E-07 | 3.91 | CCF of two components: C41-UV_-CC-F004A & C41-UV_-CC-F005B |
| C41-UV_-CC_2_3 | 2.85E-07 | 8.28E-07 | 3.91 | CCF of two components: C41-UV_-CC-F004B & C41-UV_-CC-F005A |
| C41-UV_-CC_2_3_4 | 2.25E-06 | 6.46E-06 | 3.83 | CCF of three components: C41-UV_-CC-F004B & C41-UV_-CC-F005A & C41-UV_-CC-F005B |
| C41-UV_-CC_2_4 | 2.85E-07 | 8.28E-07 | 3.91 | CCF of two components: C41-UV_-CC-F004B & C41-UV_-CC-F005B |
| C41-UV_-CC_3_4 | 2.85E-07 | 8.28E-07 | 3.91 | CCF of two components: C41-UV_-CC-F005A & C41-UV_-CC-F005B |
| C41-UV_-CC_ALL | 1.37E-05 | 3.89E-05 | 3.84 | CCF of all components in group 'C41-UV_-CC' |
| C41-UV_-CC-F004A | 7.99E-04 | 2.28E-03 | 3.85 | CHECK VALVE F004A FAILS TO OPEN |
| C41-UV_-CC-F004B | 7.99E-04 | 2.28E-03 | 3.85 | CHECK VALVE F004B FAILS TO OPEN |
| C41-UV_-CC-F005A | 7.99E-04 | 2.28E-03 | 3.85 | CHECK VALVE F005A FAILS TO OPEN |
| C41-UV_-CC-F005B | 7.99E-04 | 2.28E-03 | 3.85 | CHECK VALVE F005B FAILS TO OPEN |
| C63-CCFSOFTWARE | 1.00E-04 | 3.47E-01 | 3.47E+03 | Common cause failure of software |
| C63-CCFSOFTWARE_S | 1.00E-04 | 1.55E-01 | 1.55E+03 | Common cause failure of software, for spurious |
| C63-UNDEVSPUR58 | 1.00E-03 | 1.87E-02 | 19.68 | Undeveloped spurious hardware failure |
| C63-UNDEVSPUR59 | 1.00E-03 | 1.87E-02 | 19.68 | Undeveloped spurious hardware failure |
| C63-UNDEVSPUR60 | 1.00E-03 | 1.87E-02 | 19.68 | Undeveloped spurious hardware failure |
| C63-UNDEVSPUR61 | 1.00E-03 | 1.87E-02 | 19.68 | Undeveloped spurious hardware failure |
| C63-UNDEVSPUR62 | 1.00E-03 | 1.87E-02 | 19.68 | Undeveloped spurious hardware failure |
| C63-UNDEVSPUR63 | 1.00E-03 | 1.87E-02 | 19.68 | Undeveloped spurious hardware failure |
| C63-UNDEVSPUR64 | 1.00E-03 | 1.87E-02 | 19.68 | Undeveloped spurious hardware failure |

## Table 14-5

## High Winds Full-Power Importance Measure Report

| F-V and RAW Importance Measures Report<br>(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09 | | | | |
|---|---|---|---|---|
| C63-UNDEVSPUR65 | 1.00E-03 | 1.87E-02 | 19.68 | Undeveloped spurious hardware failure |
| C63-UNDEVSPUR66 | 1.00E-03 | 1.87E-02 | 19.68 | Undeveloped spurious hardware failure |
| C63-UNDEVSPUR67 | 1.00E-03 | 1.87E-02 | 19.68 | Undeveloped spurious hardware failure |
| C63-UNDEVSPUR68 | 1.00E-03 | 1.87E-02 | 19.68 | Undeveloped spurious hardware failure |
| C63-UNDEVSPUR69 | 1.00E-03 | 1.87E-02 | 19.68 | Undeveloped spurious hardware failure |
| C63-UNDEVSPUR70 | 1.00E-03 | 1.87E-02 | 19.68 | Undeveloped spurious hardware failure |
| C63-UNDEVSPUR71 | 1.00E-03 | 1.87E-02 | 19.68 | Undeveloped spurious hardware failure |
| C63-UNDEVSPUR72 | 1.00E-03 | 1.87E-02 | 19.68 | Undeveloped spurious hardware failure |
| C63-UNDEVSPUR73 | 1.00E-03 | 1.87E-02 | 19.68 | Undeveloped spurious hardware failure |
| C71-DTM-FC-R_1_2_3 | 1.11E-06 | 3.15E-06 | 3.83 | CCF of three components: C71-DTM-FC-RPSDIV1 & C71-DTM-FC-RPSDIV2 & C71-DTM-FC-RP |
| C71-DTM-FC-R_1_2_4 | 1.11E-06 | 3.15E-06 | 3.83 | CCF of three components: C71-DTM-FC-RPSDIV1 & C71-DTM-FC-RPSDIV2 & C71-DTM-FC-RP |
| C71-DTM-FC-R_1_3_4 | 1.11E-06 | 3.15E-06 | 3.83 | CCF of three components: C71-DTM-FC-RPSDIV1 & C71-DTM-FC-RPSDIV3 & C71-DTM-FC-RP |
| C71-DTM-FC-R_2_3_4 | 1.11E-06 | 3.15E-06 | 3.83 | CCF of three components: C71-DTM-FC-RPSDIV2 & C71-DTM-FC-RPSDIV3 & C71-DTM-FC-RP |
| C71-DTM-FC-R_ALL | 3.00E-05 | 8.66E-05 | 3.88 | CCF of all components in group 'C71-DTM-FC-R' |
| C71-OLU-FC-R_ALL | 2.40E-05 | 7.60E-04 | 32.67 | CCF of all components in group 'C71-OLU-FC-R' |
| C71-SLU-FC-N_1_2_3 | 1.67E-06 | 4.80E-06 | 3.83 | CCF of three components: C71-SLU-FC-NMSDIV1 & C71-SLU-FC-NMSDIV2 & C71-SLU-FC-NM |
| C71-SLU-FC-N_1_2_4 | 1.67E-06 | 4.80E-06 | 3.83 | CCF of three components: C71-SLU-FC-NMSDIV1 & C71-SLU-FC-NMSDIV2 & C71-SLU-FC-NM |
| C71-SLU-FC-N_1_3_4 | 1.67E-06 | 4.80E-06 | 3.83 | CCF of three components: C71-SLU-FC-NMSDIV1 & C71-SLU-FC-NMSDIV3 & C71-SLU-FC-NM |
| C71-SLU-FC-N_2_3_4 | 1.67E-06 | 4.80E-06 | 3.83 | CCF of three components: C71-SLU-FC-NMSDIV2 & C71-SLU-FC-NMSDIV3 & C71-SLU-FC-NM |
| C71-SLU-FC-N_ALL | 4.50E-05 | 1.33E-04 | 3.94 | CCF of all components in group 'C71-SLU-FC-N' |
| C71-SLU-FC-R_1_2_3 | 1.67E-06 | 5.07E-05 | 31.39 | CCF of three components: C71-SLU-FC-RPSDIV1 & C71-SLU-FC-RPSDIV2 & C71-SLU-FC-RP |
| C71-SLU-FC-R_1_2_4 | 1.67E-06 | 5.07E-05 | 31.39 | CCF of three components: C71-SLU-FC-RPSDIV1 & C71-SLU-FC-RPSDIV2 & C71-SLU-FC-RP |
| C71-SLU-FC-R_1_3_4 | 1.67E-06 | 5.07E-05 | 31.39 | CCF of three components: C71-SLU-FC-RPSDIV1 & C71-SLU-FC-RPSDIV3 & C71-SLU-FC-RP |

## Table 14-5

## High Winds Full-Power Importance Measure Report

| F-V and RAW Importance Measures Report<br>(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09 | | | | |
|---|---|---|---|---|
| C71-SLU-FC-R_2_3_4 | 1.67E-06 | 5.07E-05 | 31.39 | CCF of three components: C71-SLU-FC-RPSDIV2 & C71-SLU-FC-RPSDIV3 & C71-SLU-FC-RP |
| C71-SLU-FC-R_ALL | 4.50E-05 | 1.51E-03 | 34.37 | CCF of all components in group 'C71-SLU-FC-R' |
| C72-ATM-FC-L1_1_2_3 | 2.65E-08 | 6.29E-06 | 238.76 | CCF of three components: C72-ATM-FC-DPSL1LLA & C72-ATM-FC-DPSL1LLB & C72-ATM-FC- |
| C72-ATM-FC-L1_1_2_4 | 2.65E-08 | 6.29E-06 | 238.76 | CCF of three components: C72-ATM-FC-DPSL1LLA & C72-ATM-FC-DPSL1LLB & C72-ATM-FC- |
| C72-ATM-FC-L1_1_3_4 | 2.65E-08 | 6.29E-06 | 238.76 | CCF of three components: C72-ATM-FC-DPSL1LLA & C72-ATM-FC-DPSL1LLC & C72-ATM-FC- |
| C72-ATM-FC-L1_2_3_4 | 2.65E-08 | 6.29E-06 | 238.76 | CCF of three components: C72-ATM-FC-DPSL1LLB & C72-ATM-FC-DPSL1LLC & C72-ATM-FC- |
| C72-ATM-FC-L1_ALL | 5.00E-06 | 1.32E-03 | 265.95 | CCF of all components in group 'C72-ATM-FC-L1' |
| C72-CCFSOFTWARE | 1.00E-04 | 1.21E-01 | 1.21E+03 | COMMON CAUSE FAILURE OF DPS PROCESSORS |
| C72-LDD-CF-LOADS | 1.86E-06 | 2.24E-03 | 1.20E+03 | COMMON CAUSE FAILURE OF DPS LOAD DRIVERS |
| C72-LOG-FC-D_1_2 | 3.33E-06 | 4.02E-03 | 1.21E+03 | CCF of two components: C72-LOG-FC-D1DPS & C72-LOG-FC-D2DPS |
| C72-LOG-FC-D_1_2_3 | 6.67E-06 | 8.03E-03 | 1.21E+03 | CCF of three components: C72-LOG-FC-D1DPS & C72-LOG-FC-D2DPS & C72-LOG-FC-D3DPS |
| C72-LOG-FC-D_1_3 | 3.33E-06 | 4.02E-03 | 1.21E+03 | CCF of two components: C72-LOG-FC-D1DPS & C72-LOG-FC-D3DPS |
| C72-LOG-FC-D_2_3 | 3.33E-06 | 4.02E-03 | 1.21E+03 | CCF of two components: C72-LOG-FC-D2DPS & C72-LOG-FC-D3DPS |
| C72-LOG-FC-D1DPS | 1.20E-04 | 3.28E-05 | 1.27 | LOGIC UNIT FAILS TO FUNCTION |
| C72-LOG-FC-D2DPS | 1.20E-04 | 3.28E-05 | 1.27 | LOGIC UNIT FAILS TO FUNCTION |
| C72-LOG-FC-D3DPS | 1.20E-04 | 3.28E-05 | 1.27 | LOGIC UNIT FAILS TO FUNCTION |
| E50-SQV-CC_1_4 | 2.38E-05 | 1.32E-06 | 1.06 | CCF of two components: E50-SQV-CC-F002A & E50-SQV-CC-F002D |
| E50-SQV-CC_1_4_5 | 7.94E-07 | 3.48E-06 | 5.17 | CCF of three components: E50-SQV-CC-F002A & E50-SQV-CC-F002D & E50-SQV-CC-F002E |
| E50-SQV-CC_1_4_8 | 7.94E-07 | 3.48E-06 | 5.17 | CCF of three components: E50-SQV-CC-F002A & E50-SQV-CC-F002D & E50-SQV-CC-F002H |
| E50-SQV-CC_1_5 | 2.38E-05 | 1.32E-06 | 1.06 | CCF of two components: E50-SQV-CC-F002A & E50-SQV-CC-F002E |
| E50-SQV-CC_1_5_8 | 7.94E-07 | 3.48E-06 | 5.17 | CCF of three components: E50-SQV-CC-F002A & E50-SQV-CC-F002E & E50-SQV-CC-F002H |
| E50-SQV-CC_1_8 | 2.38E-05 | 1.32E-06 | 1.06 | CCF of two components: E50-SQV-CC-F002A & E50-SQV-CC-F002H |
| E50-SQV-CC_4_5 | 2.38E-05 | 1.32E-06 | 1.06 | CCF of two components: E50-SQV-CC-F002D & E50-SQV-CC-F002E |

## Table 14-5

## High Winds Full-Power Importance Measure Report

| F-V and RAW Importance Measures Report<br>(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09 | | | | |
|---|---|---|---|---|
| E50-SQV-CC_4_5_8 | 7.94E-07 | 3.48E-06 | 5.17 | CCF of three components: E50-SQV-CC-F002D & E50-SQV-CC-F002E & E50-SQV-CC-F002H |
| E50-SQV-CC_4_8 | 2.38E-05 | 1.32E-06 | 1.06 | CCF of two components: E50-SQV-CC-F002D & E50-SQV-CC-F002H |
| E50-SQV-CC_5_8 | 2.38E-05 | 1.32E-06 | 1.06 | CCF of two components: E50-SQV-CC-F002E & E50-SQV-CC-F002H |
| E50-SQV-CC_ALL | 1.50E-04 | 1.18E-01 | 786.5 | CCF of all components in group 'E50-SQV-CC' |
| E50-SQV-CC-EQU_ALL | 3.00E-04 | 8.28E-07 | 1 | CCF of all components in group 'E50-SQV-CC-EQU' |
| E50-SQV-CC-F002A | 3.00E-03 | 9.11E-06 | 1 | SQUIB VALVE F002A FAILS TO OPERATE |
| E50-SQV-CC-F002D | 3.00E-03 | 9.11E-06 | 1 | SQUIB VALVE F002D FAILS TO OPERATE |
| E50-SQV-CC-F002E | 3.00E-03 | 9.11E-06 | 1 | SQUIB VALVE F002E FAILS TO OPERATE |
| E50-SQV-CC-F002H | 3.00E-03 | 9.11E-06 | 1 | SQUIB VALVE F002H FAILS TO OPERATE |
| E50-SQV-CF-4OPEN | 1.50E-05 | 3.95E-03 | 264.22 | CCF OF 4 OR MORE SQUIB VALVES TO OPEN |
| E50-STR-PG_ALL | 5.35E-04 | 1.49E-06 | 1 | CCF of all components in group 'E50-STR-PG' |
| E50-UV_OC_1_4_5 | 7.05E-06 | 3.44E-05 | 5.87 | CCF of three components: E50-UV_-OC-F003A & E50-UV_-OC-F003D & E50-UV_-OC-F003E |
| E50-UV_OC_1_4_8 | 7.05E-06 | 3.44E-05 | 5.87 | CCF of three components: E50-UV_-OC-F003A & E50-UV_-OC-F003D & E50-UV_-OC-F003H |
| E50-UV_OC_1_5_8 | 7.05E-06 | 3.44E-05 | 5.87 | CCF of three components: E50-UV_-OC-F003A & E50-UV_-OC-F003E & E50-UV_-OC-F003H |
| E50-UV_OC_4_5_8 | 7.05E-06 | 3.44E-05 | 5.87 | CCF of three components: E50-UV_-OC-F003D & E50-UV_-OC-F003E & E50-UV_-OC-F003H |
| E50-UV_OC_ALL | 3.00E-04 | 2.38E-01 | 791.85 | CCF of all components in group 'E50-UV_OC' |
| E50-UV_-OC-F003A | 1.75E-02 | 7.10E-05 | 1 | CHECK VALVE F003A FAILS TO REMAIN OPEN OR PLUG |
| E50-UV_-OC-F003D | 1.75E-02 | 7.10E-05 | 1 | CHECK VALVE F003D FAILS TO REMAIN OPEN OR PLUG |
| E50-UV_-OC-F003E | 1.75E-02 | 7.10E-05 | 1 | CHECK VALVE F003E FAILS TO REMAIN OPEN OR PLUG |
| E50-UV_-OC-F003H | 1.75E-02 | 7.10E-05 | 1 | CHECK VALVE F003H FAILS TO REMAIN OPEN OR PLUG |
| G21-BV_-RE-F308 | 4.84E-02 | 1.92E-05 | 1 | MISPOSITION OF VALVE F308 |
| G21-BV_-RE-F334 | 4.84E-02 | 1.09E-01 | 3.15 | MISPOSITION OF VALVE F334 |
| G21-MOV-CC-F011A | 2.40E-02 | 5.63E-06 | 1 | MOTOR OPER. VALVE F011A FAILS TO OPEN |

## Table 14-5

## High Winds Full-Power Importance Measure Report

| F-V and RAW Importance Measures Report<br>(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09 | | | | |
|---|---|---|---|---|
| G21-MOV-CC-F011B | 2.40E-02 | 1.66E-06 | 1 | MOTOR OPER. VALVE F011B FAILS TO OPEN |
| G21-MOV-CC-F013A | 2.40E-02 | 5.63E-06 | 1 | MOTOR OPER. VALVE F013A FAILS TO OPEN |
| G21-MOV-CC-F013B | 2.40E-02 | 1.66E-06 | 1 | MOTOR OPER. VALVE F013B FAILS TO OPEN |
| G21-MOV-CC-F014A | 2.40E-02 | 5.63E-06 | 1 | MOTOR OPER. VALVE F014A FAILS TO OPEN |
| G21-MOV-CC-F014B | 2.40E-02 | 1.66E-06 | 1 | MOTOR OPER. VALVE F014B FAILS TO OPEN |
| G21-NMO_3_4 | 1.11E-05 | 1.56E-05 | 2.37 | CCF of two components: G21-NMO-CC-F332A & G21-NMO-CC-F332B |
| G21-NMO_ALL | 3.00E-05 | 4.11E-05 | 2.36 | CCF of all components in group 'G21-NMO' |
| G21-NSC-TM-F332A | 1.50E-03 | 1.66E-06 | 1 | MAINTENANCE FOR VALVE F332A |
| G21-NSC-TM-F332B | 1.50E-03 | 1.66E-06 | 1 | MAINTENANCE FOR VALVE F332B |
| G21-UV_-333_1_2 | 1.79E-05 | 2.48E-05 | 2.37 | CCF of two components: G21-UV_-CC-F333A & G21-UV_-CC-F333B |
| G21-XHE-FO-LPCI | 1.61E-03 | 1.99E-06 | 1 | OPERATOR FAILS TO ALIGN AND ACTUATE FAPCS IN LPCI MODE |
| NICWSA-SYS-FAILS | 1.00E-03 | 1.66E-05 | 1.02 | NUCLEAR ISLAND CHILLED WATER SUBSYSTEM TRAIN A FAILS |
| NICWSB-SYS-FAILS | 1.00E-03 | 1.66E-05 | 1.02 | NUCLEAR ISLAND CHILLED WATER SUBSYSTEM TRAIN B FAILS |
| P21-ACV-CC-F0023_1_2 | 1.93E-04 | 3.81E-06 | 1.02 | CCF of two components: P21-ACV-CC-F0023A & P21-ACV-CC-F0023B |
| P21-ACV-CC-F0023A | 2.00E-03 | 3.56E-05 | 1.02 | AIR OPERATED VALVE F0023A FAILS TO OPEN |
| P21-ACV-CC-F0023B | 2.00E-03 | 3.56E-05 | 1.02 | AIR OPERATED VALVE F0023B FAILS TO OPEN |
| P21-ACV-OO-CCF23_1_2 | 2.22E-04 | 4.47E-06 | 1.02 | CCF of two components: P21-ACV-OO-F023A & P21-ACV-OO-F023B |
| P21-ACV-OO-F0004 | 2.00E-03 | 9.93E-05 | 1.05 | AIR OPERATED VALVE F0004 FAILS TO CLOSE |
| P21-ACV-OO-F0007 | 2.00E-03 | 9.93E-05 | 1.05 | AIR OPERATED VALVE F0007 FAILS TO CLOSE |
| P21-ACV-OO-F0016_1_2 | 1.93E-04 | 3.81E-06 | 1.02 | CCF of two components: P21-ACV-OO-F016A & P21-ACV-OO-F016B |
| P21-ACV-OO-F0020 | 2.00E-03 | 9.93E-05 | 1.05 | AIR OPERATED VALVE F0020 FAILS TO CLOSE |
| P21-ACV-OO-F0027 | 2.00E-03 | 9.93E-05 | 1.05 | AIR OPERATED VALVE F0027 FAILS TO CLOSE |
| P21-ACV-OO-F0061 | 2.00E-03 | 9.93E-05 | 1.05 | AIR OPERATED VALVE F0061 FAILS TO CLOSE |

## Table 14-5

## High Winds Full-Power Importance Measure Report

| F-V and RAW Importance Measures Report<br>(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09 | | | | |
|---|---|---|---|---|
| P21-ACV-OO-F016A | 2.00E-03 | 3.56E-05 | 1.02 | AIR OPERATED VALVE F016A FAILS TO CLOSE |
| P21-ACV-OO-F016B | 2.00E-03 | 3.56E-05 | 1.02 | AIR OPERATED VALVE F016B FAILS TO CLOSE |
| P21-ACV-OO-F023A | 2.00E-03 | 3.56E-05 | 1.02 | AIR OPERATED VALVE FAILS TO CLOSE |
| P21-ACV-OO-F023B | 2.00E-03 | 3.56E-05 | 1.02 | AIR OPERATED VALVE FAILS TO CLOSE |
| P21-ACV-OO-XTIE_ALL | 1.21E-04 | 2.48E-06 | 1.02 | CCF of all components in group 'P21-ACV-OO-XTIE' |
| P21-AHU-FR-RCCWA | 2.40E-04 | 3.15E-06 | 1.01 | AIR HANDLING UNIT RCCWS ROOM A FAILS TO RUN |
| P21-AHU-FR-RCCWB | 2.40E-04 | 3.15E-06 | 1.01 | AIR HANDLING UNIT RCCWS ROOM TRAIN B FAILS TO RUN |
| P21-AHU-FS_1_2 | 6.67E-04 | 1.94E-05 | 1.03 | CCF of two components: P21-AHU-FS-RCCWA & P21-AHU-FS-RCCWB |
| P21-AHU-FS-RCCWA | 6.00E-03 | 1.08E-04 | 1.02 | AIR HANDLING UNIT RCCWS ROOM A FAILS TO START |
| P21-AHU-FS-RCCWB | 6.00E-03 | 1.08E-04 | 1.02 | AIR HANDLING UNIT RCCWS ROOM B FAILS TO START |
| P21-MOV-CC_1_2 | 2.06E-04 | 1.32E-06 | 1.01 | CCF of two components: P21-MOV-CC-F034A & P21-MOV-CC-F034B |
| P21-MOV-CC_ALL | 1.48E-04 | 2.98E-06 | 1.02 | CCF of all components in group 'P21-MOV-CC' |
| P21-MOV-CC-F0010A3 | 4.00E-03 | 7.15E-05 | 1.02 | MOTOR OPERATED VALVE F0010A3 FAILS TO OPEN |
| P21-MOV-CC-F0010B1 | 4.00E-03 | 7.15E-05 | 1.02 | MOTOR OPERATED VALVE F0010B1 FAILS TO OPEN |
| P21-MOV-CC-F0010B2 | 4.00E-03 | 7.15E-05 | 1.02 | MOTOR OPERATED VALVE F0010B2 FAILS TO OPEN |
| P21-MOV-CC-F0010B3 | 4.00E-03 | 7.15E-05 | 1.02 | MOTOR OPERATED VALVE F0010B3 FAILS TO OPEN |
| P21-MOV-CC-F034A | 4.00E-03 | 7.15E-05 | 1.02 | MOV P21-F034A FROM RCCWS TO RWCU/SDC HX-A FAILS TO OPEN |
| P21-MOV-CC-F034B | 4.00E-03 | 7.15E-05 | 1.02 | MOV P21-F034B FROM RCCWS TO RWCU/SDC HX-B FAILS TO OPEN |
| P21-MP_-FS_ALL | 1.87E-04 | 3.64E-06 | 1.02 | CCF of all components in group 'P21-MP_-FS' |
| P21-MPC-FR-C001A | 6.00E-04 | 8.94E-06 | 1.01 | MOTOR DRIVEN PUMP C001A FAILS TO RUN |
| P21-MPC-FR-C001B | 6.00E-04 | 8.94E-06 | 1.01 | MOTOR DRIVEN PUMP C001B FAILS TO RUN |
| P21-MPC-FR-C002A | 6.00E-04 | 8.94E-06 | 1.01 | MOTOR-DRIVEN PUMP C002A FAILS TO RUN |
| P21-MPC-FR-C002B | 6.00E-04 | 8.94E-06 | 1.01 | MOTOR-DRIVEN PUMP C002B FAILS TO RUN |

## Table 14-5

## High Winds Full-Power Importance Measure Report

| F-V and RAW Importance Measures Report<br>(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09 | | | | |
|---|---|---|---|---|
| P21-MPC-FR-C003A | 6.00E-04 | 8.94E-06 | 1.01 | MOTOR-DRIVEN PUMP C0003A FAILS TO RUN |
| P21-MPC-FR-C003B | 6.00E-04 | 8.94E-06 | 1.01 | MOTOR-DRIVEN PUMP C003B FAILS TO RUN |
| P21-MPC-FS-C001A | 2.00E-03 | 3.56E-05 | 1.02 | MOTOR DRIVEN PUMP C001A FAILS TO START |
| P21-MPC-FS-C001B | 2.00E-03 | 3.56E-05 | 1.02 | MOTOR-DRIVEN PUMP C001B FAILS TO START |
| P21-MPC-FS-C002A | 2.00E-03 | 3.56E-05 | 1.02 | MOTOR-DRIVEN PUMP C002A FAILS TO START |
| P21-MPC-FS-C002B | 2.00E-03 | 3.56E-05 | 1.02 | MOTOR-DRIVEN PUMP C002B FAILS TO START |
| P21-MPC-FS-C003A | 2.00E-03 | 3.56E-05 | 1.02 | MOTOR-DRIVEN PUMP C0003A FAILS TO START |
| P21-MPC-FS-C003B | 2.00E-03 | 3.56E-05 | 1.02 | MOTOR-DRIVEN PUMP C003B FAILS TO START |
| P21-NSC-TM-B001A | 1.50E-03 | 2.67E-05 | 1.02 | HEAT EXCHANGER B001A UNAVAILABLE DUE TO MAINTENANCE |
| P21-NSC-TM-B001B | 1.50E-03 | 2.67E-05 | 1.02 | HEAT EXCHANGER B001B UNAVAILABLE DUE TO MAINTENANCE |
| P21-NSC-TM-B002A | 1.50E-03 | 2.67E-05 | 1.02 | HEAT EXCHANGER B002A UNAVAILABLE DUE TO MAINTENANCE |
| P21-NSC-TM-B002B | 1.50E-03 | 2.67E-05 | 1.02 | HEAT EXCHANGER B002B UNAVAILABLE DUE TO MAINTENANCE |
| P21-NSC-TM-B003A | 1.50E-03 | 2.67E-05 | 1.02 | HEAT EXCHANGER B003A UNAVAILABLE DUE TO MAINTENANCE |
| P21-NSC-TM-B003B | 1.50E-03 | 2.67E-05 | 1.02 | HEAT EXCHANGER B003B UNAVAILABLE DUE TO MAINTENANCE |
| P21-NSC-TM-C001A | 1.50E-03 | 2.67E-05 | 1.02 | PUMP C001A IN MAINTENANCE |
| P21-NSC-TM-C001B | 1.50E-03 | 2.67E-05 | 1.02 | PUMP C001B IN MAINTENANCE |
| P21-NSC-TM-C002A | 1.50E-03 | 2.67E-05 | 1.02 | PUMP C002A IN MAINTENANCE |
| P21-NSC-TM-C002B | 1.50E-03 | 2.67E-05 | 1.02 | PUMP C002B IN MAINTENANCE |
| P21-NSC-TM-C003A | 1.50E-03 | 2.67E-05 | 1.02 | PUMP C003A IN MAINTENANCE |
| P21-NSC-TM-C003B | 1.50E-03 | 2.67E-05 | 1.02 | PUMP C003B IN MAINTENANCE |
| P21-TRN-RE-HX1A | 8.07E-03 | 1.52E-04 | 1.02 | FAILURE TO RESTORE RCCW TRAIN 1A HX |
| P21-TRN-RE-HX1B | 8.07E-03 | 1.52E-04 | 1.02 | FAILURE TO RESTORE RCCW TRAIN 1B HX |
| P21-TRN-RE-HX2A | 8.07E-03 | 1.52E-04 | 1.02 | FAILURE TO RESTORE RCCW TRAIN 2A HX |

## Table 14-5

## High Winds Full-Power Importance Measure Report

| F-V and RAW Importance Measures Report<br>(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09 | | | | |
|---|---|---|---|---|
| P21-TRN-RE-HX2B | 8.07E-03 | 1.52E-04 | 1.02 | FAILURE TO RESTORE RCCW TRAIN 2B HX |
| P21-TRN-RE-HX3A | 8.07E-03 | 1.52E-04 | 1.02 | FAILURE TO RESTORE RCCW TRAIN 3A HX |
| P21-TRN-RE-HX3B | 8.07E-03 | 1.52E-04 | 1.02 | FAILURE TO RESTORE RCCW TRAIN 3B HX |
| P21-TRN-RE-PUMP1A | 8.07E-03 | 1.52E-04 | 1.02 | FAILURE TO RESTORE RCCW TRAIN 1A PUMP |
| P21-TRN-RE-PUMP1B | 8.07E-03 | 1.52E-04 | 1.02 | FAILURE TO RESTORE RCCW TRAIN 1B PUMP |
| P21-TRN-RE-PUMP2A | 8.07E-03 | 1.52E-04 | 1.02 | FAILURE TO RESTORE RCCW TRAIN 2A PUMP |
| P21-TRN-RE-PUMP2B | 8.07E-03 | 1.52E-04 | 1.02 | FAILURE TO RESTORE RCCW TRAIN 2B PUMP |
| P21-TRN-RE-PUMP3A | 8.07E-03 | 1.52E-04 | 1.02 | FAILURE TO RESTORE RCCW TRAIN 3A PUMP |
| P21-TRN-RE-PUMP3B | 8.07E-03 | 1.52E-04 | 1.02 | FAILURE TO RESTORE RCCW TRAIN 3B PUMP |
| P41-ACV-CC_ALL | 1.21E-04 | 2.48E-06 | 1.02 | CCF of all components in group 'P41-ACV-CC' |
| P41-ACV-CC-F004A | 2.00E-03 | 3.56E-05 | 1.02 | AIR OPERATED VALVE F004A FAILS TO OPEN |
| P41-ACV-CC-F004B | 2.00E-03 | 3.56E-05 | 1.02 | AIR OPERATED VALVE F004B FAILS TO OPEN |
| P41-ACV-CC-F006A | 2.00E-03 | 3.56E-05 | 1.02 | AIR OPERATED VALVE F006A FAILS TO OPEN |
| P41-ACV-CC-F006B | 2.00E-03 | 3.56E-05 | 1.02 | AIR OPERATED VALVE F006B FAILS TO OPEN |
| P41-ACV-CC-F009A | 2.00E-03 | 3.56E-05 | 1.02 | AIR OPERATED VALVE F009A FAILS TO OPEN |
| P41-ACV-CC-F009B | 2.00E-03 | 3.56E-05 | 1.02 | AIR OPERATED VALVE F009B FAILS TO OPEN |
| P41-MOV-CC-PMP_ALL | 1.45E-04 | 2.98E-06 | 1.02 | CCF of all components in group 'P41-MOV-CC-PMP' |
| P41-MPW-FS_ALL | 1.15E-04 | 1.49E-06 | 1.01 | CCF of all components in group 'P41-MPW-FS' |
| R11-MCB-CC-A3RATAY | 5.00E-04 | 7.45E-06 | 1.01 | MEDIUM CIRCUIT BREAKER FOR RAT A Y-WINDING FAILS TO OPEN |
| R11-MCB-CC-A3UATAY | 4.00E-03 | 7.15E-05 | 1.02 | MEDIUM VOLTAGE CIRCUIT BREAKER FOR UAT A Y-WINDING FAILS TO OPEN |
| R11-MCB-CC-B3RATBY | 5.00E-04 | 7.45E-06 | 1.01 | MEDIUM CIRCUIT BREAKER FOR RAT B Y-WINDING FAILS TO OPEN |
| R11-MCB-CC-B3UATBY | 4.00E-03 | 7.15E-05 | 1.02 | MEDIUM VOLTAGE CIRCUIT BREAKER FOR UAT B Y-WINDING FAILS TO OPEN |
| R11-MCB-CC-CCFNORM_ALL | 2.00E-04 | 3.97E-06 | 1.02 | CCF of all components in group 'R11-MCB-CC-CCFNORM' |

## Table 14-5

## High Winds Full-Power Importance Measure Report

| F-V and RAW Importance Measures Report<br>(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09 | | | | |
|---|---|---|---|---|
| R11-MCB-OO-A3DGA | 2.40E-03 | 4.24E-05 | 1.02 | MEDIUM VOLTAGE CIRCUIT BREAKER FOR DG-A FAILS TO CLOSE |
| R11-MCB-OO-B3DGA | 2.40E-03 | 4.24E-05 | 1.02 | MEDIUM VOLTAGE CIRCUIT BREAKER FOR DG-B FAILS TO CLOSE |
| R11-MCB-OO-CCFALT_ALL | 1.20E-04 | 2.48E-06 | 1.02 | CCF of all components in group 'R11-MCB-OO-CCFALT' |
| R11-RE_-FO-SYNC00A3 | 8.76E-04 | 1.44E-05 | 1.02 | SYNC RELAY FOR 1000A3 FAILS TO OPERATE |
| R11-RE_-FO-SYNC00B3 | 8.76E-04 | 1.44E-05 | 1.02 | SYNC RELAY FOR 1000B3 FAILS TO OPERATE |
| R11-RE_-FO-UV00A3 | 8.76E-04 | 1.44E-05 | 1.02 | 1000A3 UV RELAY FAILS TO OPERATE ON UV COND |
| R11-RE_-FO-UV00B3 | 8.76E-04 | 1.44E-05 | 1.02 | 1000B3 UV RELAY FAILS TO OPERATE ON UV COND |
| R13-INV-FC-CCFNSR_1_3 | 3.16E-06 | 1.97E-05 | 7.16 | CCF of two components: R13-INV-FC-R13A1 & R13-INV-FC-R13B1 |
| R13-INV-FC-CCFNSR_1_3_5 | 2.11E-07 | 2.53E-04 | 1.20E+03 | CCF of three components: R13-INV-FC-R13A1 & R13-INV-FC-R13B1 & R13-INV-FC-R13C |
| R13-INV-FC-CCFNSR_1_5 | 3.16E-06 | 5.46E-06 | 2.7 | CCF of two components: R13-INV-FC-R13A1 & R13-INV-FC-R13C |
| R13-INV-FC-CCFNSR_3_5 | 3.16E-06 | 5.46E-06 | 2.7 | CCF of two components: R13-INV-FC-R13B1 & R13-INV-FC-R13C |
| R13-INV-FC-CCFNSR_ALL | 1.14E-05 | 1.37E-02 | 1.21E+03 | CCF of all components in group 'R13-INV-FC-CCFNSR' |
| R13-INV-FC-CCFSR_ALL | 1.14E-05 | 1.33E-02 | 1.16E+03 | CCF of all components in group 'R13-INV-FC-CCFSR' |
| R13-INV-FC-R13A1 | 4.80E-04 | 1.82E-06 | 1 | INVERTER TO R13-A1 FAILS |
| R13-INV-FC-R13B1 | 4.80E-04 | 1.82E-06 | 1 | INVERTER TO R13-B1 FAILS |
| R13-INV-FC-R13C | 4.80E-04 | 1.82E-06 | 1 | INVERTER TO R13-C FAILS |
| R16-BDC-TM-R16A1 | 5.00E-04 | 1.82E-06 | 1 | DC BUS R16-A1 IN MAINTENANCE |
| R16-BDC-TM-R16A3 | 5.00E-04 | 7.45E-06 | 1.01 | DC BUS R16-A3 IN MAINTENANCE |
| R16-BDC-TM-R16B1 | 5.00E-04 | 1.82E-06 | 1 | DC BUS R16-B1 IN MAINTENANCE |
| R16-BDC-TM-R16B3 | 5.00E-04 | 7.45E-06 | 1.01 | DC BUS R16-B3 IN MAINTENANCE |
| R16-BDC-TM-R16C | 5.00E-04 | 1.82E-06 | 1 | DC BUS R16-C IN MAINTENANCE |
| R16-BT_-LP-CCFNSR_1_3_5 | 7.54E-09 | 8.61E-06 | 1.13E+03 | CCF of three components: R16-BT_-LP-R16BTA1 & R16-BT_-LP-R16BTB1 & R16-BT_-LP-R1 |
| R16-BT_-LP-CCFNSR_ALL | 4.07E-07 | 4.90E-04 | 1.20E+03 | CCF of all components in group 'R16-BT_-LP-CCFNSR' |

## Table 14-5

## High Winds Full-Power Importance Measure Report

| F-V and RAW Importance Measures Report<br>(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09 | | | | |
|---|---|---|---|---|
| R16-BT_-LP-CCFSR_ALL | 4.07E-07 | 3.26E-04 | 789.54 | CCF of all components in group 'R16-BT_-LP-CCFSR' |
| R16-BT_-TM-R16BTA1 | 5.00E-04 | 1.82E-06 | 1 | BATTERY R16-BTA1 IN TEST AND MAINTENANCE |
| R16-BT_-TM-R16BTA3 | 5.00E-04 | 7.45E-06 | 1.01 | BATTERY R16-BTA3 IN TEST AND MAINTENANCE |
| R16-BT_-TM-R16BTB1 | 5.00E-04 | 1.82E-06 | 1 | BATTERY R16-BTB1 IN TEST AND MAINTENANCE |
| R16-BT_-TM-R16BTB3 | 5.00E-04 | 7.45E-06 | 1.01 | BATTERY R16-BTB3 IN TEST AND MAINTENANCE |
| R16-BT_-TM-R16BTC | 5.00E-04 | 1.82E-06 | 1 | BATTERY R16-BTC IN TEST AND MAINTENANCE |
| R21-AHU-FR-3A | 2.40E-04 | 3.15E-06 | 1.01 | AIR HANDLING UNIT FAILS TO RUN |
| R21-AHU-FR-3B | 2.40E-04 | 3.15E-06 | 1.01 | AIR HANDLING UNIT FAILS TO RUN |
| R21-AHU-FS-3A | 6.00E-03 | 1.08E-04 | 1.02 | AIR HANDLING UNIT FAILS TO START |
| R21-AHU-FS-3B | 6.00E-03 | 1.08E-04 | 1.02 | AIR HANDLING UNIT FAILS TO START |
| R21-AHU-FS-AHU3_1_2 | 6.67E-04 | 1.94E-05 | 1.03 | CCF of two components: R21-AHU-FS-3A & R21-AHU-FS-3B |
| R21-DG_-FR-CCF_1_2 | 4.54E-03 | 2.65E-04 | 1.06 | CCF of two components: R21-DG_-FR-DGA & R21-DG_-FR-DGB |
| R21-DG_-FR-DGA | 5.76E-02 | 1.42E-03 | 1.02 | DIESEL GENERATOR "A" FAILS TO RUN GIVEN START |
| R21-DG_-FR-DGB | 5.76E-02 | 1.39E-03 | 1.02 | DIESEL GENERATOR "B" FAILS TO RUN GIVEN START |
| R21-DG_-FS-CCF_1_2 | 2.86E-04 | 7.45E-06 | 1.03 | CCF of two components: R21-DG_-FS-DGA & R21-DG_-FS-DGB |
| R21-DG_-FS-DGA | 1.40E-02 | 2.74E-04 | 1.02 | DG-A FAILS TO START AND LOAD |
| R21-DG_-FS-DGB | 1.40E-02 | 2.71E-04 | 1.02 | DG-B FAILS TO START AND LOAD |
| R21-DG_-TM-DGA | 4.60E-02 | 1.04E-03 | 1.02 | STANDBY DIESEL GENERATOR "A" IN MAINTENANCE |
| R21-DG_-TM-DGB | 4.60E-02 | 1.02E-03 | 1.02 | STANDBY DIESEL GENERATOR "B" IN MAINTENANCE |
| R21-FAN-FR-10A | 2.40E-04 | 3.15E-06 | 1.01 | BLOWER/VENTILATION FAN FAILS TO RUN |
| R21-FAN-FR-10B | 2.40E-04 | 3.15E-06 | 1.01 | BLOWER/VENTILATION FAN FAILS TO RUN |
| R21-FAN-FR-11A | 2.40E-04 | 3.15E-06 | 1.01 | BLOWER/VENTILATION FAN FAILS TO RUN |
| R21-FAN-FR-11B | 2.40E-04 | 3.15E-06 | 1.01 | BLOWER/VENTILATION FAN FAILS TO RUN |

## Table 14-5

## High Winds Full-Power Importance Measure Report

| F-V and RAW Importance Measures Report<br>(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09 | | | | |
|---|---|---|---|---|
| R21-FAN-FR-12A | 2.40E-04 | 3.15E-06 | 1.01 | BLOWER/VENTILATION FAN FAILS TO RUN |
| R21-FAN-FR-12B | 2.40E-04 | 3.15E-06 | 1.01 | BLOWER/VENTILATION FAN FAILS TO RUN |
| R21-FAN-FR-AHU2A | 2.40E-04 | 3.15E-06 | 1.01 | DG-A NORMAL VENTILATION FAN FAILS TO RUN |
| R21-FAN-FR-AHU2B | 2.40E-04 | 3.15E-06 | 1.01 | BLOWER/VENTILATION FAN FAILS TO RUN |
| R21-FAN-FS-10A | 6.00E-04 | 8.94E-06 | 1.01 | BLOWER/VENTILATION FAN FAILS TO START |
| R21-FAN-FS-10B | 6.00E-04 | 8.94E-06 | 1.01 | BLOWER/VENTILATION FAN FAILS TO START |
| R21-FAN-FS-11A | 6.00E-04 | 8.94E-06 | 1.01 | BLOWER/VENTILATION FAN FAILS TO START |
| R21-FAN-FS-11B | 6.00E-04 | 8.94E-06 | 1.01 | BLOWER/VENTILATION FAN FAILS TO START |
| R21-FAN-FS-12A | 6.00E-04 | 8.94E-06 | 1.01 | BLOWER/VENTILATION FAN FAILS TO START |
| R21-FAN-FS-12B | 6.00E-04 | 8.94E-06 | 1.01 | BLOWER/VENTILATION FAN FAILS TO START |
| R21-FLT-PG-DGA | 3.60E-03 | 6.44E-05 | 1.02 | FILTER PLUGGED |
| R21-FLT-PG-DGB | 3.60E-03 | 6.44E-05 | 1.02 | FILTER PLUGGED |
| R21-MCB-CC-1LOAD1 | 5.00E-04 | 7.45E-06 | 1.01 | CIRCUIT BREAKER TO LOAD 1 FAILS TO OPEN |
| R21-MCB-CC-1LOAD2 | 5.00E-04 | 7.45E-06 | 1.01 | CIRCUIT BREAKER TO LOAD 2 FAILS TO OPEN |
| R21-MCB-CC-1LOAD3 | 5.00E-04 | 7.45E-06 | 1.01 | CIRCUIT BREAKER TO LOAD 3 FAILS TO OPEN |
| R21-MCB-CC-1LOAD4 | 5.00E-04 | 7.45E-06 | 1.01 | CIRCUIT BREAKER TO LOAD 4 FAILS TO OPEN |
| R21-MCB-CC-1LOAD5 | 5.00E-04 | 7.45E-06 | 1.01 | CIRCUIT BREAKER TO LOAD 5 FAILS TO OPEN |
| R21-MCB-CC-2LOAD1 | 5.00E-04 | 7.45E-06 | 1.01 | CIRCUIT BREAKER TO LOAD 1 FAILS TO OPEN |
| R21-MCB-CC-2LOAD2 | 5.00E-04 | 7.45E-06 | 1.01 | CIRCUIT BREAKER TO LOAD 2 FAILS TO OPEN |
| R21-MCB-CC-2LOAD3 | 5.00E-04 | 7.45E-06 | 1.01 | CIRCUIT BREAKER TO LOAD 3 FAILS TO OPEN |
| R21-MCB-CC-2LOAD4 | 5.00E-04 | 7.45E-06 | 1.01 | CIRCUIT BREAKER TO LOAD 4 FAILS TO OPEN |
| R21-MCB-CC-2LOAD5 | 5.00E-04 | 7.45E-06 | 1.01 | CIRCUIT BREAKER TO LOAD 5 FAILS TO OPEN |
| R21-MOD-CC-1_1_2 | 3.33E-04 | 8.77E-06 | 1.03 | CCF of two components: R21-MOD-CC-1A & R21-MOD-CC-1B |

## Table 14-5

## High Winds Full-Power Importance Measure Report

| F-V and RAW Importance Measures Report<br>(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09 | | | | |
|---|---|---|---|---|
| R21-MOD-CC-1A | 3.00E-03 | 5.30E-05 | 1.02 | MOTOR-OPERATED DAMPER FAILS TO OPEN |
| R21-MOD-CC-1B | 3.00E-03 | 5.30E-05 | 1.02 | MOTOR-OPERATED DAMPER FAILS TO OPEN |
| R21-MOD-CC-2A | 3.00E-03 | 5.30E-05 | 1.02 | MOTOR-OPERATED DAMPER FAILS TO OPEN |
| R21-MOD-CC-2B | 3.00E-03 | 5.30E-05 | 1.02 | MOTOR-OPERATED DAMPER FAILS TO OPEN |
| R21-MOD-CC-3A | 3.00E-03 | 5.30E-05 | 1.02 | MOTOR-OPERATED DAMPER FAILS TO OPEN |
| R21-MOD-CC-3B | 3.00E-03 | 5.30E-05 | 1.02 | MOTOR-OPERATED DAMPER FAILS TO OPEN |
| R21-MOD-CC-4A | 3.00E-03 | 5.30E-05 | 1.02 | MOTOR-OPERATED DAMPER FAILS TO OPEN |
| R21-MOD-CC-4B | 3.00E-03 | 5.30E-05 | 1.02 | MOTOR-OPERATED DAMPER FAILS TO OPEN |
| R21-MOD-CC-5A | 3.00E-03 | 5.30E-05 | 1.02 | MOTOR-OPERATED DAMPER FAILS TO OPEN |
| R21-MOD-CC-5B | 3.00E-03 | 5.30E-05 | 1.02 | MOTOR-OPERATED DAMPER FAILS TO OPEN |
| R21-MOD-CC-6A | 3.00E-03 | 5.30E-05 | 1.02 | MOTOR-OPERATED DAMPER FAILS TO OPEN |
| R21-MOD-CC-6B | 3.00E-03 | 5.30E-05 | 1.02 | MOTOR-OPERATED DAMPER FAILS TO OPEN |
| R21-MP_-FS-FOPUMP_ALL | 1.00E-04 | 1.32E-06 | 1.01 | CCF of all components in group 'R21-MP_-FS-FOPUMP' |
| R21-TRN-RE-FODG1A | 2.42E-02 | 8.44E-06 | 1 | FAILURE TO RESTORE FUEL OIL TRANSFER TRAIN 1 FOR DG-A |
| R21-TRN-RE-FODG1B | 2.42E-02 | 8.44E-06 | 1 | FAILURE TO RESTORE FUEL OIL TRANSFER TRAIN 1 FOR DG-B |
| R21-TRN-RE-FODG2A | 2.42E-02 | 8.44E-06 | 1 | FAILURE TO RESTORE FUEL OIL TRANSFER TRAIN 2 FOR DG-A |
| R21-TRN-RE-FODG2B | 2.42E-02 | 8.44E-06 | 1 | FAILURE TO RESTORE FUEL OIL TRANSFER TRAIN 2 FOR DG-B |
| T10-UV_-CC-VBISVS_1_2_3 | 5.23E-07 | 1.83E-03 | 3.49E+03 | CCF of three components: T10-UV_-CC-ISV1 & T10-UV_-CC-ISV2 & T10-UV_-CC-ISV3 |
| T10-UV_-OO-ISV1 | 1.00E-03 | 1.99E-06 | 1 | BACKUP VALVE 1 FAILS TO CLOSE |
| T10-UV_-OO-ISV2 | 1.00E-03 | 1.99E-06 | 1 | BACKUP VALVE 2 FAILS TO CLOSE |
| T10-UV_-OO-ISV3 | 1.00E-03 | 1.99E-06 | 1 | BACKUP VALVE 3 FAILS TO CLOSE |
| T10-VB_-CC_1_2_3 | 4.19E-07 | 1.46E-03 | 3.47E+03 | CCF of three components: T10-VB_-CC-VB1 & T10-VB_-CC-VB2 & T10-VB_-CC-VB3 |
| T10-VB_-LK-VB1 | 1.00E-04 | 1.99E-06 | 1.02 | PROBABILITY OF LEAK IN VACUUM BREAKER 1 |

## Table 14-5

## High Winds Full-Power Importance Measure Report

| F-V and RAW Importance Measures Report<br>(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)<br>High Winds Full Power<br>Core Damage Frequency = 1.34E-09 | | | | |
|---|---|---|---|---|
| T10-VB_-LK-VB2 | 1.00E-04 | 1.99E-06 | 1.02 | PROBABILITY OF LEAK IN VACUUM BREAKER 2 |
| T10-VB_-LK-VB3 | 1.00E-04 | 1.99E-06 | 1.02 | PROBABILITY OF LEAK IN VACUUM BREAKER 3 |
| T15-FLT-PP_ALL | 5.68E-07 | 5.28E-05 | 92.46 | CCF of all components in group 'T15-FLT-PP' |
| U43-BV_-CC-F346 | 4.00E-04 | 9.93E-07 | 1 | MANUAL VALVE FAILS TO OPEN |
| U43-BV_-CC-FU439 | 4.00E-04 | 9.93E-07 | 1 | MANUAL VALVE FAILS TO OPEN |
| U43-EDP-FR_1_2 | 1.36E-03 | 4.21E-05 | 1.03 | CCF of two components: U43-EDP-FR-P1A & U43-EDP-FR-P2A |
| U43-EDP-FR-P1A | 2.40E-02 | 7.12E-06 | 1 | DIESEL-DRIVEN PUMP FAILS TO RUN |
| U43-EDP-FR-P2A | 2.40E-02 | 6.29E-06 | 1 | DIESEL-DRIVEN PUMP FAILS TO RUN |
| U43-EDP-FS_1_2 | 2.22E-03 | 1.03E-04 | 1.04 | CCF of two components: U43-EDP-FS-P1A & U43-EDP-FS-P2A |
| U43-EDP-FS-P1A | 2.00E-02 | 2.98E-06 | 1 | DIESEL-DRIVEN PUMP FAILS TO START |
| U43-EDP-FS-P2A | 2.00E-02 | 2.98E-06 | 1 | DIESEL-DRIVEN PUMP 2A FAILS TO START |
| U43-UV_-CC-F347 | 4.00E-04 | 9.93E-07 | 1 | CHECK VALVE F347 FAILS TO OPEN |
| U43-UV_-CC-FU438 | 4.00E-04 | 9.93E-07 | 1 | CHECK VALVE FAILS TO OPEN |
| U43-XHE-FO-2ND | 1.61E-02 | 8.28E-07 | 1 | OPERATOR FAILS TO ALIGN FPS CROSSTIE |
| U43-XHE-FO-LPCI | 1.61E-03 | 6.16E-05 | 1.04 | OPERATOR FAILS TO ACTUATE U43 IN LPCI MODE |
| XXX-XHE-FO-DEPRESS | 1.61E-01 | 1.07E-01 | 1.56 | OPERATOR FAILS TO RECOGNIZE NEED OF DEPRESSURIZATION |
| XXX-XHE-FO-LPMAKEUP | 1.61E-01 | 2.67E-01 | 2.39 | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |

## Table 14-6

## High Winds Shutdown Importance Measure Report

**F-V and RAW Importance Measures Report**
**(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**

| Event Name | Probability | Fus Ves | RAW | Description |
|---|---|---|---|---|
| B21-SQV-CC_ALL | 1.50E-04 | 6.08E-01 | 4.06E+03 | CCF of all components in group 'B21-SQV-CC' |
| B21-UV_-CC-F102A | 1.00E-04 | 3.69E-04 | 4.64 | CHECK VALVE F102A IN FEEDWATER LINE A FAILS TO OPEN |
| B21-UV_-CC-F103A | 1.00E-04 | 3.69E-04 | 4.64 | CHECK VALVE F103A IN FEEDWATER LINE A FAILS TO OPEN |
| B32-HX_-PG_1_2 | 3.43E-07 | 3.15E-05 | 91.88 | CCF of two components: B32-HX_-PG-HX001A & B32-HX_-PG-HX001B |
| B32-HX_-PG_1_3 | 3.43E-07 | 3.15E-05 | 91.88 | CCF of two components: B32-HX_-PG-HX001A & B32-HX_-PG-HX001C |
| B32-HX_-PG_1_4 | 3.43E-07 | 3.15E-05 | 91.88 | CCF of two components: B32-HX_-PG-HX001A & B32-HX_-PG-HX001D |
| B32-HX_-PG_1_5 | 3.43E-07 | 3.15E-05 | 91.88 | CCF of two components: B32-HX_-PG-HX001A & B32-HX_-PG-HX002A |
| B32-HX_-PG_1_6 | 3.43E-07 | 3.15E-05 | 91.88 | CCF of two components: B32-HX_-PG-HX001A & B32-HX_-PG-HX002B |
| B32-HX_-PG_1_7 | 3.43E-07 | 3.15E-05 | 91.88 | CCF of two components: B32-HX_-PG-HX001A & B32-HX_-PG-HX002C |
| B32-HX_-PG_1_8 | 3.43E-07 | 3.15E-05 | 91.88 | CCF of two components: B32-HX_-PG-HX001A & B32-HX_-PG-HX002D |
| B32-HX_-PG_2_3 | 3.43E-07 | 3.15E-05 | 91.88 | CCF of two components: B32-HX_-PG-HX001B & B32-HX_-PG-HX001C |
| B32-HX_-PG_2_4 | 3.43E-07 | 3.15E-05 | 91.88 | CCF of two components: B32-HX_-PG-HX001B & B32-HX_-PG-HX001D |
| B32-HX_-PG_2_5 | 3.43E-07 | 3.15E-05 | 91.88 | CCF of two components: B32-HX_-PG-HX001B & B32-HX_-PG-HX002A |
| B32-HX_-PG_2_6 | 3.43E-07 | 3.15E-05 | 91.88 | CCF of two components: B32-HX_-PG-HX001B & B32-HX_-PG-HX002B |
| B32-HX_-PG_2_7 | 3.43E-07 | 3.15E-05 | 91.88 | CCF of two components: B32-HX_-PG-HX001B & B32-HX_-PG-HX002C |
| B32-HX_-PG_2_8 | 3.43E-07 | 3.15E-05 | 91.88 | CCF of two components: B32-HX_-PG-HX001B & B32-HX_-PG-HX002D |
| B32-HX_-PG_3_5 | 3.43E-07 | 3.15E-05 | 91.88 | CCF of two components: B32-HX_-PG-HX001C & B32-HX_-PG-HX002A |
| B32-HX_-PG_3_6 | 3.43E-07 | 3.15E-05 | 91.88 | CCF of two components: B32-HX_-PG-HX001C & B32-HX_-PG-HX002B |

## Table 14-6

## High Winds Shutdown Importance Measure Report

**F-V and RAW Importance Measures Report**
**(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**

| | | | | |
|---|---|---|---|---|
| B32-HX_-PG_4_5 | 3.43E-07 | 3.15E-05 | 91.88 | CCF of two components: B32-HX_-PG-HX001D & B32-HX_-PG-HX002A |
| B32-HX_-PG_4_6 | 3.43E-07 | 3.15E-05 | 91.88 | CCF of two components: B32-HX_-PG-HX001D & B32-HX_-PG-HX002B |
| B32-HX_-PG_5_6 | 3.43E-07 | 3.15E-05 | 91.88 | CCF of two components: B32-HX_-PG-HX002A & B32-HX_-PG-HX002B |
| B32-HX_-PG_5_7 | 3.43E-07 | 3.15E-05 | 91.88 | CCF of two components: B32-HX_-PG-HX002A & B32-HX_-PG-HX002C |
| B32-HX_-PG_5_8 | 3.43E-07 | 3.15E-05 | 91.88 | CCF of two components: B32-HX_-PG-HX002A & B32-HX_-PG-HX002D |
| B32-HX_-PG_6_7 | 3.43E-07 | 3.15E-05 | 91.88 | CCF of two components: B32-HX_-PG-HX002B & B32-HX_-PG-HX002C |
| B32-HX_-PG_6_8 | 3.43E-07 | 3.15E-05 | 91.88 | CCF of two components: B32-HX_-PG-HX002B & B32-HX_-PG-HX002D |
| B32-HX_-PG_ALL | 2.67E-08 | 1.12E-06 | 42.98 | CCF of all components in group 'B32-HX_-PG' |
| B32-HX_-PG-HX001A | 2.40E-05 | 2.65E-03 | 111.06 | Heat Exchanger HX001A Plugs |
| B32-HX_-PG-HX001B | 2.40E-05 | 2.65E-03 | 111.06 | Heat Exchanger HX001B Plugs |
| B32-HX_-PG-HX002A | 2.40E-05 | 2.65E-03 | 111.06 | Heat Exchanger HX002A Plugs |
| B32-HX_-PG-HX002B | 2.40E-05 | 2.65E-03 | 111.06 | Heat Exchanger HX002B Plugs |
| B32-NMO-OC-F001A | 2.40E-06 | 2.56E-04 | 107.17 | F001A Spuriously closes |
| B32-NMO-OC-F001B | 2.40E-06 | 2.56E-04 | 107.17 | Nitrogen Motor Operated Valve Transfers Closed |
| B32-NMO-OC-F004A | 2.40E-06 | 2.56E-04 | 107.17 | F004A Spuriously closes |
| B32-NMO-OC-F004B | 2.40E-06 | 2.56E-04 | 107.17 | Nitrogen Motor Operated Valve Transfers Closed |
| B32-NONCONDENSE | 1.00E+00 | 6.35E-02 | 1 | Non condensable gasses form in ICS sufficiently to require venting |
| B32-NPO-CC_1_2_5 | 2.78E-08 | 1.31E-06 | 44.66 | CCF of three components: B32-NPO-CC-F005A & B32-NPO-CC-F005B & B32-NPO-CC-F006A |
| B32-NPO-CC_1_2_6 | 2.78E-08 | 1.31E-06 | 44.66 | CCF of three components: B32-NPO-CC-F005A & B32-NPO-CC-F005B & B32-NPO-CC-F006B |
| B32-NPO-CC_1_3_5 | 2.78E-08 | 1.31E-06 | 44.66 | CCF of three components: B32-NPO-CC-F005A & B32-NPO-CC-F005C & B32-NPO-CC-F006A |
| B32-NPO-CC_1_4_5 | 2.78E-08 | 1.31E-06 | 44.66 | CCF of three components: B32-NPO-CC-F005A & B32-NPO-CC-F005D & B32-NPO-CC-F006A |
| B32-NPO-CC_1_5 | 1.11E-06 | 1.13E-04 | 102.37 | CCF of two components: B32-NPO-CC-F005A & B32-NPO-CC-F006A |
| B32-NPO-CC_1_5_10 | 2.78E-08 | 1.31E-06 | 44.66 | CCF of three components: B32-NPO-CC-F005A & B32-NPO-CC-F006A & B32-NPO-CC-F104D |

## Table 14-6

## High Winds Shutdown Importance Measure Report

**F-V and RAW Importance Measures Report**
**(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**

| | | | | |
|---|---|---|---|---|
| B32-NPO-CC_1_5_6 | 2.78E-08 | 1.31E-06 | 44.66 | CCF of three components: B32-NPO-CC-F005A & B32-NPO-CC-F006A & B32-NPO-CC-F006B |
| B32-NPO-CC_1_5_7 | 2.78E-08 | 1.31E-06 | 44.66 | CCF of three components: B32-NPO-CC-F005A & B32-NPO-CC-F006A & B32-NPO-CC-F006C |
| B32-NPO-CC_1_5_8 | 2.78E-08 | 1.31E-06 | 44.66 | CCF of three components: B32-NPO-CC-F005A & B32-NPO-CC-F006A & B32-NPO-CC-F006D |
| B32-NPO-CC_1_5_9 | 2.78E-08 | 1.31E-06 | 44.66 | CCF of three components: B32-NPO-CC-F005A & B32-NPO-CC-F006A & B32-NPO-CC-F104C |
| B32-NPO-CC_2_3_6 | 2.78E-08 | 1.31E-06 | 44.66 | CCF of three components: B32-NPO-CC-F005B & B32-NPO-CC-F005C & B32-NPO-CC-F006B |
| B32-NPO-CC_2_4_6 | 2.78E-08 | 1.31E-06 | 44.66 | CCF of three components: B32-NPO-CC-F005B & B32-NPO-CC-F005D & B32-NPO-CC-F006B |
| B32-NPO-CC_2_5_6 | 2.78E-08 | 1.31E-06 | 44.66 | CCF of three components: B32-NPO-CC-F005B & B32-NPO-CC-F006A & B32-NPO-CC-F006B |
| B32-NPO-CC_2_6 | 1.11E-06 | 1.13E-04 | 102.37 | CCF of two components: B32-NPO-CC-F005B & B32-NPO-CC-F006B |
| B32-NPO-CC_2_6_10 | 2.78E-08 | 1.31E-06 | 44.66 | CCF of three components: B32-NPO-CC-F005B & B32-NPO-CC-F006B & B32-NPO-CC-F104D |
| B32-NPO-CC_2_6_7 | 2.78E-08 | 1.31E-06 | 44.66 | CCF of three components: B32-NPO-CC-F005B & B32-NPO-CC-F006B & B32-NPO-CC-F006C |
| B32-NPO-CC_2_6_8 | 2.78E-08 | 1.31E-06 | 44.66 | CCF of three components: B32-NPO-CC-F005B & B32-NPO-CC-F006B & B32-NPO-CC-F006D |
| B32-NPO-CC_2_6_9 | 2.78E-08 | 1.31E-06 | 44.66 | CCF of three components: B32-NPO-CC-F005B & B32-NPO-CC-F006B & B32-NPO-CC-F104C |
| B32-NPO-CC_ALL | 1.11E-07 | 7.84E-06 | 69.86 | CCF of all components in group 'B32-NPO-CC' |
| B32-NPO-OC-F002A | 2.40E-06 | 2.56E-04 | 107.17 | F002A Spuriously closes |
| B32-NPO-OC-F002B | 2.40E-06 | 2.56E-04 | 107.17 | F002B Spuriously closes |
| B32-NPO-OC-F003A | 2.40E-06 | 2.56E-04 | 107.17 | F003A Spuriously closes |
| B32-NPO-OC-F003B | 2.40E-06 | 2.56E-04 | 107.17 | F003B Spuriously closes |
| B32-SOV-FE_1_10_18 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F007A & B32-SOV-FE-F009B & B32-SOV-FE-F011B |
| B32-SOV-FE_1_10_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F007A & B32-SOV-FE-F009B & B32-SOV-FE-F012B |
| B32-SOV-FE_1_13_17 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F007A & B32-SOV-FE-F010A & B32-SOV-FE-F011A |
| B32-SOV-FE_1_13_21 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F007A & B32-SOV-FE-F010A & B32-SOV-FE-F012A |
| B32-SOV-FE_1_14_18 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F007A & B32-SOV-FE-F010B & B32-SOV-FE-F011B |
| B32-SOV-FE_1_14_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F007A & B32-SOV-FE-F010B & B32-SOV-FE-F012B |

## Table 14-6

## High Winds Shutdown Importance Measure Report

**F-V and RAW Importance Measures Report**
**(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**

| | | | | |
|---|---|---|---|---|
| B32-SOV-FE_1_9_17 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F007A & B32-SOV-FE-F009A & B32-SOV-FE-F011A |
| B32-SOV-FE_1_9_21 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F007A & B32-SOV-FE-F009A & B32-SOV-FE-F012A |
| B32-SOV-FE_10_11_18 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009B & B32-SOV-FE-F009C & B32-SOV-FE-F011B |
| B32-SOV-FE_10_11_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009B & B32-SOV-FE-F009C & B32-SOV-FE-F012B |
| B32-SOV-FE_10_12_18 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009B & B32-SOV-FE-F009D & B32-SOV-FE-F011B |
| B32-SOV-FE_10_12_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009B & B32-SOV-FE-F009D & B32-SOV-FE-F012B |
| B32-SOV-FE_10_13_17 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009B & B32-SOV-FE-F010A & B32-SOV-FE-F011A |
| B32-SOV-FE_10_13_18 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009B & B32-SOV-FE-F010A & B32-SOV-FE-F011B |
| B32-SOV-FE_10_13_21 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009B & B32-SOV-FE-F010A & B32-SOV-FE-F012A |
| B32-SOV-FE_10_13_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009B & B32-SOV-FE-F010A & B32-SOV-FE-F012B |
| B32-SOV-FE_10_14_18 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009B & B32-SOV-FE-F010B & B32-SOV-FE-F011B |
| B32-SOV-FE_10_14_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009B & B32-SOV-FE-F010B & B32-SOV-FE-F012B |
| B32-SOV-FE_10_15_18 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009B & B32-SOV-FE-F010C & B32-SOV-FE-F011B |
| B32-SOV-FE_10_15_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009B & B32-SOV-FE-F010C & B32-SOV-FE-F012B |
| B32-SOV-FE_10_16_18 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009B & B32-SOV-FE-F010D & B32-SOV-FE-F011B |
| B32-SOV-FE_10_16_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009B & B32-SOV-FE-F010D & B32-SOV-FE-F012B |
| B32-SOV-FE_10_17_18 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009B & B32-SOV-FE-F011A & B32-SOV-FE-F011B |
| B32-SOV-FE_10_17_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009B & B32-SOV-FE-F011A & B32-SOV-FE-F012B |
| B32-SOV-FE_10_18 | 4.35E-06 | 4.69E-04 | 108.53 | CCF of two components: B32-SOV-FE-F009B & B32-SOV-FE-F011B |
| B32-SOV-FE_10_18_19 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009B & B32-SOV-FE-F011B & B32-SOV-FE-F011C |
| B32-SOV-FE_10_18_20 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009B & B32-SOV-FE-F011B & B32-SOV-FE-F011D |
| B32-SOV-FE_10_18_21 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009B & B32-SOV-FE-F011B & B32-SOV-FE-F012A |
| B32-SOV-FE_10_18_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009B & B32-SOV-FE-F011B & B32-SOV-FE-F012B |

## Table 14-6

## High Winds Shutdown Importance Measure Report

**F-V and RAW Importance Measures Report**
**(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**

| | | | | |
|---|---|---|---|---|
| B32-SOV-FE_10_18_23 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009B & B32-SOV-FE-F011B & B32-SOV-FE-F012C |
| B32-SOV-FE_10_18_24 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009B & B32-SOV-FE-F011B & B32-SOV-FE-F012D |
| B32-SOV-FE_10_19_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009B & B32-SOV-FE-F011C & B32-SOV-FE-F012B |
| B32-SOV-FE_10_20_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009B & B32-SOV-FE-F011D & B32-SOV-FE-F012B |
| B32-SOV-FE_10_21_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009B & B32-SOV-FE-F012A & B32-SOV-FE-F012B |
| B32-SOV-FE_10_22 | 4.35E-06 | 4.69E-04 | 108.53 | CCF of two components: B32-SOV-FE-F009B & B32-SOV-FE-F012B |
| B32-SOV-FE_10_22_23 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009B & B32-SOV-FE-F012B & B32-SOV-FE-F012C |
| B32-SOV-FE_10_22_24 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009B & B32-SOV-FE-F012B & B32-SOV-FE-F012D |
| B32-SOV-FE_11_13_17 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009C & B32-SOV-FE-F010A & B32-SOV-FE-F011A |
| B32-SOV-FE_11_13_21 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009C & B32-SOV-FE-F010A & B32-SOV-FE-F012A |
| B32-SOV-FE_11_14_18 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009C & B32-SOV-FE-F010B & B32-SOV-FE-F011B |
| B32-SOV-FE_11_14_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009C & B32-SOV-FE-F010B & B32-SOV-FE-F012B |
| B32-SOV-FE_12_13_17 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009D & B32-SOV-FE-F010A & B32-SOV-FE-F011A |
| B32-SOV-FE_12_13_21 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009D & B32-SOV-FE-F010A & B32-SOV-FE-F012A |
| B32-SOV-FE_12_14_18 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009D & B32-SOV-FE-F010B & B32-SOV-FE-F011B |
| B32-SOV-FE_12_14_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009D & B32-SOV-FE-F010B & B32-SOV-FE-F012B |
| B32-SOV-FE_13_14_17 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F010A & B32-SOV-FE-F010B & B32-SOV-FE-F011A |
| B32-SOV-FE_13_14_18 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F010A & B32-SOV-FE-F010B & B32-SOV-FE-F011B |
| B32-SOV-FE_13_14_21 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F010A & B32-SOV-FE-F010B & B32-SOV-FE-F012A |
| B32-SOV-FE_13_14_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F010A & B32-SOV-FE-F010B & B32-SOV-FE-F012B |
| B32-SOV-FE_13_15_17 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F010A & B32-SOV-FE-F010C & B32-SOV-FE-F011A |
| B32-SOV-FE_13_15_21 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F010A & B32-SOV-FE-F010C & B32-SOV-FE-F012A |
| B32-SOV-FE_13_16_17 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F010A & B32-SOV-FE-F010D & B32-SOV-FE-F011A |

## Table 14-6

## High Winds Shutdown Importance Measure Report

**F-V and RAW Importance Measures Report**
**(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**

| | | | | |
|---|---|---|---|---|
| B32-SOV-FE_13_16_21 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F010A & B32-SOV-FE-F010D & B32-SOV-FE-F012A |
| B32-SOV-FE_13_17 | 4.35E-06 | 4.69E-04 | 108.53 | CCF of two components: B32-SOV-FE-F010A & B32-SOV-FE-F011A |
| B32-SOV-FE_13_17_18 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F010A & B32-SOV-FE-F011A & B32-SOV-FE-F011B |
| B32-SOV-FE_13_17_19 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F010A & B32-SOV-FE-F011A & B32-SOV-FE-F011C |
| B32-SOV-FE_13_17_20 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F010A & B32-SOV-FE-F011A & B32-SOV-FE-F011D |
| B32-SOV-FE_13_17_21 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F010A & B32-SOV-FE-F011A & B32-SOV-FE-F012A |
| B32-SOV-FE_13_17_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F010A & B32-SOV-FE-F011A & B32-SOV-FE-F012B |
| B32-SOV-FE_13_17_23 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F010A & B32-SOV-FE-F011A & B32-SOV-FE-F012C |
| B32-SOV-FE_13_17_24 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F010A & B32-SOV-FE-F011A & B32-SOV-FE-F012D |
| B32-SOV-FE_13_18_21 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F010A & B32-SOV-FE-F011B & B32-SOV-FE-F012A |
| B32-SOV-FE_13_19_21 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F010A & B32-SOV-FE-F011C & B32-SOV-FE-F012A |
| B32-SOV-FE_13_20_21 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F010A & B32-SOV-FE-F011D & B32-SOV-FE-F012A |
| B32-SOV-FE_13_21 | 4.35E-06 | 4.69E-04 | 108.53 | CCF of two components: B32-SOV-FE-F010A & B32-SOV-FE-F012A |
| B32-SOV-FE_13_21_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F010A & B32-SOV-FE-F012A & B32-SOV-FE-F012B |
| B32-SOV-FE_13_21_23 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F010A & B32-SOV-FE-F012A & B32-SOV-FE-F012C |
| B32-SOV-FE_13_21_24 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F010A & B32-SOV-FE-F012A & B32-SOV-FE-F012D |
| B32-SOV-FE_14_15_18 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F010B & B32-SOV-FE-F010C & B32-SOV-FE-F011B |
| B32-SOV-FE_14_15_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F010B & B32-SOV-FE-F010C & B32-SOV-FE-F012B |
| B32-SOV-FE_14_16_18 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F010B & B32-SOV-FE-F010D & B32-SOV-FE-F011B |
| B32-SOV-FE_14_16_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F010B & B32-SOV-FE-F010D & B32-SOV-FE-F012B |
| B32-SOV-FE_14_17_18 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F010B & B32-SOV-FE-F011A & B32-SOV-FE-F011B |
| B32-SOV-FE_14_17_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F010B & B32-SOV-FE-F011A & B32-SOV-FE-F012B |
| B32-SOV-FE_14_18 | 4.35E-06 | 4.69E-04 | 108.53 | CCF of two components: B32-SOV-FE-F010B & B32-SOV-FE-F011B |

## Table 14-6

## High Winds Shutdown Importance Measure Report

**F-V and RAW Importance Measures Report**
**(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**

| | | | | |
|---|---|---|---|---|
| B32-SOV-FE_14_18_19 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F010B & B32-SOV-FE-F011B & B32-SOV-FE-F011C |
| B32-SOV-FE_14_18_20 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F010B & B32-SOV-FE-F011B & B32-SOV-FE-F011D |
| B32-SOV-FE_14_18_21 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F010B & B32-SOV-FE-F011B & B32-SOV-FE-F012A |
| B32-SOV-FE_14_18_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F010B & B32-SOV-FE-F011B & B32-SOV-FE-F012B |
| B32-SOV-FE_14_18_23 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F010B & B32-SOV-FE-F011B & B32-SOV-FE-F012C |
| B32-SOV-FE_14_18_24 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F010B & B32-SOV-FE-F011B & B32-SOV-FE-F012D |
| B32-SOV-FE_14_19_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F010B & B32-SOV-FE-F011C & B32-SOV-FE-F012B |
| B32-SOV-FE_14_20_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F010B & B32-SOV-FE-F011D & B32-SOV-FE-F012B |
| B32-SOV-FE_14_21_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F010B & B32-SOV-FE-F012A & B32-SOV-FE-F012B |
| B32-SOV-FE_14_22 | 4.35E-06 | 4.69E-04 | 108.53 | CCF of two components: B32-SOV-FE-F010B & B32-SOV-FE-F012B |
| B32-SOV-FE_14_22_23 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F010B & B32-SOV-FE-F012B & B32-SOV-FE-F012C |
| B32-SOV-FE_14_22_24 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F010B & B32-SOV-FE-F012B & B32-SOV-FE-F012D |
| B32-SOV-FE_2_10_18 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F007B & B32-SOV-FE-F009B & B32-SOV-FE-F011B |
| B32-SOV-FE_2_10_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F007B & B32-SOV-FE-F009B & B32-SOV-FE-F012B |
| B32-SOV-FE_2_13_17 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F007B & B32-SOV-FE-F010A & B32-SOV-FE-F011A |
| B32-SOV-FE_2_13_21 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F007B & B32-SOV-FE-F010A & B32-SOV-FE-F012A |
| B32-SOV-FE_2_14_18 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F007B & B32-SOV-FE-F010B & B32-SOV-FE-F011B |
| B32-SOV-FE_2_14_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F007B & B32-SOV-FE-F010B & B32-SOV-FE-F012B |
| B32-SOV-FE_2_9_17 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F007B & B32-SOV-FE-F009A & B32-SOV-FE-F011A |
| B32-SOV-FE_2_9_21 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F007B & B32-SOV-FE-F009A & B32-SOV-FE-F012A |
| B32-SOV-FE_3_10_18 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F007C & B32-SOV-FE-F009B & B32-SOV-FE-F011B |
| B32-SOV-FE_3_10_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F007C & B32-SOV-FE-F009B & B32-SOV-FE-F012B |
| B32-SOV-FE_3_13_17 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F007C & B32-SOV-FE-F010A & B32-SOV-FE-F011A |

## Table 14-6

## High Winds Shutdown Importance Measure Report

**F-V and RAW Importance Measures Report**
**(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**

| | | | | |
|---|---|---|---|---|
| B32-SOV-FE_3_13_21 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F007C & B32-SOV-FE-F010A & B32-SOV-FE-F012A |
| B32-SOV-FE_3_14_18 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F007C & B32-SOV-FE-F010B & B32-SOV-FE-F011B |
| B32-SOV-FE_3_14_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F007C & B32-SOV-FE-F010B & B32-SOV-FE-F012B |
| B32-SOV-FE_3_9_17 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F007C & B32-SOV-FE-F009A & B32-SOV-FE-F011A |
| B32-SOV-FE_3_9_21 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F007C & B32-SOV-FE-F009A & B32-SOV-FE-F012A |
| B32-SOV-FE_4_10_18 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F007D & B32-SOV-FE-F009B & B32-SOV-FE-F011B |
| B32-SOV-FE_4_10_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F007D & B32-SOV-FE-F009B & B32-SOV-FE-F012B |
| B32-SOV-FE_4_13_17 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F007D & B32-SOV-FE-F010A & B32-SOV-FE-F011A |
| B32-SOV-FE_4_13_21 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F007D & B32-SOV-FE-F010A & B32-SOV-FE-F012A |
| B32-SOV-FE_4_14_18 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F007D & B32-SOV-FE-F010B & B32-SOV-FE-F011B |
| B32-SOV-FE_4_14_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F007D & B32-SOV-FE-F010B & B32-SOV-FE-F012B |
| B32-SOV-FE_4_9_17 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F007D & B32-SOV-FE-F009A & B32-SOV-FE-F011A |
| B32-SOV-FE_4_9_21 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F007D & B32-SOV-FE-F009A & B32-SOV-FE-F012A |
| B32-SOV-FE_5_10_18 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F008A & B32-SOV-FE-F009B & B32-SOV-FE-F011B |
| B32-SOV-FE_5_10_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F008A & B32-SOV-FE-F009B & B32-SOV-FE-F012B |
| B32-SOV-FE_5_13_17 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F008A & B32-SOV-FE-F010A & B32-SOV-FE-F011A |
| B32-SOV-FE_5_13_21 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F008A & B32-SOV-FE-F010A & B32-SOV-FE-F012A |
| B32-SOV-FE_5_14_18 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F008A & B32-SOV-FE-F010B & B32-SOV-FE-F011B |
| B32-SOV-FE_5_14_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F008A & B32-SOV-FE-F010B & B32-SOV-FE-F012B |
| B32-SOV-FE_5_9_17 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F008A & B32-SOV-FE-F009A & B32-SOV-FE-F011A |
| B32-SOV-FE_5_9_21 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F008A & B32-SOV-FE-F009A & B32-SOV-FE-F012A |
| B32-SOV-FE_6_10_18 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F008B & B32-SOV-FE-F009B & B32-SOV-FE-F011B |
| B32-SOV-FE_6_10_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F008B & B32-SOV-FE-F009B & B32-SOV-FE-F012B |

## Table 14-6

## High Winds Shutdown Importance Measure Report

**F-V and RAW Importance Measures Report**
**(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**

| | | | | |
|---|---|---|---|---|
| B32-SOV-FE_6_13_17 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F008B & B32-SOV-FE-F010A & B32-SOV-FE-F011A |
| B32-SOV-FE_6_13_21 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F008B & B32-SOV-FE-F010A & B32-SOV-FE-F012A |
| B32-SOV-FE_6_14_18 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F008B & B32-SOV-FE-F010B & B32-SOV-FE-F011B |
| B32-SOV-FE_6_14_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F008B & B32-SOV-FE-F010B & B32-SOV-FE-F012B |
| B32-SOV-FE_6_9_17 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F008B & B32-SOV-FE-F009A & B32-SOV-FE-F011A |
| B32-SOV-FE_6_9_21 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F008B & B32-SOV-FE-F009A & B32-SOV-FE-F012A |
| B32-SOV-FE_7_10_18 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F008C & B32-SOV-FE-F009B & B32-SOV-FE-F011B |
| B32-SOV-FE_7_10_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F008C & B32-SOV-FE-F009B & B32-SOV-FE-F012B |
| B32-SOV-FE_7_13_17 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F008C & B32-SOV-FE-F010A & B32-SOV-FE-F011A |
| B32-SOV-FE_7_13_21 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F008C & B32-SOV-FE-F010A & B32-SOV-FE-F012A |
| B32-SOV-FE_7_14_18 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F008C & B32-SOV-FE-F010B & B32-SOV-FE-F011B |
| B32-SOV-FE_7_14_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F008C & B32-SOV-FE-F010B & B32-SOV-FE-F012B |
| B32-SOV-FE_7_9_17 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F008C & B32-SOV-FE-F009A & B32-SOV-FE-F011A |
| B32-SOV-FE_7_9_21 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F008C & B32-SOV-FE-F009A & B32-SOV-FE-F012A |
| B32-SOV-FE_8_10_18 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F008D & B32-SOV-FE-F009B & B32-SOV-FE-F011B |
| B32-SOV-FE_8_10_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F008D & B32-SOV-FE-F009B & B32-SOV-FE-F012B |
| B32-SOV-FE_8_13_17 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F008D & B32-SOV-FE-F010A & B32-SOV-FE-F011A |
| B32-SOV-FE_8_13_21 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F008D & B32-SOV-FE-F010A & B32-SOV-FE-F012A |
| B32-SOV-FE_8_14_18 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F008D & B32-SOV-FE-F010B & B32-SOV-FE-F011B |
| B32-SOV-FE_8_14_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F008D & B32-SOV-FE-F010B & B32-SOV-FE-F012B |
| B32-SOV-FE_8_9_17 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F008D & B32-SOV-FE-F009A & B32-SOV-FE-F011A |
| B32-SOV-FE_8_9_21 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F008D & B32-SOV-FE-F009A & B32-SOV-FE-F012A |
| B32-SOV-FE_9_10_17 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009A & B32-SOV-FE-F009B & B32-SOV-FE-F011A |

## Table 14-6

## High Winds Shutdown Importance Measure Report

**F-V and RAW Importance Measures Report**
**(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**

| | | | | |
|---|---|---|---|---|
| B32-SOV-FE_9_10_18 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009A & B32-SOV-FE-F009B & B32-SOV-FE-F011B |
| B32-SOV-FE_9_10_21 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009A & B32-SOV-FE-F009B & B32-SOV-FE-F012A |
| B32-SOV-FE_9_10_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009A & B32-SOV-FE-F009B & B32-SOV-FE-F012B |
| B32-SOV-FE_9_11_17 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009A & B32-SOV-FE-F009C & B32-SOV-FE-F011A |
| B32-SOV-FE_9_11_21 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009A & B32-SOV-FE-F009C & B32-SOV-FE-F012A |
| B32-SOV-FE_9_12_17 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009A & B32-SOV-FE-F009D & B32-SOV-FE-F011A |
| B32-SOV-FE_9_12_21 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009A & B32-SOV-FE-F009D & B32-SOV-FE-F012A |
| B32-SOV-FE_9_13_17 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009A & B32-SOV-FE-F010A & B32-SOV-FE-F011A |
| B32-SOV-FE_9_13_21 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009A & B32-SOV-FE-F010A & B32-SOV-FE-F012A |
| B32-SOV-FE_9_14_17 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009A & B32-SOV-FE-F010B & B32-SOV-FE-F011A |
| B32-SOV-FE_9_14_18 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009A & B32-SOV-FE-F010B & B32-SOV-FE-F011B |
| B32-SOV-FE_9_14_21 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009A & B32-SOV-FE-F010B & B32-SOV-FE-F012A |
| B32-SOV-FE_9_14_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009A & B32-SOV-FE-F010B & B32-SOV-FE-F012B |
| B32-SOV-FE_9_15_17 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009A & B32-SOV-FE-F010C & B32-SOV-FE-F011A |
| B32-SOV-FE_9_15_21 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009A & B32-SOV-FE-F010C & B32-SOV-FE-F012A |
| B32-SOV-FE_9_16_17 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009A & B32-SOV-FE-F010D & B32-SOV-FE-F011A |
| B32-SOV-FE_9_16_21 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009A & B32-SOV-FE-F010D & B32-SOV-FE-F012A |
| B32-SOV-FE_9_17 | 4.35E-06 | 4.69E-04 | 108.53 | CCF of two components: B32-SOV-FE-F009A & B32-SOV-FE-F011A |
| B32-SOV-FE_9_17_18 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009A & B32-SOV-FE-F011A & B32-SOV-FE-F011B |
| B32-SOV-FE_9_17_19 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009A & B32-SOV-FE-F011A & B32-SOV-FE-F011C |
| B32-SOV-FE_9_17_20 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009A & B32-SOV-FE-F011A & B32-SOV-FE-F011D |
| B32-SOV-FE_9_17_21 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009A & B32-SOV-FE-F011A & B32-SOV-FE-F012A |
| B32-SOV-FE_9_17_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009A & B32-SOV-FE-F011A & B32-SOV-FE-F012B |

## Table 14-6

## High Winds Shutdown Importance Measure Report

**F-V and RAW Importance Measures Report**
**(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**

| | | | | |
|---|---|---|---|---|
| B32-SOV-FE_9_17_23 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009A & B32-SOV-FE-F011A & B32-SOV-FE-F012C |
| B32-SOV-FE_9_17_24 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009A & B32-SOV-FE-F011A & B32-SOV-FE-F012D |
| B32-SOV-FE_9_18_21 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009A & B32-SOV-FE-F011B & B32-SOV-FE-F012A |
| B32-SOV-FE_9_19_21 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009A & B32-SOV-FE-F011C & B32-SOV-FE-F012A |
| B32-SOV-FE_9_20_21 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009A & B32-SOV-FE-F011D & B32-SOV-FE-F012A |
| B32-SOV-FE_9_21 | 4.35E-06 | 4.69E-04 | 108.53 | CCF of two components: B32-SOV-FE-F009A & B32-SOV-FE-F012A |
| B32-SOV-FE_9_21_22 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009A & B32-SOV-FE-F012A & B32-SOV-FE-F012B |
| B32-SOV-FE_9_21_23 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009A & B32-SOV-FE-F012A & B32-SOV-FE-F012C |
| B32-SOV-FE_9_21_24 | 3.95E-08 | 1.68E-06 | 43.49 | CCF of three components: B32-SOV-FE-F009A & B32-SOV-FE-F012A & B32-SOV-FE-F012D |
| B32-SOV-FE-F009A | 1.00E-03 | 2.04E-04 | 1.2 | F009A fails to open on demand |
| B32-SOV-FE-F009B | 1.00E-03 | 2.04E-04 | 1.2 | SOLENOID VALVE (FAILURE TO ENERGIZE) |
| B32-SOV-FE-F010A | 1.00E-03 | 2.04E-04 | 1.2 | F010A fails to open on demand |
| B32-SOV-FE-F010B | 1.00E-03 | 2.04E-04 | 1.2 | SOLENOID VALVE (FAILURE TO ENERGIZE) |
| B32-SOV-FE-F011A | 1.00E-03 | 2.04E-04 | 1.2 | F011A fails to open on demand |
| B32-SOV-FE-F011B | 1.00E-03 | 2.04E-04 | 1.2 | SOLENOID VALVE (FAILURE TO ENERGIZE) |
| B32-SOV-FE-F012A | 1.00E-03 | 2.04E-04 | 1.2 | F012A fails to open on demand |
| B32-SOV-FE-F012B | 1.00E-03 | 2.04E-04 | 1.2 | SOLENOID VALVE (FAILURE TO ENERGIZE) |
| C63-CCFSOFTWARE | 1.00E-04 | 5.05E-02 | 505.7 | Common cause failure of software |
| C63-CCFSOFTWARE_S | 1.00E-04 | 1.11E-02 | 111.9 | Common cause failure of software, for spurious |
| C63-LT_-NO_1_2_3 | 8.00E-08 | 2.24E-06 | 28.99 | CCF of three components: C63-LT_-NO-LTA & C63-LT_-NO-LTB & C63-LT_-NO-LTC |
| C63-LT_-NO_1_2_4 | 8.00E-08 | 2.24E-06 | 28.99 | CCF of three components: C63-LT_-NO-LTA & C63-LT_-NO-LTB & C63-LT_-NO-LTD |
| C63-LT_-NO_1_3_4 | 8.00E-08 | 2.24E-06 | 28.99 | CCF of three components: C63-LT_-NO-LTA & C63-LT_-NO-LTC & C63-LT_-NO-LTD |
| C63-LT_-NO_2_3_4 | 8.00E-08 | 2.24E-06 | 28.99 | CCF of three components: C63-LT_-NO-LTB & C63-LT_-NO-LTC & C63-LT_-NO-LTD |

## Table 14-6

## High Winds Shutdown Importance Measure Report

**F-V and RAW Importance Measures Report**
**(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**

| | | | | |
|---|---|---|---|---|
| C63-UNDEVSPUR58 | 1.00E-03 | 1.12E-01 | 112.65 | Undeveloped spurious hardware failure |
| C63-UNDEVSPUR59 | 1.00E-03 | 1.12E-01 | 112.65 | Undeveloped spurious hardware failure |
| C63-UNDEVSPUR62 | 1.00E-03 | 1.12E-01 | 112.65 | Undeveloped spurious hardware failure |
| C63-UNDEVSPUR63 | 1.00E-03 | 1.12E-01 | 112.65 | Undeveloped spurious hardware failure |
| C63-UNDEVSPUR66 | 1.00E-03 | 1.12E-01 | 112.65 | Undeveloped spurious hardware failure |
| C63-UNDEVSPUR67 | 1.00E-03 | 1.12E-01 | 112.65 | Undeveloped spurious hardware failure |
| C63-UNDEVSPUR70 | 1.00E-03 | 1.12E-01 | 112.65 | Undeveloped spurious hardware failure |
| C63-UNDEVSPUR71 | 1.00E-03 | 1.12E-01 | 112.65 | Undeveloped spurious hardware failure |
| C72-ATM-FC-L1_ALL | 5.00E-06 | 2.40E-04 | 49.03 | CCF of all components in group 'C72-ATM-FC-L1' |
| C72-CCFSOFTWARE | 1.00E-04 | 4.89E-03 | 49.91 | COMMON CAUSE FAILURE OF DPS PROCESSORS |
| C72-LDD-CF-LOADS | 1.86E-06 | 8.83E-05 | 48.25 | COMMON CAUSE FAILURE OF DPS LOAD DRIVERS |
| C72-LDD-FC-S1F002A | 1.80E-04 | 5.41E-06 | 1.03 | F002A FIRST SERIES LOAD DRIVER FAILS ACTUATE |
| C72-LDD-FC-S1F002D | 1.80E-04 | 5.41E-06 | 1.03 | F002D FIRST SERIES LOAD DRIVER FAILS ACTUATE |
| C72-LDD-FC-S1F002E | 1.80E-04 | 5.41E-06 | 1.03 | F002E FIRST SERIES LOAD DRIVER FAILS ACTUATE |
| C72-LDD-FC-S1F002H | 1.80E-04 | 5.41E-06 | 1.03 | F002H FIRST SERIES LOAD DRIVER FAILS ACTUATE |
| C72-LDD-FC-S2F002A | 1.80E-04 | 5.41E-06 | 1.03 | F002A SECOND SERIES LOAD DRIVER FAILS TO ACTUATE |
| C72-LDD-FC-S2F002D | 1.80E-04 | 5.41E-06 | 1.03 | F002D SECOND SERIES LOAD DRIVER FAILS TO ACTUATE |
| C72-LDD-FC-S2F002E | 1.80E-04 | 5.41E-06 | 1.03 | F002E SECOND SERIES LOAD DRIVER FAILS TO ACTUATE |
| C72-LDD-FC-S2F002H | 1.80E-04 | 5.41E-06 | 1.03 | F002H SECOND SERIES LOAD DRIVER FAILS TO ACTUATE |
| C72-LOG-FC-D_1_2 | 3.33E-06 | 1.60E-04 | 49.07 | CCF of two components: C72-LOG-FC-D1DPS & C72-LOG-FC-D2DPS |
| C72-LOG-FC-D_1_2_3 | 6.67E-06 | 3.22E-04 | 49.32 | CCF of three components: C72-LOG-FC-D1DPS & C72-LOG-FC-D2DPS & C72-LOG-FC-D3DPS |
| C72-LOG-FC-D_1_3 | 3.33E-06 | 1.60E-04 | 49.07 | CCF of two components: C72-LOG-FC-D1DPS & C72-LOG-FC-D3DPS |
| C72-LOG-FC-D_2_3 | 3.33E-06 | 1.60E-04 | 49.07 | CCF of two components: C72-LOG-FC-D2DPS & C72-LOG-FC-D3DPS |

## Table 14-6

## High Winds Shutdown Importance Measure Report

**F-V and RAW Importance Measures Report**
**(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**

| | | | | |
|---|---|---|---|---|
| E50-POL-RP-POOLA | 3.00E-07 | 4.12E-05 | 135.98 | GDCS POOL A LEAKS CATASTROPHICALLY |
| E50-POL-RP-POOLD | 3.00E-07 | 4.12E-05 | 135.98 | GDCS POOL D LEAKS CATASTROPHICALLY |
| E50-SQV-CC_1_2 | 2.38E-05 | 6.40E-05 | 3.66 | CCF of two components: E50-SQV-CC-F002A & E50-SQV-CC-F002B |
| E50-SQV-CC_1_2_5 | 7.94E-07 | 1.09E-04 | 137.48 | CCF of three components: E50-SQV-CC-F002A & E50-SQV-CC-F002B & E50-SQV-CC-F002E |
| E50-SQV-CC_1_3 | 2.38E-05 | 6.40E-05 | 3.66 | CCF of two components: E50-SQV-CC-F002A & E50-SQV-CC-F002C |
| E50-SQV-CC_1_3_5 | 7.94E-07 | 1.09E-04 | 137.48 | CCF of three components: E50-SQV-CC-F002A & E50-SQV-CC-F002C & E50-SQV-CC-F002E |
| E50-SQV-CC_1_4 | 2.38E-05 | 1.28E-04 | 6.31 | CCF of two components: E50-SQV-CC-F002A & E50-SQV-CC-F002D |
| E50-SQV-CC_1_4_5 | 7.94E-07 | 1.09E-04 | 137.48 | CCF of three components: E50-SQV-CC-F002A & E50-SQV-CC-F002D & E50-SQV-CC-F002E |
| E50-SQV-CC_1_4_8 | 7.94E-07 | 1.09E-04 | 137.48 | CCF of three components: E50-SQV-CC-F002A & E50-SQV-CC-F002D & E50-SQV-CC-F002H |
| E50-SQV-CC_1_5 | 2.38E-05 | 3.35E-03 | 141.73 | CCF of two components: E50-SQV-CC-F002A & E50-SQV-CC-F002E |
| E50-SQV-CC_1_5_6 | 7.94E-07 | 1.09E-04 | 137.48 | CCF of three components: E50-SQV-CC-F002A & E50-SQV-CC-F002E & E50-SQV-CC-F002F |
| E50-SQV-CC_1_5_7 | 7.94E-07 | 1.09E-04 | 137.48 | CCF of three components: E50-SQV-CC-F002A & E50-SQV-CC-F002E & E50-SQV-CC-F002G |
| E50-SQV-CC_1_5_8 | 7.94E-07 | 1.09E-04 | 137.48 | CCF of three components: E50-SQV-CC-F002A & E50-SQV-CC-F002E & E50-SQV-CC-F002H |
| E50-SQV-CC_1_6 | 2.38E-05 | 6.40E-05 | 3.66 | CCF of two components: E50-SQV-CC-F002A & E50-SQV-CC-F002F |
| E50-SQV-CC_1_7 | 2.38E-05 | 6.40E-05 | 3.66 | CCF of two components: E50-SQV-CC-F002A & E50-SQV-CC-F002G |
| E50-SQV-CC_1_8 | 2.38E-05 | 1.28E-04 | 6.31 | CCF of two components: E50-SQV-CC-F002A & E50-SQV-CC-F002H |
| E50-SQV-CC_2_4 | 2.38E-05 | 6.40E-05 | 3.66 | CCF of two components: E50-SQV-CC-F002B & E50-SQV-CC-F002D |
| E50-SQV-CC_2_4_8 | 7.94E-07 | 1.09E-04 | 137.48 | CCF of three components: E50-SQV-CC-F002B & E50-SQV-CC-F002D & E50-SQV-CC-F002H |
| E50-SQV-CC_2_5 | 2.38E-05 | 6.40E-05 | 3.66 | CCF of two components: E50-SQV-CC-F002B & E50-SQV-CC-F002E |
| E50-SQV-CC_2_8 | 2.38E-05 | 6.40E-05 | 3.66 | CCF of two components: E50-SQV-CC-F002B & E50-SQV-CC-F002H |
| E50-SQV-CC_3_4 | 2.38E-05 | 6.40E-05 | 3.66 | CCF of two components: E50-SQV-CC-F002C & E50-SQV-CC-F002D |
| E50-SQV-CC_3_4_8 | 7.94E-07 | 1.09E-04 | 137.48 | CCF of three components: E50-SQV-CC-F002C & E50-SQV-CC-F002D & E50-SQV-CC-F002H |
| E50-SQV-CC_3_5 | 2.38E-05 | 6.40E-05 | 3.66 | CCF of two components: E50-SQV-CC-F002C & E50-SQV-CC-F002E |

## Table 14-6

## High Winds Shutdown Importance Measure Report

**F-V and RAW Importance Measures Report**
**(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**

| | | | | |
|---|---|---|---|---|
| E50-SQV-CC_3_8 | 2.38E-05 | 6.40E-05 | 3.66 | CCF of two components: E50-SQV-CC-F002C & E50-SQV-CC-F002H |
| E50-SQV-CC_4_5 | 2.38E-05 | 1.28E-04 | 6.31 | CCF of two components: E50-SQV-CC-F002D & E50-SQV-CC-F002E |
| E50-SQV-CC_4_5_8 | 7.94E-07 | 1.09E-04 | 137.48 | CCF of three components: E50-SQV-CC-F002D & E50-SQV-CC-F002E & E50-SQV-CC-F002H |
| E50-SQV-CC_4_6 | 2.38E-05 | 6.40E-05 | 3.66 | CCF of two components: E50-SQV-CC-F002D & E50-SQV-CC-F002F |
| E50-SQV-CC_4_6_8 | 7.94E-07 | 1.09E-04 | 137.48 | CCF of three components: E50-SQV-CC-F002D & E50-SQV-CC-F002F & E50-SQV-CC-F002H |
| E50-SQV-CC_4_7 | 2.38E-05 | 6.40E-05 | 3.66 | CCF of two components: E50-SQV-CC-F002D & E50-SQV-CC-F002G |
| E50-SQV-CC_4_7_8 | 7.94E-07 | 1.09E-04 | 137.48 | CCF of three components: E50-SQV-CC-F002D & E50-SQV-CC-F002G & E50-SQV-CC-F002H |
| E50-SQV-CC_4_8 | 2.38E-05 | 3.35E-03 | 141.73 | CCF of two components: E50-SQV-CC-F002D & E50-SQV-CC-F002H |
| E50-SQV-CC_5_6 | 2.38E-05 | 6.40E-05 | 3.66 | CCF of two components: E50-SQV-CC-F002E & E50-SQV-CC-F002F |
| E50-SQV-CC_5_7 | 2.38E-05 | 6.40E-05 | 3.66 | CCF of two components: E50-SQV-CC-F002E & E50-SQV-CC-F002G |
| E50-SQV-CC_5_8 | 2.38E-05 | 1.28E-04 | 6.31 | CCF of two components: E50-SQV-CC-F002E & E50-SQV-CC-F002H |
| E50-SQV-CC_6_8 | 2.38E-05 | 6.40E-05 | 3.66 | CCF of two components: E50-SQV-CC-F002F & E50-SQV-CC-F002H |
| E50-SQV-CC_7_8 | 2.38E-05 | 6.40E-05 | 3.66 | CCF of two components: E50-SQV-CC-F002G & E50-SQV-CC-F002H |
| E50-SQV-CC_ALL | 1.50E-04 | 2.13E-02 | 142.84 | CCF of all components in group 'E50-SQV-CC' |
| E50-SQV-CC-EQU_1_2 | 1.11E-04 | 1.82E-04 | 2.64 | CCF of two components: E50-SQV-CC-F006A & E50-SQV-CC-F006B |
| E50-SQV-CC-EQU_1_2_3 | 1.11E-05 | 3.02E-05 | 3.71 | CCF of three components: E50-SQV-CC-F006A & E50-SQV-CC-F006B & E50-SQV-CC-F006C |
| E50-SQV-CC-EQU_1_2_4 | 1.11E-05 | 3.02E-05 | 3.71 | CCF of three components: E50-SQV-CC-F006A & E50-SQV-CC-F006B & E50-SQV-CC-F006D |
| E50-SQV-CC-EQU_1_3_4 | 1.11E-05 | 1.19E-05 | 2.07 | CCF of three components: E50-SQV-CC-F006A & E50-SQV-CC-F006C & E50-SQV-CC-F006D |
| E50-SQV-CC-EQU_2_3 | 1.11E-04 | 1.82E-04 | 2.64 | CCF of two components: E50-SQV-CC-F006B & E50-SQV-CC-F006C |
| E50-SQV-CC-EQU_2_3_4 | 1.11E-05 | 3.02E-05 | 3.71 | CCF of three components: E50-SQV-CC-F006B & E50-SQV-CC-F006C & E50-SQV-CC-F006D |
| E50-SQV-CC-EQU_2_4 | 1.11E-04 | 1.82E-04 | 2.64 | CCF of two components: E50-SQV-CC-F006B & E50-SQV-CC-F006D |
| E50-SQV-CC-EQU_ALL | 3.00E-04 | 4.26E-02 | 143.09 | CCF of all components in group 'E50-SQV-CC-EQU' |
| E50-SQV-CC-F002A | 3.00E-03 | 8.73E-03 | 3.9 | SQUIB VALVE F002A FAILS TO OPERATE |

## Table 14-6

## High Winds Shutdown Importance Measure Report

**F-V and RAW Importance Measures Report**
**(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**

| | | | | |
|---|---|---|---|---|
| E50-SQV-CC-F002D | 3.00E-03 | 8.73E-03 | 3.9 | SQUIB VALVE F002D FAILS TO OPERATE |
| E50-SQV-CC-F002E | 3.00E-03 | 8.73E-03 | 3.9 | SQUIB VALVE F002E FAILS TO OPERATE |
| E50-SQV-CC-F002H | 3.00E-03 | 8.73E-03 | 3.9 | SQUIB VALVE F002H FAILS TO OPERATE |
| E50-SQV-CC-F006A | 6.00E-03 | 1.19E-05 | 1 | SQUIB VALVE F006A FAILS TO OPERATE IN EXTREME CONDITIONS |
| E50-SQV-CC-F006B | 6.00E-03 | 9.99E-03 | 2.65 | SQUIB VALVE F006B FAILS TO OPERATE IN EXTREME CONDITIONS |
| E50-SQV-CC-F006C | 6.00E-03 | 1.19E-05 | 1 | SQUIB VALVE F006C FAILS TO OPERATE IN EXTREME CONDITIONS |
| E50-SQV-CC-F006D | 6.00E-03 | 1.19E-05 | 1 | SQUIB VALVE F006D FAILS TO OPERATE IN EXTREME CONDITIONS |
| E50-SQV-CO-F009A | 9.60E-06 | 1.35E-03 | 141.26 | SQUIB DELUGE VALVE F009A SPUR. OPENING [#7] |
| E50-SQV-CO-F009D | 9.60E-06 | 1.35E-03 | 141.26 | SQUIB DELUGE VALVE F009D SPUR. OPENING [#7] |
| E50-SQV-CO-F009E | 9.60E-06 | 1.35E-03 | 141.26 | SQUIB DELUGE VALVE F009E SPUR. OPENING [#7] |
| E50-SQV-CO-F009H | 9.60E-06 | 1.35E-03 | 141.26 | SQUIB DELUGE VALVE F009H SPUR. OPENING [#7] |
| E50-SQV-CO-F009J | 9.60E-06 | 1.35E-03 | 141.26 | SQUIB DELUGE VALVE F009J SPUR. OPENING [#7] |
| E50-SQV-CO-F009M | 9.60E-06 | 1.35E-03 | 141.26 | SQUIB DELUGE VALVE F009M SPUR. OPENING [#7] |
| E50-STR-PG_1_2 | 1.98E-04 | 3.25E-04 | 2.64 | CCF of two components: E50-STR-PG-D002A & E50-STR-PG-D002B |
| E50-STR-PG_1_2_3 | 1.98E-05 | 6.68E-05 | 4.33 | CCF of three components: E50-STR-PG-D002A & E50-STR-PG-D002B & E50-STR-PG-D002C |
| E50-STR-PG_1_2_4 | 1.98E-05 | 6.68E-05 | 4.33 | CCF of three components: E50-STR-PG-D002A & E50-STR-PG-D002B & E50-STR-PG-D002D |
| E50-STR-PG_1_3_4 | 1.98E-05 | 3.43E-05 | 2.7 | CCF of three components: E50-STR-PG-D002A & E50-STR-PG-D002C & E50-STR-PG-D002D |
| E50-STR-PG_2_3 | 1.98E-04 | 3.25E-04 | 2.64 | CCF of two components: E50-STR-PG-D002B & E50-STR-PG-D002C |
| E50-STR-PG_2_3_4 | 1.98E-05 | 6.68E-05 | 4.33 | CCF of three components: E50-STR-PG-D002B & E50-STR-PG-D002C & E50-STR-PG-D002D |
| E50-STR-PG_2_4 | 1.98E-04 | 3.25E-04 | 2.64 | CCF of two components: E50-STR-PG-D002B & E50-STR-PG-D002D |
| E50-STR-PG_ALL | 5.35E-04 | 7.62E-02 | 143.38 | CCF of all components in group 'E50-STR-PG' |
| E50-STR-PG-D002A | 1.07E-02 | 3.43E-05 | 1 | STRAINER/FILTER D002A PLUGS DURING OPERATION |
| E50-STR-PG-D002B | 1.07E-02 | 1.78E-02 | 2.65 | STRAINER D002B PLUGGED |

## Table 14-6

## High Winds Shutdown Importance Measure Report

**F-V and RAW Importance Measures Report**
**(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**

| | | | | |
|---|---|---|---|---|
| E50-STR-PG-D002C | 1.07E-02 | 3.43E-05 | 1 | STRAINER D002C PLUGGED |
| E50-STR-PG-D002D | 1.07E-02 | 3.43E-05 | 1 | STRAINER D002D PLUGGED |
| E50-UV_OC_1_2_3 | 7.05E-06 | 1.34E-05 | 2.8 | CCF of three components: E50-UV_-OC-F003A & E50-UV_-OC-F003B & E50-UV_-OC-F003C |
| E50-UV_OC_1_2_4 | 7.05E-06 | 2.69E-05 | 4.6 | CCF of three components: E50-UV_-OC-F003A & E50-UV_-OC-F003B & E50-UV_-OC-F003D |
| E50-UV_OC_1_2_5 | 7.05E-06 | 9.87E-04 | 140.85 | CCF of three components: E50-UV_-OC-F003A & E50-UV_-OC-F003B & E50-UV_-OC-F003E |
| E50-UV_OC_1_2_6 | 7.05E-06 | 1.34E-05 | 2.8 | CCF of three components: E50-UV_-OC-F003A & E50-UV_-OC-F003B & E50-UV_-OC-F003F |
| E50-UV_OC_1_2_7 | 7.05E-06 | 1.34E-05 | 2.8 | CCF of three components: E50-UV_-OC-F003A & E50-UV_-OC-F003B & E50-UV_-OC-F003G |
| E50-UV_OC_1_2_8 | 7.05E-06 | 2.69E-05 | 4.6 | CCF of three components: E50-UV_-OC-F003A & E50-UV_-OC-F003B & E50-UV_-OC-F003H |
| E50-UV_OC_1_3_4 | 7.05E-06 | 2.69E-05 | 4.6 | CCF of three components: E50-UV_-OC-F003A & E50-UV_-OC-F003C & E50-UV_-OC-F003D |
| E50-UV_OC_1_3_5 | 7.05E-06 | 9.87E-04 | 140.85 | CCF of three components: E50-UV_-OC-F003A & E50-UV_-OC-F003C & E50-UV_-OC-F003E |
| E50-UV_OC_1_3_6 | 7.05E-06 | 1.34E-05 | 2.8 | CCF of three components: E50-UV_-OC-F003A & E50-UV_-OC-F003C & E50-UV_-OC-F003F |
| E50-UV_OC_1_3_7 | 7.05E-06 | 1.34E-05 | 2.8 | CCF of three components: E50-UV_-OC-F003A & E50-UV_-OC-F003C & E50-UV_-OC-F003G |
| E50-UV_OC_1_3_8 | 7.05E-06 | 2.69E-05 | 4.6 | CCF of three components: E50-UV_-OC-F003A & E50-UV_-OC-F003C & E50-UV_-OC-F003H |
| E50-UV_OC_1_4_5 | 7.05E-06 | 9.87E-04 | 140.85 | CCF of three components: E50-UV_-OC-F003A & E50-UV_-OC-F003D & E50-UV_-OC-F003E |
| E50-UV_OC_1_4_6 | 7.05E-06 | 2.69E-05 | 4.6 | CCF of three components: E50-UV_-OC-F003A & E50-UV_-OC-F003D & E50-UV_-OC-F003F |
| E50-UV_OC_1_4_7 | 7.05E-06 | 2.69E-05 | 4.6 | CCF of three components: E50-UV_-OC-F003A & E50-UV_-OC-F003D & E50-UV_-OC-F003G |
| E50-UV_OC_1_4_8 | 7.05E-06 | 9.87E-04 | 140.85 | CCF of three components: E50-UV_-OC-F003A & E50-UV_-OC-F003D & E50-UV_-OC-F003H |
| E50-UV_OC_1_5 | 2.67E-06 | 3.69E-04 | 139.29 | CCF of two components: E50-UV_-OC-F003A & E50-UV_-OC-F003E |
| E50-UV_OC_1_5_6 | 7.05E-06 | 9.87E-04 | 140.85 | CCF of three components: E50-UV_-OC-F003A & E50-UV_-OC-F003E & E50-UV_-OC-F003F |
| E50-UV_OC_1_5_7 | 7.05E-06 | 9.87E-04 | 140.85 | CCF of three components: E50-UV_-OC-F003A & E50-UV_-OC-F003E & E50-UV_-OC-F003G |
| E50-UV_OC_1_5_8 | 7.05E-06 | 9.87E-04 | 140.85 | CCF of three components: E50-UV_-OC-F003A & E50-UV_-OC-F003E & E50-UV_-OC-F003H |
| E50-UV_OC_1_6_7 | 7.05E-06 | 1.34E-05 | 2.8 | CCF of three components: E50-UV_-OC-F003A & E50-UV_-OC-F003F & E50-UV_-OC-F003G |
| E50-UV_OC_1_6_8 | 7.05E-06 | 2.69E-05 | 4.6 | CCF of three components: E50-UV_-OC-F003A & E50-UV_-OC-F003F & E50-UV_-OC-F003H |

## Table 14-6

## High Winds Shutdown Importance Measure Report

**F-V and RAW Importance Measures Report**
**(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**

| | | | | |
|---|---|---|---|---|
| E50-UV_OC_1_7_8 | 7.05E-06 | 2.69E-05 | 4.6 | CCF of three components: E50-UV_-OC-F003A & E50-UV_-OC-F003G & E50-UV_-OC-F003H |
| E50-UV_OC_2_3_4 | 7.05E-06 | 1.34E-05 | 2.8 | CCF of three components: E50-UV_-OC-F003B & E50-UV_-OC-F003C & E50-UV_-OC-F003D |
| E50-UV_OC_2_3_5 | 7.05E-06 | 1.34E-05 | 2.8 | CCF of three components: E50-UV_-OC-F003B & E50-UV_-OC-F003C & E50-UV_-OC-F003E |
| E50-UV_OC_2_3_8 | 7.05E-06 | 1.34E-05 | 2.8 | CCF of three components: E50-UV_-OC-F003B & E50-UV_-OC-F003C & E50-UV_-OC-F003H |
| E50-UV_OC_2_4_5 | 7.05E-06 | 2.69E-05 | 4.6 | CCF of three components: E50-UV_-OC-F003B & E50-UV_-OC-F003D & E50-UV_-OC-F003E |
| E50-UV_OC_2_4_6 | 7.05E-06 | 1.34E-05 | 2.8 | CCF of three components: E50-UV_-OC-F003B & E50-UV_-OC-F003D & E50-UV_-OC-F003F |
| E50-UV_OC_2_4_7 | 7.05E-06 | 1.34E-05 | 2.8 | CCF of three components: E50-UV_-OC-F003B & E50-UV_-OC-F003D & E50-UV_-OC-F003G |
| E50-UV_OC_2_4_8 | 7.05E-06 | 9.87E-04 | 140.85 | CCF of three components: E50-UV_-OC-F003B & E50-UV_-OC-F003D & E50-UV_-OC-F003H |
| E50-UV_OC_2_5_6 | 7.05E-06 | 1.34E-05 | 2.8 | CCF of three components: E50-UV_-OC-F003B & E50-UV_-OC-F003E & E50-UV_-OC-F003F |
| E50-UV_OC_2_5_7 | 7.05E-06 | 1.34E-05 | 2.8 | CCF of three components: E50-UV_-OC-F003B & E50-UV_-OC-F003E & E50-UV_-OC-F003G |
| E50-UV_OC_2_5_8 | 7.05E-06 | 2.69E-05 | 4.6 | CCF of three components: E50-UV_-OC-F003B & E50-UV_-OC-F003E & E50-UV_-OC-F003H |
| E50-UV_OC_2_6_8 | 7.05E-06 | 1.34E-05 | 2.8 | CCF of three components: E50-UV_-OC-F003B & E50-UV_-OC-F003F & E50-UV_-OC-F003H |
| E50-UV_OC_2_7_8 | 7.05E-06 | 1.34E-05 | 2.8 | CCF of three components: E50-UV_-OC-F003B & E50-UV_-OC-F003G & E50-UV_-OC-F003H |
| E50-UV_OC_3_4_5 | 7.05E-06 | 2.69E-05 | 4.6 | CCF of three components: E50-UV_-OC-F003C & E50-UV_-OC-F003D & E50-UV_-OC-F003E |
| E50-UV_OC_3_4_6 | 7.05E-06 | 1.34E-05 | 2.8 | CCF of three components: E50-UV_-OC-F003C & E50-UV_-OC-F003D & E50-UV_-OC-F003F |
| E50-UV_OC_3_4_7 | 7.05E-06 | 1.34E-05 | 2.8 | CCF of three components: E50-UV_-OC-F003C & E50-UV_-OC-F003D & E50-UV_-OC-F003G |
| E50-UV_OC_3_4_8 | 7.05E-06 | 9.87E-04 | 140.85 | CCF of three components: E50-UV_-OC-F003C & E50-UV_-OC-F003D & E50-UV_-OC-F003H |
| E50-UV_OC_3_5_6 | 7.05E-06 | 1.34E-05 | 2.8 | CCF of three components: E50-UV_-OC-F003C & E50-UV_-OC-F003E & E50-UV_-OC-F003F |
| E50-UV_OC_3_5_7 | 7.05E-06 | 1.34E-05 | 2.8 | CCF of three components: E50-UV_-OC-F003C & E50-UV_-OC-F003E & E50-UV_-OC-F003G |
| E50-UV_OC_3_5_8 | 7.05E-06 | 2.69E-05 | 4.6 | CCF of three components: E50-UV_-OC-F003C & E50-UV_-OC-F003E & E50-UV_-OC-F003H |
| E50-UV_OC_3_6_8 | 7.05E-06 | 1.34E-05 | 2.8 | CCF of three components: E50-UV_-OC-F003C & E50-UV_-OC-F003F & E50-UV_-OC-F003H |
| E50-UV_OC_3_7_8 | 7.05E-06 | 1.34E-05 | 2.8 | CCF of three components: E50-UV_-OC-F003C & E50-UV_-OC-F003G & E50-UV_-OC-F003H |
| E50-UV_OC_4_5_6 | 7.05E-06 | 2.69E-05 | 4.6 | CCF of three components: E50-UV_-OC-F003D & E50-UV_-OC-F003E & E50-UV_-OC-F003F |

## Table 14-6

## High Winds Shutdown Importance Measure Report

**F-V and RAW Importance Measures Report**
**(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**

| | | | | |
|---|---|---|---|---|
| E50-UV_OC_4_5_7 | 7.05E-06 | 2.69E-05 | 4.6 | CCF of three components: E50-UV_-OC-F003D & E50-UV_-OC-F003E & E50-UV_-OC-F003G |
| E50-UV_OC_4_5_8 | 7.05E-06 | 9.87E-04 | 140.85 | CCF of three components: E50-UV_-OC-F003D & E50-UV_-OC-F003E & E50-UV_-OC-F003H |
| E50-UV_OC_4_6_7 | 7.05E-06 | 1.34E-05 | 2.8 | CCF of three components: E50-UV_-OC-F003D & E50-UV_-OC-F003F & E50-UV_-OC-F003G |
| E50-UV_OC_4_6_8 | 7.05E-06 | 9.87E-04 | 140.85 | CCF of three components: E50-UV_-OC-F003D & E50-UV_-OC-F003F & E50-UV_-OC-F003H |
| E50-UV_OC_4_7_8 | 7.05E-06 | 9.87E-04 | 140.85 | CCF of three components: E50-UV_-OC-F003D & E50-UV_-OC-F003G & E50-UV_-OC-F003H |
| E50-UV_OC_4_8 | 2.67E-06 | 3.69E-04 | 139.29 | CCF of two components: E50-UV_-OC-F003D & E50-UV_-OC-F003H |
| E50-UV_OC_5_6_7 | 7.05E-06 | 1.34E-05 | 2.8 | CCF of three components: E50-UV_-OC-F003E & E50-UV_-OC-F003F & E50-UV_-OC-F003G |
| E50-UV_OC_5_6_8 | 7.05E-06 | 2.69E-05 | 4.6 | CCF of three components: E50-UV_-OC-F003E & E50-UV_-OC-F003F & E50-UV_-OC-F003H |
| E50-UV_OC_5_7_8 | 7.05E-06 | 2.69E-05 | 4.6 | CCF of three components: E50-UV_-OC-F003E & E50-UV_-OC-F003G & E50-UV_-OC-F003H |
| E50-UV_OC_6_7_8 | 7.05E-06 | 1.34E-05 | 2.8 | CCF of three components: E50-UV_-OC-F003F & E50-UV_-OC-F003G & E50-UV_-OC-F003H |
| E50-UV_OC_ALL | 3.00E-04 | 4.27E-02 | 143.09 | CCF of all components in group 'E50-UV_OC' |
| E50-UV_OC-EQU_1_2_3 | 4.93E-06 | 8.21E-06 | 2.65 | CCF of three components: E50-UV_-OC-F007A & E50-UV_-OC-F007B & E50-UV_-OC-F007C |
| E50-UV_OC-EQU_1_2_4 | 4.93E-06 | 8.21E-06 | 2.65 | CCF of three components: E50-UV_-OC-F007A & E50-UV_-OC-F007B & E50-UV_-OC-F007D |
| E50-UV_OC-EQU_2_3_4 | 4.93E-06 | 8.21E-06 | 2.65 | CCF of three components: E50-UV_-OC-F007B & E50-UV_-OC-F007C & E50-UV_-OC-F007D |
| E50-UV_OC-EQU_ALL | 3.00E-05 | 4.24E-03 | 141.99 | CCF of all components in group 'E50-UV_OC-EQU' |
| E50-UV_-OC-F003A | 1.75E-02 | 5.15E-02 | 3.89 | CHECK VALVE F003A FAILS TO REMAIN OPEN OR PLUG |
| E50-UV_-OC-F003D | 1.75E-02 | 5.15E-02 | 3.89 | CHECK VALVE F003D FAILS TO REMAIN OPEN OR PLUG |
| E50-UV_-OC-F003E | 1.75E-02 | 5.15E-02 | 3.89 | CHECK VALVE F003E FAILS TO REMAIN OPEN OR PLUG |
| E50-UV_-OC-F003H | 1.75E-02 | 5.15E-02 | 3.89 | CHECK VALVE F003H FAILS TO REMAIN OPEN OR PLUG |
| E50-UV_-OC-F007B | 1.75E-03 | 2.89E-03 | 2.65 | CHECK VALVE F007B FAILS TO REMAIN OPEN OR PLUG |
| G21-BV_-RE-F334 | 4.84E-02 | 2.02E-01 | 4.96 | MISPOSITION OF VALVE F334 |
| G21-NMO_3_4 | 1.11E-05 | 2.48E-05 | 3.23 | CCF of two components: G21-NMO-CC-F332A & G21-NMO-CC-F332B |
| G21-NMO_ALL | 3.00E-05 | 7.87E-05 | 3.59 | CCF of all components in group 'G21-NMO' |

## Table 14-6

## High Winds Shutdown Importance Measure Report

| F-V and RAW Importance Measures Report<br>(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)<br>High Winds Shutdown<br>Core Damage Frequency = 1.19E-09 | | | | |
|---|---|---|---|---|
| G21-UV_-333_1_2 | 1.79E-05 | 4.12E-05 | 3.25 | CCF of two components: G21-UV_-CC-F333A & G21-UV_-CC-F333B |
| G21-XHE-FO-LPCIADS | 1.61E-02 | 1.12E-06 | 1 | OPERATOR FAILS TO ALIGN AND ACTUATE FAPCS IN LPCI MODE AFTER DEPRESSURIZATION |
| MS-TOP2 | 5.00E-02 | 1.18E-01 | 3.24 | TWO DPVs FAIL TO OPEN |
| NICWSA-SYS-FAILS | 1.00E-03 | 3.02E-05 | 1.03 | NUCLEAR ISLAND CHILLED WATER SUBSYSTEM TRAIN A FAILS |
| NICWSB-SYS-FAILS | 1.00E-03 | 3.02E-05 | 1.03 | NUCLEAR ISLAND CHILLED WATER SUBSYSTEM TRAIN B FAILS |
| P21-ACV-CC-F0023_1_2 | 1.93E-04 | 3.71E-05 | 1.19 | CCF of two components: P21-ACV-CC-F0023A & P21-ACV-CC-F0023B |
| P21-ACV-CC-F0023A | 2.00E-03 | 7.43E-05 | 1.04 | AIR OPERATED VALVE F0023A FAILS TO OPEN |
| P21-ACV-CC-F0023B | 2.00E-03 | 9.22E-05 | 1.04 | AIR OPERATED VALVE F0023B FAILS TO OPEN |
| P21-ACV-OO-CCF23_1_2 | 2.22E-04 | 4.27E-05 | 1.19 | CCF of two components: P21-ACV-OO-F023A & P21-ACV-OO-F023B |
| P21-ACV-OO-F0004 | 2.00E-03 | 4.16E-04 | 1.21 | AIR OPERATED VALVE F0004 FAILS TO CLOSE |
| P21-ACV-OO-F0007 | 2.00E-03 | 4.16E-04 | 1.21 | AIR OPERATED VALVE F0007 FAILS TO CLOSE |
| P21-ACV-OO-F0016_1_2 | 1.93E-04 | 3.71E-05 | 1.19 | CCF of two components: P21-ACV-OO-F016A & P21-ACV-OO-F016B |
| P21-ACV-OO-F0020 | 2.00E-03 | 4.16E-04 | 1.21 | AIR OPERATED VALVE F0020 FAILS TO CLOSE |
| P21-ACV-OO-F0027 | 2.00E-03 | 4.16E-04 | 1.21 | AIR OPERATED VALVE F0027 FAILS TO CLOSE |
| P21-ACV-OO-F0061 | 2.00E-03 | 4.16E-04 | 1.21 | AIR OPERATED VALVE F0061 FAILS TO CLOSE |
| P21-ACV-OO-F016A | 2.00E-03 | 7.43E-05 | 1.04 | AIR OPERATED VALVE F016A FAILS TO CLOSE |
| P21-ACV-OO-F016B | 2.00E-03 | 9.22E-05 | 1.04 | AIR OPERATED VALVE F016B FAILS TO CLOSE |
| P21-ACV-OO-F023A | 2.00E-03 | 7.43E-05 | 1.04 | AIR OPERATED VALVE FAILS TO CLOSE |
| P21-ACV-OO-F023B | 2.00E-03 | 9.22E-05 | 1.04 | AIR OPERATED VALVE FAILS TO CLOSE |
| P21-ACV-OO-XTIE_1_2_3 | 6.03E-06 | 9.33E-07 | 1.14 | CCF of three components: P21-ACV-OO-F0004 & P21-ACV-OO-F0007 & P21-ACV-OO-F0020 |
| P21-ACV-OO-XTIE_1_2_4 | 6.03E-06 | 9.33E-07 | 1.14 | CCF of three components: P21-ACV-OO-F0004 & P21-ACV-OO-F0007 & P21-ACV-OO-F0027 |
| P21-ACV-OO-XTIE_1_2_5 | 6.03E-06 | 9.33E-07 | 1.14 | CCF of three components: P21-ACV-OO-F0004 & P21-ACV-OO-F0007 & P21-ACV-OO-F0061 |
| P21-ACV-OO-XTIE_1_3_4 | 6.03E-06 | 9.33E-07 | 1.14 | CCF of three components: P21-ACV-OO-F0004 & P21-ACV-OO-F0020 & P21-ACV-OO-F0027 |

## Table 14-6

## High Winds Shutdown Importance Measure Report

**F-V and RAW Importance Measures Report**
**(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**

| | | | | |
|---|---|---|---|---|
| P21-ACV-OO-XTIE_1_3_5 | 6.03E-06 | 9.33E-07 | 1.14 | CCF of three components: P21-ACV-OO-F0004 & P21-ACV-OO-F0020 & P21-ACV-OO-F0061 |
| P21-ACV-OO-XTIE_1_4_5 | 6.03E-06 | 9.33E-07 | 1.14 | CCF of three components: P21-ACV-OO-F0004 & P21-ACV-OO-F0027 & P21-ACV-OO-F0061 |
| P21-ACV-OO-XTIE_2_3_4 | 6.03E-06 | 9.33E-07 | 1.14 | CCF of three components: P21-ACV-OO-F0007 & P21-ACV-OO-F0020 & P21-ACV-OO-F0027 |
| P21-ACV-OO-XTIE_2_3_5 | 6.03E-06 | 9.33E-07 | 1.14 | CCF of three components: P21-ACV-OO-F0007 & P21-ACV-OO-F0020 & P21-ACV-OO-F0061 |
| P21-ACV-OO-XTIE_2_4_5 | 6.03E-06 | 9.33E-07 | 1.14 | CCF of three components: P21-ACV-OO-F0007 & P21-ACV-OO-F0027 & P21-ACV-OO-F0061 |
| P21-ACV-OO-XTIE_3_4_5 | 6.03E-06 | 9.33E-07 | 1.14 | CCF of three components: P21-ACV-OO-F0020 & P21-ACV-OO-F0027 & P21-ACV-OO-F0061 |
| P21-ACV-OO-XTIE_ALL | 1.21E-04 | 2.26E-05 | 1.19 | CCF of all components in group 'P21-ACV-OO-XTIE' |
| P21-AHU-FR_1_2 | 1.26E-05 | 1.87E-06 | 1.14 | CCF of two components: P21-AHU-FR-RCCWA & P21-AHU-FR-RCCWB |
| P21-AHU-FR-RCCWA | 2.40E-04 | 3.73E-06 | 1.01 | AIR HANDLING UNIT RCCWS ROOM A FAILS TO RUN |
| P21-AHU-FR-RCCWB | 2.40E-04 | 3.73E-06 | 1.01 | AIR HANDLING UNIT RCCWS ROOM TRAIN B FAILS TO RUN |
| P21-AHU-FS_1_2 | 6.67E-04 | 1.30E-04 | 1.19 | CCF of two components: P21-AHU-FS-RCCWA & P21-AHU-FS-RCCWB |
| P21-AHU-FS-RCCWA | 6.00E-03 | 2.72E-04 | 1.04 | AIR HANDLING UNIT RCCWS ROOM A FAILS TO START |
| P21-AHU-FS-RCCWB | 6.00E-03 | 3.57E-04 | 1.06 | AIR HANDLING UNIT RCCWS ROOM B FAILS TO START |
| P21-MOV-CC_1_2 | 2.06E-04 | 3.17E-06 | 1.01 | CCF of two components: P21-MOV-CC-F034A & P21-MOV-CC-F034B |
| P21-MOV-CC_ALL | 1.48E-04 | 2.76E-05 | 1.19 | CCF of all components in group 'P21-MOV-CC' |
| P21-MOV-CC-F0010A3 | 4.00E-03 | 1.77E-04 | 1.04 | MOTOR OPERATED VALVE F0010A3 FAILS TO OPEN |
| P21-MOV-CC-F0010B1 | 4.00E-03 | 2.25E-04 | 1.06 | MOTOR OPERATED VALVE F0010B1 FAILS TO OPEN |
| P21-MOV-CC-F0010B2 | 4.00E-03 | 2.25E-04 | 1.06 | MOTOR OPERATED VALVE F0010B2 FAILS TO OPEN |
| P21-MOV-CC-F0010B3 | 4.00E-03 | 2.25E-04 | 1.06 | MOTOR OPERATED VALVE F0010B3 FAILS TO OPEN |
| P21-MOV-CC-F034A | 4.00E-03 | 1.77E-04 | 1.04 | MOV P21-F034A FROM RCCWS TO RWCU/SDC HX-A FAILS TO OPEN |
| P21-MOV-CC-F034B | 4.00E-03 | 1.77E-04 | 1.04 | MOV P21-F034B FROM RCCWS TO RWCU/SDC HX-B FAILS TO OPEN |
| P21-MP_-FS_ALL | 1.87E-04 | 3.58E-05 | 1.19 | CCF of all components in group 'P21-MP_-FS' |
| P21-MPC-FR-C001A | 6.00E-04 | 1.31E-05 | 1.02 | MOTOR DRIVEN PUMP C001A FAILS TO RUN |

## Table 14-6

## High Winds Shutdown Importance Measure Report

**F-V and RAW Importance Measures Report**
**(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**

| | | | | |
|---|---|---|---|---|
| P21-MPC-FR-C001B | 6.00E-04 | 1.31E-05 | 1.02 | MOTOR DRIVEN PUMP C001B FAILS TO RUN |
| P21-MPC-FR-C002A | 6.00E-04 | 1.31E-05 | 1.02 | MOTOR-DRIVEN PUMP C002A FAILS TO RUN |
| P21-MPC-FR-C002B | 6.00E-04 | 1.31E-05 | 1.02 | MOTOR-DRIVEN PUMP C002B FAILS TO RUN |
| P21-MPC-FR-C003A | 6.00E-04 | 1.31E-05 | 1.02 | MOTOR-DRIVEN PUMP C0003A FAILS TO RUN |
| P21-MPC-FR-C003B | 6.00E-04 | 1.31E-05 | 1.02 | MOTOR-DRIVEN PUMP C003B FAILS TO RUN |
| P21-MPC-FS-C001A | 2.00E-03 | 7.43E-05 | 1.04 | MOTOR DRIVEN PUMP C001A FAILS TO START |
| P21-MPC-FS-C001B | 2.00E-03 | 9.22E-05 | 1.04 | MOTOR-DRIVEN PUMP C001B FAILS TO START |
| P21-MPC-FS-C002A | 2.00E-03 | 7.43E-05 | 1.04 | MOTOR-DRIVEN PUMP C002A FAILS TO START |
| P21-MPC-FS-C002B | 2.00E-03 | 9.22E-05 | 1.04 | MOTOR-DRIVEN PUMP C002B FAILS TO START |
| P21-MPC-FS-C003A | 2.00E-03 | 7.43E-05 | 1.04 | MOTOR-DRIVEN PUMP C0003A FAILS TO START |
| P21-MPC-FS-C003B | 2.00E-03 | 9.22E-05 | 1.04 | MOTOR-DRIVEN PUMP C003B FAILS TO START |
| P21-NSC-TM-B001A | 1.50E-03 | 5.06E-05 | 1.03 | HEAT EXCHANGER B001A UNAVAILABLE DUE TO MAINTENANCE |
| P21-NSC-TM-B001B | 1.50E-03 | 5.80E-05 | 1.04 | HEAT EXCHANGER B001B UNAVAILABLE DUE TO MAINTENANCE |
| P21-NSC-TM-B002A | 1.50E-03 | 5.06E-05 | 1.03 | HEAT EXCHANGER B002A UNAVAILABLE DUE TO MAINTENANCE |
| P21-NSC-TM-B002B | 1.50E-03 | 5.80E-05 | 1.04 | HEAT EXCHANGER B002B UNAVAILABLE DUE TO MAINTENANCE |
| P21-NSC-TM-B003A | 1.50E-03 | 5.06E-05 | 1.03 | HEAT EXCHANGER B003A UNAVAILABLE DUE TO MAINTENANCE |
| P21-NSC-TM-B003B | 1.50E-03 | 5.80E-05 | 1.04 | HEAT EXCHANGER B003B UNAVAILABLE DUE TO MAINTENANCE |
| P21-NSC-TM-C001A | 1.50E-03 | 5.06E-05 | 1.03 | PUMP C001A IN MAINTENANCE |
| P21-NSC-TM-C001B | 1.50E-03 | 5.80E-05 | 1.04 | PUMP C001B IN MAINTENANCE |
| P21-NSC-TM-C002A | 1.50E-03 | 5.06E-05 | 1.03 | PUMP C002A IN MAINTENANCE |
| P21-NSC-TM-C002B | 1.50E-03 | 5.80E-05 | 1.04 | PUMP C002B IN MAINTENANCE |
| P21-NSC-TM-C003A | 1.50E-03 | 5.06E-05 | 1.03 | PUMP C003A IN MAINTENANCE |
| P21-NSC-TM-C003B | 1.50E-03 | 5.80E-05 | 1.04 | PUMP C003B IN MAINTENANCE |

## Table 14-6

## High Winds Shutdown Importance Measure Report

**F-V and RAW Importance Measures Report**
**(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**

| | | | | |
|---|---|---|---|---|
| P21-TRN-RE-HX1A | 8.07E-03 | 3.77E-04 | 1.05 | FAILURE TO RESTORE RCCW TRAIN 1A HX |
| P21-TRN-RE-HX1B | 8.07E-03 | 5.54E-04 | 1.07 | FAILURE TO RESTORE RCCW TRAIN 1B HX |
| P21-TRN-RE-HX2A | 8.07E-03 | 3.77E-04 | 1.05 | FAILURE TO RESTORE RCCW TRAIN 2A HX |
| P21-TRN-RE-HX2B | 8.07E-03 | 5.54E-04 | 1.07 | FAILURE TO RESTORE RCCW TRAIN 2B HX |
| P21-TRN-RE-HX3A | 8.07E-03 | 3.77E-04 | 1.05 | FAILURE TO RESTORE RCCW TRAIN 3A HX |
| P21-TRN-RE-HX3B | 8.07E-03 | 5.54E-04 | 1.07 | FAILURE TO RESTORE RCCW TRAIN 3B HX |
| P21-TRN-RE-PUMP1A | 8.07E-03 | 3.77E-04 | 1.05 | FAILURE TO RESTORE RCCW TRAIN 1A PUMP |
| P21-TRN-RE-PUMP1B | 8.07E-03 | 5.54E-04 | 1.07 | FAILURE TO RESTORE RCCW TRAIN 1B PUMP |
| P21-TRN-RE-PUMP2A | 8.07E-03 | 3.77E-04 | 1.05 | FAILURE TO RESTORE RCCW TRAIN 2A PUMP |
| P21-TRN-RE-PUMP2B | 8.07E-03 | 5.54E-04 | 1.07 | FAILURE TO RESTORE RCCW TRAIN 2B PUMP |
| P21-TRN-RE-PUMP3A | 8.07E-03 | 3.77E-04 | 1.05 | FAILURE TO RESTORE RCCW TRAIN 3A PUMP |
| P21-TRN-RE-PUMP3B | 8.07E-03 | 5.54E-04 | 1.07 | FAILURE TO RESTORE RCCW TRAIN 3B PUMP |
| P41-ACV-CC_ALL | 1.21E-04 | 2.26E-05 | 1.19 | CCF of all components in group 'P41-ACV-CC' |
| P41-ACV-CC-F004A | 2.00E-03 | 7.43E-05 | 1.04 | AIR OPERATED VALVE F004A FAILS TO OPEN |
| P41-ACV-CC-F004B | 2.00E-03 | 9.22E-05 | 1.04 | AIR OPERATED VALVE F004B FAILS TO OPEN |
| P41-ACV-CC-F006A | 2.00E-03 | 7.43E-05 | 1.04 | AIR OPERATED VALVE F006A FAILS TO OPEN |
| P41-ACV-CC-F006B | 2.00E-03 | 9.22E-05 | 1.04 | AIR OPERATED VALVE F006B FAILS TO OPEN |
| P41-ACV-CC-F009A | 2.00E-03 | 7.43E-05 | 1.04 | AIR OPERATED VALVE F009A FAILS TO OPEN |
| P41-ACV-CC-F009B | 2.00E-03 | 9.22E-05 | 1.04 | AIR OPERATED VALVE F009B FAILS TO OPEN |
| P41-FAN-FR_ALL | 1.20E-05 | 1.68E-06 | 1.14 | CCF of all components in group 'P41-FAN-FR' |
| P41-FAN-FS_ALL | 1.42E-05 | 2.05E-06 | 1.14 | CCF of all components in group 'P41-FAN-FS' |
| P41-MOV-CC-PMP_1_2_3 | 1.36E-05 | 2.05E-06 | 1.14 | CCF of three components: P41-MOV-CC-PMPF002A & P41-MOV-CC-PMPF002B & P41-MOV-CC- |
| P41-MOV-CC-PMP_1_2_4 | 1.36E-05 | 2.05E-06 | 1.14 | CCF of three components: P41-MOV-CC-PMPF002A & P41-MOV-CC-PMPF002B & P41-MOV-CC- |

## Table 14-6

## High Winds Shutdown Importance Measure Report

**F-V and RAW Importance Measures Report**
**(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**

| | | | | |
|---|---|---|---|---|
| P41-MOV-CC-PMP_1_3_4 | 1.36E-05 | 2.05E-06 | 1.14 | CCF of three components: P41-MOV-CC-PMPF002A & P41-MOV-CC-PMPF004A & P41-MOV-CC- |
| P41-MOV-CC-PMP_2_3_4 | 1.36E-05 | 2.05E-06 | 1.14 | CCF of three components: P41-MOV-CC-PMPF002B & P41-MOV-CC-PMPF004A & P41-MOV-CC- |
| P41-MOV-CC-PMP_ALL | 1.45E-04 | 2.71E-05 | 1.19 | CCF of all components in group 'P41-MOV-CC-PMP' |
| P41-MPW-FS_1_2_3 | 1.89E-05 | 2.80E-06 | 1.14 | CCF of three components: P41-MPW-FS-C001A & P41-MPW-FS-C001B & P41-MPW-FS-C002A |
| P41-MPW-FS_1_2_4 | 1.89E-05 | 2.80E-06 | 1.14 | CCF of three components: P41-MPW-FS-C001A & P41-MPW-FS-C001B & P41-MPW-FS-C002B |
| P41-MPW-FS_1_3_4 | 1.89E-05 | 2.80E-06 | 1.14 | CCF of three components: P41-MPW-FS-C001A & P41-MPW-FS-C002A & P41-MPW-FS-C002B |
| P41-MPW-FS_2_3_4 | 1.89E-05 | 2.80E-06 | 1.14 | CCF of three components: P41-MPW-FS-C001B & P41-MPW-FS-C002A & P41-MPW-FS-C002B |
| P41-MPW-FS_ALL | 1.15E-04 | 2.15E-05 | 1.19 | CCF of all components in group 'P41-MPW-FS' |
| P41-SYS-FC-HVACPSW-A | 1.00E-03 | 2.24E-06 | 1 | PSW-A ROOM COOLING FAILURE |
| P41-SYS-FC-HVACPSW-B | 1.00E-03 | 2.24E-06 | 1 | PSW-B ROOM COOLING FAILURE |
| P41-TRN-RE-PUMP1A | 8.07E-03 | 1.12E-06 | 1 | FAILURE TO RESTORE PSW PUMP 1A |
| P41-TRN-RE-PUMP1B | 8.07E-03 | 1.12E-06 | 1 | FAILURE TO RESTORE PSW PUMP 1B |
| P41-TRN-RE-PUMP2A | 8.07E-03 | 1.12E-06 | 1 | FAILURE TO RESTORE PSW PUMP 2A |
| P41-TRN-RE-PUMP2B | 8.07E-03 | 1.12E-06 | 1 | FAILURE TO RESTORE PSW PUMP 2B |
| R11-MCB-CC-A3RATAY | 5.00E-04 | 1.10E-05 | 1.02 | MEDIUM CIRCUIT BREAKER FOR RAT A Y-WINDING FAILS TO OPEN |
| R11-MCB-CC-A3UATAY | 4.00E-03 | 1.77E-04 | 1.04 | MEDIUM VOLTAGE CIRCUIT BREAKER FOR UAT A Y-WINDING FAILS TO OPEN |
| R11-MCB-CC-B3RATBY | 5.00E-04 | 1.10E-05 | 1.02 | MEDIUM CIRCUIT BREAKER FOR RAT B Y-WINDING FAILS TO OPEN |
| R11-MCB-CC-B3UATBY | 4.00E-03 | 2.25E-04 | 1.06 | MEDIUM VOLTAGE CIRCUIT BREAKER FOR UAT B Y-WINDING FAILS TO OPEN |
| R11-MCB-CC-CCFNORM_3_7 | 3.18E-05 | 6.16E-06 | 1.19 | CCF of two components: R11-MCB-CC-A3RATAY & R11-MCB-CC-B3RATBY |
| R11-MCB-CC-CCFNORM_3_8 | 3.18E-05 | 6.16E-06 | 1.19 | CCF of two components: R11-MCB-CC-A3RATAY & R11-MCB-CC-B3UATBY |
| R11-MCB-CC-CCFNORM_4_7 | 3.18E-05 | 6.16E-06 | 1.19 | CCF of two components: R11-MCB-CC-A3UATAY & R11-MCB-CC-B3RATBY |
| R11-MCB-CC-CCFNORM_4_8 | 3.18E-05 | 6.16E-06 | 1.19 | CCF of two components: R11-MCB-CC-A3UATAY & R11-MCB-CC-B3UATBY |
| R11-MCB-CC-CCFNORM_ALL | 2.00E-04 | 3.84E-05 | 1.19 | CCF of all components in group 'R11-MCB-CC-CCFNORM' |

## Table 14-6

## High Winds Shutdown Importance Measure Report

**F-V and RAW Importance Measures Report**
**(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**

| | | | | |
|---|---|---|---|---|
| R11-MCB-OO-A3DGA | 2.40E-03 | 8.90E-05 | 1.04 | MEDIUM VOLTAGE CIRCUIT BREAKER FOR DG-A FAILS TO CLOSE |
| R11-MCB-OO-B3DGA | 2.40E-03 | 1.17E-04 | 1.05 | MEDIUM VOLTAGE CIRCUIT BREAKER FOR DG-B FAILS TO CLOSE |
| R11-MCB-OO-CCFALT_3_7 | 1.90E-05 | 2.80E-06 | 1.14 | CCF of two components: R11-MCB-OO-A3DGA & R11-MCB-OO-B3DGA |
| R11-MCB-OO-CCFALT_ALL | 1.20E-04 | 2.24E-05 | 1.19 | CCF of all components in group 'R11-MCB-OO-CCFALT' |
| R11-RE_-FO-CCFSYNC_3_6 | 9.73E-06 | 1.49E-06 | 1.14 | CCF of two components: R11-RE_-FO-SYNC00A3 & R11-RE_-FO-SYNC00B3 |
| R11-RE_-FO-CCFSYNC_ALL | 4.38E-05 | 8.21E-06 | 1.19 | CCF of all components in group 'R11-RE_-FO-CCFSYNC' |
| R11-RE_-FO-CCFUV_3_6 | 9.73E-06 | 1.49E-06 | 1.14 | CCF of two components: R11-RE_-FO-UV00A3 & R11-RE_-FO-UV00B3 |
| R11-RE_-FO-CCFUV_ALL | 4.38E-05 | 8.21E-06 | 1.19 | CCF of all components in group 'R11-RE_-FO-CCFUV' |
| R11-RE_-FO-SYNC00A3 | 8.76E-04 | 2.58E-05 | 1.03 | SYNC RELAY FOR 1000A3 FAILS TO OPERATE |
| R11-RE_-FO-SYNC00B3 | 8.76E-04 | 2.58E-05 | 1.03 | SYNC RELAY FOR 1000B3 FAILS TO OPERATE |
| R11-RE_-FO-UV00A3 | 8.76E-04 | 2.58E-05 | 1.03 | 1000A3 UV RELAY FAILS TO OPERATE ON UV COND |
| R11-RE_-FO-UV00B3 | 8.76E-04 | 2.58E-05 | 1.03 | 1000B3 UV RELAY FAILS TO OPERATE ON UV COND |
| R13-INV-FC-CCFNSR_1_3_5 | 2.11E-07 | 9.70E-06 | 46.65 | CCF of three components: R13-INV-FC-R13A1 & R13-INV-FC-R13B1 & R13-INV-FC-R13C |
| R13-INV-FC-CCFNSR_ALL | 1.14E-05 | 5.50E-04 | 49.32 | CCF of all components in group 'R13-INV-FC-CCFNSR' |
| R13-INV-FC-CCFSR_1_2 | 1.81E-06 | 1.42E-05 | 8.75 | CCF of two components: R13-INV-FC-R1311 & R13-INV-FC-R1312 |
| R13-INV-FC-CCFSR_3_4 | 1.81E-06 | 1.42E-05 | 8.75 | CCF of two components: R13-INV-FC-R1321 & R13-INV-FC-R1322 |
| R13-INV-FC-CCFSR_ALL | 1.14E-05 | 1.51E-02 | 1.32E+03 | CCF of all components in group 'R13-INV-FC-CCFSR' |
| R16-BDC-TM-R16A3 | 5.00E-04 | 1.10E-05 | 1.02 | DC BUS R16-A3 IN MAINTENANCE |
| R16-BDC-TM-R16B3 | 5.00E-04 | 1.10E-05 | 1.02 | DC BUS R16-B3 IN MAINTENANCE |
| R16-BT_-LP-CCFNSR_ALL | 4.07E-07 | 1.90E-05 | 47.06 | CCF of all components in group 'R16-BT_-LP-CCFNSR' |
| R16-BT_-LP-CCFSR_ALL | 4.07E-07 | 2.94E-04 | 711.31 | CCF of all components in group 'R16-BT_-LP-CCFSR' |
| R16-BT_-TM-R16BTA3 | 5.00E-04 | 1.10E-05 | 1.02 | BATTERY R16-BTA3 IN TEST AND MAINTENANCE |
| R16-BT_-TM-R16BTB3 | 5.00E-04 | 1.10E-05 | 1.02 | BATTERY R16-BTB3 IN TEST AND MAINTENANCE |

## Table 14-6

## High Winds Shutdown Importance Measure Report

**F-V and RAW Importance Measures Report**
**(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**

| | | | | |
|---|---|---|---|---|
| R21-AHU-FR-3A | 2.40E-04 | 3.73E-06 | 1.01 | AIR HANDLING UNIT FAILS TO RUN |
| R21-AHU-FR-3B | 2.40E-04 | 3.73E-06 | 1.01 | AIR HANDLING UNIT FAILS TO RUN |
| R21-AHU-FR-AHU3_1_2 | 1.26E-05 | 1.87E-06 | 1.14 | CCF of two components: R21-AHU-FR-3A & R21-AHU-FR-3B |
| R21-AHU-FS-3A | 6.00E-03 | 2.72E-04 | 1.04 | AIR HANDLING UNIT FAILS TO START |
| R21-AHU-FS-3B | 6.00E-03 | 3.57E-04 | 1.06 | AIR HANDLING UNIT FAILS TO START |
| R21-AHU-FS-AHU3_1_2 | 6.67E-04 | 1.30E-04 | 1.19 | CCF of two components: R21-AHU-FS-3A & R21-AHU-FS-3B |
| R21-DG_-FR-CCF_1_2 | 4.54E-03 | 9.72E-04 | 1.21 | CCF of two components: R21-DG_-FR-DGA & R21-DG_-FR-DGB |
| R21-DG_-FR-DGA | 5.76E-02 | 2.97E-03 | 1.05 | DIESEL GENERATOR "A" FAILS TO RUN GIVEN START |
| R21-DG_-FR-DGB | 5.76E-02 | 4.80E-03 | 1.08 | DIESEL GENERATOR "B" FAILS TO RUN GIVEN START |
| R21-DG_-FS-CCF_1_2 | 2.86E-04 | 5.49E-05 | 1.19 | CCF of two components: R21-DG_-FS-DGA & R21-DG_-FS-DGB |
| R21-DG_-FS-DGA | 1.40E-02 | 6.94E-04 | 1.05 | DG-A FAILS TO START AND LOAD |
| R21-DG_-FS-DGB | 1.40E-02 | 1.03E-03 | 1.07 | DG-B FAILS TO START AND LOAD |
| R21-DG_-TM-DGA | 4.60E-02 | 1.93E-03 | 1.04 | STANDBY DIESEL GENERATOR "A" IN MAINTENANCE |
| R21-DG_-TM-DGB | 4.60E-02 | 3.34E-03 | 1.07 | STANDBY DIESEL GENERATOR "B" IN MAINTENANCE |
| R21-FAN-FR-10A | 2.40E-04 | 3.73E-06 | 1.01 | BLOWER/VENTILATION FAN FAILS TO RUN |
| R21-FAN-FR-10B | 2.40E-04 | 3.73E-06 | 1.01 | BLOWER/VENTILATION FAN FAILS TO RUN |
| R21-FAN-FR-11A | 2.40E-04 | 3.73E-06 | 1.01 | BLOWER/VENTILATION FAN FAILS TO RUN |
| R21-FAN-FR-11B | 2.40E-04 | 3.73E-06 | 1.01 | BLOWER/VENTILATION FAN FAILS TO RUN |
| R21-FAN-FR-12A | 2.40E-04 | 3.73E-06 | 1.01 | BLOWER/VENTILATION FAN FAILS TO RUN |
| R21-FAN-FR-12B | 2.40E-04 | 3.73E-06 | 1.01 | BLOWER/VENTILATION FAN FAILS TO RUN |
| R21-FAN-FR-AHU2_1_2 | 1.26E-05 | 1.87E-06 | 1.14 | CCF of two components: R21-FAN-FR-AHU2A & R21-FAN-FR-AHU2B |
| R21-FAN-FR-AHU2A | 2.40E-04 | 3.73E-06 | 1.01 | DG-A NORMAL VENTILATION FAN FAILS TO RUN |
| R21-FAN-FR-AHU2B | 2.40E-04 | 3.73E-06 | 1.01 | BLOWER/VENTILATION FAN FAILS TO RUN |

## Table 14-6

## High Winds Shutdown Importance Measure Report

**F-V and RAW Importance Measures Report**
**(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**

| | | | | |
|---|---|---|---|---|
| R21-FAN-FS-10A | 6.00E-04 | 1.31E-05 | 1.02 | BLOWER/VENTILATION FAN FAILS TO START |
| R21-FAN-FS-10B | 6.00E-04 | 1.31E-05 | 1.02 | BLOWER/VENTILATION FAN FAILS TO START |
| R21-FAN-FS-11A | 6.00E-04 | 1.31E-05 | 1.02 | BLOWER/VENTILATION FAN FAILS TO START |
| R21-FAN-FS-11B | 6.00E-04 | 1.31E-05 | 1.02 | BLOWER/VENTILATION FAN FAILS TO START |
| R21-FAN-FS-12A | 6.00E-04 | 1.31E-05 | 1.02 | BLOWER/VENTILATION FAN FAILS TO START |
| R21-FAN-FS-12B | 6.00E-04 | 1.31E-05 | 1.02 | BLOWER/VENTILATION FAN FAILS TO START |
| R21-FAN-FS-ROOF_1_2 | 6.67E-06 | 9.33E-07 | 1.14 | CCF of two components: R21-FAN-FS-10A & R21-FAN-FS-10B |
| R21-FAN-FS-ROOF_1_4 | 6.67E-06 | 9.33E-07 | 1.14 | CCF of two components: R21-FAN-FS-10A & R21-FAN-FS-11B |
| R21-FAN-FS-ROOF_1_6 | 6.67E-06 | 9.33E-07 | 1.14 | CCF of two components: R21-FAN-FS-10A & R21-FAN-FS-12B |
| R21-FAN-FS-ROOF_2_3 | 6.67E-06 | 9.33E-07 | 1.14 | CCF of two components: R21-FAN-FS-10B & R21-FAN-FS-11A |
| R21-FAN-FS-ROOF_2_5 | 6.67E-06 | 9.33E-07 | 1.14 | CCF of two components: R21-FAN-FS-10B & R21-FAN-FS-12A |
| R21-FAN-FS-ROOF_3_4 | 6.67E-06 | 9.33E-07 | 1.14 | CCF of two components: R21-FAN-FS-11A & R21-FAN-FS-11B |
| R21-FAN-FS-ROOF_3_6 | 6.67E-06 | 9.33E-07 | 1.14 | CCF of two components: R21-FAN-FS-11A & R21-FAN-FS-12B |
| R21-FAN-FS-ROOF_4_5 | 6.67E-06 | 9.33E-07 | 1.14 | CCF of two components: R21-FAN-FS-11B & R21-FAN-FS-12A |
| R21-FAN-FS-ROOF_5_6 | 6.67E-06 | 9.33E-07 | 1.14 | CCF of two components: R21-FAN-FS-12A & R21-FAN-FS-12B |
| R21-FAN-FS-ROOF_ALL | 3.00E-05 | 5.60E-06 | 1.19 | CCF of all components in group 'R21-FAN-FS-ROOF' |
| R21-FLT-PG-DGA | 3.60E-03 | 1.56E-04 | 1.04 | FILTER PLUGGED |
| R21-FLT-PG-DGB | 3.60E-03 | 2.00E-04 | 1.05 | FILTER PLUGGED |
| R21-MCB-CC-1LOAD1 | 5.00E-04 | 1.10E-05 | 1.02 | CIRCUIT BREAKER TO LOAD 1 FAILS TO OPEN |
| R21-MCB-CC-1LOAD2 | 5.00E-04 | 1.10E-05 | 1.02 | CIRCUIT BREAKER TO LOAD 2 FAILS TO OPEN |
| R21-MCB-CC-1LOAD3 | 5.00E-04 | 1.10E-05 | 1.02 | CIRCUIT BREAKER TO LOAD 3 FAILS TO OPEN |
| R21-MCB-CC-1LOAD4 | 5.00E-04 | 1.10E-05 | 1.02 | CIRCUIT BREAKER TO LOAD 4 FAILS TO OPEN |
| R21-MCB-CC-1LOAD5 | 5.00E-04 | 1.10E-05 | 1.02 | CIRCUIT BREAKER TO LOAD 5 FAILS TO OPEN |

## Table 14-6

## High Winds Shutdown Importance Measure Report

**F-V and RAW Importance Measures Report**
**(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**

| | | | | |
|---|---|---|---|---|
| R21-MCB-CC-2LOAD1 | 5.00E-04 | 1.10E-05 | 1.02 | CIRCUIT BREAKER TO LOAD 1 FAILS TO OPEN |
| R21-MCB-CC-2LOAD2 | 5.00E-04 | 1.10E-05 | 1.02 | CIRCUIT BREAKER TO LOAD 2 FAILS TO OPEN |
| R21-MCB-CC-2LOAD3 | 5.00E-04 | 1.10E-05 | 1.02 | CIRCUIT BREAKER TO LOAD 3 FAILS TO OPEN |
| R21-MCB-CC-2LOAD4 | 5.00E-04 | 1.10E-05 | 1.02 | CIRCUIT BREAKER TO LOAD 4 FAILS TO OPEN |
| R21-MCB-CC-2LOAD5 | 5.00E-04 | 1.10E-05 | 1.02 | CIRCUIT BREAKER TO LOAD 5 FAILS TO OPEN |
| R21-MCB-CC-CCFLS_1_2 | 5.56E-05 | 1.04E-05 | 1.19 | CCF of two components: R21-MCB-CC-1LOAD1 & R21-MCB-CC-2LOAD1 |
| R21-MOD-CC-1_1_2 | 3.33E-04 | 6.38E-05 | 1.19 | CCF of two components: R21-MOD-CC-1A & R21-MOD-CC-1B |
| R21-MOD-CC-1A | 3.00E-03 | 1.27E-04 | 1.04 | MOTOR-OPERATED DAMPER FAILS TO OPEN |
| R21-MOD-CC-1B | 3.00E-03 | 1.63E-04 | 1.05 | MOTOR-OPERATED DAMPER FAILS TO OPEN |
| R21-MOD-CC-2A | 3.00E-03 | 1.27E-04 | 1.04 | MOTOR-OPERATED DAMPER FAILS TO OPEN |
| R21-MOD-CC-2B | 3.00E-03 | 1.63E-04 | 1.05 | MOTOR-OPERATED DAMPER FAILS TO OPEN |
| R21-MOD-CC-3A | 3.00E-03 | 1.27E-04 | 1.04 | MOTOR-OPERATED DAMPER FAILS TO OPEN |
| R21-MOD-CC-3B | 3.00E-03 | 1.63E-04 | 1.05 | MOTOR-OPERATED DAMPER FAILS TO OPEN |
| R21-MOD-CC-4A | 3.00E-03 | 1.27E-04 | 1.04 | MOTOR-OPERATED DAMPER FAILS TO OPEN |
| R21-MOD-CC-4B | 3.00E-03 | 1.63E-04 | 1.05 | MOTOR-OPERATED DAMPER FAILS TO OPEN |
| R21-MOD-CC-5A | 3.00E-03 | 1.27E-04 | 1.04 | MOTOR-OPERATED DAMPER FAILS TO OPEN |
| R21-MOD-CC-5B | 3.00E-03 | 1.63E-04 | 1.05 | MOTOR-OPERATED DAMPER FAILS TO OPEN |
| R21-MOD-CC-6A | 3.00E-03 | 1.27E-04 | 1.04 | MOTOR-OPERATED DAMPER FAILS TO OPEN |
| R21-MOD-CC-6B | 3.00E-03 | 1.63E-04 | 1.05 | MOTOR-OPERATED DAMPER FAILS TO OPEN |
| R21-MP_-FR-FOPUMP_ALL | 1.42E-05 | 2.05E-06 | 1.14 | CCF of all components in group 'R21-MP_-FR-FOPUMP' |
| R21-MP_-FS-FOPUMP_ALL | 1.00E-04 | 1.87E-05 | 1.19 | CCF of all components in group 'R21-MP_-FS-FOPUMP' |
| R21-TRN-RE-FODG1A | 2.42E-02 | 1.27E-05 | 1 | FAILURE TO RESTORE FUEL OIL TRANSFER TRAIN 1 FOR DG-A |
| R21-TRN-RE-FODG1B | 2.42E-02 | 1.27E-05 | 1 | FAILURE TO RESTORE FUEL OIL TRANSFER TRAIN 1 FOR DG-B |

## Table 14-6

## High Winds Shutdown Importance Measure Report

**F-V and RAW Importance Measures Report**
**(F-V = Fussell-Vesely Importance Measure; RAW = Risk Achievement Worth Importance Measure)**
**High Winds Shutdown**
**Core Damage Frequency = 1.19E-09**

| | | | | |
|---|---|---|---|---|
| R21-TRN-RE-FODG2A | 2.42E-02 | 1.27E-05 | 1 | FAILURE TO RESTORE FUEL OIL TRANSFER TRAIN 2 FOR DG-A |
| R21-TRN-RE-FODG2B | 2.42E-02 | 1.27E-05 | 1 | FAILURE TO RESTORE FUEL OIL TRANSFER TRAIN 2 FOR DG-B |
| U43-BV_-CC-F346 | 4.00E-04 | 1.63E-04 | 1.39 | MANUAL VALVE FAILS TO OPEN |
| U43-BV_-CC-FU439 | 4.00E-04 | 1.63E-04 | 1.39 | MANUAL VALVE FAILS TO OPEN |
| U43-EDP-FR_1_2 | 1.36E-03 | 8.93E-04 | 1.65 | CCF of two components: U43-EDP-FR-P1A & U43-EDP-FR-P2A |
| U43-EDP-FR-P1A | 2.40E-02 | 5.92E-04 | 1.02 | DIESEL-DRIVEN PUMP FAILS TO RUN |
| U43-EDP-FR-P2A | 2.40E-02 | 7.40E-04 | 1.03 | DIESEL-DRIVEN PUMP FAILS TO RUN |
| U43-EDP-FS_1_2 | 2.22E-03 | 1.71E-03 | 1.75 | CCF of two components: U43-EDP-FS-P1A & U43-EDP-FS-P2A |
| U43-EDP-FS-P1A | 2.00E-02 | 4.61E-04 | 1.02 | DIESEL-DRIVEN PUMP FAILS TO START |
| U43-EDP-FS-P2A | 2.00E-02 | 5.84E-04 | 1.03 | DIESEL-DRIVEN PUMP 2A FAILS TO START |
| U43-NSC-TM-P2A | 1.50E-03 | 3.36E-06 | 1 | FPS PUMP P2A IN MAINTENANCE |
| U43-UV_-CC-F347 | 4.00E-04 | 1.63E-04 | 1.39 | CHECK VALVE F347 FAILS TO OPEN |
| U43-UV_-CC-FU438 | 4.00E-04 | 1.63E-04 | 1.39 | CHECK VALVE FAILS TO OPEN |
| U43-XHE-FO-2ND | 1.61E-02 | 3.48E-04 | 1.02 | OPERATOR FAILS TO ALIGN FPS CROSSTIE |
| U43-XHE-FO-LPCI | 1.61E-03 | 9.07E-04 | 1.55 | OPERATOR FAILS TO ACTUATE U43 IN LPCI MODE |
| U43-XHE-FO-LPCIADS | 1.61E-02 | 2.13E-04 | 1.01 | OPER FAILS TO ACTUATE U43 IN LPCI MODE AFTER DEPRESSURIZATION |
| XXX-XHE-FO-LPMAKEUP | 1.61E-01 | 6.74E-01 | 4.51 | OP. FAILS TO RECOG. NEED FOR LOW PRESS. MAKEUP AFTER DEPRESSURIZATION |

**Table 14-7**

**High Winds CET Release Category Frequencies**

| Release Category | Frequency (per year)* |
|---|---|
| TSL | 1.33E-09 |
| FR | ε** |
| BYP | 1.20E-09 |
| OPVB | ε |
| OPW1 | ε |
| OPW2 | ε |
| CCIW | 1.3E-11 |
| CCID | ε |
| EVE | 0.00 |
| DCH | 0.00 |
| BOC | 4.00E-12 |

*The frequency is the summed contribution to the release category from all accident classes, as shown in Table 8A-3. BYP is also augmented with frequency from shutdown operations which assume all shutdown core damage sequences are bypass sequences.

**Calculated frequencies less than 1E-12 are reported as "ε".