REVISION 1 CHANGE ROADMAP

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35	35-28	720 043
39	39-4	720.073 Editorial
39	39-5	720.088 (720.048, 720.074, 720.083, 720.089)
39	39-6	720.088 720.073 (720.048, 720.074, 720.083, and 720 089)
39	39-12	Editorial
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39A	39A-1 through 39A-40	720.088 (720.048, 720.074, 720.083, and 720.089)
41	41-6	720.042
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1. Changes incorporated as a result of Westinghouse responses to NRC Request for Additional Information (RAI) identified by RAI number. RAI number in parenthesis contains a reference to RAI response listed above.

CHAPTER 26

PROTECTION AND SAFETY MONITORING SYSTEM

26.1 System Analysis Description

This chapter evaluates the reliability of the protection and safety monitoring system (PMS) and its ability to initiate the safety-related functions necessary to shut down the plant and to maintain the plant in a safe shutdown condition. Included in the assessed functions are the PMS's capability to control safety-related components in the plant that are operated from the main control room or remote shutdown workstation and to monitor the plant safety-related functions during and following an accident. In particular, the assessed functions of the PMS include the availability of the system to:

- Automatically initiate operation of appropriate systems, including reactivity control systems and to ensure that specified acceptable reactor core and internals design limits, and design limits of the reactor coolant and moderator pressure boundaries, are not exceeded as a result of anticipated operational occurrences, maintenance, and testing

- Sense accident conditions and initiate operation of systems and components important to safety

A description of the PMS function is provided in Chapter 7 of the *AP1000 Design Control Document* (DCD).

The AP1000 instrumentation and control architecture contains the following three major components: 1) the protection and safety monitoring system (PMS), 2) the plant control system (PLS), and 3) the diverse actuation system (DAS). This section focuses on the assessment of the PMS; the DAS and PLS are discussed in Chapters 27 and 28, respectively.

Because of the rapid changes that are taking place in the digital computer and graphic display technologies employed in a modern human system interface, design certification of the AP1000 focuses upon the process used to design and implement instrumentation and control systems for the AP1000, rather than on the specific implementation.

AP1000 DCD Chapter 7 has been written to permit the use of either the protection system hardware described in the AP600 DCD or the Common Qualified Platform (Common Q). The AP600 I&C functional requirements, which have received Design Certification, have been retained to the maximum extent compatible with the Common Q hardware and software and the AP600 hardware and software. The protection system described in the AP600 DCD and the Common Q platform has similar architecture.

The details of the AP1000 PRA I&C model follow the AP600 design. Fault trees for this system are shown in Reference 26-1 (an AP600 reference). The Common Q hardware and software provide a degree of redundancy that is equivalent to the redundancy modeled in the PRA.

The scope of the system analyses includes the following equipment:

- Integrated protection cabinets (IPC)
- Engineered safety features actuation cabinets (ESFAC)
- Protection logic cabinets (PLC)
- Protection logic bus
- Qualified data processing system (QDPS)
- Reactor trip switchgear (RTS)
- Operator controls
- Main control room multiplexers and remote shutdown workstation multiplexers

The following systems, although not formally included in the PMS, are also addressed in this chapter:

- Control rod drive mechanisms (CRDM)
- Sensors

The analysis of the PMS is divided into the following functional groupings:

- Reactor trip
  - Automatic – sensors through breakers and CRDMs
  - Manual – control inputs through breakers and CRDMs

- Engineered safety features (ESF) actuation
  - Automatic – sensors through output driver modules
  - Manual – control inputs through output driver modules

- Indication – QDPS, PMS/PLS/data display system (DDS), DAS

- Reactor coolant pump trip – sensors through breakers (Note that while the reactor coolant pump trip is a function of the engineered safety features, system level trees are developed and reactor coolant pump trip is therefore treated separately from the engineered safety features)

The following paragraphs discuss the general approach taken for the modeling of each of the functional groupings.

Reactor Trip

Three reactor-trip-signal-related trees are developed in this section. These are RTPMS, RTPMS1, and RTSTP. These trees, described later in this chapter, form the models that are used to evaluate the availability of the reactor trip system to shut the reactor down in a swift and safe manner.

Engineered Safety Features Actuation

As part of the system trees that are developed in other chapters of this document, an engineered safety features actuation signal is typically needed as one of the inputs to a system

tree to model complete actuation of an ESF-related component. For each of these required actuation signals, an instrumentation and control subtree is developed to model the unavailability of the engineered safety features to provide the actuation signal upon demand. There are 258 instrumentation and control subtrees developed in this section to support that purpose. The assigned systems/functions that they support in the models are as follows:

- Automatic depressurization system (ADS)
- Containment isolation system (CIS)
- Core makeup tank (CMT)
- Chemical volume and control system (CVS – valves only)
- IRWST/gravity feed (IRW)
- Passive containment cooling (PCS)
- Passive residual heat removal (PRHR)
- Normal residual heat removal (RNS)
- Reactor coolant pump trip (RPT)
- Steam generator system (SGS)

Detailed description of the instrumentation and control subtree development is presented later in this chapter.

Indication

Wherever manual action is credited in the assessment of the PMS, the availability of systems that collect and provide the appropriate information to be displayed as indications to the operator are modeled. A conservative simplified model is applied generically to the PMS assessments to bound the availability of the indication functions. That model is developed as follows:

There are three basic paths that are assumed to be normally available to provide indication to the operator. These are:

- Data display system
- Qualified display processing system
- Diverse actuation system

The assigned unavailability of each of these systems to provide a particular indication is 1.0E-02 failures/demand. While it is expected that the actual unavailabilities of each of these systems to provide indication would be substantially better than the assigned value, there is not a total overlap of indication functions provided across all systems, and the conservative assigned value reflects the consideration of that limitation. These values are also consistent with the assigned unavailability of 1.0E-02 failures/demand for the DAS in general. While this may be a conservative assignment, it is assumed that each of the systems is capable of providing the essential indications required for the PMS functions being modeled at that assigned rate. Therefore, failure of all three systems must occur before total loss of indication to the operator is achieved. This gives a total unavailability for the combinational loss of all indication systems of 1.0E-06 failures/demand. Contribution of common mode failure is

minimized in this evaluation as the DAS is diverse from the DDS and QDPS, and hence, does not have a dominant contribution in this model.

Application of these results in the PMS models is achieved by implementing a node representing the failure of all indication, which has the resultant contribution of 1.0E-06, wherever a manual action is credited. It should be noted that wherever the failure-of-all-indication node is applied, a failure node representing the common mode failure of the associated instrumentation, namely sensors, is also applied. This is done to reflect the fact that while the cabinetry and functions of the DAS versus the PMS may be diverse, the sensors, although independent, are conservatively expected to be of the same type, and hence, susceptible to a common mode failure that could inhibit the availability of an accurate indication across all systems. This too is considered conservative, as multiple queues are usually available to the operator as indications relating to various plant parameters being monitored. The models of the PMS generally only consider the most direct sensor/queue path and do not credit alternate paths.

Reactor Coolant Pump Trip

Three trees are developed to address reactor coolant pump trip function in the assessment. These are the RCL, RCN and RCT trees. Note that these trees represent system level trees and are supported by a number of instrumentation and control subtrees, all of which are developed in this chapter.

The RCL tree addresses the unavailability of the PMS to trip all four reactor coolant pumps following a small LOCA, while the RCT tree addresses the unavailability of the PMS to trip all four reactor coolant pumps following a transient. The RCN tree addresses the unavailability of the PMS to trip all four reactor coolant pumps following an intermediate LOCA.

26.1.1 Analysis of Support Systems

Power Distribution

The incorporation of the ac power distribution scheme for the PMS in the analysis can be divided into the same functional groupings as above.

Reactor Trip .

- Loss of power to modules that support reactor trip functions results in a default state that is towards the trip direction. Loss of power to reactor trip cabinetry results in an effective trip signal from affected cabinet trains. Loss of power to two or more reactor trip cabinet trains results in a reactor trip. Loss of power to trip breakers, and hence CRDMs, also results in a reactor trip. Therefore, no inclusion of the potential for loss of power is applied in reactor trip trees, as these trees are developed to determine the potential for a failure-to-trip-upon-demand state.

Engineered Safety Features Actuation

- Loss of power to modules that support ESF functions leads to a default state that generally results in an ESF actuation state. However, due to the complexity of determining appropriate default states for each plant scenario that could be modeled, a conservative modeling approach has been taken that assumes power is required for proper processing of information and final ESF actuation. Therefore, modeling of the potential for loss of power is included in ESF fault trees. Credit is taken for multiple trains of power that are available, which are backed by plant batteries.

Indication

- Loss of power is assumed to cause loss of the associated indication path under consideration. Contribution due to loss of power is included in the bounding 1.0E-02 unavailability assigned to each system in the indication model. Loss of power does not result in a high contribution due to redundant, battery backed busses that are available.

Reactor Coolant Pump Trip

- Loss of power can affect reactor coolant pump trip in two ways. First is through loss of power to the PMS, which generates the reactor coolant pump trip signal. As discussed above, loss of power is conservatively modeled in the PMS ESF trees. Also, loss of control power required to open reactor coolant pump breakers will cause a failure-to-trip state for reactor coolant pumps. Nodes reflecting the availability of this control power is included in reactor coolant pump trip trees, in conjunction with nodes representing failure of the breakers and failure of the PMS reactor coolant pump trip signal.

Table 26-4 provides a detailed list of the power supporting systems.

Equipment Cooling

Loss of all ventilation for a 24-hour scenario does not lead to the internal cabinet temperature exceeding the design limit of 120°F maximum allowable for proper card operation. In addition, loss of cooling to the PMS cabinets, which could eventually lead to elevated cabinet temperatures, would be detected by cabinet temperature sensors that are continuously monitored by the system. Upon detection of high cabinet temperature, the system assumes a predefined default state. That state is trip for reactor trip functions and actuate for ESF functions (exception: the fourth-stage ADS control signal default states are stay-as-is, as opposed to actuate). However, to conservatively model the possibility for failure of this mechanism, contribution for failure of the cabinet fan unit has been included in the modeling of each cabinet subsystem. Also, conditional probabilities given fan failure and coincident failure of the circuits that detect high temperature have been included as contributions to unavailability in the models.

26.1.2 Analysis of Instrumentation

Field signals are wired directly from the sensor, transmitter, switch, relay contact, or external systems to the PMS input/output (I/O) termination boards. Assignment of the sensors and

input groups to each of the PMS fault tree models is performed on a function-by-function basis in the analyses. Where multiple sensors are shown as inputs to a function and no redundancy or combinational logic is used, all sensors are conservatively assumed to be able to fail the function independently. Table 26-11 shows sensor types that are used in the analyses.

26.1.3 Test and Maintenance Assumptions

Table 26-5 lists the testing frequency of PMS components. Table 26-6 describes the maintenance assumptions.

Automatic Testing

Automatic testing is used to test the IPC, ESFAC, and PLC subsystems. This analysis assumes that the autotester sequence will be initiated quarterly for each associated hardware train (as described in the SSAR). Note that the automatic test requires manual initiation to enable it to perform its automated testing sequence. This test frequency is used in analysis availability equations to define the mission time for systems under consideration.

For more details on automatic testing, see AP600 DCD Section 7.1.

Self-Diagnostic Testing

Automatic self-diagnostic testing is performed during all modes of plant operation. This test is performed continuously to provide early detection of hardware malfunctions. This type of diagnostic testing includes tests such as processor checks, programmable read-only memory block check sums, read/write test of random access memory, check sums of static random access memory data, check sums of shared memory blocks, and data link transmission error detection. Extensive, detailed FMEA and functional block analyses (FBA), have been performed on the PMS modules to determine the effectiveness of these self-tests. In general, the results indicate that approximately 90 to 99 percent of faults that could occur will be detected by diagnostics and cause the system to assume a default state. These results are incorporated into unavailability equations as percentages of faults that are detectable and/or fail-safe.

Additional test and maintenance assumptions for each of the PMS functions are described below.

Reactor Trip

Rod control cluster assemblies of the control rod drive mechanism are tested for movement every 2 weeks. In addition, rod cluster control assemblies are also tested at each refueling. Reactor trip system hardware is internally tested on a continuous basis through application of online diagnostics and is assumed to be functionally tested quarterly to demonstrate operability of all trip functions.

ESF Actuation

ESF system hardware is internally tested on a continuous basis through application of online diagnostics and is assumed to be functionally tested quarterly to demonstrate operability of all ESF functions. This includes testing of the ability to generate the reactor coolant pump trip signal.

Indication

By providing basic indication functions for the plant, effective testing of various indication paths is performed during each use of the indications available. Through comparison of the redundant displays, confirmation of correct processing and display may be assumed to be obtained on a continuous basis.

26.2 Performance During Accident Conditions

This section discusses success criteria for PMS assessments following different initiating events. The PMS provides automatic and manual actuation signals for various systems or functions, which have been listed earlier. Each of the initiating events either generates an appropriate trip demand and/or an ESF actuation. The reactor trip demand de-energizes the control rod drive mechanism and causes latch assemblies of the control rod drive mechanism to release the rod control clusters. Rod cluster control assemblies then fall into the reactor by gravity, causing a reactor shutdown. This control rod drive mechanism is indicated as MGSET in event tree models, and development of its failure probability is given in Section 26.1 of this report. Because the control rod drive mechanism is a passive safety-related system that does not rely on other systems for success, no other initiator would cause failure of the control rod drive mechanism to perform its intended safety function.

For ESF actuation, appropriate initiating events cause an associated ESF starting or controlling signal to ESF components to mitigate plant damage.

Table 26-1 lists fault tree names created in modeling the PMS instrumentation and control system. The success criteria for these fault trees are described in Tables 26-2a through 26-2e.

26.3 Initiating Event Review

This section addresses two issues: initiating events that impact availability of the PMS and initiating events that can be generated due to the failure of the PMS.

26.3.1 Initiating Event Impacting PMS

Reactor Trip

There are no initiating events that will impact availability of the reactor trip system.

ESF Actuation Subsystem

There are no initiating events that will impact availability of the ESF actuation system.

Qualified Display Processing Subsystem

There are no initiating events that will impact availability of the qualified display processing subsystem.

26.3.2 Initiating Event due to Loss of PMS

Reactor Trip

There are other ways to trip the reactor, even if both automatic and manual PMS fail: via automatic and manual diverse actuations (discussed in Chapter 27), local operator action to de-energize the MGSETs, and operator action to manually step in the rods. Hence, PMS failure does not necessarily lead to failure to trip the reactor. However, mechanical failure of the control rod drive mechanism to insert rod cluster control assemblies results in an anticipated trip without scram event. Additionally, failure of the PMS reactor trip can result in a spurious reactor trip.

ESF Actuation Subsystem

PMS failure could lead to failure to actuate ESF systems. This is possible if any of the following three sets of cabinets fail: integrated protection cabinets, engineering safety features actuation cabinets, and protection logic cabinets. In case of integrated protection cabinet or ESF actuation cabinet failure, manual actuation of safety systems and components are still possible. However, failure of protection logic cabinets will fail both automatic and manual actuation of safety components since manual signals pass through protection logic cabinets. Failure of PMS ESF can lead to spurious ESF actuations.

Qualified Display Processing Subsystem

The qualified display processing subsystem has no direct control over plant component actuation and cannot cause an initiating event by itself. Only by failure to indicate correctly, coupled with failure of all other sources of display, failure of associated operator action, and failure of protection systems, is it possible to generate the condition for an initiating event originating from the qualified display processing subsystem.

26.4 System Logic Model Development

This section presents logic models used for quantification of system performance under various conditions. Each model depicts the system, given an initiating event. The top event logic for each model is defined by success criteria, which are directly related to the initiator.

26.4.1 Assumptions and Boundary Conditions

The following assumptions and boundary conditions apply to the assessment of the PMS.

a. The level of detail modeled for the PMS is limited to the circuit board or line replaceable unit level.

b. Wiring and cables are assumed to be available. Typically, failures of this equipment are experienced at termination junctions of transmitting and receiving boards, and failure rates for wiring are typically much lower than transmitting and receiving hardware. Effects of these failures are incorporated into the assessed performance of associated circuits boards. In addition, the level of complexity, coding, and dynamic signaling techniques used in transmission of data (such as deadman timers and on-line diagnostic) throughout the system forces any failures of this type to become uniquely detectable. Effects of these failures is bounded by the performance of transmitting and receiving circuitry.

c. The automatic tester subsystem is not analyzed in this evaluation. The communication subsystem is analyzed only for the part that is used for transmitting signals from the PMS to the plant control system.

d. The self-diagnostic test is conservatively assumed to be automatically completed every 5 minutes with an effectiveness in excess of 90 percent for all components that are monitored within the system. The actual effectiveness assigned is dependent on the module under consideration and the function that module is performing. Each value is used as input to availability equations to form basic event data base numbers.

e. A mean repair time for instrumentation and control components is assumed to be 4 hours for components located in accessible areas during normal plant operation.

f. No contribution due to random software failure is considered, as software failure falls solely under the category of common mode design failures. Appropriate nodes reflecting common mode software failure of individual software implementations and common mode failure of all software implementations within the system are included in the modeling. Development of software common mode models is discussed later in this chapter.

g. Cards connected directly to computer busses are assumed capable of causing busses to fail.

h. Pressure transmitters are used to measure pressure, level, or flow parameters.

The first type of pressure transmitters are those used to continuously interface with reactor pressure and high temperature. This type is a transmitter used to measure the following parameters:

- Pressurizer pressure
- Pressurizer water level
- Steam generator narrow range and wide range water level
- Steam generator steam line pressure
- Startup feedwater flow
- Reactor coolant pump flow

Common cause failures among these transmitters are named CCX-XMTR and/or CCX-XMTR195, as defined in Table 26-9.

The second type of pressure transmitters are those interfacing with high pressure and/or high temperature following an accident. These are the pressure transmitters used to measure containment pressure. Common cause failures among these transmitters are named CCX-XMTR1.

The third type of pressure transmitters are those sensing a system pressure (i.e., no stringent operating conditions). These transmitters (generally measuring pressure or flow) are used to start a standby loop (such as service water) on the failure of the normally operating one. Common cause failures among these transmitters are named CCX-TRNSM.

A fourth type of pressure transmitter is for the in-containment refueling water storage tank (IRWST) low water level. They sense very low pressure and normal temperature except during passive residual heat removal (PRHR) actuation. Common cause failures among these transmitters are named IWX-XMTR.

i. Automatic testing performed by the automatic tester subsystem comprehensively tests all boards every 3 months. A manual starting of the automatic tester subsystem is required.

   A manual test is also performed to permit a complete test of the dynamic trip bus. During this test, the opening of the reactor trip breakers is also verified. This manual test is assumed to be performed every refueling.

j. One protection logic cabinet per engineered safety features actuation cabinets is present. Each protection logic cabinet contains power interface cards. Each power interface card actuates only one component. For the fourth stage of ADS, each Squibb valve is actuated by two power interface cards to preclude inadvertent actuation. Each card performs two-out-of-three voting.

k. The dynamic trip bus is composed of dynamic logic units. One dynamic logic unit per parameter is provided. For example, there is a dynamic logic unit for steam generator level and another for source range neutron flux. For each dynamic logic unit, there is a dedicated trip/normal/bypass switch that allows each individual partial trip function to be manually tripped or bypassed by plant personnel.

l. Sensors and field contacts are powered by the same bus as the PMS, i.e., by the Class 1E 120-vac uninterruptible power supply.

m. During testing, the two-out-of-four logic of one input becomes two-out-of-three logic. Subsequent channel bypass or failure results in one-out-of-two logic and upon an additional failure or bypass, the system trips.

n. Global trip is activated if any of three conditions, as reported in the subsystem description, are true for any trip functions. Conservatively, in this analysis only one condition leads to the global trip signal; i.e., two-out-of-three unbypassed partial trip from the other three channels.

o. Trip enable is activated if either of two conditions, as reported in the subsystem description, is true for any trip functions. Conservatively, in this analysis only one condition leads to the trip enable signal; i.e., one-out-of-three unbypassed partial trip from the other channels.

p. For the PMS, when a component can be manually actuated at system level as well as component level, failure of the common part of the chain (such as the protection logic cabinet) is modeled to reflect that singularity and integrated with the individual input and output circuits required.

q. Instrument line plugging during plant normal operation is not detectable until variations in plant conditions occur. Given a plugged line, the sensor/transmitters continue to record the same value as before plugging occurred. The operator performs a channel check every 24 hours, which consists of reading and comparing values of the same parameter coming from four divisional sensor/transmitters.

   If a large variation on the plant conditions (such as pressure and level) occurs, the sensor/transmitter connected with the plugged instrument line records a value different from the others. This alerts the operator to the degradation of the sensor/transmitter, which is put in a bypass state until the next refueling. This potential downtime is reflected in development of the sensor unavailabilities.

r. The power source of 120 vac is modeled in all trees with the exception of the reactor trip trees, since a power failure will automatically result in a reactor trip. The components actuated by the remainder of the instrumentation and control may require power for proper operation.

s. The implementation of the I&C subtrees is determined by combining success criteria (as described in the sections for which the subtrees are developed), the instrument lists, and information regarding the modeled function.

t. Loss of cooling assembly does not affect the board's performance, but failure of HVAC fan units have been conservatively included in modeling of the systems.

u. Failure of the pulse generator to produce the pulse signal is not accounted, because it leads to the reactor trip state.

v. In case of blackout, one-out-of-two subsystems of ESFAC and PLC is inoperable. The second subsystem works correctly because it is supplied by an uninterruptible power supply (UPS).

w. Loss of at least three 120-vac power sources leads to the fail-safe status for the de-energize to trip components. The loss of 120-vac power supply is conservatively modeled as possible failure for the engineered safety features for de-energize to trip components.

x. Where more than three independent, diverse sensor measurements are available as inputs for the processing of a particular functional operation, a conservative

1.0E-06 failures/demand rate is assigned to represent the unavailability contribution due to failure of all associated input sensors.

26.4.2 Fault Tree Models

The PMS fault tree models included in this section are:

- RTPMS: failure of the PMS to initiate a reactor trip, both automatic and manual (ATW-MAN03)
- RTPMS1: failure of the PMS to initiate a reactor trip, both automatic and manual (ATW-MAN05)
- RTSTP: failure of the operator to manually step in the control rods after the PMS (RTPMS) and the DAS (RTDAS) fail to trip the reactor
- RCL: failure to trip all four reactor coolant pumps following a small LOCA
- RCN: failure to trip all four reactor coolant pumps following an intermediate LOCA
- RCT: failure to trip all four reactor coolant pumps following transients
- SYS-IC: failure of the PMS to provide automatic and or manual actuation signals to plant equipment, incorporating the appropriate parts of the PMS ESF I&C. There are 258 PMS I&C subtrees, each of which are detailed in Table 26-2e. Note that for each of the 258 I&C subtrees, a list of subtrees is provided. These trees, when linked together according to batch-run files, form the individual I&C subs. This is described in detail below.

Fault trees for this system, RTPMS, RTPMS1, and RTSTP, are shown in Figures 26-4, 26-5, and 26-6 of Reference 26-1, respectively.

Fault trees for RCL, RCN and RCT, are shown in Figures 26-1 through 26-3 of Reference 26-1. A representative set of fault trees for the PMS I&C subtrees and their associated subtrees are shown in Figures 26-7 through 26-363 in Reference 26-1.

Fault tree analysis results provide quantitative values of total system unavailability and of the importance of specific components to that total. Table 26-1 provides a brief description for fault trees modeled. Tables 26-2a through 26-2e summarize success criteria for these fault trees. Event files for these trees are in Tables 26-10a and 26-10b.

26.4.3 Description of I&C Subtree Development

I&C subtrees are developed in a modular fashion, which facilitates construction, assembly, and review of the various I&C subtree functions that are required for analysis. To illustrate application of this method, the IC11A I&C subtree will be used as an example. Trees required

to construct the IC11A I&C subtree are listed in the first entry column of Table 26-2e. They are (with description):

- ADS-IC01: top tree of IC11A – fail to actuate V001A and V011A
- EPOADS01: failure of output driver modules
- MA1ADS01: failure of manual action (human error)
- S11ADS01: failure of PMS sensor group 1 (division 1)
- S12ADS01: failure of PMS sensor group 2 (division 2)
- S13ADS01: failure of PMS sensor group 3 (division 3)
- S14ADS01: failure of PMS sensor group 4 (division 4)
- S3DADS01: failure of DAS sensor group (CMF)
- SC1ADS01: failure of PMS sensor groups (CMF)
- SI1ADS01: failure of PMS sensors used for indication (CMF)
- AESIPC: failure of PMS input logic cabinets (automatic ESF)
- AESOUTA: failure of PMS actuation and output logic cabinets (automatic ESF – train A)
- MESOUTA: Failure of PMS multiplexing and output logic cabinets (manual ESF – train A)

Discussion of the assembly of these trees is presented below in detail. The following paragraphs describe naming conventions that are used for tree types; note that each tree name contains a three-character system name (e.g., ADS), and other unique identifiers. For the top tree, the naming convention is as follows:

SYS-ICXX

where:

SYS = three-character system name
XX = two-digit number representing a unique individual I&C sub number within each system

Exceptions to this convention are as follows:

The "-" is sometimes replaced by a B or P to signify a blackout or loss-of-offsite-power (LOOP) tree, respectively.

The XX is sometimes made up of characters and/or numbers (e.g., 01, A1, 99) to accommodate the organization of I&C subtrees.

System names addressed within the PMS are:

ADS	CIS	CMT
CVS	IRW	PCS
RHR	RNS	RPT
SGS		

For supporting trees, there are two general types: cabinet trees and I&C specific trees, the majority of which support cabinet trees. For PMS cabinet trees, the naming convention is as follows:

XESIPC(Y)

where:

X = A for automatic actuation, and S for spurious actuation
Y = B or P for blackout or LOOP operation, respectively

Note that ES stands for ESF, and IPC indicates input cabinetry. These cabinet trees are not used for manual actuation.

XESOUTY(Z)

where:

X = A for automatic actuation, M for manual actuation, and S for spurious actuation
Y = A, B, C, or D to indicate which train of ESF is being modeled
Z = B or P for blackout or LOOP operation, respectively

Note OUT indicates the output cabinetry.

The full list of PMS ESF cabinet trees, shown in Figures 26-320 through 26-330 of Reference 26-1, is as follows:

- Automatic ESF input cabinets (transient, blackout, and LOOP):

  AESIPC AESIPCB AESIPCP

- Automatic ESF output cabinets (transient, blackout, and LOOP):

AESOUTA	AESOUTAB	AESOUTAP
AESOUTB	AESOUTBB	AESOUTBP
AESOUTC	AESOUTCB	AESOUTCP
AESOUTD	AESOUTDB	AESOUTDP

- Manual ESF output cabinets (transient, blackout, and LOOP):

MESOUTA	MESOUTAB	MESOUTAP
MESOUTB	MESOUTBB	MESOUTBP
MESOUTC	MESOUTCB	MESOUTCP
MESOUTD	MESOUTDB	MESOUTDP

- Spurious ESF input cabinets:

  SESIPC

- Spurious ESF output cabinets:

  SESOUTA

  SESOUTB

  SESOUTC

  SESOUTD

For I&C-specific support trees, the following naming convention is applied:

XXXSYSNN

where:

XXX = tree type, where the types are as follows:

- EPO: failure of output driver modules
- MA1: failure of manual action (human error)
- S11: failure of PMS sensor group 1 (division 1)
- S12: failure of PMS sensor group 2 (division 2)

- S13: failure of PMS sensor group 3 (division 3)
- S14: failure of PMS sensor group 4 (division 4)
- S3D: failure of DAS sensor group (CMF)
- SC1: failure of PMS sensor groups (CMF)
- SI1: failure of PMS sensors used for indication (CMF)

SYS = the system name, where the systems are as follows:

ADS	CIS	CMT
CVS	IRW	PCS
RHR	RNS	RPT
SGS		

NN = the number of the I&C subtree within each system application, where NN is made up of characters and/or numbers (e.g., 01, A1, 99) to accommodate the organization of the I&C subtrees.

In order to construct an I&C subtree, a top tree is first generated. For this example, to generate the IC11A I&C subtree, the top tree, ADS-IC01, is developed. When fully developed, linked, and quantified, output of the ADS-IC01 top tree is named to correspond with the I&C subtree name IC11A and to support linking and quantification of calling system trees.

ADS-IC01 is shown in Figure 26-81 of Reference 26-1. Other I&C specific support trees for the IC11A I&C subtree are also shown in Figures 26-82 through 26-90 of Reference 26-1. As shown in Figure 26-81 of Reference 26-1, the ADS-IC01 top gate shows the name of the tree and the final I&C subtree name. Note that the final I&C subtree name is only shown for ADS cases where the final subtree name is sufficiently different from the I&C subtree top tree name. Most other subtrees have an equivalent or near-equivalent final I&C subtree name and I&C top tree name. Cross references of final I&C subtree names to the corresponding I&C top tree names are provided in Tables 26-2e, 26-3a, and 26-3b.

Logic of the ADS-IC01 top tree shows that both automatic and manual actuations must fail to cause total actuation failure. The automatic branch is comprised of two elements: failure of PMS auto logic – SUB-AESOUTA, and common mode software failure of all boards – CCX-SFTW. Failure of either element will cause failure of automatic actuation. The SUB prefix in SUB-AESOUTA indicates that the AESOUTA cabinet tree will be linked into this tree. From above, the AESOUTA cabinet tree represents failure of automatic ESF output actuation and logic cabinets for train A. Expansion of the AESOUTA tree is discussed below.

The manual branch of the ADS-IC01 shows that PMS and DAS manual actuation paths must fail to cause total failure of manual actuation. PMS manual actuation failure branch is the

same as the PMS automatic branch, but calls SUB-MESOUTA instead of SUB-AESOUTA. From above, the MESOUTA cabinet tree represents failure of manual ESF output multiplexer and logic cabinets for train A. Expansion of the MESOUTA tree is discussed below.

The DAS manual actuation failure branch is comprised of five elements:

- Failure of DAS – MDAS
- Failure of DAS sensors – SUB-DASSIND
- Loss of DAS power bus EDS3EA1 non-1E 120-vac – SUB-ED3EA1
- Operator error – REC-MANDAS
- Failure of all indication – ALL-IND-FAIL

There are no cabinet tree developments for the modeling of DAS. Discussion of the DAS assessments are provided in Chapter 27. All support trees required for modeling of DAS in the I&C subtrees are integrated at this level. Two such trees are required in this situation: SUB-DASSIND and SUB-ED3EA1. SUB-ED3EA1 calls the supporting power trees, which are described under Chapter 23. SUB-DASSIND calls the I&C specific subtree required to model the sensor inputs used as indication to the operator for manual action. For this example, the S3DADS01 tree for failure of DAS sensor group (CMF) is developed to support the DASSIND call. Output of the S3DADS01 tree are named to match the generic DASSIND name and then linked into that branch of the ADS-IC01 tree. Simplified versions of files that perform the naming and linking of the trees are shown in Table 26-3a.

At this point in the discussion, we have addressed the top tree ADS-IC01 and its immediate subtrees that are called. This can be represented as follows where indentation indicates called subtrees, and <= indicates renaming of the application-specific output file for linking as a generic name. (Called trees with no <= indicate that the called name is a specific, rather than a generic call. Therefore, the called name is exactly the same as the supporting tree name, and no renaming is required.):

```
IC11A   <=  ADS-IC01
            AESOUTA
            MESOUTA
            DASSIND   <= S3DADS01
            ED3EA1
```

The AESOUTA tree, shown in Figure 26-323 of Reference 26-1, models logic of automatic ESF actuation and output logic cabinets. Using the same format as presented above, subtrees that are called from the AESOUTA tree are as follows (note that the AESOUTA tree always calls AESIPC, IDAEA1, and IDAEA2 in all cases, but the actual tree used for the EPO tree is dependent on the application, hence EPOADS01 is assigned to EPO in this case):

```
AESOUTA
            EPO       <= EPOADS01
            AESIPC
            IDAEA1
            IDAEA2
```

The AESIPC tree, shown in Figure 26-320 of Reference 26-1, models the logic of the automatic ESF input cabinets. The subtrees, which are called from the AESIPC tree, are as follows (again, note that the AESIPC tree always calls IDAEA1, IDBEA1, IDCEA1, and ICDEA1, but the actual trees used for the CCXSNRS1, SENS1, SENS2, SENS3, and SENS4 trees are dependent on the application, hence SC1ADS01, S11ADS01, S12ADS01, S13ADS01, and S14ADS01 are assigned respectively in this case):

```
AESIPC
        CCXSNRS1 <= SC1ADS01
        SENS1    <= S11ADS01
        SENS2    <= S12ADS01
        SENS3    <= S13ADS01
        SENS4    <= S14ADS01
        IDAEA1
        IDBEA1
        IDCEA1
        IDDEA1
```

The MESOUTA tree, shown in Figure 26-328 of Reference 26-1, models logic of the manual ESF multiplexer and output logic cabinets. Again, using the same format as presented above, subtrees, which are called from the MESOUTA tree, are as follows (again, note that MESOUTA tree always calls IDAEA1 and IDAEA2, but the EPO, ESFOPER, and CCXSNRS2 trees are depended on the application, hence EPOADS01, MA1ADS01, and SI1ADS01 are assigned respectively for this case):

```
MESOUTA
        EPO      <= EPOADS01
        ESFOPER  <= MA1ADS01
        CCXSNRS2 <= SI1ADS01
        IDAEA1
        IDAEA2
```

Combining the information shown above, the full IC11A tree is then expanded as follows:

```
IC11A   <= ADS-IC01
           AESOUTA
           EPO      <= EPOADS01
           AESIPC
           CCXSNRS1 <= SC1ADS01
           SENS1    <= S11ADS01
           SENS2    <= S12ADS01
           SENS3    <= S13ADS01
           SENS4    <= S14ADS01
           IDAEA1
           IDBEA1
           IDCEA1
           IDDEA1
           IDAEA1
```

```
IDAEA2
MESOUTA
EPO        <= EPOADS01
ESFOPER    <= MA1ADS01
CCXSNRS2   <= SI1ADS01
IDAEA1
IDAEA2
DASSIND    <= S3DADS01
ED3EA1
```

By using the above modular fault tree linking methodology, trees that are called by many I&C subtrees functions (such as the cabinet trees) can be created and reviewed once, and then be configured in the overall I&C subtree linking along with appropriate supporting input trees as many times as is required. Thus, the same tree does not have to be modeled repeatedly in multiple trees.

Linking of I&C subtrees is performed automatically using a set of batch-run files to execute the running, renaming, and linking of the trees. Simplified versions of those files are shown in Table 26-3a to facilitate review of I&C subtrees. Additionally, a list of all representative I&C subtrees that have been plotted is included as Table 26-3b. Note that while only plots of representative I&C subtrees are included in Reference 26-1, Table 26-3b shows the application and differences from representative subtrees, for those subtrees that are not plotted. Typically, subtrees that are not plotted are nearly identical to a representative plotted subtree, with the only difference being related to a redundant train of equipment being actuated, or LOOP or blackout operation, where only support power trees that are called differ. Note that entries of Table 26-3a match I&C subtrees that have been plotted.

26.4.4 Human Interactions

Generally, human interactions are modeled in the PMS fault trees where operator action is needed to initiate a manual reactor trip, manually step in the rods, and initiate ESF actuation. Note that for I&C subtrees where only manual action and no automatic action is credited, the human interactions are generally modeled in the calling system level trees and not in I&C subtrees. This facilitates correct development of logic in those system level trees. Table 26-8 lists a summary of human errors included as basic events in two reactor trip system fault trees. Note that details on the calculation of human errors are discussed in Chapter 30.

26.5 Discussion of Methodology

The following sections present methods that have been applied in this analysis. These are fault tree analyses (FTA) by which system level results are calculated; data manipulation, where individual part failure rates are obtained and processed for use in the FTAs as unavailabilities and failure probabilities; and common mode failure analysis, in which the contributions of common faults across redundant portions of the design are calculated.

26.5.1 Fault Tree Analysis

Availability and reliability of PMS I&C systems are demonstrated using fault tree analysis (FTA) methodology. The FTA method uses a quantified logic diagram showing various paths of failures and combinations of failures that can lead to an undesired event for the system being studied. The FTA determines the probability of occurrence of each part as well as the logical sum of the probabilities, which is the probability of failure of the undesired event of the system as a whole. The FTA methodology applied is consistent with the specification for reliability assessments in ANSI/IEEE-352-1987.

The following paragraphs discuss key FTA modeling and quantification methods used in analyses. The first portion of the discussion is applicable to the spurious failure rate per year calculations, and the latter portion of the discussion applies to FTAs that produce unavailability or failure upon demand results.

26.5.2 Unavailability

For all but one of the PMS I&C analyses, application of the FTAs for failure-upon-demand cases are performed using standard FTA unavailability application, where ORed events effectively sum event unavailabilities, while ANDed events have their respective unavailabilities multiplied. The result from FTAs directly produces final unavailabilities and no further processing is performed. This is the standard method used for evaluation of FTAs to give system level unavailabilities.

26.5.3 Spurious Failure Rate Per Year

As part of the evaluation of ADS, one I&C subtree was developed to determine the expected number of spurious ADS actuations per year. That I&C subtree is titled ICS. Results from that evaluation are entered into the database as a basic event node data point. The evaluated rate is equal to 5.4E-5 events/year for spurious ADS actuation. The following text describes the method used to evaluate this rate using FTA methodology.

In modeling system spurious failure rates per year, individual component probabilities of failure are entered into the tree as:

$$P(f) = 1-e^{-\lambda T}$$

This formula can be conservatively approximated as:

$$P(f) = \lambda T$$

where T is the mission time for the component, and λ is the failure rate of the component. The above formulas yield the probability of a component failing in mission time T. However, modeling repairable redundant systems such as the PMS I&C systems, modeling probability of failure as λ times T does not correctly model system failure scenarios in which multiple failures are required for spurious system events to occur. To correctly model multiple order events, second and higher order events must occur within the repair time (R) of the first failure. A solution to correctly model repairable redundant systems is to use a failure

exposure time of two times repair time (2R) in place of the mission time when computing component probabilities of failure, and then using a multiplicative factor of mission time divided by failure exposure time (T/2R) on the final quantified system probability of failure in order to adjust the results to the desired mission time. The following discussion explains this approach.

Consider a repairable redundant system in which multiple failures are required to cause a system spurious actuation. For these cases, the first failure can occur any time during full system mission time. However, in order for a spurious actuation at system level to occur, the second failure must occur within two times the repair time of the first failure.

Consider three cases: Case 1, where both component 1 and component 2 fail during the system mission time (but at different times) and do not cause a system failure due to repair; and Cases 2 and 3, where they are two examples of failure scenarios that do cause a system spurious failure. In Case 2, component 2 fails first, and within the repair time of component 2, component 1 fails. Case 3 is the converse of this, with component 1 failing first. Case 2 and Case 3 examples show the need to model for twice the repair time.

The following discussion gives two examples of application and the effects for OR gates and AND gates in the fault tree model.

For all OR gates in the tree, resultant output effectively equals results that would have been obtained by using component input values based on $P(f) = \lambda T$. This is due to the distributive law that can be applied to OR gate logic. For an example two-part system, the OR relationship can be conservatively approximated as follows:

$$P(f{:}system) = P(f{:}part\ 1) + P(f{:}part\ 2)$$

Substituting values per the method presented above:

$$P(f{:}system) = ((\lambda_1 * 2R) + (\lambda_2 * 2R)) * T/2R$$

which reduces to:

$$P(f{:}system) = (\lambda_1 * T) + (\lambda_2 * T)$$

Thus, for any intermediate single-point failure nodes of the tree, this modeling method implies that any failure of these parts at any time during the full mission time T will cause loss of the intermediate function being assessed. Therefore, application of this method correctly models single point failures that can lead to the undesired system event.

For AND gates in the tree, the same method is applied. For combinations of failures, resultant output effectively equals results that would have been obtained by using component input values based on $P(f) = T$ for initial part detectable failures and $P(f) = \lambda * 2R$ for subsequent redundant part detectable failures. For an example two-part redundant system, the AND relationship where both failures are detectable can be expressed as follows:

$$P(f{:}system) = P(f{:}Part\ 1) * P(f{:}Part\ 2)$$

Substituting the values per the method presented above:

$$P(f{:}system) = ((\lambda_1 * 2R) * (\lambda_2 * 2R)) * T/2R$$

the resulting equation is:

$$P(f{:}system) = (\lambda_1 * T) * (\lambda_2 * 2R)$$

This method implies that a loss of function requires two failures: failure of part 1 during full mission time T, and the subsequent failure of part 2 during twice the repair time of part 1. This result is consistent with the discussion of modeling repairable redundant systems presented above. For the spurious ADS model, T = 8760 hours, and R = 4 hours. Thus, all input failure rates used in the tree are multiplied by 8 hours (2R where R = 4 hours), and the final tree result is multiplied by 1095 hours (T/2R where T = 8760 hours, and 2R = 8 hours). This produces the probability of a spurious event over mission time T, which is then converted to a failure rate per mission time T, giving the number of spurious ADS events per year that could cause a large LOCA as 5.4E-05 events/year. The number of spurious ADS events that could lead to an intermediate LOCA and a medium LOCA are 1.8E-09 events/year and 1.1E-08 events/year, respectively.

26.5.4 Common Cause Failures

Several common cause failures within the PMS are considered credible and accounted for explicitly during construction of fault trees. Mainly two common cause failures are identified: hardware common cause failures due to the use of the same type of boards for many subsystems, and software common cause failures.

The hardware common cause failure evaluations are based on the multiple Greek letter method, which uses beta, gamma, and delta factors to represent the conditional probabilities of second-, third-, and fourth-order failures, respectively, due to common cause. These factors are then applied to random hardware failure probabilities to produce common cause failure probabilities. Both common cause failures of components within a system and common cause failures of components across systems are addressed. It should noted that the method used in calculating MGL factors for the hardware CMF include a substantial contribution due to the inclusion of software in the design. This inclusion is deliberately left in the analysis as an added measure of conservatism when considering potential impacts of software failures on the system, in addition to contributions for software common mode failure described below.

The software common cause failure evaluations are based on a model that incorporates a number of factors that can affect the development and implementation of software modules. This model yields a resultant software common mode unavailability of 1.1E-05 failures/ demand for any particular software module, and a software common mode unavailability of 1.2E-06 failures/demand for software failures that would manifest themselves across all types of software modules derived from the same basic design program in all applications.

The supporting common cause failures used in analyses are presented in Table 26-9. Data files used for quantification are included in Chapter 32.

26.5.5 Data Manipulation

This section discusses how individual component unavailabilities and probabilities of failure are computed for input into logic in fault trees.

Data used in this analysis are computed based upon the following generic formulas for computing component probability of failure and unavailability:

Probability of failure: $P(f) = 1 - e^{-\lambda T} \approx \lambda T$
T = mission time
λ = component failure rate

Unavailability: $\bar{A} = (MTTR)/(MTTF + MTTR)$
MTTF = mean time to failure
MTTR = mean time to repair

The above simple formulas are enhanced to correctly model board utilization for multiple channel boards and fault tolerance of the component using the following factors:

ADJ: The adjust factor is used to adjust component failure rate based upon the percentage of the components' hardware needed to perform the function modeled. For example, the failure rate for a four-channel input module that utilizes only one channel to perform the required function is adjusted appropriately with the ADJ factor to account for the fact that only failures of the channel utilized and any hardware that is common to all of the channels can affect the required function performed by the module.

FD: The fail-danger factor is used to apportion failures that are undetectable or result in the non-default or undesired state. This factor is derived from the results of the failure modes and effects analyses and functional block analyses.

The following discussion explains data manipulations performed for data sets used in quantifying failure upon demand and spurious rate of failure for PMS configurations. First, two spurious data sets are discussed, then unavailability data set are presented.

There are two data sets utilized in modeling spurious failure of PMS redundant configurations. The first of these is used to model functions in which the default state upon detection of a failure is to initiate or perform the intended function. For this model, no credit is taken for fault tolerance upon detectable failures. This yields the following equation for spurious probability of failure:

$$P(f) = \lambda * ADJ * (2 * MTTR)$$

The adjust factor is still used to credit the system for unused channels on multiple channel boards. Note also that the (2 * MTTR) term is used for mission time of the component per the discussion on fault tree modeling of spurious failure presented above.

The second data set used in modeling system spurious failure models functions in which the default state upon detection of failure is to take action other than that which could place the system at risk of giving spurious action (e.g., default state = stay as is). The formula for computing spurious probability of failure is similar to the previous case, but factors in the fail-danger number. This formula becomes:

$$P(f) = \lambda * ADJ * FD * (2 * MTTR)$$

For modeling component unavailability, only one data set is needed for the fully redundant system configuration. The component unavailability is computed as follows:

$$\bar{A}T = (MTTF/ADJ)/((MTTF/ADJ) + FD * T/2 + MTTR)$$

In this case, the MTTF is only adjusted by the adjust term, since both fail-safe and fail-danger terms are being considered. The fail-danger term is used in adding additional down time experienced by the system due to undetected failures. In this case, the average amount of down time experience due to undetected failures is computed by apportioning the mission time (T) divided by two term by the percentage of failures that can result in the nonsafe and undetectable state.

Failure probabilities calculated in this section are shown in Table 26-7.

26.6 References

26-1 *AP600 Probabilistic Risk Assessment Fault Trees*, WCAP-13275 (Proprietary) and WCAP-13404 (Nonproprietary), Revision 2.

Table 26-1

LIST OF SYSTEM FAULT TREES

Fault Tree Name	Description
RTPMS, RTPMS1	Automatic and manual failure of the PMS to trip the reactor
RTSTP	Operator fails to manually step in the control rods after the PMS and the DAS have failed to trip the reactor
RCL	Failure to trip all four RCPs following a small LOCA
RCT	Failure to trip all four RCPs
RCN	Failure to trip all four RCPs following an intermediate LOCA
SYS-IC	Failure of the I&C systems to provide automatic and or manual actuation signals to plant equipment, incorporating the appropriate parts of the PMS and DAS

Table 26-2a

FAULT TREE RTPMS, AND RTPMS1 SUCCESS CRITERIA SUMMARY

Event Description	Failure of PMS to trip the reactor
Success Configuration	Reactor trip actuated either automatically or manually
System Initial Status	PMS functional; reactor trip breakers closed
Mission Time	All failures are demands except for dc cabinet power supply failure (mission time of 24 hours) and plugging failure of instrument lines (mission time of 8760 hours, assuming 2 year refueling cycle)
Components Required to Change Status	Not applicable
Initiating Signals	Low-2 NR water level on SG-A, low-2 NR water level on SG-B, or high pressurizer pressure
Operator Actions	ATW-MAN03 – Operator fails to manually trip the reactor via PMS

Table 26-2b

FAULT TREE RTSTP SUCCESS CRITERIA SUMMARY

Event Description	Operator fails to step in the control rods after the PMS and the DAS have failed to trip the reactor
Success Configuration	Operator takes actions to step in the control rods and the required control system operates properly
System Initial Status	PMS and the DAS have failed to trip the reactor
Mission Time	All failures are in demands
Components Required to Change Status	Not applicable
Initiating Signals	None
Operator Actions	ATW-MAN01 – Operator fails to step in the control rods

Table 26-2c

FAULT TREE RCL SUCCESS CRITERIA SUMMARY

Event Description	Failure to trip all four RCPs following a small LOCA
Success Configuration	All four RCPs tripped
System Initial Status	All four RCPs running
Mission Time	Refueling cycle
Components Required to Change Status	All four RCPs required to trip
Initiating Signals	PMS – low pressurizer pressure, low pressurizer level; DAS – low pressurizer level
Operator Actions	RCN-MAN01, REC-MANDAS, LPM-MAN01

Table 26-2d.1

FAULT TREE RCT SUCCESS CRITERIA SUMMARY

Event Description	Failure to trip all four RCPs
Success Configuration	All four RCPs tripped
System Initial Status	All four RCPs running
Mission Time	Refueling cycle
Components Required to Change Status	All four RCPs required to trip
Initiating Signals	Low SG level coincident with high reactor coolant system hot leg temperature
Operator Actions	RCN-MAN01, LPM-MAN01

Table 26-2d.2

FAULT TREE RCN SUCCESS CRITERIA SUMMARY

Event Description	Failure to trip all four RCPs following an intermediate LOCA
Success Configuration	All four RCPs tripped
System Initial Status	All four RCPs running
Mission Time	Refueling cycle
Components Required to Change Status	All four RCPs required to trip
Initiating Signals	PMS – low pressurizer pressure, low pressurizer level; DAS – low pressurizer level
Operator Actions	RCN-MAN01, REC-MANDAS, LPM-MAN02

Table 26-2e (Sheet 1 of 98)

I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IC11A ADS-IC01 EPOADS01 MA1ADS01 S11ADS01 S12ADS01 S13ADS01 S14ADS01 S3DADS01 SC1ADS01 SI1ADS01 AESIPC AESOUTA MESOUTA	Fail to actuate V001A and V011A IC11A	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC12A ADS-IC02 EPOADS02 MA1ADS02 S11ADS02 S12ADS02 S13ADS02 S14ADS02 S3DADS02 SC1ADS02 SI1ADS02 AESIPC AESOUTB MESOUTB	Fail to actuate V001B and V011B IC12A	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2

Table 26-2e (Sheet 2 of 98)

I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IC21A ADS-IC03 EPOADS03 MA1ADS03 S11ADS03 S12ADS03 S13ADS03 S14ADS03 S3DADS03 SC1ADS03 SI1ADS03 AESIPC AESOUTA MESOUTA	Fail to actuate V002A and V012A IC21A	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC22A ADS-IC04 EPOADS04 MA1ADS04 S11ADS04 S12ADS04 S13ADS04 S14ADS04 S3DADS04 SC1ADS04 SI1ADS04 AESIPC AESOUTB MESOUTB	Fail to actuate V002B and V012B IC22A	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2

Table 26-2e (Sheet 3 of 98)

I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IC31A ADS-IC05 EPOADS05 MA1ADS05 S11ADS05 S12ADS05 S13ADS05 S14ADS05 S3DADS05 SC1ADS05 SI1ADS05 AESIPC AESOUTA MESOUTA	Fail to actuate V003A and V013A IC31A	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC32A ADS-IC06 EPOADS06 MA1ADS06 S11ADS06 S12ADS06 S13ADS06 S14ADS06 S3DADS06 SC1ADS06 SI1ADS06 AESIPC AESOUTB MESOUTB	Fail to actuate V003B and V013B IC32A	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2

Table 26-2e (Sheet 4 of 98)

I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IC41A ADS-IC07 EPOADS07 MA1ADS07 S11ADS07 S12ADS07 S13ADS07 S14ADS07 S3DADS07 SC1ADS07 SI1ADS07 AESIPC AESOUTA MESOUTA	Fail to actuate V004A IC41A	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC42A ADS-IC08 EPOADS08 MA1ADS08 S11ADS08 S12ADS08 S13ADS08 S14ADS08 S3DADS08 SC1ADS08 SI1ADS08 AESIPC AESOUTB MESOUTB	Fail to actuate V004B IC42A	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2

Table 26-2e (Sheet 5 of 98)

I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IC43A ADS-IC09 EPOADS09 MA1ADS09 S11ADS09 S12ADS09 S13ADS09 S14ADS09 S3DADS09 SC1ADS09 SI1ADS09 AESIPC AESOUTC MESOUTC	Fail to actuate V004C IC43A	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC44A ADS-IC10 EPOADS10 MA1ADS10 S11ADS10 S12ADS10 S13ADS10 S14ADS10 S3DADS10 SC1ADS10 SI1ADS10 AESIPC AESOUTD MESOUTD	Fail to actuate V001A and V011A IC11AB blackout	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IC11AB ADS-IC11 EPOADS11 MA1ADS11 S11ADS11 S12ADS11 S13ADS11 S14ADS11 SC1ADS11 SI1ADS11 AESIPCB AESOUTAB MESOUTAB	Fail to actuate V001A and V011A IC11AB blackout	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC12AB ADS-IC12 EPOADS12 MA1ADS12 S11ADS12 S12ADS12 S13ADS12 S14ADS12 SC1ADS12 SI1ADS12 AESIPCB AESOUTBB MESOUTBB	Fail to actuate V001B and V011B IC12AB blackout	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IC21AB ADS-IC13 EPOADS13 MA1ADS13 S11ADS13 S12ADS13 S13ADS13 S14ADS13 SC1ADS13 SI1ADS13 AESIPCB AESOUTAB MESOUTAB	Fail to actuate V002A and V012A IC21AB blackout	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC22AB ADS-IC14 EPOADS14 MA1ADS14 S11ADS14 S12ADS14 S13ADS14 S14ADS14 SC1ADS14 SI1ADS14 AESIPCB AESOUTBB MESOUTBB	Fail to actuate V002B and V012B IC22AB blackout	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IC31AB ADS-IC15 EPOADS15 MA1ADS15 S11ADS15 S12ADS15 S13ADS15 S14ADS15 SC1ADS15 SI1ADS15 AESIPCB AESOUTAB MESOUTAB	Fail to actuate V003A and V013A IC31AB blackout	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC32AB ADS-IC16 EPOADS16 MA1ADS16 S11ADS16 S12ADS16 S13ADS16 S14ADS16 SC1ADS16 SI1ADS16 AESIPCB AESOUTBB MESOUTBB	Fail to actuate V003B and V013B IC32AB blackout	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IC41AB ADS-IC17 EPOADS17 MA1ADS17 S11ADS17 S12ADS17 S13ADS17 S14ADS17 SC1ADS17 SI1ADS17 AESIPCB AESOUTAB MESOUTAB	Fail to actuate V004A IC41AB blackout	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC42AB ADS-IC18 EPOADS18 MA1ADS18 S11ADS18 S12ADS18 S13ADS18 S14ADS18 SC1ADS18 SI1ADS18 AESIPCB AESOUTBB MESOUTBB	Fail to actuate V004B IC42AB blackout	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IC43AB ADS-IC19 EPOADS19 MA1ADS19 S11ADS19 S12ADS19 S13ADS19 S14ADS19 SC1ADS19 SI1ADS19 AESIPCB AESOUTCB MESOUTCB	Fail to actuate V004C IC43AB blackout	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC44AB ADS-IC20 EPOADS20 MA1ADS20 S11ADS20 S12ADS20 S13ADS20 S14ADS20 SC1ADS20 SI1ADS20 AESIPCB AESOUTDB MESOUTDB	Fail to actuate V004D IC44AB blackout	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IC11AP ADS-IC21 EPOADS21 MA1ADS21 S11ADS21 S12ADS21 S13ADS21 S14ADS21 S3DADS21 SC1ADS21 SI1ADS21 AESIPCP AESOUTAP MESOUTAP	Fail to actuate V001A and V011A IC11AP LOOP	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC12AP ADS-IC22 EPOADS22 MA1ADS22 S11ADS22 S12ADS22 S13ADS22 S14ADS22 S3DADS22 SC1ADS22 SI1ADS22 AESIPCP AESOUTBP MESOUTBP	Fail to actuate V001B and V011B IC12AP LOOP	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IC21AP ADS-IC23 EPOADS23 MA1ADS23 S11ADS23 S12ADS23 S13ADS23 S14ADS23 S3DADS23 SC1ADS23 SI1ADS23 AESIPCP AESOUTAP MESOUTAP	Fail to actuate V002A and V012A IC21AP LOOP	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC22AP ADS-IC24 EPOADS24 MA1ADS24 S11ADS24 S12ADS24 S13ADS24 S14ADS24 S3DADS24 SC1ADS24 SI1ADS24 AESIPCP AESOUTBP MESOUTBP	Fail to actuate V002B and V012B IC21AP LOOP	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IC31AP ADS-IC25 EPOADS25 MA1ADS25 S11ADS25 S12ADS25 S13ADS25 S14ADS25 S3DADS25 SC1ADS25 SI1ADS25 AESIPCP AESOUTAP MESOUTAP	Fail to actuate V003A and V013A IC31AP LOOP	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC32AP ADS-IC26 EPOADS26 MA1ADS26 S11ADS26 S12ADS26 S13ADS26 S14ADS26 S3DADS26 SC1ADS26 SI1ADS26 AESIPCP AESOUTBP MESOUTBP	Fail to actuate V003B and V013B IC32AP LOOP	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IC41AP ADS-IC27 EPOADS27 MA1ADS27 S11ADS27 S12ADS27 S13ADS27 S14ADS27 S3DADS27 SC1ADS27 SI1ADS27 AESIPCP AESOUTAP MESOUTAP	Fail to actuate V004A IC41AP LOOP	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC42AP ADS-IC28 EPOADS28 MA1ADS28 S11ADS28 S12ADS28 S13ADS28 S14ADS28 S3DADS28 SC1ADS28 SI1ADS28 AESIPCP AESOUTBP MESOUTBP	Fail to actuate V004B IC42AP LOOP	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IC43AP ADS-IC29 EPOADS29 MA1ADS29 S11ADS29 S12ADS29 S13ADS29 S14ADS29 S3DADS29 SC1ADS29 SI1ADS29 AESIPCP AESOUTCP MESOUTCP	Fail to actuate V004C IC43AP LOOP	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 1 Table 11-2
IC44AP ADS-IC30 EPOADS30 MA1ADS30 S11ADS30 S12ADS30 S13ADS30 S14ADS30 S3DADS30 SC1ADS30 SI1ADS30 AESIPCP AESOUTDP MESOUTDP	Fail to actuate V004D IC44AP LOOP	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IC11M ADS-IC31 EPOADS31 MA1ADS31 S3DADS31 SI1ADS31 MESOUTA	Fail to actuate V001A and V011A IC11M	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC21M ADS-IC32 EPOADS32 MA1ADS32 S3DADS32 SI1ADS32 MESOUTB	Fail to actuate V001B and V011B IC12M	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC21M ADS-IC33 EPOADS33 MA1ADS33 S3DADS33 SI1ADS33 MESOUTA	Fail to actuate V002A and V012A IC21M	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IC22M ADS-IC34 EPOADS34 MA1ADS34 S3DADS34 SI1ADS34 MESOUTB	Fail to actuate V002B and V012B IC22M	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC31M ADS-IC35 EPOADS35 MA1ADS35 S3DADS35 SI1ADS35 MESOUTA	Fail to actuate V003A and V013A IC31M	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC32M ADS-IC36 EPOADS36 MA1ADS36 S3DADS36 SI1ADS36 MESOUTB	Fail to actuate V003B and V013B IC32M	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IC41M ADS-IC37 EPOADS37 MA1ADS37 S3DADS37 SI1ADS37 MESOUTA	Fail to actuate V004A IC41M	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC42M ADS-IC38 EPOADS38 MA1ADS38 S3DADS38 SI1ADS38 MESOUTB	Fail to actuate V004B IC42M	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC43M ADS-IC39 EPOADS39 MA1ADS39 S3DADS39 SI1ADS39 MESOUTC	Fail to actuate V004C IC43M	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IC44M ADS-IC40 EPOADS40 MA1ADS40 S3DADS40 SI1ADS40 MESOUTD	Fail to actuate V004D IC44M	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC11MB ADS-IC41 EPOADS41 MA1ADS41 SI1ADS41 MESOUTAB	Fail to actuate V001A and V011A IC11MB blackout	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC12MB ADS-IC42 EPOADS42 MA1ADS42 SI1ADS42 MESOUTBB	Fail to actuate V001B and V011B IC12MB blackout	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC21MB ADS-IC43 EPOADS43 MA1ADS43 SI1ADS43 MESOUTAB	Fail to actuate V002A and V012A IC21MB blackout	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IC22MB ADS-IC44 EPOADS44 MA1ADS44 SI1ADS44 MESOUTBB	Fail to actuate V002B and V012B IC22MB blackout	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC31MB ADS-IC45 EPOADS45 MA1ADS45 SI1ADS45 MESOUTAB	Fail to actuate V003A and V013A IC31MB blackout	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC32MB ADS-IC46 EPOADS46 MA1ADS46 SI1ADS46 MESOUTBB	Fail to actuate V003B and V013B IC32MB blackout	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC41MB ADS-IC47 EPOADS47 MA1ADS47 SI1ADS47 MESOUTAB	Fail to actuate V004A IC41MB blackout	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IC42MB ADS-IC48 EPOADS48 MA1ADS48 SI1ADS48 MESOUTBB	Fail to actuate V004B IC42MB blackout	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC43MB ADS-IC49 EPOADS49 MA1ADS49 SI1ADS49 MESOUTCB	Fail to actuate V004C IC43MB blackout	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC44MB ADS-IC50 EPOADS50 MA1ADS50 SI1ADS50 MESOUTDB	Fail to actuate V004D IC44MB blackout	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC11MP ADS-IC51 EPOADS51 MA1ADS51 S3DADS51 SI1ADS51 MESOUTAP	Fail to actuate V001A and V011A IC11MP LOOP	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IC12MP ADS-IC52 EPOADS52 MA1ADS52 S3DADS52 SI1ADS52 MESOUTBP	Fail to actuate V001B and V011B IC12MP LOOP	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC21MP ADS-IC53 EPOADS53 MA1ADS53 S3DADS53 SI1ADS53 MESOUTAP	Fail to actuate V002A and V012A IC21MP LOOP	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC22MP ADS-IC54 EPOADS54 MA1ADS54 S3DADS54 SI1ADS54 MESOUTBP	Fail to actuate V002B and V012B IC22MP LOOP	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IC31MP ADS-IC55 EPOADS55 MA1ADS55 S3DADS55 SI1ADS55 MESOUTAP	Fail to actuate V003A and V013A IC31MP LOOP	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC32MP ADS-IC56 EPOADS56 MA1ADS56 S3DADS56 SI1ADS56 MESOUTBP	Fail to actuate V003B and V013B IC32MP LOOP	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC41MP ADS-IC57 EPOADS57 MA1ADS57 S3DADS57 SI1ADS57 MESOUTAP	Fail to actuate V004A IC41MP LOOP	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IC42MP ADS-IC58 EPOADS58 MA1ADS58 S3DADS58 SI1ADS58 MESOUTBP	Fail to actuate V004B IC42MP LOOP	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC43MP ADS-IC59 EPOADS59 MA1ADS59 S3DADS59 SI1ADS59 MESOUTCP	Fail to actuate V004C IC43MP LOOP	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC44MP ADS-IC60 EPOADS60 MA1ADS60 S3DADS60 SI1ADS60 MESOUTDP	Fail to actuate V004D IC44MP LOOP	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IC11EPO ADS-IC61 EPOADS61 MA1ADS61 SI1ADS61 MESOUTA	Fail to actuate V001A and V011A IC11EPO NO IND	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC12EPO ADS-IC62 EPOADS62 MA1ADS62 SI1ADS62 MESOUTB	Fail to actuate V001B and V011B IC12EPO NO IND	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC41AL ADS-IC63 EPOADS63 MA1ADS63 S11ADS63 S12ADS63 S13ADS63 S14ADS63 S3DADS63 SC1ADS63 SI1ADS63 AESIPC AESOUTA MESOUTA	Fail to actuate V004A IC41AL	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IC42AL ADS-IC64 EPOADS64 MA1ADS64 S11ADS64 S12ADS64 S13ADS64 S14ADS64 S3DADS64 SC1ADS64 SI1ADS64 AESIPC AESOUTB MESOUTB	Fail to actuate V004B IC42AL	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC43AL ADS-IC65 EPOADS65 MA1ADS65 S11ADS65 S12ADS65 S13ADS65 S14ADS65 S3DADS65 SC1ADS65 SI1ADS65 AESIPC AESOUTC MESOUTC	Fail to actuate V004C IC43AL	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IC44AL ADS-IC66 EPOADS66 MA1ADS66 S11ADS66 S12ADS66 S13ADS66 S14ADS66 S3DADS66 SC1ADS66 SI1ADS66 AESIPC AESOUTD MESOUTD	Fail to actuate V004D IC44AL	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC41ML ADS-IC67 EPOADS67 MA1ADS67 S3DADS67 SI1ADS67 MESOUTA	Fail to actuate V004A IC41ML	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IC42ML ADS-IC68 EPOADS68 MA1ADS68 S3DADS68 SI1ADS68 MESOUTB	Fail to actuate V004B IC42ML	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC43ML ADS-IC69 EPOADS69 MA1ADS69 S3DADS69 SI1ADS69 MESOUTC	Fail to actuate V004C IC43ML	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC44ML ADS-IC70 EPOADS70 MA1ADS70 S3DADS70 SI1ADS70 MESOUTD	Fail to actuate V004D IC44ML	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IC41MW ADS-IC71 EPOADS71 MA1ADS71 SI1ADS71 MESOUTA	Fail to actuate V004A IC41MW	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC42MW ADS-IC72 EPOADS72 MA1ADS72 SI1ADS72 MESOUTB	Fail to actuate V004B IC42MW	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC43MW ADS-IC73 EPOADS73 MA1ADS73 SI1ADS73 MESOUTC	Fail to actuate V004C IC43MW	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC44MW ADS-IC74 EPOADS74 MA1ADS74 SI1ADS74 MESOUTD	Fail to actuate V004D IC44MW	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IC41MQ ADS-IC75 EPOADS75 MA1ADS75 S3DADS75 SI1ADS75 MESOUTA	Fail to actuate V004A IC41MQ	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC42MQ ADS-IC76 EPOADS76 MA1ADS76 S3DADS76 SI1ADS76 MESOUTB	Fail to actuate V004B IC42MQ	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC43MQ ADS-IC77 EPOADS77 MA1ADS77 S3DADS77 SI1ADS77 MESOUTC	Fail to actuate V004C IC43MQ	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2

Table 26-2e (Sheet 31 of 98)

I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IC44MQ ADS-IC78 EPOADS78 MA1ADS78 S3DADS78 SI1ADS78 MESOUTD	Fail to actuate V004D IC44MQ	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC41MT ADS-IC79 EPOADS79 MA1ADS79 S3DADS79 SI1ADS79 MESOUTA	Fail to actuate V004A IC41MT	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC42MT ADS-IC80 EPOADS80 MA1ADS80 S3DADS80 SI1ADS80 MESOUTB	Fail to actuate V004B IC42MT	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2

Table 26-2e (Sheet 32 of 98)

I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IC43MT ADS-IC81 EPOADS81 MA1ADS81 S3DADS81 SI1ADS81 MESOUTC	Fail to actuate V004C IC43MT	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC44MT ADS-IC82 EPOADS82 MA1ADS82 S3DADS82 SI1ADS82 MESOUTD	Fail to actuate V004D IC44MT	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2

Table 26-2e (Sheet 33 of 98)

I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
ADS-ICS ADS-IC83 APOADS83 BPOADS83 CPOADS83 DPOADS83 MA1ADS83 S11ADS83 S12ADS83 S13ADS83 S14ADS83 S3DADS83 SC1ADS83 SI1ADS83 SESIPC SESOUTA SESOUTB SESOUTC SESOUTD	Spurious ADS	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC41MWP ADS-IC84 EPOADS84 MA1ADS84 SI1ADS84 MESOUTAP	Fail to actuate V004A (LOOP) IC41MWP	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2

Table 26-2e (Sheet 34 of 98)

I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IC42MWP ADS-IC85 EPOADS85 MA1ADS85 SI1ADS85 MESOUTBP	Fail to actuate V004B (LOOP) IC42MWP	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC43MWP ADS-IC86 EPOADS86 MA1ADS86 SI1ADS86 MESOUTCP	Fail to actuate V004C (LOOP) IC43MWP	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2
IC44MWP ADS-IC87 EPOADS87 MA1ADS87 SI1ADS87 MESOUTDP	Fail to actuate V004D (LOOP) IC44MWP	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11 Table 11-2	As defined in Chapter 11 Table 11-2

Table 26-2e (Sheet 35 of 98)

I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
CIS-IC1 CIS-IC01 EPOCIS01 MA1CIS01 S11CIS01 S12CIS01 S13CIS01 S14CIS01 SC1CIS01 SI1CIS01 AESIPC AESOUTA MESOUTA	Failure of IA Isol. valve V014	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 24 Table 24-5	As defined in Chapter 24 Table 24-5
CIS-IC2 CIS-IC02 EPOCIS02 MA1CIS02 S11CIS02 S12CIS02 S13CIS02 S14CIS02 S3DCIS02 SC1CIS02 SI1CIS02 AESIPC AESOUTA MESOUTA	Failure of WLS Isol. valve V004	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 24 Table 24-5	As defined in Chapter 24 Table 24-5

Table 26-2c (Sheet 36 of 98)

I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
CIS-IC3 CIS-IC03 EPOCIS03 MA1CIS03 S11CIS03 S12CIS03 S13CIS03 S14CIS03 S3DCIS03 SC1CIS03 SI1CIS03 AESIPC AESOUTB MESOUTB	Failure of WLS Isol. valve V006	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 24 Table 24-5	As defined in Chapter 24 Table 24-5
CIS-IC4 CIS-IC04 EPOCIS04 MA1CIS04 S11CIS04 S12CIS04 S13CIS04 S14CIS04 S3DCIS04 SC1CIS04 SI1CIS04 AESIPC AESOUTC MESOUTC	Failure of WLS Isol valve V055	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 24 Table 24-5	As defined in Chapter 24 Table 24-5

Table 26-2e (Sheet 37 of 98)

I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
CIS-IC5 CIS-IC05 EPOCIS05 MA1CIS05 S11CIS05 S12CIS05 S13CIS05 S14CIS05 S3DCIS05 SC1CIS05 SI1CIS05 AESIPC AESOUTD MESOUTD	Failure of WLS Isol. valve V057	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 24 Table 24-5	As defined in Chapter 24 Table 24-5
CIS-IC6 CIS-IC06 EPOCIS06 MA1CIS06 S11CIS06 S12CIS06 S13CIS06 S14CIS06 S3DCIS06 SC1CIS06 SI1CIS06 AESIPC AESOUTA MESOUTA	Failure of VFS Isol. valve V003	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 24 Table 24-5	As defined in Chapter 24 Table 24-5

Table 26-2c (Sheet 38 of 98)

I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
CIS-IC7 CIS-IC07 EPOCIS07 MA1CIS07 S11CIS07 S12CIS07 S13CIS07 S14CIS07 S3DCIS07 SC1CIS07 SI1CIS07 AESIPC AESOUTB MESOUTB	Failure of VFS Isol. valve V004	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 24 Table 24-5	As defined in Chapter 24 Table 24-5
CIS-IC8 CIS-IC08 EPOCIS08 MA1CIS08 S11CIS08 S12CIS08 S13CIS08 S14CIS08 S3DCIS08 SC1CIS08 SI1CIS08 AESIPC AESOUTC MESOUTC	Failure of VFS Isol. valve V009	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 24 Table 24-5	As defined in Chapter 24 Table 24-5

Table 26-2e (Sheet 39 of 98)

I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
CIS-IC9 CIS-IC09 EPOCIS09 MA1CIS09 S11CIS09 S12CIS09 S13CIS09 S14CIS09 S3DCIS09 SC1CIS09 SI1CIS09 AESIPC AESOUTD MESOUTD	Failure of VFS Isol. valve V010	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 24 Table 24-5	As defined in Chapter 24 Table 24-5
CMT-IC1 CMT-IC01 EPOCMT01 MA1CMT01 S11CMT01 S12CMT01 S13CMT01 S14CMT01 SC1CMT01 SI1CMT01 AESIPC AESOUTA MESOUTA	Failure to actuate valve V014A	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 9 Table 9-2	As defined in Chapter 9 Table 9-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
CMT-IC2 CMT-IC02 EPOCMT02 MA1CMT02 S11CMT02 S12CMT02 S13CMT02 S14CMT02 SC1CMT02 SI1CMT02 AESIPC AESOUTC MESOUTC	Failure to actuate valve V015A	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 9 Table 9-2	As defined in Chapter 9 Table 9-2
CMT-IC3 CMT-IC03 EPOCMT03 MA1CMT03 S11CMT03 S12CMT03 S13CMT03 S14CMT03 SC1CMT03 SI1CMT03 AESIPC AESOUTB MESOUTB	Failure to actuate valve V014B	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 9 Table 9-2	As defined in Chapter 9 Table 9-2

Table 26-2e (Sheet 41 of 98)

I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
CMT-IC4 CMT-IC04 EPOCMT04 MA1CMT04 S11CMT04 S12CMT04 S13CMT04 S14CMT04 SC1CMT04 SI1CMT04 AESIPC AESOUTD MESOUTD	Failure to actuate valve V015B	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 9 Table 9-2	As defined in Chapter 9 Table 9-2
CMT-IC5 CMT-IC05 EPOCMT05 MA1CMT05 S11CMT05 S12CMT05 S13CMT05 S14CMT05 S3DCMT05 SC1CMT05 SI1CMT05 AESIPC AESOUTA MESOUTA	Failure to actuate valve V014A	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 9 Table 9-2	As defined in Chapter 9 Table 9-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
CMT-IC6 CMT-IC06 AESIPC AESOUTC MESOUTC EPOCMT06 S13CMT06 SI1CMT06 MA1CMT06 SC1CMT06 S11CMT06 S12CMT06 S14CMT06 S3DCMT06	Failure to actuate valve V015A	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 9 Table 9-2	As defined in Chapter 9 Table 9-2
CMT-IC7 CMT-IC07 EPOCMT07 MA1CMT07 S11CMT07 S12CMT07 S13CMT07 S14CMT07 S3DCMT07 SC1CMT07 SI1CMT07 AESIPC AESOUTA MESOUTA	Failure to actuate valve V014A	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 9 Table 9-2	As defined in Chapter 9 Table 9-2

Table 26-2e (Sheet 43 of 98)

I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
CMT-IC8 CMT-IC08 EPOCMT08 MA1CMT08 S11CMT08 S12CMT08 S13CMT08 S14CMT08 S3DCMT08 SC1CMT08 SI1CMT08 AESIPC AESOUTC MESOUTC	Failure to actuate valve V015A	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 9 Table 9-2	As defined in Chapter 9 Table 9-2
CMT-IC9 CMT-IC09 EPOCMT09 MA1CMT09 S11CMT09 S12CMT09 S13CMT09 S14CMT09 S3DCMT09 SC1CMT09 SI1CMT09 AESIPC AESOUTB MESOUTB	Failure to actuate valve V014B	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 9 Table 9-2	As defined in Chapter 9 Table 9-2

Table 26-2e (Sheet 44 of 98)

I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
CMT-IC10 CMT-IC10 EPOCMT10 MA1CMT10 S11CMT10 S12CMT10 S13CMT10 S14CMT10 S3DCMT10 SC1CMT10 SI1CMT10 AESIPC AESOUTD MESOUTD	Failure to actuate valve V015B	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 9 Table 9-2	As defined in Chapter 9 Table 9-2
CMT-IC11 CMT-IC11 EPOCMT11 MA1CMT11 S11CMT11 S12CMT11 S13CMT11 S14CMT11 S3DCMT11 SC1CMT11 SI1CMT11 AESIPC AESOUTA MESOUTA	Failure to actuate valve V014A	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 9 Table 9-2	As defined in Chapter 9 Table 9-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
CMT-IC12 CMT-IC12 EPOCMT12 MA1CMT12 S11CMT12 S12CMT12 S13CMT12 S14CMT12 S3DCMT12 SC1CMT12 SI1CMT12 AESIPC AESOUTC MESOUTC	Failure to actuate valve V015A	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 9 Table 9-2	As defined in Chapter 9 Table 9-2
CMT-IC13 CMT-IC13 EPOCMT13 MA1CMT13 S11CMT13 S12CMT13 S13CMT13 S14CMT13 S3DCMT13 SC1CMT13 SI1CMT13 AESIPC AESOUTB MESOUTB	Failure to actuate valve V014B	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 9 Table 9-2	As defined in Chapter 9 Table 9-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
CMT-IC14 CMT-IC14 EPOCMT14 MA1CMT14 S11CMT14 S12CMT14 S13CMT14 S14CMT14 S3DCMT14 SC1CMT14 SI1CMT14 AESIPC AESOUTD MESOUTD	Failure to actuate valve V015B	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 9 Table 9-2	As defined in Chapter 9 Table 9-2
CMT-IC15 CMT-IC15 AESIPC AESOUTB MESOUTB EPOCMT15 S13CMT15 SI1CMT15 MA1CMT15 SC1CMT15 S11CMT15 S12CMT15 S14CMT15 S3DCMT15	Failure to actuate valve V014B	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 9 Table 9-2	As defined in Chapter 9 Table 9-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
CMT-IC16 CMT-IC16 EPOCMT16 MA1CMT16 S11CMT16 S12CMT16 S13CMT16 S14CMT16 S3DCMT16 SC1CMT16 SI1CMT16 AESIPC AESOUTD MESOUTD	Failure to actuate valve V015B	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 9 Table 9-2	As defined in Chapter 9 Table 9-2
CMT-IC17 CMT-IC17 EPOCMT17 MA1CMT17 S11CMT17 S12CMT17 S13CMT17 S14CMT17 S3DCMT17 SC1CMT17 SI1CMT17 AESIPCP AESOUTAP MESOUTAP	Failure to actuate valve V014A (LOOP)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 9 Table 9-2	As defined in Chapter 9 Table 9-2

Table 26-2e (Sheet 48 of 98)

I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
CMT-IC18 CMT-IC18 EPOCMT18 MA1CMT18 S11CMT18 S12CMT18 S13CMT18 S14CMT18 S3DCMT18 SC1CMT18 SI1CMT18 AESIPCP AESOUTCP MESOUTCP	Failure to actuate valve V015A (LOOP)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 9 Table 9-2	As defined in Chapter 9 Table 9-2
CMT-IC19 CMT-IC19 EPOCMT19 MA1CMT19 S11CMT19 S12CMT19 S13CMT19 S14CMT19 S3DCMT19 SC1CMT19 SI1CMT19 AESIPCP AESOUTBP MESOUTBP	Failure to actuate valve V014B (LOOP)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 9 Table 9-2	As defined in Chapter 9 Table 9-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
CMT-IC20 CMT-IC20 EPOCMT20 MA1CMT20 S11CMT20 S12CMT20 S13CMT20 S14CMT20 S3DCMT20 SC1CMT20 SI1CMT20 AESIPCP AESOUTDP MESOUTDP	Failure to actuate valve V015B (LOOP)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 9 Table 9-2	As defined in Chapter 9 Table 9-2
CVS-IC4 CVS-IC04 EPOCVS04 MA1CVS04 SI1CVS04 MESOUTA	Failure to open CVS AOV V084 manual	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 15 Table 15-2	As defined in Chapter 15 Table 15-2

Table 26-2e (Sheet 50 of 98)

I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
CVS-IC5 CVS-IC05 EPOCVS05 MA1CVS05 SI1CVS05 MESOUTB	Failure to open CVS AOV V081 manual	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 15 Table 15-2	As defined in Chapter 15 Table 15-2
CVS-IC6 CVS-IC06 EPOCVS06 MA1CVS06 S11CVS06 S12CVS06 S13CVS06 S14CVS06 SC1CVS06 SI1CVS06 AESIPC AESOUTD MESOUTD	Failure of MOV V090 actuation	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 15 Table 15-2	As defined in Chapter 15 Table 15-2

Table 26-2e (Sheet 51 of 98)

I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
CVS-IC7 CVS-IC07 EPOCVS07 MA1CVS07 S11CVS07 S12CVS07 S13CVS07 S14CVS07 SC1CVS07 SI1CVS07 AESIPC AESOUTC MESOUTC	Failure of MOV V091 actuation	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 15 Table 15-2	As defined in Chapter 15 Table 15-2
CVS-IC8 CVS-IC08 EPOCVS08 MA1CVS08 S11CVS08 S12CVS08 S13CVS08 S14CVS08 SC1CVS08 SI1CVS08 AESIPC AESOUTA MESOUTA	Failure of MOV V067 actuation	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 15 Table 15-2	As defined in Chapter 15 Table 15-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IRW-IC1 IRW-IC01 EPOIRW01 MA1IRW01 S11IRW01 S12IRW01 S13IRW01 S14IRW01 SC1IRW01 SI1IRW01 AESIPC AESOUTA MESOUTA	Failure to open MOV V117A	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12 Table 12-2	As defined in Chapter 12 Table 12-2
IRW-IC2 IRW-IC02 EPOIRW02 MA1IRW02 S11IRW02 S12IRW02 S13IRW02 S14IRW02 SC1IRW02 SI1IRW02 AESIPC AESOUTC MESOUTC	Failure to open MOV V118A	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12 Table 12-2	As defined in Chapter 12 Table 12-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IRW-IC3 IRW-IC03 EPOIRW03 MA1IRW03 S11IRW03 S12IRW03 S13IRW03 S14IRW03 SC1IRW03 SI1IRW03 AESIPC AESOUTB MESOUTB	Failure to open MOV V117B	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12 Table 12-2	As defined in Chapter 12 Table 12-2
IRW-IC4 IRW-IC04 EPOIRW04 MA1IRW04 S11IRW04 S12IRW04 S13IRW04 S14IRW04 SC1IRW04 SI1IRW04 AESIPC AESOUTD MESOUTD	Failure to open MOV V118B	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12 Table 12-2	As defined in Chapter 12 Table 12-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IRW-IC5 IRW-IC05 EPOIRW05 MA1IRW05 S11IRW05 S12IRW05 S13IRW05 S14IRW05 SC1IRW05 SI1IRW05 AESIPCP AESOUTAP MESOUTAP	Failure to open MOV V117A (LOOP)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12 Table 12-2	As defined in Chapter 12 Table 12-2
IRW-IC6 IRW-IC06 EPOIRW06 MA1IRW06 S11IRW06 S12IRW06 S13IRW06 S14IRW06 SC1IRW06 SI1IRW06 AESIPCP AESOUTCP MESOUTCP	Failure to open MOV V118A (LOOP)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12 Table 12-2	As defined in Chapter 12 Table 12-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IRW-IC7 IRW-IC07 EPOIRW07 MA1IRW07 S11IRW07 S12IRW07 S13IRW07 S14IRW07 SC1IRW07 SI1IRW07 AESIPCP AESOUTBP MESOUTBP	Failure to open MOV V117B (LOOP)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12 Table 12-2	As defined in Chapter 12 Table 12-2
IRW-IC8 IRW-IC08 EPOIRW08 MA1IRW08 S11IRW08 S12IRW08 S13IRW08 S14IRW08 SC1IRW08 SI1IRW08 AESIPCP AESOUTDP MESOUTDP	Failure to open MOV V118B (LOOP)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12 Table 12-2	As defined in Chapter 12 Table 12-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IRW-IC9 IRW-IC09 EPOIRW09 MA1IRW09 S11IRW09 S12IRW09 S13IRW09 S14IRW09 SC1IRW09 SI1IRW09 AESIPCB AESOUTAB MESOUTAB	Failure to open MOV V117A (blackout)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12 Table 12-2	As defined in Chapter 12 Table 12-2
IRW-IC10 IRW-IC10 EPOIRW10 MA1IRW10 S11IRW10 S12IRW10 S13IRW10 S14IRW10 SC1IRW10 SI1IRW10 AESIPCB AESOUTCB MESOUTCB	Failure to open MOV V118A (blackout)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12 Table 12-2	As defined in Chapter 12 Table 12-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IRW-IC11 IRW-IC11 EPOIRW11 MA1IRW11 S11IRW11 S12IRW11 S13IRW11 S14IRW11 SC1IRW11 SI1IRW11 AESIPCB AESOUTBB MESOUTBB	Failure to open MOV V117B (blackout)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12 Table 12-2	As defined in Chapter 12 Table 12-2
IRW-IC12 IRW-IC12 EPOIRW12 MA1IRW12 S11IRW12 S12IRW12 S13IRW12 S14IRW12 SC1IRW12 SI1IRW12 AESIPCB AESOUTDB MESOUTDB	Failure to open MOV V118B (blackout)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12 Table 12-2	As defined in Chapter 12 Table 12-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IRW-IC13 IRW-IC13 EPOIRW13 MA1IRW13 SI1IRW13 MESOUTA	Failure to open MOV V117A	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12 Table 12-2	As defined in Chapter 12 Table 12-2
IRW-IC14 IRW-IC14 EPOIRW14 MA1IRW14 SI1IRW14 MESOUTC	Failure to open MOV V118A	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12 Table 12-2	As defined in Chapter 12 Table 12-2
IRW-IC15 IRW-IC15 EPOIRW15 MA1IRW15 SI1IRW15 MESOUTB	Failure to open MOV V117B	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12 Table 12-2	As defined in Chapter 12 Table 12-2
IRW-IC16 IRW-IC16 EPOIRW16 MA1IRW16 SI1IRW16 MESOUTD	Failure to open MOV V118B	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12 Table 12-2	As defined in Chapter 12 Table 12-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
PCS-IC1 PCS-IC01 EPOPCS01 MA1PCS01 S11PCS01 S12PCS01 S13PCS01 S14PCS01 S3DPCS01 SC1PCS01 SIDPCS01 AESIPC AESOUTA	Failure to actuate AOV V001A	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 13 Table 13-2	As defined in Chapter 13 Table 13-2
PCS-IC2 PCS-IC02 EPOPCS02 MA1PCS02 S11PCS02 S12PCS02 S13PCS02 S14PCS02 S3DPCS02 SC1PCS02 SIDPCS02 AESIPC AESOUTB	Failure to actuate AOV V001B	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 13 Table 13-2	As defined in Chapter 13 Table 13-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
RHR-IC01 RHR-IC01 EPORHR01 MA1RHR01 S11RHR01 S12RHR01 S13RHR01 S14RHR01 S3DRHR01 SC1RHR01 SI1RHR01 AESIPC AESOUTC MESOUTC	Failure of V108A actuation	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 8 Table 8-2	As defined in Chapter 8 Table 8-2
RHR-IC02 RHR-IC02 EPORHR02 MA1RHR02 S11RHR02 S12RHR02 S13RHR02 S14RHR02 S3DRHR02 SC1RHR02 SI1RHR02 AESIPC AESOUTD MESOUTD	Failure of V108B actuation	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 8 Table 8-2	As defined in Chapter 8 Table 8-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
RHR-IC03 RHR-IC03 EPORHR03 MA1RHR03 S11RHR03 S12RHR03 S13RHR03 S14RHR03 SC1RHR03 SI1RHR03 AESIPC AESOUTC MESOUTC	Failure of V108A actuation	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 8 Table 8-2	As defined in Chapter 8 Table 8-2
RHR-IC04 RHR-IC04 EPORHR04 MA1RHR04 S11RHR04 S12RHR04 S13RHR04 S14RHR04 SC1RHR04 SI1RHR04 AESIPC AESOUTD MESOUTD	Failure of V108A actuation	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 8 Table 8-2	As defined in Chapter 8 Table 8-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
RHR-IC05 RHR-IC05 EPORHR05 MA1RHR05 S11RHR05 S12RHR05 S13RHR05 S14RHR05 S3DRHR05 SC1RHR05 SI1RHR05 AESIPCP AESOUTCP MESOUTCP	Failure of V108A actuation (LOOP)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 8 Table 8-2	As defined in Chapter 8 Table 8-2
RHR-IC06 RHR-IC06 EPORHR06 MA1RHR06 S11RHR06 S12RHR06 S13RHR06 S14RHR06 S3DRHR06 SC1RHR06 SI1RHR06 AESIPCP AESOUTDP MESOUTDP	Failure of V108B actuation (LOOP)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 8 Table 8-2	As defined in Chapter 8 Table 8-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
RHR-IC09 RHR-IC09 EPORHR09 MA1RHR09 S11RHR09 S12RHR09 S13RHR09 S14RHR09 SC1RHR09 SI1RHR09 AESIPC AESOUTC MESOUTC	Failure of V108A actuation	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 8 Table 8-2	As defined in Chapter 8 Table 8-2
RHR-IC10 RHR-IC10 EPORHR10 MA1RHR10 S11RHR10 S12RHR10 S13RHR10 S14RHR10 SC1RHR10 SI1RHR10 AESIPC AESOUTD MESOUTD	Failure of V108B actuation	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 8 Table 8-2	As defined in Chapter 8 Table 8-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
RHR-IC11 RHR-IC11 EPORHR11 MA1RHR11 SI1RHR11 MESOUTC	Failure of V101A actuation	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 8 Table 8-2	As defined in Chapter 8 Table 8-2
RHR-IC12 RHR-IC12 EPORHR12 MA1RHR12 SI1RHR12 MESOUTD	Failure of V101B actuation						
RHR-IC13 RHR-IC13 EPORHR13 MA1RHR13 SI1RHR13 MESOUTC	Failure of V108A actuation	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 8 Table 8-2	As defined in Chapter 8 Table 8-2
RHR-IC14 RHR-IC14 EPORHR14 MA1RHR14 SI1RHR14 MESOUTD	Failure of V108B actuation	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 8 Table 8-2	As defined in Chapter 8 Table 8-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
RNS-IC1P RNSPIC01 EPORNS01 MA1RNS01 SI1RNS01 MESOUTDP	Failure of V023 actuation LOOP	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 17 Table 17-2	As defined in Chapter 17 Table 17-2
RNS-IC1 RNS-IC01 EPORNS01 MA1RNS01 SI1RNS01 MESOUTD	Failure of V023 actuation	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 17 Table 17-2	As defined in Chapter 17 Table 17-2
RNS-IC2P RNSPIC02 EPORNS02 MA1RNS02 SI1RNS02 MESOUTAP	Failure of V022 actuation LOOP	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 17 Table 17-2	As defined in Chapter 17 Table 17-2
RNS-IC2 RNS-IC02 EPORNS02 MA1RNS02 SI1RNS02 MESOUTA	Failure of V022 actuation	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 17 Table 17-2	As defined in Chapter 17 Table 17-2

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
RNS-IC4P RNSPIC04 EPORNS04 MA1RNS04 SI1RNS04 MESOUTBP	Failure of V011 actuation LOOP	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 17 Table 17-2	As defined in Chapter 17 Table 17-2
RNS-IC4 RNS-IC04 EPORNS04 MA1RNS04 SI1RNS04 MESOUTB	Failure of V011 actuation	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 17 Table 17-2	As defined in Chapter 17 Table 17-2
RPT-IC01 RPT-IC01 S11RPT01 S12RPT01 S13RPT01 S14RPT01 MA1RPT01 EPORPT01 SI1RPT01 SC1RPT01 AESIPC AESOUTA MESOUTA	Fail to open Breaker 31	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	RCP1A Bearing Temperature Hi	LPM-MAN01 RCN-MAN01

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
RPT-IC02 RPT-IC02 S11RPT02 S12RPT02 S13RPT02 S14RPT02 MA1RPT02 EPORPT02 SI1RPT02 SC1RPT02 AESIPC AESOUTB MESOUTB	Fail to open Breaker 32	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	RCP1A Bearing Temperature Hi	LPM-MAN01 RCN-MAN01
RPT-IC03 RPT-IC03 S11RPT03 S12RPT03 S13RPT03 S14RPT03 MA1RPT03 EPORPT03 SI1RPT03 SC1RPT03 AESIPC AESOUTA MESOUTA	Fail to open Breaker 51	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	RCP2A Bearing Temperature Hi	LPM-MAN01 RCN-MAN01

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
RPT-IC04 RPT-IC04 S11RPT04 S12RPT04 S13RPT04 S14RPT04 MA1RPT04 EPORPT04 SI1RPT04 SC1RPT04 AESIPC AESOUTB MESOUTB	Fail to open Breaker 52	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	RCP2A Bearing Temperature Hi	LPM-MAN01 RCN-MAN01
RPT-IC05 RPT-IC05 S11RPT05 S12RPT05 S13RPT05 S14RPT05 MA1RPT05 EPORPT05 SI1RPT05 SC1RPT05 AESIPC AESOUTC MESOUTC	Fail to open Breaker 41	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	RCP1B Bearing Temperature Hi	LPM-MAN01 RCN-MAN01

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
RPT-IC06 RPT-IC06 S11RPT06 S12RPT06 S13RPT06 S14RPT06 MA1RPT06 EPORPT06 SI1RPT06 SC1RPT06 AESIPC AESOUTD MESOUTD	Fail to open Breaker 42	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	RCP1B Bearing Temperature Hi	LPM-MAN01 RCN-MAN01
RPT-IC07 RPT-IC07 S11RPT07 S12RPT07 S13RPT07 S14RPT07 MA1RPT07 EPORPT07 SI1RPT07 SC1RPT07 AESIPC AESOUTC MESOUTC	Fail to open Breaker 61	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	RCP2B Bearing Temperature Hi	LPM-MAN01 RCN-MAN01

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
RPT-IC08 RPT-IC08 S11RPT08 S12RPT08 S13RPT08 S14RPT08 MA1RPT08 EPORPT08 SI1RPT08 SC1RPT08 AESIPC AESOUTD MESOUTD	Fail to open Breaker 62	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	RCP2B Bearing Temperature Hi	LPM-MAN01 RCN-MAN01
RPT-IC09 RPT-IC09 S11RPT09 S12RPT09 S13RPT09 S14RPT09 MA1RPT09 EPORPT09 SI1RPT09 SC1RPT09 S3DRPT09 S3DRPT09 AESIPC AESOUTA MESOUTA	Fail to open Breaker 31	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	RCP1A Bearing Temperature Hi	LPM-MAN01 RCN-MAN01 REC-MandAS

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
RPT-IC10 RPT-IC10 S11RPT10 S12RPT10 S13RPT10 S14RPT10 MA1RPT10 EPORPT10 SI1RPT10 SC1RPT10 S3DRPT10 S3DRPT10 AESIPC AESOUTB MESOUTB	Fail to open Breaker 32	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	RCP1A Bearing Temperature Hi	LPM-MAN01 RCN-MAN01 REC-MandAS
RPT-IC11 RPT-IC11 S11RPT11 S12RPT11 S13RPT11 S14RPT11 MA1RPT11 EPORPT11 SI1RPT11 SC1RPT11 S3DRPT11 S3DRPT11 AESIPC AESOUTA MESOUTA	Fail to open Breaker 51	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	RCP2A Bearing Temperature Hi	LPM-MAN01 RCN-MAN01 REC-MandAS

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
RPT-IC12 RPT-IC12 S11RPT12 S12RPT12 S13RPT12 S14RPT12 MA1RPT12 EPORPT12 SI1RPT12 SC1RPT12 S3DRPT12 S3DRPT12 AESIPC AESOUTB MESOUTB	Fail to open Breaker 52	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	RCP2A Bearing Temperature Hi	LPM-MAN01 RCN-MAN01 REC-MandAS
RPT-IC13 RPT-IC13 S11RPT13 S12RPT13 S13RPT13 S14RPT13 MA1RPT13 EPORPT13 SI1RPT13 SC1RPT13 S3DRPT13 S3DRPT13 AESIPC AESOUTC MESOUTC	Fail to open Breaker 41	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	RCP1B Bearing Temperature Hi	LPM-MAN01 RCN-MAN01 REC-MandAS

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
RPT-IC14 RPT-IC14 S11RPT14 S12RPT14 S13RPT14 S14RPT14 MA1RPT14 EPORPT14 SI1RPT14 SC1RPT14 S3DRPT14 S3DRPT14 AESIPC AESOUTD MESOUTD	Fail to open Breaker 42	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	RCP1B Bearing Temperature Hi	LPM-MAN01 RCN-MAN01 REC-MandAS
RPT-IC15 RPT-IC15 S11RPT15 S12RPT15 S13RPT15 S14RPT15 MA1RPT15 EPORPT15 SI1RPT15 SC1RPT15 S3DRPT15 S3DRPT15 AESIPC AESOUTC MESOUTC	Fail to open Breaker 61	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	RCP2B Bearing Temperature Hi	LPM-MAN01 RCN-MAN01 REC-MandAS

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
RPT-IC16 RPT-IC16 S11RPT16 S12RPT16 S13RPT16 S14RPT16 MA1RPT16 EPORPT16 SI1RPT16 SC1RPT16 S3DRPT16 S3DRPT16 AESIPC AESOUTD MESOUTD	Fail to open Breaker 62	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	RCP2B Bearing Temperature Hi	LPM-MAN01 RCN-MAN01 REC-MANDAS

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
SGS-IC1 SGS-IC01 EPOSGSC1 EPOSGSD1 MA1SGS01 S11SGS01 S12SGS01 S13SGS01 S14SGS01 SC1SGS01 SI1SGS01 AESIPC AESOUTC MESOUTC AESOUTD MESOUTD	Failure to close MSIV V040B	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 24 Table 24-5	As defined in Chapter 24 Table 24-5

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
SGS-IC2 SGS-IC02 EPOSGSA2 EPOSGSB2 MA1SGS02 S11SGS02 S12SGS02 S13SGS02 S14SGS02 SC1SGS02 SI1SGS02 AESIPC AESOUTA MESOUTA AESOUTB MESOUTB	Failure to close MSIV V040A	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 24 Table 24-5	As defined in Chapter 24 Table 24-5
SGS-IC3 SGS-IC03 EPOSGSA3 EPOSGSB3 MA1SGS03 SI1SGS03 MESOUTA MESOUTB	Failure to close MOV V027B manual	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 24 Table 24-5	As defined in Chapter 24 Table 24-5

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
SGS-IC4 SGS-IC04 EPOSGSA4 EPOSGSB4 MA1SGS04 SI1SGS04 MESOUTA MESOUTB	Failure to close valve V057B manual	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 24 Table 24-5	As defined in Chapter 24 Table 24-5
SGS-IC5 SGS-IC05 EPOSGSC5 EPOSGSD5 MA1SGS05 SI1SGS05 MESOUTC MESOUTD	Failure to close valve V250 manual	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 24 Table 24-5	As defined in Chapter 24 Table 24-5
SGS-IC6 SGS-IC06 EPOSGSA6 EPOSGSB6 MA1SGS06 SI1SGS06 MESOUTA MESOUTB	Failure to close valve V074B manual	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 24 Table 24-5	As defined in Chapter 24 Table 24-5

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
SGS-IC7 SGS-IC07 EPOSGSA7 EPOSGSB7 MA1SGS07 SI1SGS07 MESOUTA MESOUTB	Failure to close MOV V027B manual	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 24 Table 24-5	As defined in Chapter 24 Table 24-5
SGS-IC8 SGS-IC08 EPOSGSC8 EPOSGSD8 MA1SGS08 SI1SGS08 MESOUTC MESOUTD	Failure to close MSIV V040B manual	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 24 Table 24-5	As defined in Chapter 24 Table 24-5

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IC41ATS ADS-ICA1 EPAADSA1 EPCADSA1 EPOADSA1 MA1ADSA1 S3DADSA1 SI1ADSA1 MESOUTA MESOUTC MDAS	Fail to actuate V004A IC41ATS	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11	As defined in Chapter 11
IC42ATS ADS-ICA2 EPBADSA2 EPDADSA2 EPOADSA2 MA1ADSA2 S3DADSA2 SI1ADSA2 MESOUTB MESOUTD MDAS	Fail to actuate V004B IC42ATS	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11	As defined in Chapter 11

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IC43ATS ADS-ICA3 EPAADSA3 EPCADSA3 EPOADSA3 MA1ADSA3 S3DADSA3 SI1ADSA3 MESOUTA MESOUTC MDAS	Fail to actuate V004C IC43ATS	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11	As defined in Chapter 11
IC44ATS ADS-ICA4 EPBADSA4 EPDADSA4 EPOADSA4 MA1ADSA4 S3DADSA4 SI1ADSA4 MESOUTB MESOUTD MDAS	Fail to actuate V004D IC44ATS	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11	As defined in Chapter 11

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IC41ALA ADS-ICB1 EPAADSB1 EPCADSB1 S11ADSB1 S12ADSB1 S13ADSB1 S14ADSB1 SC1ADSB1 AESIPC AESOUTA AESOUTC	Fail to actuate V004A IC41ALA (LLOCA CASE)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11	As defined in Chapter 11
IC42ALA ADS-ICB2 EPBADSB2 EPDADSB2 S11ADSB2 S12ADSB2 S13ADSB2 S14ADSB2 SC1ADSB2 AESIPC AESOUTB AESOUTD	Fail to actuate V004B IC42ALA	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11	As defined in Chapter 11

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IC43ALA ADS-ICB3 EPAADSB3 EPCADSB3 S11ADSB3 S12ADSB3 S13ADSB3 S14ADSB3 SC1ADSB3 AESIPC AESOUTA AESOUTC	Fail to actuate V004C IC43ALA	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11	As defined in Chapter 11
IC44ALA ADS-ICB4 EPBADSB4 EPDADSB4 S11ADSB4 S12ADSB4 S13ADSB4 S14ADSB4 SC1ADSB4 AESIPC AESOUTB AESOUTD	Fail to actuate V004D IC44ALA	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 11	As defined in Chapter 11

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I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
CMT-IC25 CMTIC5A CMT-IC25 EPOCMT25 S11CMT25 S12CMT25 S13CMT25 S14CMT25 S3DCMT25 SC1CMT25 AESIPC AESOUTA DAS	Failure to actuate valve V014A	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 9	As defined in Chapter 9
CMT-IC26 CMTIC6A CMT-IC26 EPOCMT26 S11CMT26 S12CMT26 S13CMT26 S14CMT26 S3DCMT26 SC1CMT26 AESIPC AESOUTC DAS	Failure to actuate valve V015A	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 9	As defined in Chapter 9

Table 26-2e (Sheet 84 of 98)

I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
CMT-IC27 CMTIC15A CMT-IC27 EPOCMT27 S11CMT27 S12CMT27 S13CMT27 S14CMT27 S3DCMT27 SC1CMT27 AESIPC AESOUTB DAS	Failure to actuate valve V014B	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 9	As defined in Chapter 9
CMT-IC28 CMTIC16A CMT-IC28 EPOCMT28 S11CMT28 S12CMT28 S13CMT28 S14CMT28 S3DCMT28 SC1CMT28 AESIPC AESOUTD DAS	Failure to actuate valve V015B	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 9	As defined in Chapter 9

Table 26-2e (Sheet 85 of 98)

I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IRW-IC17 EPOIRW17 IRW-IC17 MA1IRW17 S11IRW17 S12IRW17 S13IRW17 S14IRW17 S3DIRW17 SC1IRW17 SI1IRW17 AESIPC AESOUTD MESOUTD MDAS	Failure to open valve V120A	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12	As defined in Chapter 12
IRW-IC18 EPOIRW18 IRW-IC18 MA1IRW18 S11IRW18 S12IRW18 S13IRW18 S14IRW18 S3DIRW18 SC1IRW18 SI1IRW18 AESIPC AESOUTC MESOUTC MDAS	Failure to open valve V120B	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12	As defined in Chapter 12

Table 26-2c (Sheet 86 of 98)

I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IRW-IC19 EPOIRW19 IRW-IC19 MA1IRW19 S11IRW19 S12IRW19 S13IRW19 S14IRW19 S3DIRW19 SC1IRW19 SI1IRW19 AESIPCP AESOUTDP MESOUTDP MDAS	Failure to open valve V120A (LOOP)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12	As defined in Chapter 12
IRW-IC20 EPOIRW20 IRW-IC20 MA1IRW20 S11IRW20 S12IRW20 S13IRW20 S14IRW20 S3DIRW20 SC1IRW20 SI1IRW20 AESIPCP AESOUTCP MESOUTCP MDAS	Failure to open valve V120B (LOOP)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12	As defined in Chapter 12

Table 26-2e (Sheet 87 of 98)

I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IRW-IC21 EPOIRW21 IRW-IC21 MA1IRW21 S11IRW21 S12IRW21 S13IRW21 S14IRW21 S3DIRW21 SC1IRW21 SI1IRW21 AESIPC AESOUTB MESOUTB MDAS	Fail to actuate valve V123A	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12	As defined in Chapter 12
IRW-IC22 EPOIRW22 IRW-IC22 MA1IRW22 S11IRW22 S12IRW22 S13IRW22 S14IRW22 S3DIRW22 SC1IRW22 SI1IRW22 AESIPC AESOUTD MESOUTD MDAS	Fail to actuate valve V125A	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12	As defined in Chapter 12

Table 26-2e (Sheet 88 of 98)

I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IRW-IC23 EPOIRW23 IRW-IC23 MA1IRW23 S11IRW23 S12IRW23 S13IRW23 S14IRW23 S3DIRW23 SC1IRW23 SI1IRW23 AESIPC AESOUTA MESOUTA MDAS	Fail to actuate valve V123B	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12	As defined in Chapter 12
IRW-IC24 EPOIRW24 IRW-IC24 MA1IRW24 S11IRW24 S12IRW24 S13IRW24 S14IRW24 S3DIRW24 SC1IRW24 SI1IRW24 AESIPC AESOUTC MESOUTC MDAS	Fail to actuate valve V125B	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12	As defined in Chapter 12

Table 26-2e (Sheet 89 of 98)

I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IRW-IC25 EPOIRW25 IRW-IC25 MA1IRW25 S11IRW25 S12IRW25 S13IRW25 S14IRW25 S3DIRW25 SC1IRW25 SI1IRW25 AESIPCB AESOUTDB MESOUTDB	Failure to open valve V120A (Blackout)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12	As defined in Chapter 12
IRW-IC26 EPOIRW26 IRW-IC26 MA1IRW26 S11IRW26 S12IRW26 S13IRW26 S14IRW26 S3DIRW26 SC1IRW26 SI1IRW26 AESIPCB AESOUTCB MESOUTCB	Failure to open valve V120B (Blackout)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12	As defined in Chapter 12

Table 26-2e (Sheet 90 of 98)

I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IRW-IC27 EPOIRW27 IRW-IC27 MA1IRW27 S11IRW27 S12IRW27 S13IRW27 S14IRW27 S3DIRW27 SC1IRW27 SI1IRW27 AESIPCP AESOUTBP MESOUTBP MDAS	Fail to actuate valve V123A (LOOP)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12	As defined in Chapter 12
IRW-IC28 EPOIRW28 IRW-IC28 MA1IRW28 S11IRW28 S12IRW28 S13IRW28 S14IRW28 S3DIRW28 SC1IRW28 SI1IRW28 AESIPCP AESOUTDP MESOUTDP MDAS	Fail to actuate valve V125A (LOOP)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12	As defined in Chapter 12

Table 26-2e (Sheet 91 of 98)

I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IRW-IC29 EPOIRW29 IRW-IC29 MA1IRW29 S11IRW29 S12IRW29 S13IRW29 S14IRW29 S3DIRW29 SC1IRW29 SI1IRW29 AESIPCP AESOUTAP MESOUTAP MDAS	Fail to actuate valve V123B (LOOP)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12	As defined in Chapter 12
IRW-IC30 EPOIRW30 IRW-IC30 MA1IRW30 S11IRW30 S12IRW30 S13IRW30 S14IRW30 S3DIRW30 SC1IRW30 SI1IRW30 AESIPCP AESOUTCP MESOUTCP MDAS	Fail to actuate valve V125B (LOOP)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12	As defined in Chapter 12

Table 26-2e (Sheet 92 of 98)

I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IRW-IC31 EPOIRW31 IRW-IC31 MA1IRW31 S11IRW31 S12IRW31 S13IRW31 S14IRW31 S3DIRW31 SC1IRW31 SI1IRW31 AESIPCB AESOUTBB MESOUTBB	Fail to actuate valve V123A (Blackout)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12	As defined in Chapter 12
IRW-IC32 EPOIRW32 IRW-IC32 MA1IRW32 S11IRW32 S12IRW32 S13IRW32 S14IRW32 S3DIRW32 SC1IRW32 SI1IRW32 AESIPCB AESOUTDB MESOUTDB	Fail to actuate valve V125A (Blackout, Manual only)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12	As defined in Chapter 12

Table 26-2e (Sheet 93 of 98)

I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IRW-IC33 EPOIRW33 IRW-IC33 MA1IRW33 S11IRW33 S12IRW33 S13IRW33 S14IRW33 S3DIRW33 SC1IRW33 SI1IRW33 AESIPCB AESOUTAB MESOUTAB	Fail to actuate valve V123B (Blackout)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12	As defined in Chapter 12
IRW-IC34 EPOIRW34 IRW-IC34 MA1IRW34 S11IRW34 S12IRW34 S13IRW34 S14IRW34 S3DIRW34 SC1IRW34 SI1IRW34 AESIPCB AESOUTCB MESOUTCB	Fail to actuate valve V125B (Blackout)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12	As defined in Chapter 12

Table 26-2e (Sheet 94 of 98)

I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IRW-IC35 EPOIRW35 IRW-IC35 MA1IRW35 SI1IRW35 MESOUTD	Failure to open valve V120A (After core damage)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12	As defined in Chapter 12
IRW-IC36 EPOIRW36 IRW-IC36 MA1IRW36 SI1IRW36 MESOUTC	Failure to open valve V120B (After core damage)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12	As defined in Chapter 12
IRWIC21M EPOIRW37 IRW-IC37 MA1IRW37 S3DIRW37 SI1IRW37 MESOUTB MDAS	Fail to actuate valve V123A (Manual only)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12	As defined in Chapter 12
IRWIC22M EPOIRW38 IRW-IC38 MA1IRW38 S3DIRW38 SI1IRW38 MESOUTD MDAS	Fail to actuate valve V125A (Manual only)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12	As defined in Chapter 12

Table 26-2e (Sheet 95 of 98)

I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IRWIC23M EPOIRW39 IRW-IC39 MA1IRW39 S3DIRW39 SI1IRW39 MESOUTA MDAS	Fail to actuate valve V123B (Manual only)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12	As defined in Chapter 12
IRWIC24M EPOIRW40 IRW-IC40 MA1IRW40 S3DIRW40 SI1IRW40 MESOUTC MDAS	Fail to actuate valve V125B (Manual only)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12	As defined in Chapter 12
IRWIC27M EPOIRW41 IRW-IC41 MA1IRW41 S3DIRW41 SI1IRW41 MESOUTBP MDAS	Fail to actuate valve V123A (LOOP; Manual only)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12	As defined in Chapter 12
IRWIC28M EPOIRW42 IRW-IC42 MA1IRW42 S3DIRW42 SI1IRW42 MESOUTDP MDAS	Fail to actuate valve V125A (LOOP; Manual only)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12	As defined in Chapter 12

Table 26-2e (Sheet 96 of 98)

I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IRWIC29M EPOIRW43 IRW-IC43 MA1IRW43 S3DIRW43 SI1IRW43 MESOUTAP MDAS	Fail to actuate valve V123B (LOOP; Manual only)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12	As defined in Chapter 12
IRWIC30M EPOIRW44 IRW-IC44 MA1IRW44 S3DIRW44 SI1IRW44 MESOUTCP MDAS	Fail to actuate valve V125B (LOOP; Manual only)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12	As defined in Chapter 12
IRWIC31M EPOIRW45 IRW-IC45 MA1IRW45 S3DIRW45 SI1IRW45 MESOUTBB	Fail to actuate valve V123A (Blackout Manual only)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12	As defined in Chapter 12
IRWIC32M EPOIRW46 IRW-IC46 MA1IRW46 S3DIRW46 SI1IRW46 MESOUTDB	Fail to actuate valve V125A (Blackout Manual only)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12	As defined in Chapter 12

Table 26-2e (Sheet 97 of 98)

I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IRWIC33M EPOIRW47 IRW-IC47 MA1IRW47 S3DIRW47 SI1IRW47 MESOUTAB	Fail to actuate valve V123B (Blackout Manual only)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12	As defined in Chapter 12
IRWIC34M EPOIRW48 IRW-IC48 MA1IRW48 S3DIRW48 SI1IRW48 MESOUTCB	Fail to actuate valve V125B (Blackout Manual only)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12	As defined in Chapter 12
IRWIC21A EPOIRW49 IRW-IC49 S11IRW49 S12IRW49 S13IRW49 S14IRW49 S3DIRW49 SC1IRW49 SI1IRW49 AESIPC AESOUTB	Fail to actuate valve V123A (Auto only)	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12	As defined in Chapter 12

Table 26-2e (Sheet 98 of 98)

I&C SUBTREE SUCCESS CRITERIA SUMMARY

Fault Tree	Event Description	Success Configuration	System Initial Status	Mission Time	Components Required to Change Status	Initiating Signals	Operator Actions
IRWIC22A EPOIRW50 IRW-IC50 S11IRW50 S12IRW50 S13IRW50 S14IRW50 S3DIRW50 SC1IRW50 SI1IRW50 AESIPC AESOUTD	Fail to actuate valve V125A	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12	As defined in Chapter 12
IRWIC23A EPOIRW51 IRW-IC51 S11IRW51 S12IRW51 S13IRW51 S14IRW51 S3DIRW51 SC1IRW51 SI1IRW51 AESIPC AESOUTA	Fail to actuate valve V123B	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12	As defined in Chapter 12
IRWIC24A EPOIRW52 IRW-IC52 S11IRW52 S12IRW52 S13IRW52 S14IRW52 S3DIRW52 SC1IRW52 SI1IRW52 AESIPC AESOUTC	Fail to actuate valve V125B	Accurately accept inputs, process information, and actuate control signals	All channels operational	24 hours	Actuate output driver modules	As defined in Chapter 12	As defined in Chapter 12

Table 26-3a (Sheet 1 of 19)

PMS I&C SUBTREE CONSTRUCTIONS

I&C Subtree Name	Tree Naming and Linking			Assoc. Figures from Reference 26-1
IC11A	Rename	S11ADS01	SENS1	26-81
	Rename	S12ADS01	SENS2	through
	Rename	S13ADS01	SENS3	26-90
	Rename	S14ADS01	SENS4	
	Rename	MA1ADS01	ESFOPER	and
	Rename	EPOADS01	EPO	
	Rename	SI1ADS01	CCXSNRS2	26-320
	Rename	SC1ADS01	CCXSNRS1	through
	Rename	S3DADS01	DASSIND	26-330
	WLINK	AESIPC		(representative)
	WLINK	AESOUTA		
	WLINK	MESOUTA		
	WLINK	ADS-IC01		
IC41A	Rename	S11ADS07	SENS1	26-91
	Rename	S12ADS07	SENS2	through
	Rename	S13ADS07	SENS3	26-100
	Rename	S14ADS07	SENS4	
	Rename	MA1ADS07	ESFOPER	and
	Rename	SI1ADS07	CCXSNRS2	
	Rename	SC1ADS07	CCXSNRS1	26-320
	Rename	S3DADS07	DASSIND	through
	WLINK	AESIPC		26-330
	COPY	EPAADS07	EPO	(representative)
	WLINK	AESOUTA		
	WLINK	MESOUTA		
	COPY	EPCADS07	EPO	
	WLINK	AESOUTC		
	WLINK	MESOUTC		
	WLINK	ADS-IC07		

Table 26-3a (Sheet 2 of 19)

PMS I&C SUBTREE CONSTRUCTIONS

I&C Subtree Name	Tree Naming and Linking			Assoc. Figures from Reference 26-1
IC11AB	Rename	S11ADS11	SENS1	26-101
	Rename	S12ADS11	SENS2	through
	Rename	S13ADS11	SENS3	26-109
	Rename	S14ADS11	SENS4	
	Rename	MA1ADS11	ESFOPER	and
	Rename	EPOADS11	EPO	
	Rename	SI1ADS11	CCXSNRS2	26-320
	Rename	SC1ADS11	CCXSNRS1	through
	WLINK	AESIPCB		26-330
	WLINK	AESOUTAB		(representative)
	WLINK	MESOUTAB		
	WLINK	ADS-IC11		
IC11AP	Rename	S11ADS21	SENS1	26-110
	Rename	S12ADS21	SENS2	through
	Rename	S13ADS21	SENS3	26-119
	Rename	S14ADS21	SENS4	
	Rename	MA1ADS21	ESFOPER	and
	Rename	EPOADS21	EPO	
	Rename	SI1ADS21	CCXSNRS2	26-320
	Rename	SC1ADS21	CCXSNRS1	through
	Rename	S3DADS21	DASSIND	26-330
	WLINK	AESIPCP		(representative)
	WLINK	AESOUTAP		
	WLINK	MESOUTAP		
	WLINK	ADS-IC21		
IC11M	Rename	MA1ADS31	ESFOPER	26-120
	Rename	EPOADS31	EPO	through
	Rename	SI1ADS31	CCXSNRS2	26-124
	Rename	S3DADS31	DASSIND	
	WLINK	MESOUTA		and
	WLINK	ADS-IC31		
				26-320
				through
				26-330
				(representative)

Table 26-3a (Sheet 3 of 19)

PMS I&C SUBTREE CONSTRUCTIONS

I&C Subtree Name	Tree Naming and Linking			Assoc. Figures from Reference 26-1
IC41M	Rename	MA1ADS37	ESFOPER	26-125
	Rename	SI1ADS37	CCXSNRS2	through
	Rename	S3DADS37	DASSIND	26-129
	COPY	EPAADS37	EPO	
	WLINK	MESOUTA		and
	COPY	EPCADS37	EPO	
	WLINK	MESOUTC		26-320
	WLINK	ADS-IC37		through
				26-330
				(representative)
IC11MB	Rename	MA1ADS41	ESFOPER	26-130
	Rename	EPOADS41	EPO	through
	Rename	SI1ADS41	CCXSNRS2	26-133
	WLINK	MESOUTAB		
	WLINK	ADS-IC41		and
				26-320
				through
				26-330
				(representative)
IC11MP	Rename	MA1ADS51	ESFOPER	26-134
	Rename	EPOADS51	EPO	through
	Rename	SI1ADS51	CCXSNRS2	26-138
	Rename	S3DADS51	DASSIND	
	WLINK	MESOUTAP		and
	WLINK	ADS-IC51		
				26-320
				through
				26-330
				(representative)

Table 26-3a (Sheet 4 of 19)

PMS I&C SUBTREE CONSTRUCTIONS

I&C Subtree Name	Tree Naming and Linking			Assoc. Figures from Reference 26-1
IC11EPO	Rename	MA1ADS61	ESFOPER	26-139
	Rename	EPOADS61	EPO	through
	Rename	SI1ADS61	CCXSNRS2	26-142
	WLINK	MESOUTA		
	WLINK	ADS-IC61		and
				26-320
				through
				26-330
				(representative)
IC41AL	Rename	S11ADS63	SENS1	26-143
	Rename	S12ADS63	SENS2	through
	Rename	S13ADS63	SENS3	26-152
	Rename	S14ADS63	SENS4	
	Rename	MA1ADS63	ESFOPER	and
	Rename	SI1ADS63	CCXSNRS2	
	Rename	SC1ADS63	CCXSNRS1	26-320
	Rename	S3DADS63	DASSIND	through
	WLINK	AESIPC		26-330
	COPY	EPAADS63	EPO	(representative)
	WLINK	AESOUTA		
	WLINK	MESOUTA		
	COPY	EPCADS63	EPO	
	WLINK	AESOUTC		
	WLINK	MESOUTC		
	WLINK	ADS-IC63		
IC41ML	Rename	MA1ADS67	ESFOPER	26-153
	Rename	SI1ADS67	CCXSNRS2	through
	Rename	S3DADS67	DASSIND	26-157
	COPY	EPAADS67	EPO	
	WLINK	MESOUTA		and
	COPY	EPCADS67	EPO	
	WLINK	MESOUTC		26-320
	WLINK	ADS-IC67		through
				26-330
				(representative)

Table 26-3a (Sheet 5 of 19)

PMS I&C SUBTREE CONSTRUCTIONS

I&C Subtree Name	Tree Naming and Linking			Assoc. Figures from Reference 26-1
IC41MW	Rename	MA1ADS71	ESFOPER	26-158
	COPY	SI1ADS71	DASSIND	through
	Rename	SI1ADS71	CCXSNRS2	26-161
	COPY	EPAADS71	EPO	
	WLINK	MESOUTA		and
	COPY	EPCADS71	EPO	
	WLINK	MESOUTC		26-320
	WLINK	ADS-IC71		through
				26-330
				(representative)
IC41MQ	Rename	MA1ADS75	ESFOPER	26-162
	Rename	SI1ADS75	CCXSNRS2	through
	Rename	S3DADS75	DASSIND	26-166
	COPY	EPAADS75	EPO	
	WLINK	MESOUTA		and
	COPY	EPCADS75	EPO	
	WLINK	MESOUTC		26-320
	WLINK	ADS-IC75		through
				26-330
				(representative)
IC41MT	Rename	MA1ADS79	ESFOPER	26-167
	Rename	SI1ADS79	CCXSNRS2	through
	Rename	S3DADS79	DASSIND	26-171
	COPY	EPAADS79	EPO	
	WLINK	MESOUTA		and
	COPY	EPCADS79	EPO	
	WLINK	MESOUTC		26-320
	WLINK	ADS-IC79		through
				26-330
				(representative)

Table 26-3a (Sheet 6 of 19)

PMS I&C SUBTREE CONSTRUCTIONS

I&C Subtree Name	Tree Naming and Linking			Assoc. Figures from Reference 26-1
ICS	Rename	APOADS83	APOADS83	26-172
	Rename	BPOADS83	BPOADS83	through
	Rename	CPOADS83	CPOADS83	26-181
	Rename	DPOADS83	DPOADS83	
	Rename	S11ADS83	SENS1	and
	Rename	S12ADS83	SENS2	
	Rename	S13ADS83	SENS3	26-320
	Rename	S14ADS83	SENS4	through
	Rename	SC1ADS83	CCXSNRS2	26-330
	WLINK	SESIPC		(representative)
	WLINK	SESOUTA		
	WLINK	SESOUTB		
	WLINK	SESOUTC		
	WLINK	SESOUTD		
	WLINK	ADS-IC83		
IC41MWP	Rename	MA1ADS84	ESFOPER	26-182
	COPY	SI1ADS84	DASSIND	through
	Rename	SI1ADS84	CCXSNRS2	26-185
	COPY	EPAADS84	EPO	
	WLINK	MESOUTAP		and
	COPY	EPCADS84	EPO	
	WLINK	MESOUTCP		26-320
	WLINK	ADS-IC84		through
				26-330
				(representative)

Table 26-3a (Sheet 7 of 19)

PMS I&C SUBTREE CONSTRUCTIONS

I&C Subtree Name	Tree Naming and Linking			Assoc. Figures from Reference 26-1
IC11AL	Rename	S11ADS88	SENS1	26-186
	Rename	S12ADS88	SENS2	through
	Rename	S13ADS88	SENS3	26-195
	Rename	S14ADS88	SENS4	
	Rename	MA1ADS88	ESFOPER	and
	Rename	EPODS88	EPO	
	Rename	SI1ADS88	CCXSNRS2	26-320
	Rename	SC1ADS88	CCXSNRS1	through
	Rename	S3DADS88	DASSIND	26-330
	WLINK	AESIPC		(representative)
	WLINK	AESOUTA		
	WLINK	MESOUTA		
	WLINK	ADS-IC88		
IC11ML	Rename	MA1ADS94	ESFOPER	26-196
	Rename	EPOADS94	EPO	through
	Rename	SI1ADS94	CCXSNRS2	26-200A
	Rename	S3DADS94	DASSIND	
	WLINK	MESOUTA		and
	WLINK	ADS-IC94		
				26-320
				through
				26-330
				(representative)
CIS-IC1	Rename	EPOCIS01	EPO	26-247
	Rename	S13CIS01	SENS3	through
	Rename	SI1CIS01	CCXSNRS2	26-255
	Rename	MA1CIS01	ESFOPER	
	Rename	SC1CIS01	CCXSNRS1	and
	Rename	S11CIS01	SENS1	
	Rename	S12CIS01	SENS2	26-320
	Rename	S14CIS01	SENS4	through
	WLINK	AESIPC		26-330
	WLINK	AESOUTA		(representative)
	WLINK	MESOUTA		
	WLINK	CIS-IC01		

Table 26-3a (Sheet 8 of 19)

PMS I&C SUBTREE CONSTRUCTIONS

I&C Subtree Name	Tree Naming and Linking			Assoc. Figures from Reference 26-1
CIS-IC2	Rename	EPOCIS02	EPO	26-256
	Rename	S13CIS02	SENS3	through
	Rename	SI1CIS02	CCXSNRS2	26-265
	COPY	S3DCIS02	DASSIND	
	Rename	S3DCIS02	DASSENS	and
	Rename	MA1CIS02	ESFOPER	
	Rename	SC1CIS02	CCXSNRS1	26-320
	Rename	S11CIS02	SENS1	through
	Rename	S12CIS02	SENS2	26-330
	Rename	S14CIS02	SENS4	(representative)
	WLINK	AESIPC		
	WLINK	AESOUTA		
	WLINK	MESOUTA		
	WLINK	CIS-IC02		
CMT-IC1	Rename	EPOCMT01	EPO	26-71
	Rename	S13CMT01	SENS3	through
	Rename	SI1CMT01	CCXSNRS2	26-80
	Rename	MA1CMT01	ESFOPER	
	Rename	SC1CMT01	CCXSNRS1	and
	Rename	S11CMT01	SENS1	
	Rename	S12CMT01	SENS2	26-320
	Rename	S14CMT01	SENS4	through
	COPY	S3DCMT01	DASSIND	26-330
	Rename	S3DCMT01	DASSENS	(representative)
	WLINK	AESIPC		
	WLINK	AESOUTA		
	WLINK	MESOUTA		
	WLINK	CMT-IC01		

Table 26-3a (Sheet 9 of 19)

PMS I&C SUBTREE CONSTRUCTIONS

I&C Subtree Name	Tree Naming and Linking			Assoc. Figures from Reference 26-1
CVS-IC4	Rename	MA1CVS04	ESFOPER	26-224
	Rename	SI1CVS04	CCXSNRS2	through
	Rename	EPOCVS04	EPO	26-227
	WLINK	MESOUTA		
	WLINK	CVS-IC04		and
				26-320
				through
				26-330
				(representative)
CVS-IC6	Rename	S13CVS06	SENS3	26-228
	Rename	MA1CVS06	ESFOPER	through
	Rename	SI1CVS06	CCXSNRS2	26-236
	Rename	SC1CVS06	CCXSNRS1	
	Rename	S11CVS06	SENS1	and
	Rename	S12CVS06	SENS2	
	Rename	S14CVS06	SENS4	26-320
	Rename	EPOCVS06	EPO	through
	WLINK	AESIPC		26-330
	WLINK	AESOUTD		(representative)
	WLINK	MESOUTD		
	WLINK	CVS-IC06		
IRW-IC1	Rename	EPOIRW01	EPO	26-201
	Rename	S13IRW01	SENS3	through
	Rename	SI1IRW01	CCXSNRS2	26-209
	Rename	MA1IRW01	ESFOPER	
	Rename	SC1IRW01	CCXSNRS1	and
	Rename	S11IRW01	SENS1	
	Rename	S12IRW01	SENS2	26-320
	Rename	S14IRW01	SENS4	through
	WLINK	AESIPC		26-330
	WLINK	AESOUTA		(representative)
	WLINK	MESOUTA		
	WLINK	IRW-IC01		

Table 26-3a (Sheet 10 of 19)

PMS I&C SUBTREE CONSTRUCTIONS

I&C Subtree Name	Tree Naming and Linking			Assoc. Figures from Reference 26-1
IRW-IC13	Rename	EPOIRW13	EPO	26-210
	Rename	SI1IRW13	CCXSNRS2	through
	Rename	MA1IRW13	ESFOPER	26-213
	WLINK	MESOUTA		
	WLINK	IRW-IC13		and
				26-320
				through
				26-330
				(representative)
PCS-IC1	Rename	EPOPCS01	EPO	26-214
	Rename	S13PCS01	SENS3	through
	Rename	S3DPCS01	DASSENS	26-223
	Rename	MA1PCS01	ESFOPER	
	Rename	SC1PCS01	CCXSNRS1	and
	COPY	CCXSNRS1	CCXSNRS2	
	Rename	S11PCS01	SENS1	26-320
	Rename	S12PCS01	SENS2	through
	Rename	S14PCS01	SENS4	26-330
	Rename	SIDPCS01	DASSIND	(representative)
	WLINK	AESIPC		
	WLINK	AESOUTA		
	WLINK	PCS-IC01		

Table 26-3a (Sheet 11 of 19)

PMS I&C SUBTREE CONSTRUCTIONS

I&C Subtree Name	Tree Naming and Linking			Assoc. Figures from Reference 26-1
RHR-IC01	Rename	EPORHR01	EPO	26-7
	Rename	MA1RHR01	ESFOPER	through
	Rename	S11RHR01	SENS1	26-16
	Rename	S12RHR01	SENS2	
	Rename	S13RHR01	SENS3	and
	Rename	S14RHR01	SENS4	
	COPY	S3DRHR01	DASSIND	26-320
	Rename	S3DRHR01	DASSENS	through
	Rename	SC1RHR01	CCXSNRS1	26-330
	Rename	SI1RHR01	CCXSNRS2	(representative)
	WLINK	AESIPC		26-
	WLINK	AESOUTC		through
	WLINK	MESOUTC		26-
	WLINK	RHR-IC01		
				and
				26-320
				through
				26-330
				(representative)
RHR-IC03	Rename	EPORHR03	EPO	26-17
	Rename	MA1RHR03	ESFOPER	through
	Rename	S11RHR03	SENS1	26-25
	Rename	S12RHR03	SENS2	
	Rename	S13RHR03	SENS3	and
	Rename	S14RHR03	SENS4	
	COPY	SC1RHR03	DASSENS	26-320
	Rename	SC1RHR03	CCXSNRS1	through
	COPY	SI1RHR03	DASSIND	26-330
	Rename	SI1RHR03	CCXSNRS2	(representative)
	WLINK	AESIPC		
	WLINK	AESOUTC		
	WLINK	MESOUTC		
	WLINK	RHR-IC03		

Table 26-3a (Sheet 12 of 19)

PMS I&C SUBTREE CONSTRUCTIONS

I&C Subtree Name	Tree Naming and Linking			Assoc. Figures from Reference 26-1
RHR-IC05	Rename	EPORHR05	EPO	26-26
	Rename	MA1RHR05	ESFOPER	through
	Rename	S11RHR05	SENS1	26-35
	Rename	S12RHR05	SENS2	
	Rename	S13RHR05	SENS3	and
	Rename	S14RHR05	SENS4	
	COPY	S3DRHR05	DASSIND	26-320
	Rename	S3DRHR05	DASSENS	through
	Rename	SC1RHR05	CCXSNRS1	26-330
	Rename	SI1RHR05	CCXSNRS2	(representative)
	WLINK	AESIPCP		
	WLINK	AESOUTCP		
	WLINK	MESOUTCP		
	WLINK	RHR-IC05		
RHR-IC09	Rename	EPORHR09	EPO	26-36
	Rename	MA1RHR09	ESFOPER	through
	Rename	S11RHR09	SENS1	26-44
	Rename	S12RHR09	SENS2	
	Rename	S13RHR09	SENS3	and
	Rename	S14RHR09	SENS4	
	Rename	SC1RHR09	CCXSNRS1	26-320
	Rename	SI1RHR09	CCXSNRS2	through
	WLINK	AESIPC		26-330
	WLINK	AESOUTC		(representative)
	WLINK	MESOUTC		
	WLINK	RHR-IC09		

Table 26-3a (Sheet 13 of 19)

PMS I&C SUBTREE CONSTRUCTIONS

I&C Subtree Name	Tree Naming and Linking			Assoc. Figures from Reference 26-1
RHR-IC11	Rename	EPORHR11	EPO	26-45
	Rename	MA1RHR11	ESFOPER	through
	Rename	SI1RHR11	CCXSNRS2	26-48
	WLINK	MESOUTC		
	WLINK	RHR-IC11		and
				26-320
				through
				26-330
				(representative)
RHR-IC1A	Rename	EPORHR01	EPO	26-53
	Rename	MA1RHR01	ESFOPER	through
	Rename	S11RHR01	SENS1	26-61
	Rename	S12RHR01	SENS2	
	Rename	S13RHR01	SENS3	and
	Rename	S14RHR01	SENS4	
	COPY	S3DRHR01	DASSIND	26-320
	Rename	S3DRHR01	DASSENS	through
	Rename	SC1RHR01	CCXSNRS1	26-330
	Rename	SI1RHR01	CCXSNRS2	(representative)
	WLINK	AESIPC		
	WLINK	AESOUTC		
	WLINK	RHR-IC1A		

Table 26-3a (Sheet 14 of 19)

PMS I&C SUBTREE CONSTRUCTIONS

I&C Subtree Name	Tree Naming and Linking			Assoc. Figures from Reference 26-1
RHR-IC2A	Rename	EPORHR02	EPO	26-62
	Rename	MA1RHR02	ESFOPER	through
	Rename	S11RHR02	SENS1	26-70
	Rename	S12RHR02	SENS2	
	Rename	S13RHR02	SENS3	and
	Rename	S14RHR02	SENS4	
	COPY	S3DRHR02	DASSIND	26-320
	Rename	S3DRHR02	DASSENS	through
	Rename	SC1RHR02	CCXSNRS1	26-330
	Rename	SI1RHR02	CCXSNRS2	(representative)
	WLINK	AESIPC		
	WLINK	AESOUTD		
	WLINK	RHR-IC2A		
RNS-IC1	Rename	MA1RNS01	ESFOPER	26-237
	Rename	SI1RNS01	CCXSNRS2	through
	Rename	EPORNS01	EPO	26-240
	WLINK	MESOUTD		
	WLINK	RNS-IC01		and
				26-320
				through
				26-330
				(representative)

Table 26-3a (Sheet 15 of 19)

PMS I&C SUBTREE CONSTRUCTIONS

I&C Subtree Name	Tree Naming and Linking			Assoc. Figures from Reference 26-1
RPT-IC01	Rename	S11RPT01	SENS1	26-301
	Rename	S12RPT01	SENS2	through
	Rename	S13RPT01	SENS3	26-309
	Rename	S14RPT01	SENS4	
	Rename	MA1RPT01	ESFOPER	and
	Rename	EPORPT01	EPO	
	Rename	SI1RPT01	CCXSNRS2	26-320
	Rename	SC1RPT01	CCXSNRS1	through
	WLINK	AESIPC		26-330
	WLINK	AESOUTA		(representative)
	WLINK	MESOUTA		
	WLINK	RPT-IC01		
RPT-IC09	Rename	S11RPT09	SENS1	26-310
	Rename	S12RPT09	SENS2	through
	Rename	S13RPT09	SENS3	26-319
	Rename	S14RPT09	SENS4	
	Rename	MA1RPT09	ESFOPER	and
	Rename	EPORPT09	EPO	
	Rename	SI1RPT09	CCXSNRS2	26-320
	Rename	SC1RPT09	CCXSNRS1	through
	COPY	S3DRPT09	DASSIND	26-330
	Rename	S3DRPT09	DASSENS	(representative)
	WLINK	AESIPC		
	WLINK	AESOUTA		
	WLINK	MESOUTA		
	WLINK	IC09RPT-IC09		

Table 26-3a (Sheet 16 of 19)

PMS I&C SUBTREE CONSTRUCTIONS

I&C Subtree Name	Tree Naming and Linking			Assoc. Figures from Reference 26-1
SGS-IC1	Rename	SI1SGS01	CCXSNRS2	26-266
	Rename	MA1SGS01	ESFOPER	through
	Rename	SC1SGS01	CCXSNRS1	26-275
	Rename	S11SGS01	SENS1	
	Rename	S12SGS01	SENS2	and
	Rename	S13SGS01	SENS3	
	Rename	S14SGS01	SENS4	26-320
	Rename	EPOSGSC1	EPO	through
	WLINK	AESIPC		26-330
	WLINK	AESOUTC		(representative)
	WLINK	MESOUTC		
	Rename	EPOSGSD1	EPO	
	WLINK	AESOUTD		
	WLINK	MESOUTD		
	WLINK	SGS-IC01		
SGS-IC3	Rename	SI1SGS03	CCXSNRS2	26-276
	Rename	MA1SGS03	ESFOPER	through
	Rename	EPOSGSA3	EPO	26-280
	WLINK	MESOUTA		
	Rename	EPOSGSB3	EPO	and
	WLINK	MESOUTB		
	WLINK	SGS-IC03		26-320
				through
				26-330
				(representative)
SGS-IC4	Rename	SI1SGS04	CCXSNRS2	26-281
	Rename	MA1SGS04	ESFOPER	through
	Rename	EPOSGSA4	EPO	26-285
	WLINK	MESOUTA		
	Rename	EPOSGSB4	EPO	and
	WLINK	MESOUTB		
	WLINK	SGS-IC04		26-320
				through
				26-330
				(representative)

Table 26-3a (Sheet 17 of 19)

PMS I&C SUBTREE CONSTRUCTIONS

I&C Subtree Name	Tree Naming and Linking			Assoc. Figures from Reference 26-1
SGS-IC8	Rename	SI1SGS08	CCXSNRS2	26-296
	Rename	MA1SGS08	ESFOPER	through
	Rename	EPOSGSC8	EPO	26-300
	WLINK	MESOUTC		
	Rename	EPOSGSD8	EPO	and
	WLINK	MESOUTD		
	WLINK	SGS-IC08		26-320
				through
				26-330
				(representative)
ADS-ICA1	Rename	MA1ADSA1	ESFOPER	26-200B
(IC41ATS)	Copy	S3DADSA1	DASSIND	through
	Rename	S3DADSA1	DASSENS	26-200G
	Rename	SI1ADSA1	CCXSNRS2	
	Copy	EPAADSA1	EPO	and
	WLINK	MESOUTA	MESOUTA	
	Copy	EPCADSA1	EPO	26-320
	WLINK	MESOUTC	MESOUTC	through
	WLINK	ADS-ICA1	ADS-ICA1	26-330
				(representative)
ADS-ICB1	Rename	S11ADSB1	SENS1	26-200H
(IC41ALA)	Rename	S12ADSB1	SENS2	through
	Rename	S13ADSB1	SENS3	26-200O
	Rename	S14ADSB1	SENS4	
	Rename	SC1ADSB1	CCXSNRS1	and
	WLINK	AESIPC	AESIPC	
	Copy	EPAADSB1	EPO	26-320
	WLINK	AESOUTA	AESOUTA	through
	Copy	EPCADSB1	EPO	26-330
	WLINK	AESOUTC	AESOUTC	(representative)
	WLINK	ADS-ICB1	ADS-ICB1	

Table 26-3a (Sheet 18 of 19)

PMS I&C SUBTREE CONSTRUCTIONS

I&C Subtree Name	Tree Naming and Linking			Assoc. Figures from Reference 26-1
CMT-IC25	Rename	EPOCMT25	EPO	26-80B
	Rename	S11CMT25	SENS1	through
	Rename	S12CMT25	SENS2	26-80I
	Rename	S13CMT25	SENS3	
	Rename	S14CMT25	SENS4	and
	Copy	S3DCMT25	DASSIND	
	Rename	S3DCMT25	DASSENS	26-320
	Rename	SC1CMT25	CCXSNRS1	through
	WLINK	AESIPC	AESIPC	26-330
	WLINK	AESOUTA	AESOUTA	(representative)
	WLINK	CMT-IC25	CMT-IC25	
IRW-IC17	Rename	EPOIRW17	EPO	26-331
	Rename	MA1IRW17	ESFOPER	through
	Rename	S11IRW17	SENS1	26-340
	Rename	S12IRW17	SENS2	
	Rename	S13IRW17	SENS3	and
	Rename	S14IRW17	SENS4	
	Rename	S3DIRW17	DASSENS	26-320
	Rename	SC1IRW17	CCXSNRS1	through
	Rename	SI1IRW17	CCXSNRS2	26-330
	WLINK	AESIPC	AESIPC	(representative)
	WLINK	AESOUTD	AESOUTD	
	WLINK	MESOUTD	MESOUTD	
	WLINK	IRW-IC17	IRW-IC17	
IRW-IC21	Rename	EPOIRW21	EPO	26-341
	Rename	MA1IRW21	ESFOPER	through
	Rename	S11IRW21	SENS1	26-350
	Rename	S12IRW21	SENS2	
	Rename	S13IRW21	SENS3	and
	Rename	S14IRW21	SENS4	
	Copy	S3DIRW21	DASSIND	26-320
	Rename	S3DIRW21	DASSENS	through
	Rename	SC1IRW21	CCXSNRS1	26-330
	Rename	SI1IRW21	CCXSNRS2	(representative)
	WLINK	AESIPC	AESIPC	
	WLINK	AESOUTB	AESOUTB	
	WLINK	MESOUTB	MESOUTB	
	WLINK	IRW-IC21	IRW-IC21	

Table 26-3a (Sheet 19 of 19)

PMS I&C SUBTREE CONSTRUCTIONS

I&C Subtree Name	Tree Naming and Linking			Assoc. Figures from Reference 26-1
IRW-IC49 (IRWIC21A)	Rename Rename Rename Rename Rename Rename WLINK WLINK WLINK	EPOIRW49 S11IRW49 S12IRW49 S13IRW49 S14IRW49 SC1IRW49 AESIPC AESOUTB IRW-IC49	EPO SENS1 SENS2 SENS3 SENS4 CCXSNRS1 AESIPC AESOUTB IRW-IC49	26-351 through 26-357 and 26-320 through 26-330 (representative)
IRW-IC37 (IRWIC21M)	Rename Rename Rename Rename WLINK WLINK	EPOIRW37 MA1IRW37 S3DIRW37 SI1IRW37 MESOUTB IRW-IC37	EPO ESFOPER DASSIND CCXSNRS2 MESOUTB IRW-IC37	26-358 through 26-362 and 26-320 through 26-330 (representative)

Table 26-3b (Sheet 1 of 14)

REPRESENTATIVE PMS I&C SUBTREE PLOT LISTING

I&C Subtree Toptree Name	Figure Numbers in Reference 26-1	Called I&C Subtree Name	Description/Differences
ADS-IC01	26-81 to 26-90	IC11A	STAGE 1 LINE 1
ADS-IC02		IC12A	SAME AS (SA) 1 DIFF LINE
ADS-IC03		IC21A	SA 1 DIFF STAGE AND LINE
ADS-IC04		IC22A	SA 1 DIFF STAGE AND LINE
ADS-IC05		IC31A	SA 1 DIFF STAGE AND LINE
ADS-IC06		IC32A	SA 1 DIFF STAGE AND LINE
ADS-IC07	26-91 to 26-100	IC41A	STAGE 4 LINE 1
ADS-IC08		IC42A	SA 7 DIFF LINE
ADS-IC09		IC43A	SA 7 DIFF LINE
ADS-IC10		IC44A	SA 7 DIFF LINE
ADS-IC11	26-101 to 26-109	IC11AB	STAGE 1 LINE 1 BLACKOUT
ADS-IC12		IC12AB	SA 11 DIFF LINE
ADS-IC13		IC21AB	SA 11 DIFF STAGE AND LINE
ADS-IC14		IC22AB	SA 11 DIFF STAGE AND LINE
ADS-IC15		IC31AB	SA 11 DIFF STAGE AND LINE
ADS-IC16		IC32AB	SA 11 DIFF STAGE AND LINE
ADS-IC17		IC41AB	SA 7 BLACKOUT
ADS-IC18		IC42AB	SA 17 DIFF LINE
ADS-IC19		IC43AB	SA 17 DIFF LINE
ADS-IC20		IC44AB	SA 17 DIFF LINE
ADS-IC21	26-110 to 26-119	IC11AP	STAGE 1 LINE 1 LOOP
ADS-IC22		IC12AP	SA 21 DIFF LINE

Table 26-3b (Sheet 2 of 14)

REPRESENTATIVE PMS I&C SUBTREE PLOT LISTING

I&C Subtree Toptree Name	Figure Numbers in Reference 26-1	Called I&C Subtree Name	Description/Differences
ADS-IC23		IC21AP	SA 21 DIFF STAGE AND LINE
ADS-IC24		IC22AP	SA 21 DIFF STAGE AND LINE
ADS-IC25		IC31AP	SA 21 DIFF STAGE AND LINE
ADS-IC26		IC32AP	SA 21 DIFF STAGE AND LINE
ADS-IC27		IC41AP	SA 7 LOOP
ADS-IC28		IC42AP	SA 27 DIFF LINE
ADS-IC29		IC43AP	SA 27 DIFF LINE
ADS-IC30		IC44AP	SA 27 DIFF LINE
ADS-IC31	26-120 to 26-124	IC11M	STAGE 1 LINE 1
ADS-IC32		IC12M	SA 31 DIFF LINE
ADS-IC33		IC21M	SA 31 DIFF STAGE AND LINE
ADS-IC34		IC22M	SA 31 DIFF STAGE AND LINE
ADS-IC35		IC31M	SA 31 DIFF STAGE AND LINE
ADS-IC36		IC32M	SA 31 DIFF STAGE AND LINE
ADS-IC37	26-125 to 26-129	IC41M	STAGE 4 LINE 1
ADS-IC38		IC42M	SA 37 DIFF LINE
ADS-IC39		IC43M	SA 37 DIFF LINE
ADS-IC40		IC44M	SA 37 DIFF LINE
ADS-IC41	26-130 to 26-133	IC11MB	STAGE 1 LINE 1 BLACKOUT
ADS-IC42		IC12MB	SA 41 DIFF LINE
ADS-IC43		IC21MB	SA 41 DIFF STAGE AND LINE
ADS-IC44		IC22MB	SA 41 DIFF STAGE AND LINE
ADS-IC45		IC31MB	SA 41 DIFF STAGE AND LINE

Table 26-3b (Sheet 3 of 14)

REPRESENTATIVE PMS I&C SUBTREE PLOT LISTING

I&C Subtree Toptree Name	Figure Numbers in Reference 26-1	Called I&C Subtree Name	Description/Differences
ADS-IC46		IC32MB	SA 41 DIFF STAGE AND LINE
ADS-IC47		IC41MB	SA 37 BLACKOUT
ADS-IC48		IC42MB	SA 47 DIFF LINE
ADS-IC49		IC43MB	SA 47 DIFF LINE
ADS-IC50		IC44MB	SA 47 DIFF LINE
ADS-IC51	26-134 to 26-138	IC11MP	STAGE 1 LINE 1 LOOP
ADS-IC52		IC12MP	SA 51 DIFF LINE
ADS-IC53		IC21MP	SA 51 DIFF STAGE AND LINE
ADS-IC54		IC22MP	SA 51 DIFF STAGE AND LINE
ADS-IC55		IC31MP	SA 51 DIFF STAGE AND LINE
ADS-IC56		IC32MP	SA 51 DIFF STAGE AND LINE
ADS-IC57		IC41MP	SA 37 LOOP
ADS-IC58		IC42MP	SA 57 DIFF LINE
ADS-IC59		IC43MP	SA 57 DIFF LINE
ADS-IC60		IC44MP	SA 57 DIFF LINE
ADS-IC61	26-139 to 26-142	IC11EPO	MANUAL HARDWARE ONLY (NO OPER, IND, SENS)
ADS-IC62		IC12EPO	SA 61 DIFF LINE
ADS-IC63	26-143 to 26-152	IC41AL	STAGE 4 LINE 1
ADS-IC64		IC42AL	SA 63 DIFF LINE
ADS-IC65		IC43AL	SA 63 DIFF LINE
ADS-IC66		IC44AL	SA 63 DIFF LINE

Table 26-3b (Sheet 4 of 14)

REPRESENTATIVE PMS I&C SUBTREE PLOT LISTING

I&C Subtree Toptree Name	Figure Numbers in Reference 26-1	Called I&C Subtree Name	Description/Differences
ADS-IC67	26-153 to 26-157	IC41ML	STAGE 4 LINE 1
ADS-IC68		IC42ML	SA 67 DIFF LINE
ADS-IC69		IC43ML	SA 67 DIFF LINE
ADS-IC70		IC44ML	SA 67 DIFF LINE
ADS-IC71	26-158 to 26-161	IC41MW	STAGE 4 LINE 1
ADS-IC72		IC42MW	SA 71 DIFF LINE
ADS-IC73		IC43MW	SA 71 DIFF LINE
ADS-IC74		IC44MW	SA 71 DIFF LINE
ADS-IC75	26-162 to 26-166	IC41MQ	STAGE 4 LINE 1
ADS-IC76		IC42MQ	SA 75 DIFF LINE
ADS-IC77		IC43MQ	SA 75 DIFF LINE
ADS-IC78		IC44MQ	SA 75 DIFF LINE
ADS-IC79	26-167 to 26-171	IC41MT	STAGE 4 LINE 1
ADS-IC80		IC42MT	SA 79 DIFF LINE
ADS-IC81		IC43MT	SA 79 DIFF LINE
ADS-IC82		IC44MT	SA 79 DIFF LINE
ADS-IC83	26-172 to 26-181	ICS	SPURIOUS ADS ANY STAGE OR LINE
ADS-IC84	26-182 to 26-185	IC41MWP	STAGE 4 LINE 1 LOOP

Table 26-3b (Sheet 5 of 14)

REPRESENTATIVE PMS I&C SUBTREE PLOT LISTING

I&C Subtree Toptree Name	Figure Numbers in Reference 26-1	Called I&C Subtree Name	Description/Differences
ADS-IC85		IC42MWP	SA 84 DIFF LINE
ADS-IC86		IC43MWP	SA 84 DIFF LINE
ADS-IC87		IC44MWP	SA 84 DIFF LINE
ADS-IC88	26-186 to 26-195	IC11AL	STAGE 1 LINE 1
ADS-IC89		IC12AL	SA 88 DIFF LINE
ADS-IC90		IC21AL	SA 88 DIFF STAGE AND LINE
ADS-IC91		IC22AL	SA 88 DIFF STAGE AND LINE
ADS-IC92		IC31AL	SA 88 DIFF STAGE AND LINE
ADS-IC93		IC32AL	SA 88 DIFF STAGE AND LINE
ADS-IC94	26-196 to 26-200A	IC11ML	STAGE 1 LINE 1
ADS-IC95		IC12ML	SA 94 DIFF LINE
ADS-IC96		IC21ML	SA 94 DIFF STAGE AND LINE
ADS-IC97		IC22ML	SA 94 DIFF STAGE AND LINE
ADS-IC98		IC31ML	SA 94 DIFF STAGE AND LINE
ADS-IC99		IC32ML	SA 94 DIFF STAGE AND LINE
ADS-ICA1	26-200B to 26-200G	IC41ATS	Failure of ADS Stage 4 line 1 during ATWS – manual
ADS-ICA2		IC42ATS	Same as (SA) ADS-ICA1 except for ADS Stage 4 line 2 during ATWS – manual
ADS-ICA3		IC43ATS	SA ADS-ICA1 except for ADS Stage 4 line 3 during ATWS – manual
ADS-ICA4		IC44ATS	SA ADS-ICA1 except for ADS Stage 4 line 4 during ATWS – manual

Table 26-3b (Sheet 6 of 14)

REPRESENTATIVE PMS I&C SUBTREE PLOT LISTING

I&C Subtree Toptree Name	Figure Numbers in Reference 26-1	Called I&C Subtree Name	Description/Differences
ADS-ICB1	26-200H to 26-200O	IC41ALA	Failure of ADS Stage 4 line 1 during Large LOCA – auto only
ADS-ICB2		IC42ALA	SA ADS-ICB1 except for ADS Stage 4 line 2 during Large LOCA – auto only
ADS-ICB3		IC43ALA	SA ADS-ICB1 except for ADS Stage 4 line 3 during Large LOCA – auto only
ADS-ICB4		IC44ALA	SA ADS-ICB1 except for ADS Stage 4 line 4 during Large LOCA – auto only
CIS-IC01	26-247 to 26-255	CIS-IC1	CONT. ISOL VALVE IA PENET. V014
CIS-IC02	26-256 to 26-265	CIS-IC2	CONT. ISOL VALVE WLS PENET. V004
CIS-IC03		CIS-IC3	SA 2 FOR V006
CIS-IC04		CIS-IC4	SA 2 FOR V055
CIS-IC05		CIS-IC5	SA 2 FOR V057
CIS-IC06		CIS-IC6	SA 2 FOR VFS PENET. V003
CIS-IC07		CIS-IC7	SA 6 FOR V004
CIS-IC08		CIS-IC8	SA 6 FOR V009
CIS-IC09		CIS-IC9	SA 6 FOR V010
CMT-IC01	26-71 to 26-80A	CMT-IC1	V014A
CMT-IC02		CMT-IC2	SA 1 FOR V015A
CMT-IC03		CMT-IC3	SA 1 FOR V014B

Table 26-3b (Sheet 7 of 14)

REPRESENTATIVE PMS I&C SUBTREE PLOT LISTING

I&C Subtree Toptree Name	Figure Numbers in Reference 26-1	Called I&C Subtree Name	Description / Differences
CMT-IC04		CMT-IC4	SA 1 FOR V015B
CMT-IC05		CMT-IC5	SA 1 HRA LPM-MAN08
CMT-IC06		CMT-IC6	SA 2 HRA LPM-MAN08
CMT-IC07		CMT-IC7	SA 1 HRA LPM-REC01, CMN-REC01
CMT-IC08		CMT-IC8	SA 7 FOR V015A
CMT-IC09		CMT-IC9	SA 7 FOR V014B
CMT-IC10		CMT-IC10	SA 7 FOR V015B
CMT-IC11		CMT-IC11	SA 1 (SUB-CHANGE)
CMT-IC12		CMT-IC12	SA 2
CMT-IC13		CMT-IC13	SA 3
CMT-IC14		CMT-IC14	SA 4
CMT-IC15		CMT-IC15	SA 5 FOR V014B
CMT-IC16		CMT-IC16	SA 6 FOR V015B
CMT-IC17		CMT-IC17	SA 1 HRA LPM-MAN08 LOOP
CMT-IC18		CMT-IC18	SA 2 HRA LPM-MAN08 LOOP
CMT-IC19		CMT-IC19	SA 3 HRA LPM-MAN08 LOOP
CMT-IC20		CMT-IC20	SA 4 HRA LPM-MAN08 LOOP
CMT-IC21		CMT-IC21	SA 1 HRA LPM-MAN08
CMT-IC22		CMT-IC22	SA 2 HRA LPM-MAN08
CMT-IC23		CMT-IC23	SA 3 HRA LPM-MAN08
CMT-IC24		CMT-IC24	SA 4 HRA LPM-MAN08
CMT-IC25	26-80B to 26-80I	CMT-IC25	Failure to actuate CMT valve 14A, auto only
CMT-IC26		CMT-IC26	SA CMT-IC25 except for CMT valve 15A, auto only
CMT-IC27		CMT-IC27	SA CMT-IC25 except for CMT valve 14B, auto only
CMT-IC28		CMT-IC28	SA CMT-IC25 except for CMT valve 15B, auto only

Table 26-3b (Sheet 8 of 14)

REPRESENTATIVE PMS I&C SUBTREE PLOT LISTING

I&C Subtree Toptree Name	Figure Numbers in Reference 26-1	Called I&C Subtree Name	Description/Differences
CVS-IC04	26-224 to 26-227	CVS-IC4	CVS AOV V084
CVS-IC05		CVS-IC5	SA 4 FOR V081
CVS-IC06	26-228 to 26-236	CVS-IC6	CVS MOV V090
CVS-IC07		CVS-IC7	SA 6 FOR VO91
CVS-IC08		CVS-IC8	SA 6 FOR SFW MOV 067B
AESIPC	26-320	AESIPC	ESF INPUT CABINETS AUTO
AESIPCB	26-321	AESIPCB	ESF INPUT CABINETS AUTO (BLACKOUT)
AESIPCP	26-322	AESIPCP	ESF INPUT CABINETS AUTO (LOOP)
AESOUTA	26-323	AESOUTA	ESF OUTPUT CABINETS TRAIN A AUTO
AESOUTAB	26-324	AESOUTAB	ESF OUTPUT CABINETS TRAIN A AUTO (BLACKOUT)
AESOUTAP	26-325	AESOUTAP	ESF OUTPUT CABINETS TRAIN A AUTO (LOOP)
AESOUTB		AESOUTB	SA AESOUTA FOR TRAIN B
AESOUTBB		AESOUTBB	SA AESOUTAB FOR TRAIN B
AESOUTBP		AESOUTBP	SA AESOUTAP FOR TRAIN B
AESOUTC		AESOUTC	SA AESOUTA FOR TRAIN C
AESOUTCB		AESOUTCB	SA AESOUTAB FOR TRAIN C
AESOUTCP		AESOUTCP	SA AESOUTAP FOR TRAIN C
AESOUTD		AESOUTD	SA AESOUTA FOR TRAIN D
AESOUTDB		AESOUTDB	SA AESOUTAB FOR TRAIN D
AESOUTDP		AESOUTDP	SA AESOUTAP FOR TRAIN D
SESIPC	26-326	SESIPC	ESF INPUT CABINETS SPURIOUS

Table 26-3b (Sheet 9 of 14)

REPRESENTATIVE PMS I&C SUBTREE PLOT LISTING

I&C Subtree Toptree Name	Figure Numbers in Reference 26-1	Called I&C Subtree Name	Description/Differences
SESOUTA	26-327	SESOUTA	ESF OUTPUT CABINETS TRAIN A SPURIOUS
SESOUTB		SESOUTB	SA SESOUTA FOR TRAIN B
SESOUTC		SESOUTC	SA SESOUTA FOR TRAIN C
SESOUTD		SESOUTD	SA SESOUTA FOR TRAIN D
MESOUTA	26-328	MESOUTA	ESF MUX/OUTPUT CABINETS MANUAL
MESOUTAB	26-329	MESOUTAB	ESF MUX/OUTPUT CABINETS MANUAL (BLACKOUT)
MESOUTAP	26-330	MESOUTAP	ESF MUX/OUTPUT CABINETS MANUAL (LOOP)
MESOUTB		MESOUTB	SA MESOUTA FOR TRAIN B
MESOUTBB		MESOUTBB	SA MESOUTAB FOR TRAIN B
MESOUTBP		MESOUTBP	SA MESOUTAP FOR TRAIN B
MESOUTC		MESOUTC	SA MESOUTA FOR TRAIN C
MESOUTCB		MESOUTCB	SA MESOUTAB FOR TRAIN C
MESOUTCP		MESOUTCP	SA MESOUTAP FOR TRAIN C
MESOUTD		MESOUTD	SA MESOUTA FOR TRAIN D
MESOUTDB		MESOUTDB	SA MESOUTAB FOR TRAIN D
MESOUTDP		MESOUTDP	SA MESOUTAP FOR TRAIN D
IRW-IC01	26-201 to 26-209	IRW-IC1	V0117A AUTO & MANUAL
IRW-IC02		IRW-IC2	SA 1 FOR V0118A
IRW-IC03		IRW-IC3	SA 1 FOR V0117B
IRW-IC04		IRW-IC4	SA 1 FOR V0118B
IRW-IC05		IRW-IC5	SA 1 LOOP
IRW-IC06		IRW-IC6	SA 2 LOOP
IRW-IC07		IRW-IC7	SA 3 LOOP
IRW-IC08		IRW-IC8	SA 4 LOOP

Table 26-3b (Sheet 10 of 14)

REPRESENTATIVE PMS I&C SUBTREE PLOT LISTING

I&C Subtree Toptree Name	Figure Numbers in Reference 26-1	Called I&C Subtree Name	Description/Differences
IRW-IC09		IRW-IC9	SA 1 BLACKOUT
IRW-IC10		IRW-IC10	SA 2 BLACKOUT
IRW-IC11		IRW-IC11	SA 3 BLACKOUT
IRW-IC12		IRW-IC12	SA 4 BLACKOUT
IRW-IC13	26-210 to 26-213	IRW-IC13	V0117A MANUAL
IRW-IC14		IRW-IC14	SA13 FOR V0118A
IRW-IC15		IRW-IC15	SA13 FOR V0117B
IRW-IC16		IRW-IC16	SA13 FOR V0118B
IRW-IC17	26-331 to 26-240	IRW-IC17	Failure to open IRW valve 120A
IRW-IC18		IRW-IC18	SA IRW-IC17 except for IRW valve 120B
IRW-IC19		IRW-IC19	SA IRW-IC17 except for IRW valve 120A (LOOP)
IRW-IC20		IRW-IC20	SA IRW-IC17 except for IRW valve 120B (LOOP)
IRW-IC21	26-241 to 26-350	IRW-IC21	Failure to actuate IRW valve 123A
IRW-IC22		IRW-IC22	SA IRW-IC21 except for IRW valve 125A
IRW-IC23		IRW-IC23	SA IRW-IC21 except for IRW valve 123B
IRW-IC24		IRW-IC24	SA IRW-IC21 except for IRW valve 125B
IRW-IC25		IRW-IC25	SA IRW-IC17 except Blackout
IRW-IC26		IRW-IC26	SA IRW-IC18 except Blackout
IRW-IC27		IRW-IC27	SA IRW-IC21 except LOOP
IRW-IC28		IRW-IC28	SA IRW-IC22 except LOOP
IRW-IC29		IRW-IC29	SA IRW-IC23 except LOOP
IRW-IC30		IRW-IC30	SA IRW-IC24 except LOOP
IRW-IC31		IRW-IC31	SA IRW-IC21 except Blackout
IRW-IC32		IRW-IC32	SA IRW-IC22 except Blackout
IRW-IC33		IRW-IC33	SA IRW-IC23 except Blackout

Table 26-3b (Sheet 11 of 14)

REPRESENTATIVE PMS I&C SUBTREE PLOT LISTING

I&C Subtree Toptree Name	Figure Numbers in Reference 26-1	Called I&C Subtree Name	Description/Differences
IRW-IC34		IRW-IC34	SA IRW-IC24 except Blackout
IRW-IC37	26-358 to 26-362	IRWIC21M	SA IRW-IC21 except manual only
IRW-IC38		IRWIC22M	SA IRW-IC22 except manual only
IRW-IC39		IRWIC23M	SA IRW-IC23 except manual only
IRW-IC40		IRWIC24M	SA IRW-IC24 except manual only
IRW-IC41		IRWIC27M	SA IRW-IC27 except manual only
IRW-IC42		IRWIC28M	SA IRW-IC28 except manual only
IRW-IC43		IRWIC29M	SA IRW-IC29 except manual only
IRW-IC44		IRWIC30M	SA IRW-IC30 except manual only
IRW-IC45		IRWIC31M	SA IRW-IC31 except manual only
IRW-IC46		IRWIC32M	SA IRW-IC32 except manual only
IRW-IC47		IRWIC33M	SA IRW-IC33 except manual only
IRW-IC48		IRWIC34M	SA IRW-IC34 except manual only
IRW-IC49	26-351 to 26-357	IRWIC21A	SA IRW-IC21 except auto only
IRW-IC50		IRWIC22A	SA IRW-IC22 except auto only
IRW-IC51		IRWIC23A	SA IRW-IC23 except auto only
IRW-IC52		IRWIC24A	SA IRW-IC24 except auto only
PCS-IC01	26-214 to 26-223	PCS-IC1	V001A
PCS-IC02		PCS-IC2	SA 1 FOR V001B
RHR-IC01	26-7 to 26-16	RHR-IC01	PXS-V108A
RHR-IC02		RHR-IC02	SA 1 FOR PXS-V108B
RHR-IC03	26-17 to 26-25	RHR-IC03	PXS-V108A
RHR-IC04		RHR-IC04	SA 3 FOR PXS-V108B

Table 26-3b (Sheet 12 of 14)

REPRESENTATIVE PMS I&C SUBTREE PLOT LISTING

I&C Subtree Toptree Name	Figure Numbers in Reference 26-1	Called I&C Subtree Name	Description/Differences
RHR-IC05	26-26 to 26-35	RHR-IC05	PXS-V108A
RHR-IC06		RHR-IC06	SA 5 FOR PXS-V108B
RHR-IC09	26-36 to 26-44	RHR-IC09	PXS-V108A
RHR-IC10		RHR-IC10	SA 9 FOR PXS-V108B
RHR-IC11	26-45 to 26-48	RHR-IC11	PXS-V101A
RHR-IC12		RHR-IC12	SA 11 FOR PXS-V101B
RHR-IC13	26-49 to 26-52	RHR-IC13	PXS-V108A
RHR-IC14		RHR-IC14	SA 13 FOR PXS-V108B
RHR-IC1A	26-53 to 26-61	RHR-IC1A	PXS-V108A
RHR-IC2A	26-62 to 26-70	RHR-IC2A	PXS-V108B
RNS-IC01	26-237 to 26-240	RNS-IC1	V023
RNS-IC01P		RNS-IC1P	SA 1 LOOP
RNS-IC02		RNS-IC2	SA 1 FOR V022
RNS-IC02P		RNS-IC2P	SA 2 LOOP
RNS-IC04		RNS-IC4	SA 1 FOR V011
RNS-IC04P		RNS-IC4P	SA 4 LOOP

Table 26-3b (Sheet 13 of 14)

REPRESENTATIVE PMS I&C SUBTREE PLOT LISTING

I&C Subtree Toptree Name	Figure Numbers in Reference 26-1	Called I&C Subtree Name	Description/Differences
RPT-IC01	26-301 to 26-309	RPT-IC01	BREAKER 31
RPT-IC02		RPT-IC02	SA 1 FOR BREAKER 32
RPT-IC03		RPT-IC03	SA 1 FOR BREAKER 51
RPT-IC04		RPT-IC04	SA 1 FOR BREAKER 52
RPT-IC05		RPT-IC05	SA 1 FOR BREAKER 41
RPT-IC06		RPT-IC06	SA 1 FOR BREAKER 42
RPT-IC07		RPT-IC07	SA 1 FOR BREAKER 61
RPT-IC08		RPT-IC08	SA 1 FOR BREAKER 62
RPT-IC09	26-310 to 26-319	RPT-IC09	BREAKER 31
RPT-IC10		RPT-IC10	SA 9 FOR BREAKER 32
RPT-IC11		RPT-IC11	SA 9 FOR BREAKER 51
RPT-IC12		RPT-IC12	SA 9 FOR BREAKER 52
RPT-IC13		RPT-IC13	SA 9 FOR BREAKER 41
RPT-IC14		RPT-IC14	SA 9 FOR BREAKER 42
RPT-IC15		RPT-IC15	SA 9 FOR BREAKER 61
RPT-IC16		RPT-IC16	SA 9 FOR BREAKER 62
RPT-IC17		RPT-IC17	SA 9 HRA LPM-MAN08
RPT-IC18		RPT-IC18	SA 10 HRA LPM-MAN08
RPT-IC19		RPT-IC19	SA 11 HRA LPM-MAN08
RPT-IC20		RPT-IC20	SA 12 HRA LPM-MAN08
RPT-IC21		RPT-IC21	SA 13 HRA LPM-MAN08
RPT-IC22		RPT-IC22	SA 14 HRA LPM-MAN08
RPT-IC23		RPT-IC23	SA 15 HRA LPM-MAN08
RPT-IC24		RPT-IC24	SA 16 HRA LPM-MAN08

Table 26-3b (Sheet 14 of 14)

REPRESENTATIVE PMS I&C SUBTREE PLOT LISTING

I&C Subtree Toptree Name	Figure Numbers in Reference 26-1	Called I&C Subtree Name	Description/Differences
SGS-IC01	26-266 to 26-275	SGS-IC1	MSIV V040B
SGS-IC02		SGS-IC2	SA 1 FOR MSIV V040A
SGS-IC03	26-276 to 26-280	SGS-IC3	V027B
SGS-IC04	26-281 to 26-285	SGS-IC4	027B
SGS-IC05	26-286 to 26-290	SGS-IC5	V057B
SGS-IC06	26-291 to 26-295	SGS-IC6	V074B
SGS-IC07		SGS-IC7	SA 3 FOR V075B
SGS-IC08	26-296 to 26-300	SGS-IC8	MSIV V040B MANUAL

Table 26-4 (Sheet 1 of 3)

PMS DEPENDENCY MATRIX

Protection and Safety Monitoring System Channel 1	120 vac	
	Distribution Panel IDSA EA1 (Uninterruptible) (24-Hr. Batteries)	Distribution Panel IDSA EA2 (Transformer)
Protection Logic Cabinet A (PLC)		
Subsystem 1		
I/O	X	X
Processing	X	
Subsystem 2		
I/O	X	X
Processing		X
PLC Output Driver Modules	X	X
ESFAC Cabinets		
Subsystem 1		
I/O	X	X
Processing	X	
Subsystem 2		
I/O	X	X
Processing		X

Table 26-4 (Sheet 2 of 3)

PMS DEPENDENCY MATRIX

Protection and Safety Monitoring System Channel 1	120 vac	
	Distribution Panel IDSA EA1 (Uninterruptible) (24-Hr. Batteries)	Distribution Panel IDSA EA2 (Transformer)
IPC		
All Cards	X	
Protection MUX		
Subsystem 1		
All Cards	X	
Subsystem 2		
All Cards		X

For Protection Logic Cabinet B, the apportioning of each card to the power remain the same, except for the different distribution panels used, i.e.:

Distr. Panel IDSA EA1 becomes Distr. Panel IDSB EA1
Distr. Panel IDSA EA2 becomes Distr. Panel IDSB EA2
Distr. Panel IDSA EA3 becomes Distr. Panel IDSB EA3

The same change applies for Trains C and D with "IDSC" and "IDSD" designators respectively.

Note that for IPC Trains B and C, "IDSB EA3," and "IDSC EA3" are assigned respectively.
The EA3 Busses are uninterruptible, 72 hr. battery backed.

Table 26-4 (Sheet 3 of 3)

PMS DEPENDENCY MATRIX

Protection and Safety Monitoring System	125 vdc (Uninterruptible) (24-Hr. Batteries)			
	Distr. Panel ISDA DD1	Distr. Panel IDSB DD1	Distr. Panel IDSC DD1	Distr. Panel IDSD DD1
Reactor trip switchgear				
Trip breaker 1A	X			
Trip breaker 2C		X		
Trip breaker 3A			X	
Trip breaker 4C				X
Trip breaker 1B	X			
Trip breaker 2D		X		
Trip breaker 3B			X	
Trip breaker 4D				X

Table 26-5

PMS COMPONENTS TEST ASSUMPTIONS

Subsystem/ Card	Effect On Modulating Devices (24-Hr.)	On-Line Diagnostic (5 Min.)	Automatic Tester Subsystem (Quarterly)	Mechanical Component Surveillance Test (Quarterly)	Others
PLC		X	X		
ESFAC		X	X		
IPC		X	X		
Reactor Trip Breakers				X	
Protection MUX		X	X		

Table 26-6

COMPONENT MAINTENANCE ASSUMPTIONS

No scheduled outage for maintenance is assumed for the PMS. The outage for repair is accounted for together with the numerical evaluation of the cards unavailabilities.

Table 26-7 (Sheet 1 of 5)

FAILURE PROBABILITIES CALCULATED IN THIS SECTION

SIMON.DAT Line Number	Event ID	Description	Failure Probability
010	ALL-IND-FAIL	Generic indication failure probability	1.00E-06
037	CCX-PMS-SENSORS	CCF of PMS transmitters	4.04E-08
038	CCX-PMS-HARDWARE	CCF of PMS hardware	7.89E-05
039	PMS-RTBREAKERS	Random failure of reactor trip breakers	1.33E-15
054	RCX-RB-FA	CCF of reactor trip breakers to open	8.10E-06
617	###030##SA	Logic group processing failure upon demand	1.16E-03
618	###030##BA	Logic group processing spurious failure	8.01E-06
619	CCX-###03	CCF of the logic group processing	9.69E-05
620	CCX-###EH0	CCF of MUX transmitters	4.03E-06
621	CCX-P##MOD1	CCF of output logic I/Os	1.41E-04
622	CCX-P##MOD1-SW	Software CCF of output logic I/Os	1.10E-05
623	CCX-P##MOD2	CCF of actuation logic groups	3.04E-04
624	CCX-P##MOD2-SW	Software CCF of actuation logic groups	1.10E-05
625	CCX-P##MOD4	CCF of MUX logic groups	4.98E-05
626	CCX-P##MOD4-SW	Software CCF of MUX logic groups	1.10E-05
627	CCX-P##MOD5	CCF of modulating groups	6.98E-05
628	CCX-P##MOD5-SW	Software CCF of modulating groups	1.10E-05
629	CCX-P##MOD3	CCF of input logic groups	1.03E-04
630	CCX-P##MOD3-SW	Software CCF of input logic groups	1.10E-05
631	CCX-P##MOD6	CCF of signal selector groups – logic and I/Os	2.53E-04

Table 26-7 (Sheet 2 of 5)

FAILURE PROBABILITIES CALCULATED IN THIS SECTION

SIMON.DAT Line Number	Event ID	Description	Failure Probability
632	CCX-P##MOD6-SW	Software CCF of signal selector groups – logic and I/Os	1.10E-05
634	P##MOD1#	Failure of output logic group # I/O	2.09E-03
635	PL#MOD5#	Failure of modulating logic or I/O group #	8.74E-04
636	P##MOD4#	Failure of MUX logic group #	6.35E-04
639	P##MOD3#	Failure of input group #	5.02E-03
641	PM#MSD1#	Spurious failure of output logic group # I/O	8.40E-06
642	PM#MSD2#	Spurious failure of actuation logic group #	2.04E-05
646	###EP####BA	Spurious failure of the power interface board	9.15E-07
647	###EP####SA	Failure of the power interface board	1.71E-04
648	###EA####SA	Failure of the analog input board	2.51E-04
650	###TP###RY	Pressure transmitter yearly failure	5.23E-03
651	###TF###RI	Flow transmitter failure	5.23E-03
655	###TL###UF	Level transmitter failure	5.23E-03
656	IWX-XMTR	CCF of IRWST or boric acid tank level	4.78E-04
657	###EU###SA	Failure of the analog output board	6.42E-05
658	###VS###BA	Spurious failure of level switch	2.32E-06
659	###VS###UF	Failure of level switch	1.00E-03
660	###OR###SP	Failure of orifice – plugged	7.22E-03
661	###TE###UF	Failure of temperature element	3.06E-03

Table 26-7 (Sheet 3 of 5)

FAILURE PROBABILITIES CALCULATED IN THIS SECTION

SIMON.DAT Line Number	Event ID	Description	Failure Probability
663	SDAS	Spurious failure of DAS	1.00E-08
667	CCX-EAI	CCF of the analog input boards	1.27E-05
668	CCX-EAO	CCF of the analog output boards	3.23E-06
669	CCX-EP-SA	CCF of the power interface output boards	8.62E-06
670	CCX-EPI	CCF of the power interface input boards	1.00E-10
671	CCX-LS-FA	CCF of the limit switches	5.37E-06
672	CCX-MFI	CCF of the main feed isolation signal sensors	1.00E-06
673	CCX-ORY-SP	CCF of orifice-plugged*	1 0E-20
674	CCX-PRHR	CCF of PRHR actuation signal sensors	1.00E-06
675	CCX-RM-UF	CCF of radiation monitors	7.58E-05
676	CCX-S-SIG-SENS	CCF of the S-signal sensors	1.00E-06
678	CCX-TRNSM	CCF of pressure transmitter (low pressure)	4.78E-04
679	CCX-TT-UF	CCF of temperature transmitters	1.17E-04
680	CCX-TT1-UF	CCF of temperature transmitters following accident	1.17E-04
681	CMX-VS-FA	CCF of CMT level switches	3.84E-05
682	CCX-XMTR	CCF of pressure transmitters	4.78E-04

* This basic event has been accounted for in each of the appropriate sensor common cause failure basic events (IWX-XMTR, CCX-XMTR, CCX-XMTR1, CCX-XMTR195, and CCX-TRNSM).

Table 26-7 (Sheet 4 of 5)

FAILURE PROBABILITIES CALCULATED IN THIS SECTION

SIMON.DAT Line Number	Event ID	Description	Failure Probability
683	CCX-XMTR1	CCF of pressure transmitters following an accident	4.78E-04
684	CCX-XMTR195	CCF of pressurizer level sensors	4.78E-04
686	EC#RE27BGA	Failure of the undervoltage relay	4.36E-03
687	###TP###RI	Failure of pressure transmitter	5.23E-03
690	P##EH0##SA	Failure of MUX transmitter to group ##	8.00E-05
691	PLSMOD6#	Failure of signal selector logic group #	3.46E-03
693	PM#MOD2#	Failure of actuation logic group #	4.07E-03
694	PM#MSD3#	Spurious failure of input group #	2.74E-05
695	P##XS00ABA	Spurious failure of output logic group selector	1.00E-10
696	P##XS00ASA	Failure of output logic group selector	8.00E-05
699	CMT-SENS-FAIL	CMT signal sensors	1.00E-06
701	DUMMY	Logical zero	1.00E-10
702	S-SIG-SENS#-FAIL	S-signal sensor failure	1.00E-06
703	VLX-ANLYZ	CCF of the H2 analyzers	7.58E-05
704	CCX-SFTWS	Spurious CCF of software	3.00E-08
706	CCX-CMT-SENS	CCF of CMT signal sensors	1.00E-06
707	###TP###UF	Failure of pressure transmitter	5.23E-03
711	DG#-LOGIC	Diesel sequencing logic	5.00E-03
712	ROD-CTRL-SYS	Rod control system failure to step in rods	6.60E-04
937	PMS-BREAKER1A&2A	Reactor trip breakers 1A & 2A fail to open	3.54E-06

Table 26-7 (Sheet 5 of 5)

FAILURE PROBABILITIES CALCULATED IN THIS SECTION

SIMON.DAT Line Number	Event ID	Description	Failure Probability
938	PMS-BREAKER3A&4A	Reactor trip breakers 3A & 4A fail to open	3.54E-06
939	PMS-BREAKER1B&3B	Reactor trip breakers 1B & 3B fail to open	3.54E-06
940	PMS-BREAKER2B&4B	Reactor trip breakers 2B & 4B fail to open	3.54E-06
959	CCX-SFTW	Software CCF among all boards	1.20E-06

Table 26-8 (Sheet 1 of 3)

OPERATOR ACTIONS AND SYSTEM MISPOSITION ANALYSIS SUMMARY

Identifier	Description
ADN-MAN01	Operator fails to actuate ADS before core damage.
ADN-REC01	Operator fails to complete ADS actuation after core damage.
ATW-MAN01	Operator fails to step in control rods via PLS within 1 minute after an ATWS.
ATW-MAN03	Operator fails to recognize need and fails to trip reactor via PMS within 1 minute after an ATWS.
ATW-MAN05	Operator fails to recognize need and fails to trip reactor via PMS within 7 minutes after an ATWS.
CAN-MAN01	Operator fails to recognize need and fails to actuate standby CAS compressor.
CCB-MAN01	Operator fails to recognize need or fails to start standby CCS loop during accidents.
CMN-REC01	Operator fails to actuate CMT after core damage.
CIA-MAN01	Operator fails to recognize need and fails to isolate failed steam generator after a main steam line break.
CIC-MAN01	Operator fails to recognize need and fails to isolate CMT given core damage after a LOCA.
CMN-MAN01	Operator fails to actuate CMT during a LOCA.
FWN-MAN02	Operator fails to start SFW pumps after a loss of main feedwater during a transient.
FWN-MAN03	Operator fails to start SFW pumps after a loss of MFW during a LOSP
HPM-MAN01	Operator fails to recognize need for high-pressure decay heat removal after a loss of main feedwater.

Table 26-8 (Sheet 2 of 3)

OPERATOR ACTIONS AND SYSTEM MISPOSITION ANALYSIS SUMMARY

Identifier	Description
LPM-MAN01	Operator fails to recognize need for RCS depressurization during SLOCA.
LPM-MAN02	Operator fails to recognize need for RCS depressurization during MLOCA.
LPM-MAN03	Operator fails to recognize need for RCS depressurization given only DAS indication during SLOCA.
LPM-MAN04	Operator fails to recognize need for RCS depressurization given only DAS indication during MLOCA.
LPM-REC01	Operator fails to recognize need for RCS depressurization during SLOCA with PRHR failure, CMT success.
PCN-MAN01	Operator fails to recognize need and fails to actuate PCS air operated valves.
PRN-MAN01	Operator fails to align PRHR given a loss of MFW during a transient
PRN-MAN02	Operator fails to align PRHR given a loss of MFW during a LOCA or LOSP
RCN-MAN01	Operator fails to trip the four RCPs.
REC-MANDAS	Operator fails to actuate manual DAS ESF functions.
REN-MAN02	Operator fails to recognize need and fails to open recirculation valves during accidents.
REN-MAN03	Operator fails to recognize need and fails to open recirculation valves after core damage.
REN-MAN04	Operator fails to actuate sump recirculation given failure of IRWST low level signal

Table 26-8 (Sheet 3 of 3)

OPERATOR ACTIONS AND SYSTEM MISPOSITION ANALYSIS SUMMARY

Identifier	Description
SGHL-MAN01	Operator fails to recognize need and fails to trip CVS pump and isolate SFW to failed SG after a SGTR.
SWN-MAN01	Operator fails to recognize need and fails to open AOV on motor strainer line during accidents.
SWN-MAN01N	Operator fails to recognize need and fails to open AOV on motor strainer line during normal operation.
SWB-MAN02	Operator fails to recognize need and fails to start standby SWS pump during an accident.
SWB-MAN02N	Operator fails to recognize need and fails to start standby SWS pump during normal operation.
TCB-MAN01	Operator fails to recognize need and fails to start standby TCS pump.
VLN-MAN01	Operator fails to recognize need and fails to start hydrogen control system.
VWN-MAN01	Operator fails recognize need and fails to align standby chiller during a LOCA.
ZON-MAN01	Operator fails to recognize need and fails to start standby diesel generator during LOOP.

Table 26-9 (Sheet 1 of 2)

COMMON CAUSE FAILURE ANALYSIS SUMMARY

Event Name	Description
CCX-CMT-SENS	CCF of CMT signal sensors
CCX-EAO	CCF of the analog output board
CCX-EP-SA	CCF of the power interface output board
CCX-EP-SAM	CCF of the power interface output board
CCX-EPI	CCF of the power interface input board
CCX-IN-LOGIC-SW	Software CCF of input logic groups
CCX-INPUT-LOGIC	CCF of input logic groups
CCX-LS-FA	CCF of the limit switches
CCX-MFI	CCF of main feed isolation signal sensors
CCX-###03	CCF of the logic group processing
CCX-###EH0	CCF of mux transmitters
CCX-P##MOD1	CCF of output logic I/Os
CCX-P##MOD1-SW	Software CCF of output logic I/Os
CCX-PL#MOD5	CCF of modulating control groups – output logic I/Os
CCX-PL#MOD5-SW	Software CCF of modulating control groups
CCX-P##MOD4	CCF of MUX logic groups
CCX-P##MOD4-SW	Software CCF of MUX logic groups
CCX-PL#MOD3	CCF of input logic groups
CCX-PL#MOD3-SW	Software CCF of input logic groups
CCX-PL#MOD6	CCF of signal selector groups – logic and I/Os
CCX-PL#MOD6-SW	Software CCF of signal selector groups - logic and I/Os
CCX-P##MOD2	CCF of actuation logic groups
CCX-P##MOD2-SW	Software CCF of actuation logic groups

Table 26-9 (Sheet 2 of 2)

COMMON CAUSE FAILURE ANALYSIS SUMMARY

Event Name	Description
CCX-PRHR	CCF of PRHR actuation signal sensors
CCX-RM-UF	CCF of radiation monitors
CCX-S-SIG-SENS	CCF of the S-signal sensors
CCX-SFTW	Software CCF among all boards (both PMS and PLS)
CCX-TRNSM	CCF of pressure transmitter (low pressure)
CCX-TT-UF	CCF of temperature transmitters
CCX-TT1-UF	CCF of temperature transmitters following accident
CMX-VS-FA	CCF of CMT level switches
CCX-XMTR1	CCF of pressure transmitters following accident
CCX-XMTR	CCF of pressure/level sensors (high pressure)
CCX-XMTR195	CCF of pressurizer level sensors
IWX-XMTR	CCF of IRWST or boric acid tank level transmitters
VLX-ANLYZ	CCF failure of the H2 analyzers
CCX-PMS-HARDWARE	CCF of PMS hardware
CCX-PMS-SENSORS	CCF of PMS transmitters
RPX-CB-GO	CCF of 4KV circuit breakers to open (refueling test)

Table 26-10a (Sheet 1 of 4)

FAULT TREE BASIC EVENTS FOR REACTOR TRIP SYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
ALL-IND-FAIL	--	GENERIC INDICATION FAILURE PROBABILITY	1.000E-06	0.000E+00	PMS	0.000E+00	1.00E-06	0.00E+00
ATW-MAN01	--	OPERATOR FAILS TO STEP-IN CONTROL RODS VIA PLS WITHIN 1 MINUTE AFTER AN ATWS (ATW-MAN01)	3.300E-02	0.000E+00	HRA	0.000E+00	3.30E-02	0.00E+00
ATW-MAN03	--	OPERATOR FAILS TO RECOGNIZE NEED AND FAILS TO TRIP REACTOR VIA PMS WITHIN 1 MINUTE AFTER AN ATWS (ATW-MAN03)	5.200E-02	0.000E+00	HRA	0.000E+00	5.20E-02	0.00E+00
ATW-MAN05	--	OPERATOR FAILS TO RECOGNIZE NEED AND FAILS TO TRIP REACTOR VIA PMS WITHIN 7 MINUTES AFTER AN ATWS (ATW-MAN05)	5.200E-03	0.000E+00	HRA	0.000E+00	5.20E-03	0.00E+00
CCX-PMS-HARDWARE	--	CCF OF PMS HARDWARE (CCX-PMS-HARDWARE)	7.890E-05	0.000E+00	PMS	0.000E+00	7.89E-05	0.00E+00
CCX-PMS-SENSORS	--	CCF OF PMS TRANSMITTERS (CCX-PMS-SENSORS)	4.040E-08	0.000E+00	PMS	0.000E+00	4.04E-08	0.00E+00
CCX-SFTW	--	SOFTWARE CCF AMONG ALL BOARDS (CCX-SFTW)	1.200E-06	0.000E+00	PMS	0.000E+00	1.20E-06	0.00E+00
DUMMY	XX	LOGICAL ZERO	0.000E+00	0.000E+00	0	0.000E+00	0.00E+00	0.00E+00
PMS-BREAKER1A&2A	--	REACTOR TRIP BREAKERS 1A & 2A FAIL TO OPEN - PROPRIETARY (PMS-BREAKER1A&2A)	3.540E-06	0.000E+00	PMS	0.000E+00	3.54E-06	0.00E+00
PMS-BREAKER1B&3B	--	REACTOR TRIP BREAKERS 1B & 3B FAIL TO OPEN - PROPRIETARY (PMS-BREAKER1B&3B)	3.540E-06	0.000E+00	PMS	0.000E+00	3.54E-06	0.00E+00

Table 26-10a (Sheet 2 of 4)

FAULT TREE BASIC EVENTS FOR REACTOR TRIP SYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
PMS-BREAKER2B&4B	--	REACTOR TRIP BREAKERS 2B & 4B FAIL TO OPEN - PROPRIETARY (PMS-BREAKER2B&4B)	3.540E-06	0.000E+00	PMS	0.000E+00	3.54E-06	0.00E+00
PMS-BREAKER3A&4A	--	REACTOR TRIP BREAKERS 3A & 4A FAIL TO OPEN - PROPRIETARY (PMS-BREAKER3A&4A)	3.540E-06	0.000E+00	PMS	0.000E+00	3.54E-06	0.00E+00
PMS-RTBREAKERS	--	RANDOM FAILURE OF REACTOR TRIP BREAKERS (CALCULATED PROBABILITY FROM PROPRIETARY TREE)	1.330E-15	0.000E+00	PMS	0.000E+00	1.33E-15	0.00E+00
PMS-RTSWITCH	SW	MANUAL SWITCH FAILURE TO TRANSFER	3.000E-05	0.000E+00	IREP	0.000E+00	3.00E-05	0.00E+00
RC1CB051GO	CB	CIRCUIT BREAKER (>4KV) FAILURE TO OPEN	1.400E-06	0.000E+00	SEC3	8.760E+03	1.23E-02	0.00E+00
RC1CB052GO	CB	CIRCUIT BREAKER (>4KV) FAILURE TO OPEN	1.400E-06	0.000E+00	SEC3	8.760E+03	1.23E-02	0.00E+00
RC1CB053GO	CB	CIRCUIT BREAKER (>4KV) FAILURE TO OPEN	1.400E-06	0.000E+00	SEC3	8.760E+03	1.23E-02	0.00E+00
RC1CB054GO	CB	CIRCUIT BREAKER (>4KV) FAILURE TO OPEN	1.400E-06	0.000E+00	SEC3	8.760E+03	1.23E-02	0.00E+00
RC1CB061GO	CB	CIRCUIT BREAKER (>4KV) FAILURE TO OPEN	1.400E-06	0.000E+00	SEC3	8.760E+03	1.23E-02	0.00E+00
RC1CB062GO	CB	CIRCUIT BREAKER (>4KV) FAILURE TO OPEN	1.400E-06	0.000E+00	SEC3	8.760E+03	1.23E-02	0.00E+00
RC1CB063GO	CB	CIRCUIT BREAKER (>4KV) FAILURE TO OPEN	1.400E-06	0.000E+00	SEC3	8.760E+03	1.23E-02	0.00E+00
RC1CB064GO	CB	CIRCUIT BREAKER (>4KV) FAILURE TO OPEN	1.400E-06	0.000E+00	SEC3	8.760E+03	1.23E-02	0.00E+00

Table 26-10a (Sheet 3 of 4)

FAULT TREE BASIC EVENTS FOR REACTOR TRIP SYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
RCX-RB-FA	--	CCF OF REACTOR TRIP BREAKERS T O OPEN (FORCED PROBABILITY) (R CX-RB-FA)	8.100E-06	0.000E+00	PMS	0.000E+00	8.10E-06	0.00E+00
RPTMOD01	RS	SOLID STATE RELAY FAILS TO OPE RATE	1.000E-07	0.000E+00	SEC3	8.760E+03	8.76E-04	0.00E+00
RPTMOD02	RS	SOLID STATE RELAY FAILS TO OPE RATE	1.000E-07	0.000E+00	SEC3	8.760E+03	8.76E-04	0.00E+00
RPTMOD03	RS	SOLID STATE RELAY FAILS TO OPE RATE	1.000E-07	0.000E+00	SEC3	8.760E+03	8.76E-04	0.00E+00
RPTMOD04	RS	SOLID STATE RELAY FAILS TO OPE RATE	1.000E-07	0.000E+00	SEC3	8.760E+03	8.76E-04	0.00E+00
RPTMOD05	RS	SOLID STATE RELAY FAILS TO OPE RATE	1.000E-07	0.000E+00	SEC3	8.760E+03	8.76E-04	0.00E+00
RPTMOD06	RS	SOLID STATE RELAY FAILS TO OPE RATE	1.000E-07	0.000E+00	SEC3	8.760E+03	8.76E-04	0.00E+00
RPTMOD07	RS	SOLID STATE RELAY FAILS TO OPE RATE	1.000E-07	0.000E+00	SEC3	8.760E+03	8.76E-04	0.00E+00
RPTMOD08	RS	SOLID STATE RELAY FAILS TO OPE RATE	1.000E-07	0.000E+00	SEC3	8.760E+03	8.76E-04	0.00E+00
RPX-CB-GO	CB	CCF OF 4KV CIRCUIT BREAKERS TO OPEN (REFUELING TEST) (ECX-CB -GO, RPX-CB-GO)	1.200E-03	0.000E+00	CCF	0.000E+00	1.20E-03	0.00E+00
SUB-IDBDD1	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	0.000E+00	SUB-	0.000E+00	1.00E-01	0.00E+00
SUB-IDCDD1	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	0.000E+00	SUB-	0.000E+00	1.00E-01	0.00E+00
SUB-PLS-RODS	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	0.000E+00	SUB-	0.000E+00	1.00E-01	0.00E+00
SUB-RPT-IC01	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	0.000E+00	SUB-	0.000E+00	1.00E-01	0.00E+00

Table 26-10a (Sheet 4 of 4)

FAULT TREE BASIC EVENTS FOR REACTOR TRIP SYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
SUB-RPT-IC02	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	0.000E+00	SUB-	0.000E+00	1.00E-01	0.00E+00
SUB-RPT-IC03	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	0.000E+00	SUB-	0.000E+00	1.00E-01	0.00E+00
SUB-RPT-IC04	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	0.000E+00	SUB-	0.000E+00	1.00E-01	0.00E+00
SUB-RPT-IC05	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	0.000E+00	SUB-	0.000E+00	1.00E-01	0.00E+00
SUB-RPT-IC06	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	0.000E+00	SUB-	0.000E+00	1.00E-01	0.00E+00
SUB-RPT-IC07	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	0.000E+00	SUB-	0.000E+00	1.00E-01	0.00E+00
SUB-RPT-IC08	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	0.000E+00	SUB-	0.000E+00	1.00E-01	0.00E+00
SUB-RPT-IC09	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	0.000E+00	SUB-	0.000E+00	1.00E-01	0.00E+00
SUB-RPT-IC10	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	0.000E+00	SUB-	0.000E+00	1.00E-01	0.00E+00
SUB-RPT-IC11	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	0.000E+00	SUB-	0.000E+00	1.00E-01	0.00E+00
SUB-RPT-IC12	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	0.000E+00	SUB-	0.000E+00	1.00E-01	0.00E+00
SUB-RPT-IC13	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	0.000E+00	SUB-	0.000E+00	1.00E-01	0.00E+00
SUB-RPT-IC14	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	0.000E+00	SUB-	0.000E+00	1.00E-01	0.00E+00
SUB-RPT-IC15	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	0.000E+00	SUB-	0.000E+00	1.00E-01	0.00E+00
SUB-RPT-IC16	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	0.000E+00	SUB-	0.000E+00	1.00E-01	0.00E+00

Table 26-10b (Sheet 1 of 49)

FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
ADAEP001ABA	EP	SPURIOUS FAILURE OF THE POWER INTERFACE BOARD (###EP####BA)	9.150E-07	.000E+00	PMS	.000E+00	9.15E-07	.00E+00
ADAEP001ASA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
ADAEP002ABA	EP	SPURIOUS FAILURE OF THE POWER INTERFACE BOARD (###EP####BA)	9.150E-07	.000E+00	PMS	.000E+00	9.15E-07	.00E+00
ADAEP002ASA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
ADAEP003ABA	EP	SPURIOUS FAILURE OF THE POWER INTERFACE BOARD (###EP####BA)	9.150E-07	.000E+00	PMS	.000E+00	9.15E-07	.00E+00
ADAEP003ASA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
ADAEP0041BA	EP	SPURIOUS FAILURE OF THE POWER INTERFACE BOARD (###EP####BA)	9.150E-07	.000E+00	PMS	.000E+00	9.15E-07	.00E+00
ADAEP0041SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
ADAEP0042BA	EP	SPURIOUS FAILURE OF THE POWER INTERFACE BOARD (###EP####BA)	9.150E-07	.000E+00	PMS	.000E+00	9.15E-07	.00E+00
ADAEP0042SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
ADAEP004A1SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
ADAEP004A2SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
ADAEP004C1SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
ADAEP004C2SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
ADAEP011ABA	EP	SPURIOUS FAILURE OF THE POWER INTERFACE BOARD (###EP####BA)	9.150E-07	.000E+00	PMS	.000E+00	9.15E-07	.00E+00
ADAEP011ASA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
ADAEP012ABA	EP	SPURIOUS FAILURE OF THE POWER INTERFACE BOARD (###EP####BA)	9.150E-07	.000E+00	PMS	.000E+00	9.15E-07	.00E+00
ADAEP012ASA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00

Table 26-10b (Sheet 2 of 49)

FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
ADAEP013ABA	EP	SPURIOUS FAILURE OF THE POWER INTERFACE BOARD (###EP####BA)	9.150E-07	.000E+00	PMS	.000E+00	9.15E-07	.00E+00
ADAEP013ASA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
ADBEP001BBA	EP	SPURIOUS FAILURE OF THE POWER INTERFACE BOARD (###EP####BA)	9.150E-07	.000E+00	PMS	.000E+00	9.15E-07	.00E+00
ADBEP001BSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
ADBEP002BBA	EP	SPURIOUS FAILURE OF THE POWER INTERFACE BOARD (###EP####BA)	9.150E-07	.000E+00	PMS	.000E+00	9.15E-07	.00E+00
ADBEP002BSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
ADBEP003BBA	EP	SPURIOUS FAILURE OF THE POWER INTERFACE BOARD (###EP####BA)	9.150E-07	.000E+00	PMS	.000E+00	9.15E-07	.00E+00
ADBEP003BSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
ADBEP0041BA	EP	SPURIOUS FAILURE OF THE POWER INTERFACE BOARD (###EP####BA)	9.150E-07	.000E+00	PMS	.000E+00	9.15E-07	.00E+00
ADBEP0041SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
ADBEP0042BA	EP	SPURIOUS FAILURE OF THE POWER INTERFACE BOARD (###EP####BA)	9.150E-07	.000E+00	PMS	.000E+00	9.15E-07	.00E+00
ADBEP0042SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
ADBEP004B1SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
ADBEP004B2SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
ADBEP004D1SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
ADBEP004D2SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
ADBEP011BBA	EP	SPURIOUS FAILURE OF THE POWER INTERFACE BOARD (###EP####BA)	9.150E-07	.000E+00	PMS	.000E+00	9.15E-07	.00E+00
ADBEP011BSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00

Table 26-10b (Sheet 3 of 49)

FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
ADBEP012BBA	EP	SPURIOUS FAILURE OF THE POWER INTERFACE BOARD (###EP####BA)	9.150E-07	.000E+00	PMS	.000E+00	9.15E-07	.00E+00
ADBEP012BSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
ADBEP013BBA	EP	SPURIOUS FAILURE OF THE POWER INTERFACE BOARD (###EP####BA)	9.150E-07	.000E+00	PMS	.000E+00	9.15E-07	.00E+00
ADBEP013BSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
ADCEP002ASA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
ADCEP0041BA	EP	SPURIOUS FAILURE OF THE POWER INTERFACE BOARD (###EP####BA)	9.150E-07	.000E+00	PMS	.000E+00	9.15E-07	.00E+00
ADCEP0041SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
ADCEP0042BA	EP	SPURIOUS FAILURE OF THE POWER INTERFACE BOARD (###EP####BA)	9.150E-07	.000E+00	PMS	.000E+00	9.15E-07	.00E+00
ADCEP0042SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
ADCEP004A1SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
ADCEP004A2SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
ADCEP004C1SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
ADCEP004C2SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
ADCEP012ASA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
ADDEP002BSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
ADDEP0041BA	EP	SPURIOUS FAILURE OF THE POWER INTERFACE BOARD (###EP####BA)	9.150E-07	.000E+00	PMS	.000E+00	9.15E-07	.00E+00
ADDEP0041SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
ADDEP0042BA	EP	SPURIOUS FAILURE OF THE POWER INTERFACE BOARD (###EP####BA)	9.150E-07	.000E+00	PMS	.000E+00	9.15E-07	.00E+00

Table 26-10b (Sheet 4 of 49)

FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
ADDEP0042SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
ADDEP004B1SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
ADDEP004B2SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
ADDEP004D1SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
ADDEP004D2SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
ADDEP012BSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
ADN-MAN01	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
ADN-REC01	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
ALL-IND-FAIL	--	GENERIC INDICATION FAILURE PROBABILITY	1.000E-06	.000E+00	PMS	.000E+00	1.00E-06	.00E+00
CA2EAPS002A1SA	EA	FAILURE OF THE ANALOG INPUT BOARD (###EA####SA)	2.510E-04	.000E+00	PMS	.000E+00	2.51E-04	.00E+00
CA2EAPS002A2SA	EA	FAILURE OF THE ANALOG INPUT BOARD (###EA####SA)	2.510E-04	.000E+00	PMS	.000E+00	2.51E-04	.00E+00
CA2EAPS002B1SA	EA	FAILURE OF THE ANALOG INPUT BOARD (###EA####SA)	2.510E-04	.000E+00	PMS	.000E+00	2.51E-04	.00E+00
CA2EAPS002B2SA	EA	FAILURE OF THE ANALOG INPUT BOARD (###EA####SA)	2.510E-04	.000E+00	PMS	.000E+00	2.51E-04	.00E+00
CA9EP001BSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
CA9EPCMPASA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
CA9EPCMPBSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
CAN-MAN01	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
CANTP011RI	TP	FAILURE OF PRESSURE TRANSMITTER (###TP###RI)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00

Table 26-10b (Sheet 5 of 49)

FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
CC1EATF1011SA	EA	FAILURE OF THE ANALOG INPUT BO ARD (###EA####SA)	2.510E-04	.000E+00	PMS	.000E+00	2.51E-04	.00E+00
CC1EATF1012SA	EA	FAILURE OF THE ANALOG INPUT BO ARD (###EA####SA)	2.510E-04	.000E+00	PMS	.000E+00	2.51E-04	.00E+00
CC1EPSBPASA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
CC1EPSBPBSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
CCB-MAN01	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
CCNTF101RI	TF	FLOW TRANSMITTER FAILURE (###T F###RI)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
CCX-CMT-SENS	--	CCF OF CMT SIGNAL SENSORS (CCX -CMT-SENS)	1.000E-06	.000E+00	PMS	.000E+00	1.00E-06	.00E+00
CCX-EAI	--	CCF OF THE ANALOG INPUT BOARDS (CCX-EAI)	1.270E-05	.000E+00	PMS	.000E+00	1.27E-05	.00E+00
CCX-EAO	--	CCF OF THE ANALOG OUTPUT BOARD S (CCX-EAO)	3.230E-06	.000E+00	PMS	.000E+00	3.23E-06	.00E+00
CCX-EP-SA	--	CCF OF THE POWER INTERFACE OUT PUT BOARD (CCX-EP-SA)	8.620E-06	.000E+00	PMS	.000E+00	8.62E-06	.00E+00
CCX-EP-SAM	--	CCF OF THE POWER INTERFACE OUT PUT BOARD (CCX-EP-SA)	8.620E-06	.000E+00	PMS	.000E+00	8.62E-06	.00E+00
CCX-EPI	--	CCF OF THE POWER INTERFACE INP UT BOARD (CCX-EPI)	1.000E-20	.000E+00	PMS	.000E+00	1.00E-20	.00E+00
CCX-IN-LOGIC-SW	--	SOFTWARE CCF OF INPUT LOGIC GR OUPS (CCX-PL#MOD3-SW, -IN-LOGI C-SW)	1.100E-05	.000E+00	PMS	.000E+00	1.10E-05	.00E+00
CCX-INPUT-LOGIC	--	CCF OF INPUT LOGIC GROUPS (CCX -PL#MOD3, -INPUT-LOGIC)	1.030E-04	.000E+00	PMS	.000E+00	1.03E-04	.00E+00
CCX-LS-FA	LS	CCF OF THE LIMIT SWITCHES (CCX -LS-FA)	5.370E-06	.000E+00	PMS	.000E+00	5.37E-06	.00E+00
CCX-MFI	--	CCF OF MAIN FEED ISOLATION SIG NAL SENSORS (SGS04) (CCX-MFI)	1.000E-06	.000E+00	PMS	.000E+00	1.00E-06	.00E+00
CCX-ORY-SP	OR	CCF OF ORIFICE - PLUGGED (CCX- ORY-SP)	1.000E-20	.000E+00	PMS	.000E+00	1.00E-20	.00E+00
CCX-PL103	--	CCF OF THE LOGIC GROUP PROCESS ING (CCX-###03)	9.690E-05	.000E+00	PMS	.000E+00	9.69E-05	.00E+00

Table 26-10b (Sheet 6 of 49)

FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
CCX-PL1EH0	--	CCF OF MUX TRANSMITTERS (CCX-# ##EH0)	4.030E-06	.000E+00	PMS	.000E+00	4.03E-06	.00E+00
CCX-PL1MOD1	--	CCF OF OUTPUT LOGIC I/Os (CCX-P##MOD1)	1.410E-04	.000E+00	PMS	.000E+00	1.41E-04	.00E+00
CCX-PL1MOD1-SW	--	SOFTWARE CCF OF OUTPUT LOGIC I /Os (CCX-P##MOD1)	1.100E-05	.000E+00	PMS	.000E+00	1.10E-05	.00E+00
CCX-PL1MOD5	--	CCF OF MODULATING GROUPS - OUT PUT LOGIC I/Os (CCX-PL#MOD5)	6.980E-05	.000E+00	PMS	.000E+00	6.98E-05	.00E+00
CCX-PL1MOD5-SW	--	SOFTWARE CCF OF MODULATING GRO UPS (CCX-PL#MOD5-SW)	1.100E-05	.000E+00	PMS	.000E+00	1.10E-05	.00E+00
CCX-PL203	--	CCF OF THE LOGIC GROUP PROCESS ING (CCX-###03)	9.690E-05	.000E+00	PMS	.000E+00	9.69E-05	.00E+00
CCX-PL2EH0	--	CCF OF MUX TRANSMITTERS (CCX-# ##EH0)	4.030E-06	.000E+00	PMS	.000E+00	4.03E-06	.00E+00
CCX-PL2MOD1	--	CCF OF OUTPUT LOGIC I/Os (CCX-P##MOD1)	1.410E-04	.000E+00	PMS	.000E+00	1.41E-04	.00E+00
CCX-PL2MOD1-SW	--	SOFTWARE CCF OF OUTPUT LOGIC I /Os (CCX-P##MOD1)	1.100E-05	.000E+00	PMS	.000E+00	1.10E-05	.00E+00
CCX-PL2MOD5	--	CCF OF MODULATING GROUPS - OUT PUT LOGIC I/Os (CCX-PL#MOD5)	6.980E-05	.000E+00	PMS	.000E+00	6.98E-05	.00E+00
CCX-PL2MOD5-SW	--	SOFTWARE CCF OF MODULATING GRO UPS (CCX-PL#MOD5-SW)	1.100E-05	.000E+00	PMS	.000E+00	1.10E-05	.00E+00
CCX-PL303	--	CCF OF THE LOGIC GROUP PROCESS ING (CCX-###03)	9.690E-05	.000E+00	PMS	.000E+00	9.69E-05	.00E+00
CCX-PL3EH0	--	CCF OF MUX TRANSMITTERS (CCX-# ##EH0)	4.030E-06	.000E+00	PMS	.000E+00	4.03E-06	.00E+00
CCX-PL3MOD1	--	CCF OF OUTPUT LOGIC I/Os (CCX-P##MOD1)	1.410E-04	.000E+00	PMS	.000E+00	1.41E-04	.00E+00
CCX-PL3MOD1-SW	--	SOFTWARE CCF OF OUTPUT LOGIC I /Os (CCX-P##MOD1)	1.100E-05	.000E+00	PMS	.000E+00	1.10E-05	.00E+00
CCX-PL3MOD5	--	CCF OF MODULATING GROUPS - OUT PUT LOGIC I/Os (CCX-PL#MOD5)	6.980E-05	.000E+00	PMS	.000E+00	6.98E-05	.00E+00
CCX-PL3MOD5-SW	--	SOFTWARE CCF OF MODULATING GRO UPS (CCX-PL#MOD5-SW)	1.100E-05	.000E+00	PMS	.000E+00	1.10E-05	.00E+00
CCX-PL403	--	CCF OF THE LOGIC GROUP PROCESS ING (CCX-###03)	9.690E-05	.000E+00	PMS	.000E+00	9.69E-05	.00E+00

Table 26-10b (Sheet 7 of 49)

FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
CCX-PL4EH0	--	CCF OF MUX TRANSMITTERS (CCX-# ##EH0)	4.030E-06	.000E+00	PMS	.000E+00	4.03E-06	.00E+00
CCX-PL4MOD1	--	CCF OF OUTPUT LOGIC I/Os (CCX-P##MOD1)	1.410E-04	.000E+00	PMS	.000E+00	1.41E-04	.00E+00
CCX-PL4MOD1-SW	--	SOFTWARE CCF OF OUTPUT LOGIC I /Os (CCX-P##MOD1)	1.100E-05	.000E+00	PMS	.000E+00	1.10E-05	.00E+00
CCX-PL503	--	CCF OF THE LOGIC GROUP PROCESS ING (CCX-###03)	9.690E-05	.000E+00	PMS	.000E+00	9.69E-05	.00E+00
CCX-PL5EH0	--	CCF OF MUX TRANSMITTERS (CCX-# ##EH0)	4.030E-06	.000E+00	PMS	.000E+00	4.03E-06	.00E+00
CCX-PL5MOD1	--	CCF OF OUTPUT LOGIC I/Os (CCX-P##MOD1)	1.410E-04	.000E+00	PMS	.000E+00	1.41E-04	.00E+00
CCX-PL5MOD1-SW	--	SOFTWARE CCF OF OUTPUT LOGIC I /Os (CCX-P##MOD1)	1.100E-05	.000E+00	PMS	.000E+00	1.10E-05	.00E+00
CCX-PL603	--	CCF OF THE LOGIC GROUP PROCESS ING (CCX-###03)	9.690E-05	.000E+00	PMS	.000E+00	9.69E-05	.00E+00
CCX-PL6EH0	--	CCF OF MUX TRANSMITTERS (CCX-# ##EH0)	4.030E-06	.000E+00	PMS	.000E+00	4.03E-06	.00E+00
CCX-PL6MOD1	--	CCF OF OUTPUT LOGIC I/Os (CCX-P##MOD1)	1.410E-04	.000E+00	PMS	.000E+00	1.41E-04	.00E+00
CCX-PL6MOD1-SW	--	SOFTWARE CCF OF OUTPUT LOGIC I /Os (CCX-P##MOD1)	1.100E-05	.000E+00	PMS	.000E+00	1.10E-05	.00E+00
CCX-PL703	--	CCF OF THE LOGIC GROUP PROCESS ING (CCX-###03)	9.690E-05	.000E+00	PMS	.000E+00	9.69E-05	.00E+00
CCX-PL7EH0	--	CCF OF MUX TRANSMITTERS (CCX-# ##EH0)	4.030E-06	.000E+00	PMS	.000E+00	4.03E-06	.00E+00
CCX-PL7MOD1	--	CCF OF OUTPUT LOGIC I/Os (CCX-P##MOD1)	1.410E-04	.000E+00	PMS	.000E+00	1.41E-04	.00E+00
CCX-PL7MOD1-SW	--	SOFTWARE CCF OF OUTPUT LOGIC I /Os (CCX-P##MOD1)	1.100E-05	.000E+00	PMS	.000E+00	1.10E-05	.00E+00
CCX-PL803	--	CCF OF THE LOGIC GROUP PROCESS ING (CCX-###03)	9.690E-05	.000E+00	PMS	.000E+00	9.69E-05	.00E+00
CCX-PL8EH0	--	CCF OF MUX TRANSMITTERS (CCX-# ##EH0)	4.030E-06	.000E+00	PMS	.000E+00	4.03E-06	.00E+00
CCX-PL8MOD1	--	CCF OF OUTPUT LOGIC I/Os (CCX-P##MOD1)	1.410E-04	.000E+00	PMS	.000E+00	1.41E-04	.00E+00

Table 26-10b (Sheet 8 of 49)

FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
CCX-PL8MOD1-SW	--	SOFTWARE CCF OF OUTPUT LOGIC I /Os (CCX-P##MOD1)	1.100E-05	.000E+00	PMS	.000E+00	1.10E-05	.00E+00
CCX-PL903	--	CCF OF THE LOGIC GROUP PROCESS ING (CCX-###03)	9.690E-05	.000E+00	PMS	.000E+00	9.69E-05	.00E+00
CCX-PL9EH0	--	CCF OF MUX TRANSMITTERS (CCX-# ##EH0)	4.030E-06	.000E+00	PMS	.000E+00	4.03E-06	.00E+00
CCX-PL9MOD1	--	CCF OF OUTPUT LOGIC I/Os (CCX-P##MOD1)	1.410E-04	.000E+00	PMS	.000E+00	1.41E-04	.00E+00
CCX-PL9MOD1-SW	--	SOFTWARE CCF OF OUTPUT LOGIC I /Os (CCX-P##MOD1)	1.100E-05	.000E+00	PMS	.000E+00	1.10E-05	.00E+00
CCX-PLA03	--	CCF OF THE LOGIC GROUP PROCESS ING (CCX-###03)	9.690E-05	.000E+00	PMS	.000E+00	9.69E-05	.00E+00
CCX-PLAEH0	--	CCF OF MUX TRANSMITTERS (CCX-# ##EH0)	4.030E-06	.000E+00	PMS	.000E+00	4.03E-06	.00E+00
CCX-PLAMOD1	--	CCF OF OUTPUT LOGIC I/Os (CCX-P##MOD1)	1.410E-04	.000E+00	PMS	.000E+00	1.41E-04	.00E+00
CCX-PLAMOD1-SW	--	SOFTWARE CCF OF OUTPUT LOGIC I /Os (CCX-P##MOD1)	1.100E-05	.000E+00	PMS	.000E+00	1.10E-05	.00E+00
CCX-PLB03	--	CCF OF THE LOGIC GROUP PROCESS ING (CCX-###03)	9.690E-05	.000E+00	PMS	.000E+00	9.69E-05	.00E+00
CCX-PLBEH0	--	CCF OF MUX TRANSMITTERS (CCX-# ##EH0)	4.030E-06	.000E+00	PMS	.000E+00	4.03E-06	.00E+00
CCX-PLBMOD1	--	CCF OF OUTPUT LOGIC I/Os (CCX-P##MOD1)	1.410E-04	.000E+00	PMS	.000E+00	1.41E-04	.00E+00
CCX-PLBMOD1-SW	--	SOFTWARE CCF OF OUTPUT LOGIC I /Os (CCX-P##MOD1)	1.100E-05	.000E+00	PMS	.000E+00	1.10E-05	.00E+00
CCX-PLC03	--	CCF OF THE LOGIC GROUP PROCESS ING (CCX-###03)	9.690E-05	.000E+00	PMS	.000E+00	9.69E-05	.00E+00
CCX-PLCEH0	--	CCF OF MUX TRANSMITTERS (CCX-# ##EH0)	4.030E-06	.000E+00	PMS	.000E+00	4.03E-06	.00E+00
CCX-PLCMOD1	--	CCF OF OUTPUT LOGIC I/Os (CCX-P##MOD1)	1.410E-04	.000E+00	PMS	.000E+00	1.41E-04	.00E+00
CCX-PLCMOD1-SW	--	SOFTWARE CCF OF OUTPUT LOGIC I /Os (CCX-P##MOD1)	1.100E-05	.000E+00	PMS	.000E+00	1.10E-05	.00E+00
CCX-PLD03	--	CCF OF THE LOGIC GROUP PROCESS ING (CCX-###03)	9.690E-05	.000E+00	PMS	.000E+00	9.69E-05	.00E+00

Table 26-10b (Sheet 9 of 49)

FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
CCX-PLDEH0	--	CCF OF MUX TRANSMITTERS (CCX-# ##EH0)	4.030E-06	.000E+00	PMS	.000E+00	4.03E-06	.00E+00
CCX-PLDMOD1	--	CCF OF OUTPUT LOGIC I/Os (CCX-P##MOD1)	1.410E-04	.000E+00	PMS	.000E+00	1.41E-04	.00E+00
CCX-PLDMOD1-SW	--	SOFTWARE CCF OF OUTPUT LOGIC I /Os (CCX-P##MOD1)	1.100E-05	.000E+00	PMS	.000E+00	1.10E-05	.00E+00
CCX-PLMMOD4	--	CCF OF MUX LOGIC GROUPS (CCX-P ##MOD4)	4.980E-05	.000E+00	PMS	.000E+00	4.98E-05	.00E+00
CCX-PLMMOD4-SW	--	SOFTWARE CCF OF MUX LOGIC GROU PS (CCX-P##MOD4-SW)	1.100E-05	.000E+00	PMS	.000E+00	1.10E-05	.00E+00
CCX-PLMOD3	--	CCF OF INPUT LOGIC GROUPS (CCX -PL#MOD3, -INPUT-LOGIC)	1.030E-04	.000E+00	PMS	.000E+00	1.03E-04	.00E+00
CCX-PLMOD3-SW	--	SOFTWARE CCF OF INPUT LOGIC GR OUPS (CCX-PL#MOD3-SW, -IN-LOGI C-SW)	1.100E-05	.000E+00	PMS	.000E+00	1.10E-05	.00E+00
CCX-PLSMOD6	--	CCF OF SIGNAL SELECTOR GROUPS - LOGIC AND I/Os (CCX-PL#MOD6)	2.530E-04	.000E+00	PMS	.000E+00	2.53E-04	.00E+00
CCX-PLSMOD6-SW	--	SOFTWARE CCF OF SIGNAL SELECTO R GROUPS - LOGIC AND I/Os (CCX -PL#MOD6-SW)	1.100E-05	.000E+00	PMS	.000E+00	1.10E-05	.00E+00
CCX-PMA030	--	CCF OF THE LOGIC GROUP PROCESS ING (CCX-###03)	9.690E-05	.000E+00	PMS	.000E+00	9.69E-05	.00E+00
CCX-PMAEH0	--	CCF OF MUX TRANSMITTERS (CCX-# ##EH0)	4.030E-06	.000E+00	PMS	.000E+00	4.03E-06	.00E+00
CCX-PMAMOD1	--	CCF OF OUTPUT LOGIC I/Os (CCX-P##MOD1)	1.410E-04	.000E+00	PMS	.000E+00	1.41E-04	.00E+00
CCX-PMAMOD1-SW	--	SOFTWARE CCF OF OUTPUT LOGIC I /Os (CCX-P##MOD1)	1.100E-05	.000E+00	PMS	.000E+00	1.10E-05	.00E+00
CCX-PMAMOD2	--	CCF OF ACTUATION LOGIC GROUPS (CCX-P##MOD2)	3.040E-04	.000E+00	PMS	.000E+00	3.04E-04	.00E+00
CCX-PMAMOD2-SW	--	SOFTWARE CCF OF ACTUATION LOGI C GROUPS (CCX-P##MOD2-SW)	1.100E-05	.000E+00	PMS	.000E+00	1.10E-05	.00E+00
CCX-PMAMOD4	--	CCF OF MUX LOGIC GROUPS (CCX-P ##MOD4)	4.980E-05	.000E+00	PMS	.000E+00	4.98E-05	.00E+00
CCX-PMAMOD4-SW	--	SOFTWARE CCF OF MUX LOGIC GROU PS (CCX-P##MOD4-SW)	1.100E-05	.000E+00	PMS	.000E+00	1.10E-05	.00E+00

Table 26-10b (Sheet 10 of 49)

FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
CCX-PMB030	--	CCF OF THE LOGIC GROUP PROCESSING (CCX-###03)	9.690E-05	.000E+00	PMS	.000E+00	9.69E-05	.00E+00
CCX-PMBEH0	--	CCF OF MUX TRANSMITTERS (CCX-###EH0)	4.030E-06	.000E+00	PMS	.000E+00	4.03E-06	.00E+00
CCX-PMBMOD1	--	CCF OF OUTPUT LOGIC I/Os (CCX-P##MOD1)	1.410E-04	.000E+00	PMS	.000E+00	1.41E-04	.00E+00
CCX-PMBMOD1-SW	--	SOFTWARE CCF OF OUTPUT LOGIC I/Os (CCX-P##MOD1)	1.100E-05	.000E+00	PMS	.000E+00	1.10E-05	.00E+00
CCX-PMBMOD2	--	CCF OF ACTUATION LOGIC GROUPS (CCX-P##MOD2)	3.040E-04	.000E+00	PMS	.000E+00	3.04E-04	.00E+00
CCX-PMBMOD2-SW	--	SOFTWARE CCF OF ACTUATION LOGIC GROUPS (CCX-P##MOD2-SW)	1.100E-05	.000E+00	PMS	.000E+00	1.10E-05	.00E+00
CCX-PMBMOD4	--	CCF OF MUX LOGIC GROUPS (CCX-P##MOD4)	4.980E-05	.000E+00	PMS	.000E+00	4.98E-05	.00E+00
CCX-PMBMOD4-SW	--	SOFTWARE CCF OF MUX LOGIC GROUPS (CCX-P##MOD4-SW)	1.100E-05	.000E+00	PMS	.000E+00	1.10E-05	.00E+00
CCX-PMC030	--	CCF OF THE LOGIC GROUP PROCESSING (CCX-###03)	9.690E-05	.000E+00	PMS	.000E+00	9.69E-05	.00E+00
CCX-PMCEH0	--	CCF OF MUX TRANSMITTERS (CCX-###EH0)	4.030E-06	.000E+00	PMS	.000E+00	4.03E-06	.00E+00
CCX-PMCMOD1	--	CCF OF OUTPUT LOGIC I/Os (CCX-P##MOD1)	1.410E-04	.000E+00	PMS	.000E+00	1.41E-04	.00E+00
CCX-PMCMOD1-SW	--	SOFTWARE CCF OF OUTPUT LOGIC I/Os (CCX-P##MOD1)	1.100E-05	.000E+00	PMS	.000E+00	1.10E-05	.00E+00
CCX-PMCMOD2	--	CCF OF ACTUATION LOGIC GROUPS (CCX-P##MOD2)	3.040E-04	.000E+00	PMS	.000E+00	3.04E-04	.00E+00
CCX-PMCMOD2-SW	--	SOFTWARE CCF OF ACTUATION LOGIC GROUPS (CCX-P##MOD2-SW)	1.100E-05	.000E+00	PMS	.000E+00	1.10E-05	.00E+00
CCX-PMCMOD4	--	CCF OF MUX LOGIC GROUPS (CCX-P##MOD4)	4.980E-05	.000E+00	PMS	.000E+00	4.98E-05	.00E+00
CCX-PMCMOD4-SW	--	SOFTWARE CCF OF MUX LOGIC GROUPS (CCX-P##MOD4-SW)	1.100E-05	.000E+00	PMS	.000E+00	1.10E-05	.00E+00
CCX-PMD030	--	CCF OF THE LOGIC GROUP PROCESSING (CCX-###03)	9.690E-05	.000E+00	PMS	.000E+00	9.69E-05	.00E+00
CCX-PMDEH0	--	CCF OF MUX TRANSMITTERS (CCX-###EH0)	4.030E-06	.000E+00	PMS	.000E+00	4.03E-06	.00E+00

Table 26-10b (Sheet 11 of 49)

FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
CCX-PMDMOD1	--	CCF OF OUTPUT LOGIC I/Os (CCX-P##MOD1)	1.410E-04	.000E+00	PMS	.000E+00	1.41E-04	.00E+00
CCX-PMDMOD1-SW	--	SOFTWARE CCF OF OUTPUT LOGIC I /Os (CCX-P##MOD1)	1.100E-05	.000E+00	PMS	.000E+00	1.10E-05	.00E+00
CCX-PMDMOD2	--	CCF OF ACTUATION LOGIC GROUPS (CCX-P##MOD2)	3.040E-04	.000E+00	PMS	.000E+00	3.04E-04	.00E+00
CCX-PMDMOD2-SW	--	SOFTWARE CCF OF ACTUATION LOGI C GROUPS (CCX-P##MOD2-SW)	1.100E-05	.000E+00	PMS	.000E+00	1.10E-05	.00E+00
CCX-PMDMOD4	--	CCF OF MUX LOGIC GROUPS (CCX-P ##MOD4)	4.980E-05	.000E+00	PMS	.000E+00	4.98E-05	.00E+00
CCX-PMDMOD4-SW	--	SOFTWARE CCF OF MUX LOGIC GROU PS (CCX-P##MOD4-SW)	1.100E-05	.000E+00	PMS	.000E+00	1.10E-05	.00E+00
CCX-PMXMOD1-SW	--	SOFTWARE CCF OF OUTPUT LOGIC I /Os (CCX-P##MOD1)	1.100E-05	.000E+00	PMS	.000E+00	1.10E-05	.00E+00
CCX-PMXMOD2-SW	--	SOFTWARE CCF OF ACTUATION LOGI C GROUPS (CCX-P##MOD2-SW)	1.100E-05	.000E+00	PMS	.000E+00	1.10E-05	.00E+00
CCX-PMXMOD4-SW	--	SOFTWARE CCF OF MUX LOGIC GROU PS (CCX-P##MOD4-SW)	1.100E-05	.000E+00	PMS	.000E+00	1.10E-05	.00E+00
CCX-PRHR	--	CCF OF PRHR ACTUATION SIGNAL S ENSORS (SGS06) (CCX-PRHR)	1.000E-06	.000E+00	PMS	.000E+00	1.00E-06	.00E+00
CCX-RM-UF	RM	CCF OF READIATION MONITIRS (CC X-RM-UF)	7.580E-05	.000E+00	PMS	.000E+00	7.58E-05	.00E+00
CCX-S-SIG-SENS	--	CCF OF THE S-SIGNAL SENSORS (C CX-S-SIG-SENS)	1.000E-06	.000E+00	PMS	.000E+00	1.00E-06	.00E+00
CCX-SFTW	--	SOFTWARE CCF AMONG ALL BOARDS (CCX-SFTW)	1.200E-06	.000E+00	PMS	.000E+00	1.20E-06	.00E+00
CCX-SFTWS	--	SPURIOUS CCF OF SOFTWARE (CCX-SFTWS)	3.000E-08	.000E+00	PMS	.000E+00	3.00E-08	.00E+00
CCX-TRNSM	--	CCF OF PRESSURE TRANSMITTER LO W PZR (CCX-TRNSM)	4.780E-04	.000E+00	PMS	.000E+00	4.78E-04	.00E+00
CCX-TT-UF	--	CCF OF TEMPERATURE TRANSMITTER S (CCX-TT-UF)	1.170E-04	.000E+00	PMS	.000E+00	1.17E-04	.00E+00
CCX-TT1-UF	TT	CCF OF TEMPERATURE TRANSMITTER S FOLLOWING ACCIDENT (CCX-TT1-UF)	1.170E-04	.000E+00	PMS	.000E+00	1.17E-04	.00E+00
CCX-VS-FA	VS	CCF OF CMT LEVEL SWITCHES (CMX -VS-FA)	3.840E-05	.000E+00	PMS	.000E+00	3.84E-05	.00E+00

Table 26-10b (Sheet 12 of 49)

FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
CCX-XMTR	--	CCF OF PRESSURE TRANSMITTERS (CCX-XMTR)	4.780E-04	.000E+00	PMS	.000E+00	4.78E-04	.00E+00
CCX-XMTR1	--	CCF OF PRESSURE TRANSMITTERS F OLLOWING ACCIDENT (CCX-XMTR1)	4.780E-04	.000E+00	PMS	.000E+00	4.78E-04	.00E+00
CCX-XMTR195	--	CCF OF PRESSURIZER LRVRL SENSO RS (CCX-XMTR195)	4.780E-04	.000E+00	PMS	.000E+00	4.78E-04	.00E+00
CD3EA0101SA	EA	FAILURE OF THE ANALOG INPUT BO ARD (###EA####SA)	2.510E-04	.000E+00	PMS	.000E+00	2.51E-04	.00E+00
CD3EA0102SA	EA	FAILURE OF THE ANALOG INPUT BO ARD (###EA####SA)	2.510E-04	.000E+00	PMS	.000E+00	2.51E-04	.00E+00
CD3EA0221SA	EA	FAILURE OF THE ANALOG INPUT BO ARD (###EA####SA)	2.510E-04	.000E+00	PMS	.000E+00	2.51E-04	.00E+00
CD3EA0222SA	EA	FAILURE OF THE ANALOG INPUT BO ARD (###EA####SA)	2.510E-04	.000E+00	PMS	.000E+00	2.51E-04	.00E+00
CD3EA0251SA	EA	FAILURE OF THE ANALOG INPUT BO ARD (###EA####SA)	2.510E-04	.000E+00	PMS	.000E+00	2.51E-04	.00E+00
CD3EA0252SA	EA	FAILURE OF THE ANALOG INPUT BO ARD (###EA####SA)	2.510E-04	.000E+00	PMS	.000E+00	2.51E-04	.00E+00
CD3EA0281SA	EA	FAILURE OF THE ANALOG INPUT BO ARD (###EA####SA)	2.510E-04	.000E+00	PMS	.000E+00	2.51E-04	.00E+00
CD3EA0282SA	EA	FAILURE OF THE ANALOG INPUT BO ARD (###EA####SA)	2.510E-04	.000E+00	PMS	.000E+00	2.51E-04	.00E+00
CD3EACPB1SA	EA	FAILURE OF THE ANALOG INPUT BO ARD (###EA####SA)	2.510E-04	.000E+00	PMS	.000E+00	2.51E-04	.00E+00
CD3EACPB2SA	EA	FAILURE OF THE ANALOG INPUT BO ARD (###EA####SA)	2.510E-04	.000E+00	PMS	.000E+00	2.51E-04	.00E+00
CDDEP022SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
CDDEP025SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
CDDEPCPBSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
CDNTF01BRI	TF	FLOW TRANSMITTER FAILURE (###T F###RI)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
CIA-MAN01	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00

Table 26-10b (Sheet 13 of 49)

FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
CIAEP003SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
CIAEP004SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
CIAEP014SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
CIBEP004SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
CIBEP006SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
CIC-MAN01	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
CICEP009SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
CICEP055SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
CIDEP010SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
CIDEP057SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
CMAEP014ASA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
CMBEP014BSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
CMCEP015ASA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
CMDEP015BSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
CMN-MAN01	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
CMN-REC01	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
CMT-SENS1-FAIL	--	CMT SIGNAL SENSORS (CMT-SENS-FAIL)	1.000E-06	.000E+00	PMS	.000E+00	1.00E-06	.00E+00
CMT-SENS2-FAIL	--	CMT SIGNAL SENSORS (CMT-SENS-FAIL)	1.000E-06	.000E+00	PMS	.000E+00	1.00E-06	.00E+00

Table 26-10b (Sheet 14 of 49)

FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
CMT-SENS3-FAIL	--	CMT SIGNAL SENSORS (CMT-SENS-FAIL)	1.000E-06	.000E+00	PMS	.000E+00	1.00E-06	.00E+00
CMT-SENS4-FAIL	--	CMT SIGNAL SENSORS (CMT-SENS-FAIL)	1.000E-06	.000E+00	PMS	.000E+00	1.00E-06	.00E+00
CMX-VS-FA	VS	CCF OF CMT LEVEL SWITCHES (CMX-VS-FA)	3.840E-05	.000E+00	PMS	.000E+00	3.84E-05	.00E+00
CV3EPCPASA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
CV3EPCPBSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
CV3EPCVPSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
CV3EPSFPSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
CVAEP067SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
CVAEP084SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
CVBEP081SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
CVCEP091SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
CVDEP090SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
DAS	--	UNAVAILABILITY GOAL FOR DIVERSE ACTUATION SYSTEM (DAS)	1.000E-02	.000E+00	DAS	.000E+00	1.00E-02	.00E+00
DG1-LOGIC	--	DIESEL SEQUENCING LOGIC (DG#-LOGIC)	5.000E-03	.000E+00	PMS	.000E+00	5.00E-03	.00E+00
DG2-LOGIC	--	DIESEL SEQUENCING LOGIC (DG#-LOGIC)	5.000E-03	.000E+00	PMS	.000E+00	5.00E-03	.00E+00
DUMMY	--	LOGICAL ZERO (DUMMY)	1.000E-20	.000E+00	PMS	.000E+00	1.00E-20	.00E+00
EC1EA67B1SA	EA	FAILURE OF THE ANALOG INPUT BOARD (###EA####SA)	2.510E-04	.000E+00	PMS	.000E+00	2.51E-04	.00E+00
EC1EA67B2SA	EA	FAILURE OF THE ANALOG INPUT BOARD (###EA####SA)	2.510E-04	.000E+00	PMS	.000E+00	2.51E-04	.00E+00
EC1RE27BGA	RE	FAILURE OF THE UNDER VOLTAGE RELAY(EC#RE27BGA)	4.360E-03	.000E+00	PMS	.000E+00	4.36E-03	.00E+00

Table 26-10b (Sheet 15 of 49)

FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
EC1REDG1GA	RE	FAILURE OF THE UNDER VOLTAGE R ELAY(EC#RE27BGA)	4.360E-03	.000E+00	PMS	.000E+00	4.36E-03	.00E+00
EC1REDG2GA	RE	FAILURE OF THE UNDER VOLTAGE R ELAY(EC#RE27BGA)	4.360E-03	.000E+00	PMS	.000E+00	4.36E-03	.00E+00
EC5EPDG1SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
EC5EPDG2SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
EC5EPMGB1SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
FWN-MAN02	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
FWN-MAN03	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
HPM-MAN01	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
IRAEP117ASA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
IRBEP117BSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
IRBEP123ASA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
IRBEP123BSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
IRBEP125ASA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
IRBEP125BSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
IRCEP118ASA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
IRDEP118BSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
IRDEP120ASA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
IRDEP120BSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00

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FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
IW1TL045UF	TL	LEVEL TRANSMITTER FAILURE (### TL###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
IW2TL046UF	TL	LEVEL TRANSMITTER FAILURE (### TL###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
IW3TL047UF	TL	LEVEL TRANSMITTER FAILURE (### TL###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
IW4TL048UF	TL	LEVEL TRANSMITTER FAILURE (### TL###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
IWN-MAN01	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
IWX-XMTR	--	CCF OF PRESSURE TRANSMITTER (I WX-XMTR)	4.780E-04	.000E+00	PMS	.000E+00	4.78E-04	.00E+00
LPM-MAN01	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
LPM-MAN02	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
LPM-MAN03	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
LPM-MAN04	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
LPM-MAN07	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
LPM-MAN08	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
LPM-REC01	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
MDAS	--	UNAVAILABILITY GOAL FOR MANUAL DIVERSE ACTUATION SYSTEM (MDA S)	1.000E-02	.000E+00		.000E+00	1.00E-02	.00E+00
MF3EA250A1SA	EA	FAILURE OF THE ANALOG INPUT BO ARD (###EA####SA)	2.510E-04	.000E+00	PMS	.000E+00	2.51E-04	.00E+00
MF3EA250A2SA	EA	FAILURE OF THE ANALOG INPUT BO ARD (###EA####SA)	2.510E-04	.000E+00	PMS	.000E+00	2.51E-04	.00E+00
MF3EA250B1SA	EA	FAILURE OF THE ANALOG INPUT BO ARD (###EA####SA)	2.510E-04	.000E+00	PMS	.000E+00	2.51E-04	.00E+00
MF3EA250B2SA	EA	FAILURE OF THE ANALOG INPUT BO ARD (###EA####SA)	2.510E-04	.000E+00	PMS	.000E+00	2.51E-04	.00E+00

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FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
MF3EU250A1SA	EU	FAILURE OF THE ANALOG OUTPUT B OARD (###EU###SA)	6.420E-05	.000E+00	PMS	.000E+00	6.42E-05	.00E+00
MF3EU250A2SA	EU	FAILURE OF THE ANALOG OUTPUT B OARD (###EU###SA)	6.420E-05	.000E+00	PMS	.000E+00	6.42E-05	.00E+00
MF3EU250B1SA	EU	FAILURE OF THE ANALOG OUTPUT B OARD (###EU###SA)	6.420E-05	.000E+00	PMS	.000E+00	6.42E-05	.00E+00
MF3EU250B2SA	EU	FAILURE OF THE ANALOG OUTPUT B OARD (###EU###SA)	6.420E-05	.000E+00	PMS	.000E+00	6.42E-05	.00E+00
MSAEPSD1SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
MSAEPSD2SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
MSAEPSD3SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
MSAEPSD4SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
MSAEPSD5SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
MSAEPSD6SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
MSAEPSD7SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
MSAEPSD8SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
PC1TP005UF	TP	FAILURE OF PRESSURE TRANSMITTE R (###TP###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
PC2TP006UF	TP	FAILURE OF PRESSURE TRANSMITTE R (###TP###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
PC3TP007UF	TP	FAILURE OF PRESSURE TRANSMITTE R (###TP###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
PC4TP008UF	TP	FAILURE OF PRESSURE TRANSMITTE R (###TP###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
PCAEP001ASA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
PCBEP001BSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00

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FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
PCN-MAN01	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
PL10301ASA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PL10301BSA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PL10302ASA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PL10302BSA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PL1EH0A1SA	EH	FAILURE OF MUX TRANSMITTER FAI LURE TO GROUP ## (P##EH0##SA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PL1EH0A2SA	EH	FAILURE OF MUX TRANSMITTER FAI LURE TO GROUP ## (P##EH0##SA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PL1MOD11	--	FAILURE OF OUTPUT LOGIC GROUP # I/O (P##MOD1#)	2.090E-03	.000E+00	PMS	.000E+00	2.09E-03	.00E+00
PL1MOD12	--	FAILURE OF OUTPUT LOGIC GROUP # I/O (P##MOD1#)	2.090E-03	.000E+00	PMS	.000E+00	2.09E-03	.00E+00
PL1MOD51	--	FAILURE OF MODULATING LOGIC OR I/O GROUP # (PL#MOD5#)	8.740E-04	.000E+00	PMS	.000E+00	8.74E-04	.00E+00
PL1MOD52	--	FAILURE OF MODULATING LOGIC OR I/O GROUP # (PL#MOD5#)	8.740E-04	.000E+00	PMS	.000E+00	8.74E-04	.00E+00
PL1XS00ASA	XS	FAILURE OF OUTPUT LOGIC GROUP SELECTOR (P##XS00ASA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PL20301ASA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PL20301BSA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PL20302ASA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PL20302BSA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PL2EH0A1SA	EH	FAILURE OF MUX TRANSMITTER FAI LURE TO GROUP ## (P##EH0##SA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PL2EH0A2SA	EH	FAILURE OF MUX TRANSMITTER FAI LURE TO GROUP ## (P##EH0##SA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00

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FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
PL2MOD11	--	FAILURE OF OUTPUT LOGIC GROUP # I/O (P##MOD1#)	2.090E-03	.000E+00	PMS	.000E+00	2.09E-03	.00E+00
PL2MOD12	--	FAILURE OF OUTPUT LOGIC GROUP # I/O (P##MOD1#)	2.090E-03	.000E+00	PMS	.000E+00	2.09E-03	.00E+00
PL2MOD51	--	FAILURE OF MODULATING LOGIC OR I/O GROUP # (PL#MOD5#)	8.740E-04	.000E+00	PMS	.000E+00	8.74E-04	.00E+00
PL2MOD52	--	FAILURE OF MODULATING LOGIC OR I/O GROUP # (PL#MOD5#)	8.740E-04	.000E+00	PMS	.000E+00	8.74E-04	.00E+00
PL2XS00ASA	XS	FAILURE OF OUTPUT LOGIC GROUP SELECTOR (P##XS00ASA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PL30301ASA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PL30301BSA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PL30302ASA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PL30302BSA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PL3EH0A1SA	EH	FAILURE OF MUX TRANSMITTER FAI LURE TO GROUP ## (P##EH0##SA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PL3EH0A2SA	EH	FAILURE OF MUX TRANSMITTER FAI LURE TO GROUP ## (P##EH0##SA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PL3MOD11	--	FAILURE OF OUTPUT LOGIC GROUP # I/O (P##MOD1#)	2.090E-03	.000E+00	PMS	.000E+00	2.09E-03	.00E+00
PL3MOD12	--	FAILURE OF OUTPUT LOGIC GROUP # I/O (P##MOD1#)	2.090E-03	.000E+00	PMS	.000E+00	2.09E-03	.00E+00
PL3MOD51	--	FAILURE OF MODULATING LOGIC OR I/O GROUP # (PL#MOD5#)	8.740E-04	.000E+00	PMS	.000E+00	8.74E-04	.00E+00
PL3MOD52	--	FAILURE OF MODULATING LOGIC OR I/O GROUP # (PL#MOD5#)	8.740E-04	.000E+00	PMS	.000E+00	8.74E-04	.00E+00
PL3XS00ASA	XS	FAILURE OF OUTPUT LOGIC GROUP SELECTOR (P##XS00ASA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PL40301ASA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PL40301BSA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00

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FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
PL40302ASA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PL40302BSA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PL4EH0A1SA	EH	FAILURE OF MUX TRANSMITTER FAI LURE TO GROUP ## (P##EH0##SA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PL4EH0A2SA	EH	FAILURE OF MUX TRANSMITTER FAI LURE TO GROUP ## (P##EH0##SA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PL4MOD11	--	FAILURE OF OUTPUT LOGIC GROUP # I/O (P##MOD1#)	2.090E-03	.000E+00	PMS	.000E+00	2.09E-03	.00E+00
PL4MOD12	--	FAILURE OF OUTPUT LOGIC GROUP # I/O (P##MOD1#)	2.090E-03	.000E+00	PMS	.000E+00	2.09E-03	.00E+00
PL4XS00ASA	XS	FAILURE OF OUTPUT LOGIC GROUP SELECTOR (P##XS00ASA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PL50301ASA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PL50301BSA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PL50302ASA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PL50302BSA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PL5EH0A1SA	EH	FAILURE OF MUX TRANSMITTER FAI LURE TO GROUP ## (P##EH0##SA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PL5EH0A2SA	EH	FAILURE OF MUX TRANSMITTER FAI LURE TO GROUP ## (P##EH0##SA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PL5MOD11	--	FAILURE OF OUTPUT LOGIC GROUP # I/O (P##MOD1#)	2.090E-03	.000E+00	PMS	.000E+00	2.09E-03	.00E+00
PL5MOD12	--	FAILURE OF OUTPUT LOGIC GROUP # I/O (P##MOD1#)	2.090E-03	.000E+00	PMS	.000E+00	2.09E-03	.00E+00
PL5XS00ASA	XS	FAILURE OF OUTPUT LOGIC GROUP SELECTOR (P##XS00ASA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PL60301ASA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PL60301BSA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00

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FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
PL60302ASA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PL60302BSA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PL6EH0A1SA	EH	FAILURE OF MUX TRANSMITTER FAI LURE TO GROUP ## (P##EH0##SA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PL6EH0A2SA	EH	FAILURE OF MUX TRANSMITTER FAI LURE TO GROUP ## (P##EH0##SA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PL6MOD11	--	FAILURE OF OUTPUT LOGIC GROUP # I/O (P##MOD1#)	2.090E-03	.000E+00	PMS	.000E+00	2.09E-03	.00E+00
PL6MOD12	--	FAILURE OF OUTPUT LOGIC GROUP # I/O (P##MOD1#)	2.090E-03	.000E+00	PMS	.000E+00	2.09E-03	.00E+00
PL6XS00ASA	XS	FAILURE OF OUTPUT LOGIC GROUP SELECTOR (P##XS00ASA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PL70301ASA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PL70301BSA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PL70302ASA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PL70302BSA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PL7EH0A1SA	EH	FAILURE OF MUX TRANSMITTER FAI LURE TO GROUP ## (P##EH0##SA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PL7EH0A2SA	EH	FAILURE OF MUX TRANSMITTER FAI LURE TO GROUP ## (P##EH0##SA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PL7MOD11	--	FAILURE OF OUTPUT LOGIC GROUP # I/O (P##MOD1#)	2.090E-03	.000E+00	PMS	.000E+00	2.09E-03	.00E+00
PL7MOD12	--	FAILURE OF OUTPUT LOGIC GROUP # I/O (P##MOD1#)	2.090E-03	.000E+00	PMS	.000E+00	2.09E-03	.00E+00
PL7XS00ASA	XS	FAILURE OF OUTPUT LOGIC GROUP SELECTOR (P##XS00ASA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PL80301ASA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PL80301BSA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00

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FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
PL80302ASA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PL80302BSA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PL8EH0A1SA	EH	FAILURE OF MUX TRANSMITTER FAI LURE TO GROUP ## (P##EH0##SA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PL8EH0A2SA	EH	FAILURE OF MUX TRANSMITTER FAI LURE TO GROUP ## (P##EH0##SA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PL8MOD11	--	FAILURE OF OUTPUT LOGIC GROUP # I/O (P##MOD1#)	2.090E-03	.000E+00	PMS	.000E+00	2.09E-03	.00E+00
PL8MOD12	--	FAILURE OF OUTPUT LOGIC GROUP # I/O (P##MOD1#)	2.090E-03	.000E+00	PMS	.000E+00	2.09E-03	.00E+00
PL8XS00ASA	XS	FAILURE OF OUTPUT LOGIC GROUP SELECTOR (P##XS00ASA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PL90301ASA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PL90301BSA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PL90302ASA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PL90302BSA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PL9EH0A1SA	EH	FAILURE OF MUX TRANSMITTER FAI LURE TO GROUP ## (P##EH0##SA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PL9EH0A2SA	EH	FAILURE OF MUX TRANSMITTER FAI LURE TO GROUP ## (P##EH0##SA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PL9MOD11	--	FAILURE OF OUTPUT LOGIC GROUP # I/O (P##MOD1#)	2.090E-03	.000E+00	PMS	.000E+00	2.09E-03	.00E+00
PL9MOD12	--	FAILURE OF OUTPUT LOGIC GROUP # I/O (P##MOD1#)	2.090E-03	.000E+00	PMS	.000E+00	2.09E-03	.00E+00
PL9XS00ASA	XS	FAILURE OF OUTPUT LOGIC GROUP SELECTOR (P##XS00ASA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PLA0301ASA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PLA0301BSA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00

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FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
PLA0302ASA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PLA0302BSA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PLAEH0A1SA	EH	FAILURE OF MUX TRANSMITTER FAI LURE TO GROUP ## (P##EH0##SA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PLAEH0A2SA	EH	FAILURE OF MUX TRANSMITTER FAI LURE TO GROUP ## (P##EH0##SA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PLAMOD11	--	FAILURE OF OUTPUT LOGIC GROUP # I/O (P##MOD1#)	2.090E-03	.000E+00	PMS	.000E+00	2.09E-03	.00E+00
PLAMOD12	--	FAILURE OF OUTPUT LOGIC GROUP # I/O (P##MOD1#)	2.090E-03	.000E+00	PMS	.000E+00	2.09E-03	.00E+00
PLAMOD31	--	FAILURE OF INPUT GROUP # (P##M OD3#)	5.020E-03	.000E+00	PMS	.000E+00	5.02E-03	.00E+00
PLAXS00ASA	XS	FAILURE OF OUTPUT LOGIC GROUP SELECTOR (P##XS00ASA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PLB0301ASA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PLB0301BSA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PLB0302ASA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PLB0302BSA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PLBEH0A1SA	EH	FAILURE OF MUX TRANSMITTER FAI LURE TO GROUP ## (P##EH0##SA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PLBEH0A2SA	EH	FAILURE OF MUX TRANSMITTER FAI LURE TO GROUP ## (P##EH0##SA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PLBMOD11	--	FAILURE OF OUTPUT LOGIC GROUP # I/O (P##MOD1#)	2.090E-03	.000E+00	PMS	.000E+00	2.09E-03	.00E+00
PLBMOD12	--	FAILURE OF OUTPUT LOGIC GROUP # I/O (P##MOD1#)	2.090E-03	.000E+00	PMS	.000E+00	2.09E-03	.00E+00
PLBMOD32	--	FAILURE OF INPUT GROUP # (P##M OD3#)	5.020E-03	.000E+00	PMS	.000E+00	5.02E-03	.00E+00
PLBXS00ASA	XS	FAILURE OF OUTPUT LOGIC GROUP SELECTOR (P##XS00ASA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00

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FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
PLC0301ASA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PLC0301BSA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PLC0302ASA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PLC0302BSA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PLCEH0A1SA	EH	FAILURE OF MUX TRANSMITTER FAI LURE TO GROUP ## (P##EH0##SA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PLCEH0A2SA	EH	FAILURE OF MUX TRANSMITTER FAI LURE TO GROUP ## (P##EH0##SA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PLCMOD11	--	FAILURE OF OUTPUT LOGIC GROUP # I/O (P##MOD1#)	2.090E-03	.000E+00	PMS	.000E+00	2.09E-03	.00E+00
PLCMOD12	--	FAILURE OF OUTPUT LOGIC GROUP # I/O (P##MOD1#)	2.090E-03	.000E+00	PMS	.000E+00	2.09E-03	.00E+00
PLCMOD33	--	FAILURE OF INPUT GROUP # (P##M OD3#)	5.020E-03	.000E+00	PMS	.000E+00	5.02E-03	.00E+00
PLCXS00ASA	XS	FAILURE OF OUTPUT LOGIC GROUP SELECTOR (P##XS00ASA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PLD0301ASA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PLD0301BSA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PLD0302ASA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PLD0302BSA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PLDEH0A1SA	EH	FAILURE OF MUX TRANSMITTER FAI LURE TO GROUP ## (P##EH0##SA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PLDEH0A2SA	EH	FAILURE OF MUX TRANSMITTER FAI LURE TO GROUP ## (P##EH0##SA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PLDMOD11	--	FAILURE OF OUTPUT LOGIC GROUP # I/O (P##MOD1#)	2.090E-03	.000E+00	PMS	.000E+00	2.09E-03	.00E+00
PLDMOD12	--	FAILURE OF OUTPUT LOGIC GROUP # I/O (P##MOD1#)	2.090E-03	.000E+00	PMS	.000E+00	2.09E-03	.00E+00

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FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
PLDMOD34	--	FAILURE OF INPUT GROUP # (P##MOD3#)	5.020E-03	.000E+00	PMS	.000E+00	5.02E-03	.00E+00
PLDXS00ASA	XS	FAILURE OF OUTPUT LOGIC GROUP SELECTOR (P##XS00ASA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PLMMOD41	--	FAILURE OF MUX LOGIC GROUP # (P##MOD4#)	6.350E-04	.000E+00	PMS	.000E+00	6.35E-04	.00E+00
PLMMOD42	--	FAILURE OF MUX LOGIC GROUP # (P##MOD4#)	6.350E-04	.000E+00	PMS	.000E+00	6.35E-04	.00E+00
PLSMOD61	--	FAILURE OF SIGNAL SELECTOR LOGIC GROUP # (PLSMOD6#)	3.460E-03	.000E+00	PMS	.000E+00	3.46E-03	.00E+00
PLSMOD62	--	FAILURE OF SIGNAL SELECTOR LOGIC GROUP # (PLSMOD6#)	3.460E-03	.000E+00	PMS	.000E+00	3.46E-03	.00E+00
PMA0301ABA	03	LOGIC GROUP PROCESSING SPURIOUS FAILURE (###030##BA)	8.010E-06	.000E+00	PMS	.000E+00	8.01E-06	00E+00
PMA0301ASA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PMA0301BBA	03	LOGIC GROUP PROCESSING SPURIOUS FAILURE (###030##BA)	8.010E-06	.000E+00	PMS	.000E+00	8.01E-06	.00E+00
PMA0301BSA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PMA0302ABA	03	LOGIC GROUP PROCESSING SPURIOUS FAILURE (###030##BA)	8.010E-06	.000E+00	PMS	.000E+00	8.01E-06	.00E+00
PMA0302ASA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PMA0302BBA	03	LOGIC GROUP PROCESSING SPURIOUS FAILURE (###030##BA)	8.010E-06	.000E+00	PMS	.000E+00	8.01E-06	.00E+00
PMA0302BSA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PMAEH0A1SA	EH	FAILURE OF MUX TRANSMITTER FAILURE TO GROUP ## (P##EH0##SA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PMAEH0A2SA	EH	FAILURE OF MUX TRANSMITTER FAILURE TO GROUP ## (P##EH0##SA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PMAMOD11	--	FAILURE OF OUTPUT LOGIC GROUP # I/O (P##MOD1#)	2.090E-03	.000E+00	PMS	.000E+00	2.09E-03	.00E+00
PMAMOD12	--	FAILURE OF OUTPUT LOGIC GROUP # I/O (P##MOD1#)	2.090E-03	.000E+00	PMS	.000E+00	2.09E-03	.00E+00

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FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
PMAMOD21	--	FAILURE OF ACTUATION LOGIC GROUP # (PM#MOD2#)	4.070E-03	.000E+00	PMS	.000E+00	4.07E-03	.00E+00
PMAMOD22	--	FAILURE OF ACTUATION LOGIC GROUP # (PM#MOD2#)	4.070E-03	.000E+00	PMS	.000E+00	4.07E-03	.00E+00
PMAMOD31	--	FAILURE OF INPUT GROUP # (P##MOD3#)	5.020E-03	.000E+00	PMS	.000E+00	5.02E-03	.00E+00
PMAMOD41	--	FAILURE OF MUX LOGIC GROUP # (P##MOD4#)	6.350E-04	.000E+00	PMS	.000E+00	6.35E-04	.00E+00
PMAMOD42	--	FAILURE OF MUX LOGIC GROUP # (P##MOD4#)	6.350E-04	.000E+00	PMS	.000E+00	6.35E-04	.00E+00
PMAMSD11	--	SPURIOUS FAILURE OF OUTPUT LOGIC GROUP # I/O (PM#MSD1#)	8.400E-06	.000E+00	PMS	.000E+00	8.40E-06	.00E+00
PMAMSD12	--	SPURIOUS FAILURE OF OUTPUT LOGIC GROUP # I/O (PM#MSD1#)	8.400E-06	.000E+00	PMS	.000E+00	8.40E-06	.00E+00
PMAMSD21	--	SPURIOUS FAILURE OF ACTUATION LOGIC GROUP # (PM#MSD2#)	2.040E-05	.000E+00	PMS	.000E+00	2.04E-05	.00E+00
PMAMSD22	--	SPURIOUS FAILURE OF ACTUATION LOGIC GROUP # (PM#MSD2#)	2.040E-05	.000E+00	PMS	.000E+00	2.04E-05	.00E+00
PMAMSD31	--	SPURIOUS FAILURE OF INPUT GROUP # (PM#MSD3#)	2.740E-05	.000E+00	PMS	.000E+00	2.74E-05	.00E+00
PMAXS00ABA	XS	SPURIOUS FAILURE OF OUTPUT LOGIC GROUP SELECTOR (P##XS00ABA)	1.000E-10	.000E+00	PMS	.000E+00	1.00E-10	.00E+00
PMAXS00ASA	XS	FAILURE OF OUTPUT LOGIC GROUP SELECTOR (P##XS00ASA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PMB0301ABA	03	LOGIC GROUP PROCESSING SPURIOUS FAILURE (###030##BA)	8.010E-06	.000E+00	PMS	.000E+00	8.01E-06	.00E+00
PMB0301ASA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PMB0301BBA	03	LOGIC GROUP PROCESSING SPURIOUS FAILURE (###030##BA)	8.010E-06	.000E+00	PMS	.000E+00	8.01E-06	.00E+00
PMB0301BSA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PMB0302ABA	03	LOGIC GROUP PROCESSING SPURIOUS FAILURE (###030##BA)	8.010E-06	.000E+00	PMS	.000E+00	8.01E-06	.00E+00
PMB0302ASA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00

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FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
PMB0302BBA	03	LOGIC GROUP PROCESSING SPURIOUS FAILURE (###030##BA)	8.010E-06	.000E+00	PMS	.000E+00	8.01E-06	.00E+00
PMB0302BSA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PMBEH0A1SA	EH	FAILURE OF MUX TRANSMITTER FAILURE TO GROUP ## (P##EH0##SA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PMBEH0A2SA	EH	FAILURE OF MUX TRANSMITTER FAILURE TO GROUP ## (P##EH0##SA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PMBMOD11	--	FAILURE OF OUTPUT LOGIC GROUP # I/O (P##MOD1#)	2.090E-03	.000E+00	PMS	.000E+00	2.09E-03	.00E+00
PMBMOD12	--	FAILURE OF OUTPUT LOGIC GROUP # I/O (P##MOD1#)	2.090E-03	.000E+00	PMS	.000E+00	2.09E-03	.00E+00
PMBMOD21	--	FAILURE OF ACTUATION LOGIC GROUP # (PM#MOD2#)	4.070E-03	.000E+00	PMS	.000E+00	4.07E-03	.00E+00
PMBMOD22	--	FAILURE OF ACTUATION LOGIC GROUP # (PM#MOD2#)	4.070E-03	.000E+00	PMS	.000E+00	4.07E-03	.00E+00
PMBMOD32	--	FAILURE OF INPUT GROUP # (P##MOD3#)	5.020E-03	.000E+00	PMS	.000E+00	5.02E-03	.00E+00
PMBMOD41	--	FAILURE OF MUX LOGIC GROUP # (P##MOD4#)	6.350E-04	.000E+00	PMS	.000E+00	6.35E-04	.00E+00
PMBMOD42	--	FAILURE OF MUX LOGIC GROUP # (P##MOD4#)	6.350E-04	.000E+00	PMS	.000E+00	6.35E-04	.00E+00
PMBMSD11	--	SPURIOUS FAILURE OF OUTPUT LOGIC GROUP # I/O (PM#MSD1#)	8.400E-06	.000E+00	PMS	.000E+00	8.40E-06	.00E+00
PMBMSD12	--	SPURIOUS FAILURE OF OUTPUT LOGIC GROUP # I/O (PM#MSD1#)	8.400E-06	.000E+00	PMS	.000E+00	8.40E-06	.00E+00
PMBMSD21	--	SPURIOUS FAILURE OF ACTUATION LOGIC GROUP # (PM#MSD2#)	2.040E-05	.000E+00	PMS	.000E+00	2.04E-05	.00E+00
PMBMSD22	--	SPURIOUS FAILURE OF ACTUATION LOGIC GROUP # (PM#MSD2#)	2.040E-05	.000E+00	PMS	.000E+00	2.04E-05	.00E+00
PMBMSD32	--	SPURIOUS FAILURE OF INPUT GROUP # (PM#MSD3#)	2.740E-05	.000E+00	PMS	.000E+00	2.74E-05	.00E+00
PMBXS00ABA	XS	SPURIOUS FAILURE OF OUTPUT LOGIC GROUP SELECTOR (P##XS00ABA)	1.000E-10	.000E+00	PMS	.000E+00	1.00E-10	.00E+00
PMBXS00ASA	XS	FAILURE OF OUTPUT LOGIC GROUP SELECTOR (P##XS00ASA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00

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FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
PMC0301ABA	03	LOGIC GROUP PROCESSING SPURIOUS FAILURE (###030##BA)	8.010E-06	.000E+00	PMS	.000E+00	8.01E-06	.00E+00
PMC0301ASA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PMC0301BBA	03	LOGIC GROUP PROCESSING SPURIOUS FAILURE (###030##BA)	8.010E-06	.000E+00	PMS	.000E+00	8.01E-06	.00E+00
PMC0301BSA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PMC0302ABA	03	LOGIC GROUP PROCESSING SPURIOUS FAILURE (###030##BA)	8.010E-06	.000E+00	PMS	.000E+00	8.01E-06	.00E+00
PMC0302ASA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PMC0302BBA	03	LOGIC GROUP PROCESSING SPURIOUS FAILURE (###030##BA)	8.010E-06	.000E+00	PMS	.000E+00	8.01E-06	.00E+00
PMC0302BSA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PMCEH0A1SA	EH	FAILURE OF MUX TRANSMITTER FAILURE TO GROUP ## (P##EH0##SA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PMCEH0A2SA	EH	FAILURE OF MUX TRANSMITTER FAILURE TO GROUP ## (P##EH0##SA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PMCMOD11	--	FAILURE OF OUTPUT LOGIC GROUP # I/O (P##MOD1#)	2.090E-03	.000E+00	PMS	.000E+00	2.09E-03	.00E+00
PMCMOD12	--	FAILURE OF OUTPUT LOGIC GROUP # I/O (P##MOD1#)	2.090E-03	.000E+00	PMS	.000E+00	2.09E-03	.00E+00
PMCMOD21	--	FAILURE OF ACTUATION LOGIC GROUP # (PM#MOD2#)	4.070E-03	.000E+00	PMS	.000E+00	4.07E-03	.00E+00
PMCMOD22	--	FAILURE OF ACTUATION LOGIC GROUP # (PM#MOD2#)	4.070E-03	.000E+00	PMS	.000E+00	4.07E-03	.00E+00
PMCMOD33	--	FAILURE OF INPUT GROUP # (P##MOD3#)	5.020E-03	.000E+00	PMS	.000E+00	5.02E-03	.00E+00
PMCMOD41	--	FAILURE OF MUX LOGIC GROUP # (P##MOD4#)	6.350E-04	.000E+00	PMS	.000E+00	6.35E-04	.00E+00
PMCMOD42	--	FAILURE OF MUX LOGIC GROUP # (P##MOD4#)	6.350E-04	.000E+00	PMS	.000E+00	6.35E-04	.00E+00
PMCMSD11	--	SPURIOUS FAILURE OF OUTPUT LOGIC GROUP # I/O (PM#MSD1#)	8.400E-06	.000E+00	PMS	.000E+00	8.40E-06	.00E+00

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FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
PMCMSD12	--	SPURIOUS FAILURE OF OUTPUT LOGIC GROUP # I/O (PM#MSD1#)	8.400E-06	.000E+00	PMS	.000E+00	8.40E-06	.00E+00
PMCMSD21	--	SPURIOUS FAILURE OF ACTUATION LOGIC GROUP # (PM#MSD2#)	2.040E-05	.000E+00	PMS	.000E+00	2.04E-05	.00E+00
PMCMSD22	--	SPURIOUS FAILURE OF ACTUATION LOGIC GROUP # (PM#MSD2#)	2.040E-05	.000E+00	PMS	.000E+00	2.04E-05	.00E+00
PMCMSD33	--	SPURIOUS FAILURE OF INPUT GROUP # (PM#MSD3#)	2.740E-05	.000E+00	PMS	.000E+00	2.74E-05	.00E+00
PMCXS00ABA	XS	SPURIOUS FAILURE OF OUTPUT LOGIC GROUP SELECTOR (P##XS00ABA)	1.000E-10	.000E+00	PMS	.000E+00	1.00E-10	.00E+00
PMCXS00ASA	XS	FAILURE OF OUTPUT LOGIC GROUP SELECTOR (P##XS00ASA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PMD0301ABA	03	LOGIC GROUP PROCESSING SPURIOUS FAILURE (###030##BA)	8.010E-06	.000E+00	PMS	.000E+00	8.01E-06	.00E+00
PMD0301ASA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PMD0301BBA	03	LOGIC GROUP PROCESSING SPURIOUS FAILURE (###030##BA)	8.010E-06	.000E+00	PMS	.000E+00	8.01E-06	.00E+00
PMD0301BSA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PMD0302ABA	03	LOGIC GROUP PROCESSING SPURIOUS FAILURE (###030##BA)	8.010E-06	.000E+00	PMS	.000E+00	8.01E-06	.00E+00
PMD0302ASA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PMD0302BBA	03	LOGIC GROUP PROCESSING SPURIOUS FAILURE (###030##BA)	8.010E-06	.000E+00	PMS	.000E+00	8.01E-06	.00E+00
PMD0302BSA	03	LOGIC GROUP PROCESSING FAILURE UPON DEMAND (###030##SA)	1.160E-03	.000E+00	PMS	.000E+00	1.16E-03	.00E+00
PMDEH0A1SA	EH	FAILURE OF MUX TRANSMITTER FAILURE TO GROUP ## (P##EH0##SA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PMDEH0A2SA	EH	FAILURE OF MUX TRANSMITTER FAILURE TO GROUP ## (P##EH0##SA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PMDMOD11	--	FAILURE OF OUTPUT LOGIC GROUP # I/O (P##MOD1#)	2.090E-03	.000E+00	PMS	.000E+00	2.09E-03	.00E+00
PMDMOD12	--	FAILURE OF OUTPUT LOGIC GROUP # I/O (P##MOD1#)	2.090E-03	.000E+00	PMS	.000E+00	2.09E-03	.00E+00

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FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
PMDMOD21	--	FAILURE OF ACTUATION LOGIC GROUP # (PM#MOD2#)	4.070E-03	.000E+00	PMS	.000E+00	4.07E-03	.00E+00
PMDMOD22	--	FAILURE OF ACTUATION LOGIC GROUP # (PM#MOD2#)	4.070E-03	.000E+00	PMS	.000E+00	4.07E-03	.00E+00
PMDMOD34	--	FAILURE OF INPUT GROUP # (P##MOD3#)	5.020E-03	.000E+00	PMS	.000E+00	5.02E-03	.00E+00
PMDMOD41	--	FAILURE OF MUX LOGIC GROUP # (P##MOD4#)	6.350E-04	.000E+00	PMS	.000E+00	6.35E-04	.00E+00
PMDMOD42	--	FAILURE OF MUX LOGIC GROUP # (P##MOD4#)	6.350E-04	.000E+00	PMS	.000E+00	6.35E-04	.00E+00
PMDMSD11	--	SPURIOUS FAILURE OF OUTPUT LOGIC GROUP # I/O (PM#MSD1#)	8.400E-06	.000E+00	PMS	.000E+00	8.40E-06	.00E+00
PMDMSD12	--	SPURIOUS FAILURE OF OUTPUT LOGIC GROUP # I/O (PM#MSD1#)	8.400E-06	.000E+00	PMS	.000E+00	8.40E-06	.00E+00
PMDMSD21	--	SPURIOUS FAILURE OF ACTUATION LOGIC GROUP # (PM#MSD2#)	2.040E-05	.000E+00	PMS	.000E+00	2.04E-05	.00E+00
PMDMSD22	--	SPURIOUS FAILURE OF ACTUATION LOGIC GROUP # (PM#MSD2#)	2.040E-05	.000E+00	PMS	.000E+00	2.04E-05	.00E+00
PMDMSD34	--	SPURIOUS FAILURE OF INPUT GROUP # (PM#MSD3#)	2.740E-05	.000E+00	PMS	.000E+00	2.74E-05	.00E+00
PMDXS00ABA	XS	SPURIOUS FAILURE OF OUTPUT LOGIC GROUP SELECTOR (P##XS00ABA)	1.000E-10	.000E+00	PMS	.000E+00	1.00E-10	.00E+00
PMDXS00ASA	XS	FAILURE OF OUTPUT LOGIC GROUP SELECTOR (P##XS00ASA)	8.000E-05	.000E+00	PMS	.000E+00	8.00E-05	.00E+00
PRCEP101SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
PRCEP108SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
PRDEP101SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
PRDEP108SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
PRN-MAN01	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
PRN-MAN02	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00

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FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
PXAVS011BA	VS	SPURIOUS FAILURE OF LEVEL SWITCH (###VS###BA)	2.320E-06	.000E+00	PMS	.000E+00	2.32E-06	.00E+00
PXAVS011UF	VS	FAILURE OF LEVEL SWITCH (###VS###UF)	1.000E-03	.000E+00	PMS	.000E+00	1.00E-03	.00E+00
PXAVS013BA	VS	SPURIOUS FAILURE OF LEVEL SWITCH (###VS###BA)	2.320E-06	.000E+00	PMS	.000E+00	2.32E-06	.00E+00
PXAVS013UF	VS	FAILURE OF LEVEL SWITCH (###VS###UF)	1.000E-03	.000E+00	PMS	.000E+00	1.00E-03	.00E+00
PXAVS015BA	VS	SPURIOUS FAILURE OF LEVEL SWITCH (###VS###BA)	2.320E-06	.000E+00	PMS	.000E+00	2.32E-06	.00E+00
PXAVS015UF	VS	FAILURE OF LEVEL SWITCH (###VS###UF)	1.000E-03	.000E+00	PMS	.000E+00	1.00E-03	.00E+00
PXAVS017BA	VS	SPURIOUS FAILURE OF LEVEL SWITCH (###VS###BA)	2.320E-06	.000E+00	PMS	.000E+00	2.32E-06	.00E+00
PXAVS017UF	VS	FAILURE OF LEVEL SWITCH (###VS###UF)	1.000E-03	.000E+00	PMS	.000E+00	1.00E-03	.00E+00
PXBVS012BA	VS	SPURIOUS FAILURE OF LEVEL SWITCH (###VS###BA)	2.320E-06	.000E+00	PMS	.000E+00	2.32E-06	.00E+00
PXBVS012UF	VS	FAILURE OF LEVEL SWITCH (###VS###UF)	1.000E-03	.000E+00	PMS	.000E+00	1.00E-03	.00E+00
PXBVS014BA	VS	SPURIOUS FAILURE OF LEVEL SWITCH (###VS###BA)	2.320E-06	.000E+00	PMS	.000E+00	2.32E-06	.00E+00
PXBVS014UF	VS	FAILURE OF LEVEL SWITCH (###VS###UF)	1.000E-03	.000E+00	PMS	.000E+00	1.00E-03	.00E+00
PXBVS016BA	VS	SPURIOUS FAILURE OF LEVEL SWITCH (###VS###BA)	2.320E-06	.000E+00	PMS	.000E+00	2.32E-06	.00E+00
PXBVS016UF	VS	FAILURE OF LEVEL SWITCH (###VS###UF)	1.000E-03	.000E+00	PMS	.000E+00	1.00E-03	.00E+00
PXBVS018BA	VS	SPURIOUS FAILURE OF LEVEL SWITCH (###VS###BA)	2.320E-06	.000E+00	PMS	.000E+00	2.32E-06	.00E+00
PXBVS018UF	VS	FAILURE OF LEVEL SWITCH (###VS###UF)	1.000E-03	.000E+00	PMS	.000E+00	1.00E-03	.00E+00
RC1OR195SP	OR	FAILURE OF ORIFICE - PLUGGED (###OR###SP)	7.220E-03	.000E+00	PMS	.000E+00	7.22E-03	.00E+00
RC1TL195UF	TL	LEVEL TRANSMITTER FAILURE (###TL###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00

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FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
RC2OR196SP	OR	FAILURE OF ORIFICE - PLUGGED (###OR###SP)	7.220E-03	.000E+00	PMS	.000E+00	7.22E-03	.00E+00
RC2TL196UF	TL	LEVEL TRANSMITTER FAILURE (### TL###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
RC3OR197SP	OR	FAILURE OF ORIFICE - PLUGGED (###OR###SP)	7.220E-03	.000E+00	PMS	.000E+00	7.22E-03	.00E+00
RC3TL197UF	TL	LEVEL TRANSMITTER FAILURE (### TL###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
RC4OR198SP	OR	FAILURE OF ORIFICE - PLUGGED (###OR###SP)	7.220E-03	.000E+00	PMS	.000E+00	7.22E-03	.00E+00
RC4TL198UF	TL	LEVEL TRANSMITTER FAILURE (### TL###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
RCATE211UF	TE	FAILURE OF TEMPERATURE ELEMENT (###TE###UF)	3.060E-03	.000E+00	PMS	.000E+00	3.06E-03	.00E+00
RCATE212UF	TE	FAILURE OF TEMPERATURE ELEMENT (###TE###UF)	3.060E-03	.000E+00	PMS	.000E+00	3.06E-03	.00E+00
RCATE213UF	TE	FAILURE OF TEMPERATURE ELEMENT (###TE###UF)	3.060E-03	.000E+00	PMS	.000E+00	3.06E-03	.00E+00
RCATE214UF	TE	FAILURE OF TEMPERATURE ELEMENT (###TE###UF)	3.060E-03	.000E+00	PMS	.000E+00	3.06E-03	.00E+00
RCATE215UF	TE	FAILURE OF TEMPERATURE ELEMENT (###TE###UF)	3.060E-03	.000E+00	PMS	.000E+00	3.06E-03	.00E+00
RCATE221UF	TE	FAILURE OF TEMPERATURE ELEMENT (###TE###UF)	3.060E-03	.000E+00	PMS	.000E+00	3.06E-03	.00E+00
RCATE225UF	TE	FAILURE OF TEMPERATURE ELEMENT (###TE###UF)	3.060E-03	.000E+00	PMS	.000E+00	3.06E-03	.00E+00
RCBTE211UF	TE	FAILURE OF TEMPERATURE ELEMENT (###TE###UF)	3.060E-03	.000E+00	PMS	.000E+00	3.06E-03	.00E+00
RCBTE212UF	TE	FAILURE OF TEMPERATURE ELEMENT (###TE###UF)	3.060E-03	.000E+00	PMS	.000E+00	3.06E-03	.00E+00
RCBTE216UF	TE	FAILURE OF TEMPERATURE ELEMENT (###TE###UF)	3.060E-03	.000E+00	PMS	.000E+00	3.06E-03	.00E+00
RCBTE222UF	TE	FAILURE OF TEMPERATURE ELEMENT (###TE###UF)	3.060E-03	.000E+00	PMS	.000E+00	3.06E-03	.00E+00
RCBTE226UF	TE	FAILURE OF TEMPERATURE ELEMENT (###TE###UF)	3.060E-03	.000E+00	PMS	.000E+00	3.06E-03	.00E+00

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FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
RCCTE213UF	TE	FAILURE OF TEMPERATURE ELEMENT (###TE###UF)	3.060E-03	.000E+00	PMS	.000E+00	3.06E-03	.00E+00
RCCTE217UF	TE	FAILURE OF TEMPERATURE ELEMENT (###TE###UF)	3.060E-03	.000E+00	PMS	.000E+00	3.06E-03	.00E+00
RCCTE223UF	TE	FAILURE OF TEMPERATURE ELEMENT (###TE###UF)	3.060E-03	.000E+00	PMS	.000E+00	3.06E-03	.00E+00
RCCTE227UF	TE	FAILURE OF TEMPERATURE ELEMENT (###TE###UF)	3.060E-03	.000E+00	PMS	.000E+00	3.06E-03	.00E+00
RCDTE214UF	TE	FAILURE OF TEMPERATURE ELEMENT (###TE###UF)	3.060E-03	.000E+00	PMS	.000E+00	3.06E-03	.00E+00
RCDTE218UF	TE	FAILURE OF TEMPERATURE ELEMENT (###TE###UF)	3.060E-03	.000E+00	PMS	.000E+00	3.06E-03	.00E+00
RCDTE224UF	TE	FAILURE OF TEMPERATURE ELEMENT (###TE###UF)	3.060E-03	.000E+00	PMS	.000E+00	3.06E-03	.00E+00
RCDTE228UF	TE	FAILURE OF TEMPERATURE ELEMENT (###TE###UF)	3.060E-03	.000E+00	PMS	.000E+00	3.06E-03	.00E+00
RCN-MAN01	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
RCNTP191UF	TP	FAILURE OF PRESSURE TRANSMITTE R (###TP###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
RCNTP192UF	TP	FAILURE OF PRESSURE TRANSMITTE R (###TP###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
RCNTP193UF	TP	FAILURE OF PRESSURE TRANSMITTE R (###TP###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
RCNTP194UF	TP	FAILURE OF PRESSURE TRANSMITTE R (###TP###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
RCNTP195UF	TP	FAILURE OF PRESSURE TRANSMITTE R (###TP###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
RCNTP196UF	TP	FAILURE OF PRESSURE TRANSMITTE R (###TP###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
RCNTP197UF	TP	FAILURE OF PRESSURE TRANSMITTE R (###TP###UF)	5.230E-03	.000E+00	PMS	000E+00	5.23E-03	.00E+00
RCNTP198UF	TP	FAILURE OF PRESSURE TRANSMITTE R (###TP###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
REC-MANDAS	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00

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FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
REN-MAN02	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
REN-MAN03	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
REN-MAN04	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
RNAEP01ASA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
RNAEP01BSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
RNAEP022SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
RNAEPRNPSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
RNBEP011SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
RNDEP023SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
ROD-CTRL-SYS	--	ROD CONTROL SYSTEM FAILURE TO STEP IN RODS (ROD-CTRL-SYS)	6.600E-04	.000E+00	PMS	.000E+00	6.60E-04	.00E+00
RPAEP051SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
RPAEP053SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
RPBEP052SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
RPBEP054SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
RPCEP061SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
RPCEP063SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
RPDEP062SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
RPDEP064SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00

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FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
S-SIG-SENS1-FAIL	--	S-SIGNAL SENSOR FAILURE (S-SIG -SENS#-FAIL)	1.000E-06	.000E+00	PMS	.000E+00	1.00E-06	.00E+00
S-SIG-SENS2-FAIL	--	S-SIGNAL SENSOR FAILURE (S-SIG -SENS#-FAIL)	1.000E-06	.000E+00	PMS	.000E+00	1.00E-06	.00E+00
S-SIG-SENS3-FAIL	--	S-SIGNAL SENSOR FAILURE (S-SIG -SENS#-FAIL)	1.000E-06	.000E+00	PMS	.000E+00	1.00E-06	.00E+00
S-SIG-SENS4-FAIL	--	S-SIGNAL SENSOR FAILURE (S-SIG -SENS#-FAIL)	1.000E-06	.000E+00	PMS	.000E+00	1.00E-06	.00E+00
SDAS	--	SPURIOUS FAILURE OF DAS (1.00E -00) PMS (SDAS)	1.000E-08	.000E+00	PMS	.000E+00	1.00E-08	.00E+00
SF3EU067A1SA	EU	FAILURE OF THE ANALOG OUTPUT B OARD (###EU###SA)	6.420E-05	.000E+00	PMS	.000E+00	6.42E-05	.00E+00
SF3EU067A2SA	EU	FAILURE OF THE ANALOG OUTPUT B OARD (###EU###SA)	6.420E-05	.000E+00	PMS	.000E+00	6.42E-05	.00E+00
SF3EU067B1SA	EU	FAILURE OF THE ANALOG OUTPUT B OARD (###EU###SA)	6.420E-05	.000E+00	PMS	.000E+00	6.42E-05	.00E+00
SF3EU067B2SA	EU	FAILURE OF THE ANALOG OUTPUT B OARD (###EU###SA)	6.420E-05	.000E+00	PMS	.000E+00	6.42E-05	.00E+00
SF3EU255A1SA	EU	FAILURE OF THE ANALOG OUTPUT B OARD (###EU###SA)	6.420E-05	.000E+00	PMS	.000E+00	6.42E-05	.00E+00
SF3EU255A2SA	EU	FAILURE OF THE ANALOG OUTPUT B OARD (###EU###SA)	6.420E-05	.000E+00	PMS	.000E+00	6.42E-05	.00E+00
SF3EU255B1SA	EU	FAILURE OF THE ANALOG OUTPUT B OARD (###EU###SA)	6.420E-05	.000E+00	PMS	.000E+00	6.42E-05	.00E+00
SF3EU255B2SA	EU	FAILURE OF THE ANALOG OUTPUT B OARD (###EU###SA)	6.420E-05	.000E+00	PMS	.000E+00	6.42E-05	.00E+00
SFBEATF50B1SA	EA	FAILURE OF THE ANALOG INPUT BO ARD (###EA####SA)	2.510E-04	.000E+00	PMS	.000E+00	2.51E-04	.00E+00
SFBEATF50B2SA	EA	FAILURE OF THE ANALOG INPUT BO ARD (###EA####SA)	2.510E-04	.000E+00	PMS	.000E+00	2.51E-04	.00E+00
SFBEATF51B1SA	EA	FAILURE OF THE ANALOG INPUT BO ARD (###EA####SA)	2.510E-04	.000E+00	PMS	.000E+00	2.51E-04	.00E+00
SFBEATF51B2SA	EA	FAILURE OF THE ANALOG INPUT BO ARD (###EA####SA)	2.510E-04	.000E+00	PMS	.000E+00	2.51E-04	.00E+00
SFBEP010SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00

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FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
SFBEP013ASA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
SFBEP013BSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
SFBEP028SA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
SFBEPSFPASA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
SFBEPSFPBSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
SG1OR001SP	OR	FAILURE OF ORIFICE - PLUGGED (###OR###SP)	7.220E-03	.000E+00	PMS	.000E+00	7.22E-03	.00E+00
SG1OR002SP	OR	FAILURE OF ORIFICE - PLUGGED (###OR###SP)	7.220E-03	.000E+00	PMS	.000E+00	7.22E-03	.00E+00
SG1OR003SP	OR	FAILURE OF ORIFICE - PLUGGED (###OR###SP)	7.220E-03	.000E+00	PMS	.000E+00	7.22E-03	.00E+00
SG1OR004SP	OR	FAILURE OF ORIFICE - PLUGGED (###OR###SP)	7.220E-03	.000E+00	PMS	.000E+00	7.22E-03	.00E+00
SG1OR011SP	OR	FAILURE OF ORIFICE - PLUGGED (###OR###SP)	7.220E-03	.000E+00	PMS	.000E+00	7.22E-03	.00E+00
SG1OR012SP	OR	FAILURE OF ORIFICE - PLUGGED (###OR###SP)	7.220E-03	.000E+00	PMS	.000E+00	7.22E-03	.00E+00
SG1OR015SP	OR	FAILURE OF ORIFICE - PLUGGED (###OR###SP)	7.220E-03	.000E+00	PMS	.000E+00	7.22E-03	.00E+00
SG1OR016SP	OR	FAILURE OF ORIFICE - PLUGGED (###OR###SP)	7.220E-03	.000E+00	PMS	.000E+00	7.22E-03	.00E+00
SG1OR030SP	OR	FAILURE OF ORIFICE - PLUGGED (###OR###SP)	7.220E-03	.000E+00	PMS	.000E+00	7.22E-03	.00E+00
SG1OR031SP	OR	FAILURE OF ORIFICE - PLUGGED (###OR###SP)	7.220E-03	.000E+00	PMS	.000E+00	7.22E-03	.00E+00
SG1OR032SP	OR	FAILURE OF ORIFICE - PLUGGED (###OR###SP)	7.220E-03	.000E+00	PMS	.000E+00	7.22E-03	.00E+00
SG1OR033SP	OR	FAILURE OF ORIFICE - PLUGGED (###OR###SP)	7.220E-03	.000E+00	PMS	.000E+00	7.22E-03	.00E+00
SG1TF055ARI	TF	FLOW TRANSMITTER FAILURE (###T F###RI)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00

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FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
SG1TF055BRI	TF	FLOW TRANSMITTER FAILURE (###TF###RI)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
SG1TF51ARI	TF	FLOW TRANSMITTER FAILURE (###TF###RI)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
SG1TF51BUF	TF	FLOW TRANSMITTER FAILURE (###TF###RI)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
SG1TL001UF	TL	LEVEL TRANSMITTER FAILURE (###TL###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
SG1TL002UF	TL	LEVEL TRANSMITTER FAILURE (###TL###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
SG1TL003UF	TL	LEVEL TRANSMITTER FAILURE (###TL###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
SG1TL004UF	TL	LEVEL TRANSMITTER FAILURE (###TL###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
SG1TL011UF	TL	LEVEL TRANSMITTER FAILURE (###TL###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
SG1TL012UF	TL	LEVEL TRANSMITTER FAILURE (###TL###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
SG1TL015UF	TL	LEVEL TRANSMITTER FAILURE (###TL###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
SG1TL016UF	TL	LEVEL TRANSMITTER FAILURE (###TL###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
SG1TP030UF	TP	FAILURE OF PRESSURE TRANSMITTER (###TP###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
SG1TP031UF	TP	FAILURE OF PRESSURE TRANSMITTER (###TP###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
SG1TP032UF	TP	FAILURE OF PRESSURE TRANSMITTER (###TP###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
SG1TP033UF	TP	FAILURE OF PRESSURE TRANSMITTER (###TP###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
SG2OR005SP	OR	FAILURE OF ORIFICE - PLUGGED (###OR###SP)	7.220E-03	.000E+00	PMS	.000E+00	7.22E-03	.00E+00
SG2OR006SP	OR	FAILURE OF ORIFICE - PLUGGED (###OR###SP)	7.220E-03	.000E+00	PMS	.000E+00	7.22E-03	.00E+00
SG2OR007SP	OR	FAILURE OF ORIFICE - PLUGGED (###OR###SP)	7.220E-03	.000E+00	PMS	.000E+00	7.22E-03	.00E+00

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FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
SG2OR008SP	OR	FAILURE OF ORIFICE - PLUGGED (###OR###SP)	7.220E-03	.000E+00	PMS	.000E+00	7.22E-03	.00E+00
SG2OR013SP	OR	FAILURE OF ORIFICE - PLUGGED (###OR###SP)	7.220E-03	.000E+00	PMS	.000E+00	7.22E-03	.00E+00
SG2OR014SP	OR	FAILURE OF ORIFICE - PLUGGED (###OR###SP)	7.220E-03	.000E+00	PMS	.000E+00	7.22E-03	.00E+00
SG2OR017SP	OR	FAILURE OF ORIFICE - PLUGGED (###OR###SP)	7.220E-03	.000E+00	PMS	.000E+00	7.22E-03	.00E+00
SG2OR018SP	OR	FAILURE OF ORIFICE - PLUGGED (###OR###SP)	7.220E-03	.000E+00	PMS	.000E+00	7.22E-03	.00E+00
SG2OR034SP	OR	FAILURE OF ORIFICE - PLUGGED (###OR###SP)	7.220E-03	.000E+00	PMS	.000E+00	7.22E-03	.00E+00
SG2OR035SP	OR	FAILURE OF ORIFICE - PLUGGED (###OR###SP)	7.220E-03	.000E+00	PMS	.000E+00	7.22E-03	.00E+00
SG2OR036SP	OR	FAILURE OF ORIFICE - PLUGGED (###OR###SP)	7.220E-03	.000E+00	PMS	.000E+00	7.22E-03	.00E+00
SG2OR037SP	OR	FAILURE OF ORIFICE - PLUGGED (###OR###SP)	7.220E-03	.000E+00	PMS	.000E+00	7.22E-03	.00E+00
SG2TF056ARI	TF	FLOW TRANSMITTER FAILURE (###T F###RI)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
SG2TF056BRI	TF	FLOW TRANSMITTER FAILURE (###T F###RI)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
SG2TF50ARI	TF	FLOW TRANSMITTER FAILURE (###T F###RI)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
SG2TF50BUF	TF	FLOW TRANSMITTER FAILURE (###T F###RI)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
SG2TL005UF	TL	LEVEL TRANSMITTER FAILURE (### TL###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
SG2TL006UF	TL	LEVEL TRANSMITTER FAILURE (### TL###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
SG2TL007UF	TL	LEVEL TRANSMITTER FAILURE (### TL###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
SG2TL008UF	TL	LEVEL TRANSMITTER FAILURE (### TL###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
SG2TL013UF	TL	LEVEL TRANSMITTER FAILURE (### TL###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00

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FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
SG2TL014UF	TL	LEVEL TRANSMITTER FAILURE (### TL###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
SG2TL017UF	TL	LEVEL TRANSMITTER FAILURE (### TL###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
SG2TL018UF	TL	LEVEL TRANSMITTER FAILURE (### TL###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
SG2TP034UF	TP	FAILURE OF PRESSURE TRANSMITTE R (###TP###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
SG2TP035UF	TP	FAILURE OF PRESSURE TRANSMITTE R (###TP###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
SG2TP036UF	TP	FAILURE OF PRESSURE TRANSMITTE R (###TP###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
SG2TP037UF	TP	FAILURE OF PRESSURE TRANSMITTE R (###TP###UF)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
SGAEP027BSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
SGAEP040BSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
SGAEP057BSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
SGAEP074BSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
SGAEP075BSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
SGBEP027BSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
SGBEP040BSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
SGBEP057BSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
SGBEP074BSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
SGBEP075BSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
SGCEP040BSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00

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FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
SGCEP250BSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
SGDEP040BSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
SGDEP250BSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
SGHL-MAN01	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-AESIPC	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-AESIPCB	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-AESIPCP	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-AESOUTA	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-AESOUTAB	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-AESOUTAP	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-AESOUTB	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-AESOUTBB	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-AESOUTBP	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-AESOUTC	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-AESOUTCB	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-AESOUTCP	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-AESOUTD	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-AESOUTDB	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00

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FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
SUB-AESOUTDP	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-APLC03	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-APLC03P	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-APLCC01	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-APLCC01B	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-APLCC01P	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-APLCC02	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-APLCC02P	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-APLCC02Y	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-APLCC03	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-APLCC03P	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-APLIPC	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-APLIPCB	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-APLIPCP	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-APLL03	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-APLL0A	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-APLL0B	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-APLL0BP	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00

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FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
SUB-APLLL01	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-APLLL01P	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-APLLL05B	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-APLLL06	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-APLLL07	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-APLLL07P	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-APLLL07Y	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-APLLL09	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-APLLL09P	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-APLLL09Y	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-APLLL0B	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-APLLL0BP	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-APLLL0D	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-APOADS83	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-BPOADS83	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-CCXSNRS1	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-CCXSNRS2	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-CPOADS83	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00

Table 26-10b (Sheet 43 of 49)

FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
SUB-DASSENS	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-DASSIND	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-DPOADS83	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-EAI1	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-EAI2	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-EAO1	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-EAO2	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-ED1EA11	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-ED1EA11B	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-ED1EA11P	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-ED1EA2	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-ED1EA2P	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-ED2EA11	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-ED2EA11B	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-ED2EA11P	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-ED2EA2	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-ED2EA2P	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-ED32HR	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00

Table 26-10b (Sheet 44 of 49)

FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
SUB-ED3EA1	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-ED3EA11	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-ED3EA11B	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-ED3EA11P	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-ED3EA11Y	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-ED3EA1B	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-ED3EA1P	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-ED3EA2	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-ED3EA2P	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-ED3EA2Y	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-EPI1	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-EPO	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-ESFOPER	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-IDAEA1	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-IDAEA1B	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-IDAEA1P	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-IDAEA2	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-IDAEA2P	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00

Table 26-10b (Sheet 45 of 49)

FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
SUB-IDBEA1	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-IDBEA1B	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-IDBEA1P	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-IDBEA2	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-IDBEA2P	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-IDBEA3	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-IDBEA3B	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-IDBEA3P	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-IDCEA1	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-IDCEA1B	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-IDCEA1P	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-IDCEA2	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-IDCEA2P	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-IDCEA3	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-IDCEA3B	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-IDCEA3P	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-IDDEA1	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-IDDEA1B	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00

Table 26-10b (Sheet 46 of 49)

FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
SUB-IDDEA1P	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-IDDEA2	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-IDDEA2P	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-MESOUTA	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-MESOUTAB	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-MESOUTAP	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-MESOUTB	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-MESOUTBB	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-MESOUTBP	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-MESOUTC	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-MESOUTCB	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-MESOUTCP	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-MESOUTD	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-MESOUTDB	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-MESOUTDP	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-MPLL01	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-MPLL01P	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-MPLL02	XX	PROBABILITY FOR SUB- BASIC EVE NTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00

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FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
SUB-MPLL03	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-MPLL04	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-MPLL04P	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-MPLL05B	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-MPLL06	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-MPLL07	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-MPLL07P	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-MPLL07Y	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-MPLL09	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-MPLL09P	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-MPLL0A	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-MPLL0B	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-MPLL0BP	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-PLSENSOR	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-SENS1	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-SENS2	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-SENS3	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-SENS4	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00

Table 26-10b (Sheet 48 of 49)

FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
SUB-SESIPC	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-SESOUTA	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-SESOUTB	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-SESOUTC	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SUB-SESOUTD	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SW2EAPD02A1SA	EA	FAILURE OF THE ANALOG INPUT BOARD (###EA####SA)	2.510E-04	.000E+00	PMS	.000E+00	2.51E-04	.00E+00
SW2EAPD02A2SA	EA	FAILURE OF THE ANALOG INPUT BOARD (###EA####SA)	2.510E-04	.000E+00	PMS	.000E+00	2.51E-04	.00E+00
SW2EAPF0011SA	EA	FAILURE OF THE ANALOG INPUT BOARD (###EA####SA)	2.510E-04	.000E+00	PMS	.000E+00	2.51E-04	.00E+00
SW2EAPF0012SA	EA	FAILURE OF THE ANALOG INPUT BOARD (###EA####SA)	2.510E-04	.000E+00	PMS	.000E+00	2.51E-04	.00E+00
SW7EP006ASA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
SW7EPCTFASA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
SW7EPCTFBSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
SW7EPSBPASA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
SW7EPSBPBSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
SW7EPV037BSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
SWATP002RY	TP	PRESSURE TRANSMITTER YEARLY FAILURE (###TP###RY)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
SWB-MAN02	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SWB-MAN02N	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00

Table 26-10b (Sheet 49 of 49)

FAULT TREE BASIC EVENTS FOR THE I&C SUBSYSTEM

FT IDENT	COMP	FAILURE MODE	FAIL RATE	VARIANCE	SOURCE	TIME	PROBABILITY	VARIANCE
SWN-MAN01	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SWN-MAN01N	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
SWNTP001RI	TP	FAILURE OF PRESSURE TRANSMITTER (###TP###RI)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
TC2EATCSP1SA	EA	FAILURE OF THE ANALOG INPUT BOARD (###EA####SA)	2.510E-04	.000E+00	PMS	.000E+00	2.51E-04	.00E+00
TC2EATCSP2SA	EA	FAILURE OF THE ANALOG INPUT BOARD (###EA####SA)	2.510E-04	.000E+00	PMS	.000E+00	2.51E-04	.00E+00
TC6EPTCPBSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
TCB-MAN01	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
TCNTF109ARI	TF	FLOW TRANSMITTER FAILURE (###TF###RI)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
TCNTF109BRI	TF	FLOW TRANSMITTER FAILURE (###TF###RI)	5.230E-03	.000E+00	PMS	.000E+00	5.23E-03	.00E+00
VLN-MAN01	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
VLX-ANLYZ	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
VW2EPTRBSA	EP	FAILURE OF THE POWER INTERFACE BOARD (###EP####SA)	1.710E-04	.000E+00	PMS	.000E+00	1.71E-04	.00E+00
VWN-MAN01	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00
ZON-MAN01	XX	PROBABILITY FOR SUB- BASIC EVENTS	1.000E-01	.000E+00	SUB-	.000E+00	1.00E-01	.00E+00

Table 26-11 (Sheet 1 of 3)

ASSUMED LIST OF I&C INSTRUMENTATION

Parameter	Channel	Sensor	Instr. Lines
Steam Generator 1 Narrow Range Level	1 2 3 4	SG1TL001UF SG1TL002UF SG1TL003UF SG1TL004UF	SG1OR001SP SG1OR002SP SG1OR003SP SG1OR004SP
Steam Generator 2 Narrow Range Level	1 2 3 4	SG2TL005UF SG2TL006UF SG2TL007UF SG2TL008UF	SG2OR005SP SG2OR006SP SG2OR007SP SG2OR008SP
Steam Generator 1 Startup Feedwater Flow	1 2	SG1TF055ARI SG1TF055BRI	
Steam Generator 2 Startup Feedwater Flow	1 2	SG2TF056ARI SG2TF056BRI	
Steam Generator 1 Wide Range Level	1 2 3 4	SG1TL011UF SG1TL012UF SG1TL015UF SG1TL016UF	SG1OR011SP SG1OR012SP SG1OR015SP SG1OR016SP
Steam Generator 2 Wide Range Level	1 2 3 4	SG2TL013UF SG2TL014UF SG2TL017UF SG2TL018UF	SG2OR013SP SG2OR014SP SG2OR017SP SG2OR018SP
Core Makeup Tank A Level Switch	1 2 3 4	PXAVS011UF PXAVS013UF PXAVS015UF PXAVS017UF	
Core Makeup Tank B Level Switch	1 2 3 4	PXBVS012UF PXBVS014UF PXBVS016UF PXBVS018UF	
Core Makeup Tank Signal	1 2 3 4	CMT-SENS1-FAIL CMT-SENS2-FAIL CMT-SENS3-FAIL CMT-SENS4-FAIL	
Safety Injection Signal	1 2 3 4	S-SIG-SENS1-FAIL S-SIG-SENS2-FAIL S-SIG-SENS3-FAIL S-SIG-SENS4-FAIL	

Table 26-11 (Sheet 2 of 3)

ASSUMED LIST OF I&C INSTRUMENTATION

Parameter	Channel	Sensor	Instr. Lines
Condensate Pump Flow		CDNTF01BRI	
Steam Generator 1 Feedwater Wide Range Flow		SG2TF50ARI	
Steam Generator 2 Feedwater Wide Range Flow		SG1TF51ARI	
Steam Generator 1 Steam Line Pressure	1 2 3 4	SG1TP030UF SG1TP031UF SG1TP032UF SG1TP033UF	SG1OR030SP SG1OR031SP SG1OR032SP SG1OR033SP
Steam Generator 2 Steam Line Pressure	1 2 3 4	SG2TP034UF SG2TP035UF SG2TP036UF SG2TP037UF	SG2OR034SP SG2OR035SP SG2OR036SP SG2OR037SP
Steam Generator 1 Feedwater Narrow Range Flow		SG2TF50BUF	
Steam Generator 2 Feedwater Narrow Range Flow		SG1TF51BUF	
Containment Pressure	1 2 3 4	PC1TP005UF PC2TP006UF PC3TP007UF PC4TP008UF	
Pressure Level	1 2 3 4	RC1TL195UF RC2TL196UF RC3TL197UF RC4TL198UF	RC1OR195SP RC2OR196SP RC3OR197SP RC4OR198SP
Differential Pressure Transmitter		SWATP002RY	
Pressure Transmitter		SWNTP001RI	
Undervoltage Relay		EC1RE27BGA	
IRWST Level	1 2 3 4	IW1TL045UF IW2TL046UF IW3TL047UF IW4TL048UF	

Table 26-11 (Sheet 3 of 3)

ASSUMED LIST OF I&C INSTRUMENTATION

Parameter	Channel	Sensor	Instr. Lines
Component Cooling water System Pump Discharge Flow		CCNTF101RI	
Instrument Air Pressure Signal		CANTP011RI	
Diesel Generator 1 Undervoltage Relay		EC1REDG1GA	
Diesel Generator 2 Undervoltage Relay		EC1REDG2GA	
Heat Exchanger ME01A Flow		TCNTF109ARI	
Heat Exchanger ME01B Flow		TCNTF109BRI	
Reactor Coolant Pump 1A Bearing Water Temperature	1 2 3 4	RCATE211UF RCATE212UF RCATE213UF RCATE214UF	
Reactor Coolant Pump 1B Bearing Water Temperature	1 2 3 4	RCATE215UF RCATE216UF RCATE217UF RCATE218UF	
Reactor Coolant Pump 2A Bearing Water Temperature	1 2 3 4	RCATE221UF RCATE222UF RCATE223UF RCATE224UF	
Reactor Coolant Pump 2B Bearing Water Temperature	1 2 3 4	RCATE225UF RCATE226UF RCATE227UF RCATE228UF	
Pressurizer Pressure	1 2 3 4	RCNTP191UF RCNTP192UF RCNTP193UF RCNTP194UF	RCNTP195UF RCNTP196UF RCNTP197UF RCNTP198UF