WNP-2 SIMULATOR CERTIFICATION
NRC FORM 474 SUPPORTING DOCUMENTATION

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
DOCKET NO. 50-397
DECEMBER 7, 1994

NRC FORM 474 SUPPORTING DOCUMENTATION
WNP-2 SIMULATOR CERTIFICATION
WASHINGTON PUBLIC POWER SUPPLY SYSTEM

TABLE OF CONTENTS

APPENDICES

1. INTRODUCTION

This report is submitted in accordance with Title 10, Code of Federal Regulations, part 55.45 and Regulatory Guide 1.149. The report provides the information prescribed by Appendix A of the American National Standards Institute/American Nuclear Society Standard, ANSI/ANS-3.5 (1985), "Nuclear Power Plant Simulators for Use in Operator Training". Its purpose is to provide supporting documentation to substantiate our submittal of NRC Form 474 "Simulation Facility Certification" for the Washington Public Power Supply System's (Supply System) Nuclear Plant No.2 (WNP-2) Operator Training Simulator.

The ANS 3.5 (1985) was used versus the ANS 3.5 (1993) due to the new standard not referenced by NUREG 1258, 10CFR55, nor Regulatory Guide 1.149.

1.1 Certification Approach

This certification submittal documents the performance of the WNP-2 simulator to be placed in service January 1995 at the Supply System. The Training facility is a plant-referenced simulator designed to meet all known and anticipated requirements. Its design documentation and configuration managed system will also permit the Supply System to maintain its fidelity to changes in the reference plant.

The Supply System has recognized that its simulator has some limitations in its fidelity to the reference plant. These differences are delineated in this submittal. The Supply System has assessed the impacts of these differences in meeting its training objectives and examinations requirements. This has resulted in a continuing program of upgrades for differences that affect training. The Supply System has identified compensatory training requirements for instances in which the simulator fidelity significantly impacts training or examination scenarios.

The differences in correlation between the simulator and reference plant were determined to be of two categories:

1. Exceptions to the ANSI/ANS-3.5 (1985) Standard - these differences are founded in the physical scope of the simulator hardware and the range of simulated system operation.
2. Upgrades and Corrections - these differences represent all exceptions for which priority has been established to correct the identified discrepancies. The criterion for this category is that the exception requires correction to meet training or examination plans using this simulator. These discrepancies are planned for correction consistent with the requirements of 10 CFR 55.45 (b)(4)(i).

1.2 Simulator Application

The training program administrative procedures and technical support procedures ensure that licensee examinations and associated training are fully compliant with 10 CFR 55.45 requirements and associated guidelines. The scope, design, and operation of the simulator are for the specific support of the training tasks used on the WNP-2 simulator for license operator training and testing.

Simulator training is structured around scenarios that include clearly defined learning objectives based on job task analysis. Training materials based on those requirements are systematically compared to plant modifications, Licensee Event Reports, Significant Operating Experience Reports and changes to procedures.

The simulator is intended to fully meet all known or anticipated requirements as well as substantiate the Supply System's commitment to quality training. It is the Supply System's intent to fully support its training program by making the most effective use of the simulator.

2.0 SIMULATOR INFORMATION

This section of the WNP-2 Simulator Certification provides general information about the WNP-2 replacement simulator and reference plant, summarizes the comparison made between the simulator and reference plant's physical attributes, instrumentation, and environment and discusses the available instructor interface features. The use of the reference plant's operating procedures in the simulator is also addressed.

2.1 General Information

The following general information is provided as reference and for familiarization with the WNP-2 replacement simulator:

2.1.1 Owner/Operator/Manufacturer

The WNP-2 simulator is owned and operated by the Washington Public Power Supply System, a municipal corporation and joint operating agency of the State of Washington. The simulator is located at the Supply System's Plant Support Facility, approximately one mile from the reference plant. The Supply System address is:

Washington Public Power Supply System
P.O. Box 968
3000 George Washington Way
Richland, WA 99352-0968

The WNP-2 simulator was manufactured by Westinghouse at their Monroeville Pennsylvania site.

2.1.2 Reference Plant/Type/Rating

The WNP-2 power generating station (plant) is the designated reference plant for the WNP-2 operator training simulator. WNP-2 is a 1145 MWe/3323 MWt General Electric boiling water reactor (BWR-5) with a Mark II containment. WNP-2 began commercial operations in December 1984.

2.1.3 Date Available For Training

The simulator will be available for operator training in January 1995.

2.1.4 Type of Certification Report

This is the initial Simulator Certification Report for the WNP-2 simulator, which is a plant-specific simulator for the WNP-2 power generating station.

2.2 Control Room Physical Fidelity

The WNP-2 simulator consists of a full scale replica of significant portions of the WNP-2 plant's main control room with front panel devices fully functional. This replica is driven by a computer complex such that the visual/audible characteristics of the plant control room are reproduced for a given operating condition. The physical scope of the plant-referenced simulator was reviewed in accordance with Section 3.2 of ANSI/ANS 3.5 - 1985.

2.2.1 Control Room Physical Arrangement

The physical location of simulated panels as well as other control room equipment (e.g. desks and cabinets) was compared to the WNP-2 control room as part of this assessment. The identification of simulated panels is shown in Appendix A, Figure A-1, "WNP-2 Simulator Scope".
The figure also provides equipment lists which identify major panels and items on panels included in the simulator's scope of simulation.

The simulator has, for those panels in its current scope, retained a one-to-one relationship except as noted in the exceptions per Section 5 of this report. Those control room panels included in the simulator scope have been compared to the plant control room and an evaluation performed for training impact based on normal plant evolutions and for responding to malfunctions listed in ANSI/ANS 3.5 (1985) Section 3.1.2.

Panels not included in the simulator were evaluated for impact to training. It is recognized that the physical scope of the simulator does not include all control room back panels. The area of back panel simulation required to support operator training relative to the use for all plant procedures as well as the trainees' ability to monitor all of the controls within the area of operator responsibility was addressed as part of this assessment.

2.2.2 Panels and Equipment

Physical fidelity of the controls and simulated panels per ANSI/ANS 3.5 (1985) Section 3.2.2 has been verified against current photographs taken in October 1993 of actual panels in the WNP-2 control room. Design changes to the plant which physically affect the simulator have been identified in an ongoing process where changes which affect simulated panels and controls are classified as to their training impact. Differences between the simulator and the reference plant are evaluated, cataloged, entered and tracked in the simulator's Configuration Management System.

2.2.3 Simulator Control Room Environment

The verification of the simulator's fidelity to the WNP-2 control room included a comparison of the physical environment. The comparison criteria includes color, console arrangement, physical furnishings, lighting as well as the audible background. Deficiencies in the category are assessed in the same manner for training impact.

2.2.4 Systems

The simulator provides a simulated system scope consistent with the scope of the panels and controls included in the simulator. Certain systems which would not, by plant procedure, be observed and/or controlled by plant operators are not simulated or are simulated partially. Simulator performance testing has identified discrepancies in simulated systems responses which are are identified as items to be corrected. (See Section 3.3 for details)

2.3 Instructor Control Features

The WNP-2 instructor interface consists of instructor control and monitoring equipment located in an elevated station overlooking the simulator floor. The room permits viewing of the main simulator control area through tinted windows. Observation is further enhanced by use of audio/ video equipment which provides the capability to record activities at the panels. The current instructor station has a full set of features summarized as follows:

2.3.1 Initial Conditions

The simulator can support one hundred twenty (120) IC's or "snapshots" of plant conditions. Thirty-five (35) IC's are reserved for training use and are password protected. An additional twenty-five (25) IC's are for general use and sixty (60) IC's are for use with the "backtrack" feature. The IC's include a variety of operating conditions and fission product poison concentrations. Attachment C-1 of Appendix C is a list of the current IC's used in the simulator.

2.3.2 Malfunctions

Forty (40) malfunctions may be "active" or available for use in the simulator at any given time. Where operator actions are a function of the degree of severity of the malfunction, the malfunction has adjustable values and ramp times to final value of such a range to represent the plant malfunction condition. Malfunctions may be activated as groups or individually. They can be activated by remote device, time delay trigger, console keyboard or by a combination of conditional simulator events called conditional triggers. These alternate approaches to initiate malfunctions effectively eliminate any cues to trainees that a malfunction has been introduced into the simulation. All malfunctions are easily inserted, controlled, and removed using the available instructor station functions.

2.3.3 Items Outside the Control Room

The simulator provides realism as required for training in selected operator interfaces to systems and components outside the control room. The simulator includes a communications system which allows instructors to communicate with trainees just as control room operators would communicate with equipment operators using telephones, radios and the Plant Communication Network. In addition the Emergency NRC communication phone system is installed. The simulator also includes remote and alternate remote shutdown panels, located separately from the simulator.

2.3.4 Additional Special Instructor/Training Features

The WNP-2 simulator includes capabilities to freeze simulation, run simulation in slower than real time, fast time, and backtrack. The "fast" function can be used to change the rate of xenon buildup or turbine warm-up by a factor from 1 to 10 times real time. Parameters identified for performance testing are obtainable in hard copy either as plots or printouts. Plots are available through either the Simulator Performance Verification System, at a resolution of up to model calculation rates, via Parameter Trending, and from a strip chart recorder. The instructor station also has the capability of alerting the instructor when an evolution has proceeded beyond the design limits of the plant. Selected parameters are monitored and when simulator operating limits are exceeded a message is provided to the instructor.

2.4 Operating Procedures for Reference Plant

The procedures used in the simulator are controlled copies of the WNP-2 reference plant procedures. All procedures and reference documentation in the simulator control room is maintained at the same revision level as available in the reference plant control room. Plant procedure deviations are implemented as they occur to ensure the Simulator procedures are identical to those utilized in WNP-2 Control Room. Simulator certification tests were conducted using revisions of procedures current to the date the tests were conducted.

3. SIMULATOR DESIGN DATA

The simulator's design configuration and performance are correlated to the reference plant control room's configuration and the plant's performance. The simulator's design is controlled, documented, and maintained in accordance with ANSI/ANS-3.5 (1985). This information is available via the simulator's Configuration Management System (CMS).

3.1 Design Basis

Information used as the basis for the simulator's design includes the WNP-2 reference plant design documentation and simulator design documentation.

Reference plant design documentation includes all drawings, reports, manuals, calculations, test data and operating records which describe the reference plant configuration and performance. These documents are controlled external to the simulator organization.

Simulator design documentation reflects the configuration of the simulator.

This documentation includes computer software and model documentation, simulator hardware and physical configuration information, updated design data, and completed changes to the simulator. These documents are controlled by the simulator organization.

3.2 Update Information

Modifications to plant configuration are reviewed for applicability to the simulator. When changes occur in the plant configuration, they are reviewed for impact on simulator training and evaluation scenario's.

The simulator's design basis is established, maintained, and tracked by use of the simulator's CMS. Design basis and update/status information is available through the CMS system. Documents identified in the CMS are available in hardcopy.

3.3 Simulator Discrepancy Resolution and Upgrading

The simulator fidelity will be maintained on the basis of evaluating plant change packages, determining the effect of the change on the conduct of training, incorporating changes where appropriate and then maintaining this change in the simulator's scope. Information about planned or implemented engineering changes to the plant is reviewed using established criteria and processes. Required modifications to the simulator are documented as Trouble Reports (TR's) and are used as the basis for all simulator updates and modification. Other sources which may result in simulator TR's include feedback from students and instructors, certification testing, and external information, such as industry events. Outstanding TR's are prioritized and assigned for resolution. Completed TR's are checked and validated, by testing. Each is initiated and processed through analysis, implementation and validation by established instructions.

The testing and validation program conducted in accordance with the simulator's certification also identified additional discrepancies. These discrepancies have been either corrected and retested via the TR process in advance of this submittal or are represented by outstanding TR's.

All outstanding TRs have been reviewed, assessed for resolution priority and are automatically tracked in the simulator's Configuration Management System..

Outstanding Plant Changes not implemented into the simulator at the time of this certification submittal will be evaluated and incorporated into the simulator update design data base within 18 months, and the modification will be implemented within 12 months following the annual establishment of the simulator update design data, in accordance with ANSI/ANS 3.5 (1985) items 5.2 and 5.3.

4. PERFORMANCE VERIFICATION

The entire set of tests described in this section were performed for this initial certification. The simulator performance tests are divided into the four recommended categories in Appendix A of ANSI/ANS-3.5 (1985). This suggested format is followed with a further sub-division in the second of the categories:

(1) Computer Real-Time Verification
(2) Steady State and Normal Operations
  a) Normal Plant Evolutions
  b) Steady State Operation
(3) Transient Performance
(4) Plant Malfunctions

4.1 Simulator Tests

The performance tests conducted for certification were developed to address the specific requirements of ANSI/ANS-3.5 (1985). To assure that the tests provided adequate coverage of the requirements, a cross reference between the tests and requirements was prepared. This cross-index is provided as Attachment D-1 in Appendix D.

Operational Review Summaries have been prepared for each of the tests conducted for this certification submittal. These test abstracts provide a description of each test including a brief overview of the results. The test category, identification number and the test title is on each abstract as well as the initial and final condition of the test. Each Summary also briefly describes the simulator features tested, the source of evaluation data and test results. They are provided as Attachments D-2 through D-6 in Appendix D.

Where appropriate, the performance tests selected for certification are supported by analysis data which includes the plant response recorded from specific events and evolutions, Power Ascension Testing, License Event Reports, Significant Operational Event Reports, engineering analyses, the WNP-2 Final Safety Analysis Report as well as other supporting information. This baseline information is cross-indexed to test procedures and is available from the Configuration Management System (CMS) to Simulator and License Training personnel.

The test results shown on the abstract are those which existed at the time of this certification report. All identified discrepancies from these performance tests have been evaluated for potential impact to simulator training and performance evaluations.

4.1.1 Computer Real Time Verification

The simulator is monitored for real time operation through timing tests. Each of the computers in the simulator computer complex has total time execution per frame measured. The test has no effect on the simulation and runs as a background task. The simulator presently maintains acceptable real-time operation during the conduct of its assigned training and evaluation scenarios. This test is intended to verify ANSI/ANS-3.5 (1985) requirements for real-time operation. The abstract is provided as Attachment D-2 of Appendix D.

4.1.2 Normal Plant Evolutions

This series of tests demonstrates the simulator's ability to be operated over the full operating range from full power to cold shutdown and back to full power. The tests are based directly on WNP-2 operating procedures. All control board indications and alarms affected during the plant evolution are verified in the simulator.

These tests also verify the nuclear characteristics of the simulated core model. The core's response is verified against the WNP-2 cycle 8 beginning of cycle core. Flux profiles, thermal performance and flux response to core flow were also verified.

This set of tests addresses ANSI/ANS - 3.5 (1985) section 3.1.1 (1) through 3.1.1 (10) Normal Plant Evolutions. Attachment D-3 of Appendix D provides the abstracts for these tests.

4.1.3 Steady State Operation

The purpose of the tests in this category is to verify the accuracy of the simulator at steady state power levels. At various power levels, the energy balance is checked to determine that reactor power is consistent with turbine power and that there are no unknown energy losses in the simulation. Heat balance performance is compared for key parameters as identified in ANSI/ANS - 3.5 (1985) Appendix B 1.1 Steady State Performance. Steady state stability is also verified here. Abstracts of test results are provided in Attachment D-4 of Appendix D. Additionally a listing of Simulator Critical Parameters evaluated during performance of Steady State Accuracy testing is provided in Attachment B-1 of Appendix B.

4.1.4 Transient Performance

This series of tests are to verify that the WNP-2 simulator performs in accordance with the criteria of ANSI/ANS - 3.5 (1985) Appendix B 1.2 Transient Performance. Transients are introduced into

a stable operating condition and the effects observed and recorded. Response of the simulator is verified to be consistent with the expected response of the plant under similar conditions. Appendix D, Attachment D-5 provides abstracts for these tests.

4.1.5 Plant Malfunctions

This series of tests were performed to verify the proper response of the simulator to abnormal and emergency events. These tests are intended to verify the inherent plant response as predicted or known for the particular type of failure. The test procedures are written to specifically address each of the malfunctions listed per ANSI/ANS - 3.5 (1985) Sections 3.1.2 (1) through 3.1.2 (25). Appendix D, Attachment D-6 provides abstracts for these tests.

4.2 Quadrennial Test Schedule

Consistent with this certification, the Supply System will conduct continued testing in accordance with Regulatory Guide 1.149, Section C.5. Selected performance tests are planned annually and all others will be performed at the rate of 25% a year such that all are tested within the four year required time period.

4.2.1 Annual Testing

The tests that will be conducted annually following the submittal of Form 474 are identified in Appendix E. These tests are conducted annually as a baseline evaluation to ensure WNP-2 simulator performance will provide a consistent quality platform for Licensed Operator training and evaluations. A listing of the Annual Tests is provided in Appendix E, Attachment E-1.

4.2.2 Quadrennial Testing

The tests that will be conducted in years one through four following the Supply System's submittal of Form 474 are identified, by year, in Appendix E. These schedules represent performance of approximately 25 percent of the total tests required for certification per year. Any deletions or changes in scope or to ANSI/ANS-3.5 (1985) acceptance criteria related to these tests will be addressed by the refiling of Form 474 to reflect changes in the Supply System's plans. A listing of Quadriennal Tests is provided in Appendix E, Attachment E-1.

5. COMPLIANCE

The following section summarizes the fidelity of the simulator with respect to the applicable requirements and the endorsed standard. The Supply System's certification submittal follows the recommended guidance of ANSI/ANS-3.5 (1985) Appendix A. The information here is intended to provide a sufficient basis to exhibit that simulator fidelity to the reference plant has been assessed and simulator performance has been verified.

5.1 10 CFR 55.45 Regulatory Requirements

The Supply System takes no exception to the requirements of 10 CFR 55.45 - Operating Tests.

5.2 Regulatory Guide 1.149

The Supply System has prepared its certification to conform to the regulatory direction of U.S. NRC Regulatory Guide 1.149 - Nuclear Power Plant Simulation Facilities for Use in Operator License Examinations. As such it takes no exception to the specific guidance contained therein. The evaluations conducted in accordance with this guidance have documented a number of deficiencies with respect to the ANSI/ANS - 3.5 (1985) Standard endorsed by Regulatory Guide 1.149.

The following subsections provide a summary of the limitations of the current simulator to the certification requirements.

5.3 Exceptions to ANSI/ANS-3.5 (1985)

Exceptions to ANSI/ANS-3.5 (1985) not planned to be corrected on the simulator are summarized here. The identified exceptions that significantly affect training are identified and tracked utilizing the simulator's Configuration Management System and Compensatory Training Tracking system.

The following summary is provided to parallel applicable requirements of ANSI/ANS-3.5 (1985).

5.3.1 Simulator Capabilities

Simulator performance has been established by the conduct of performance tests per ANSI/ANS-3.5 (1985) Section 5.4 Simulator Testing. These tests were performed and the results assessed using the guidance of Section 4. - Performance Criteria, of the Standard.

5.3.2 Simulator Environment

The degree of panel simulation is shown on Figure A-1, "WNP-2 Simulator Scope" in Appendix A. The simulated and partially simulated panels are shown as highlighted.

The panels and panel sections not simulated were determined to have minor impact and did not need to be incorporated into the simulator, for one or more of the following reasons: operator actions on these panels are routine, or compensatory classroom or on-the-job training is utilized for panel manipulation instruction. This information is available from the simulator CMS.

A detailed comparison for each instrument and control on each simulator panel was made with each matching reference plant control room item. The simulator control room environment assessment identified no discrepancies that have significant training impact.

5.3.3 Systems Simulated and the Degree of Completeness

The systems included in the simulator and their functional range have been established by the capabilities required to support training and evaluations. As noted, the simulator provides a simulated system scope consistent with the scope of panel simulation.

The degree of completeness of simulation necessary to perform the reference plant evolutions described in ANSI/ANS-3.5 (1985) Sections 3.1.1 (Normal Plant Evolutions) and 3.12 (Plant Malfunctions) has been assessed as part of the test program.

5.3.4 Simulator Training Capabilities

The current instructor station has all the capabilities required by Section 3.4 of ANSI/ANS-3.5 (1985). Simulator Initial Conditions, Local Operator Actions, Malfunctions, and an overview of the scope of Component Level Failures are listed in Appendix C, items C-1, C-2, C-3, and C-4 respectively.

5.3.5 Simulator Design Control

The Supply System takes no exceptions to the requirements of Sections 5.1 Simulator Design Data and 5.2 Simulator Update Design Data of ANSI/ANS-3.5 (1985). The simulator's design information is controlled and maintained to provide for the correlation of the simulators physical configuration and performance to the reference plant.

Outstanding plant changes not implemented into the simulator at the time of this certification submittal will be incorporated into the simulator update design data base within 18 months and the modification will be implemented within 12 months following the annual establishment of the simulator update design data, in accordance with ANS 3.5 (1985) items 5.2 and 5.3.

Those Plant Modification Requests (PMR's) which are determined to impact scheduled training will have (TR's) written. These TR's will in turn be evaluated for Compensatory Training requirements and documented via the CMS.

PMR's may also be deferred and will not be implemented on simulator. Although having an impact on physical fidelity and/or training, either 1) require excessive resources or materials to implement and other training measures are used to compensate or 2) the PMR has minor or no impact on current or planned training.

5.4 Upgrades and Corrections

All outstanding TR's were evaluated for their impact in a manner similiar to that described above for PMR's. TR's are planned to be implemented as training schedules and priorities dictate. The priority for making these corrections will be determined based on the need to meet ongoing training requirements. Open TR's include discrepancies identified from certification testing and reviews.

All TR's will be evaluated for compensatory training requirements and documented via the CMS. The identified compensatory training requirements will be approved with access provided to simulator instructors along with the paralleled administrative instructions for their use.

APPENDIX A

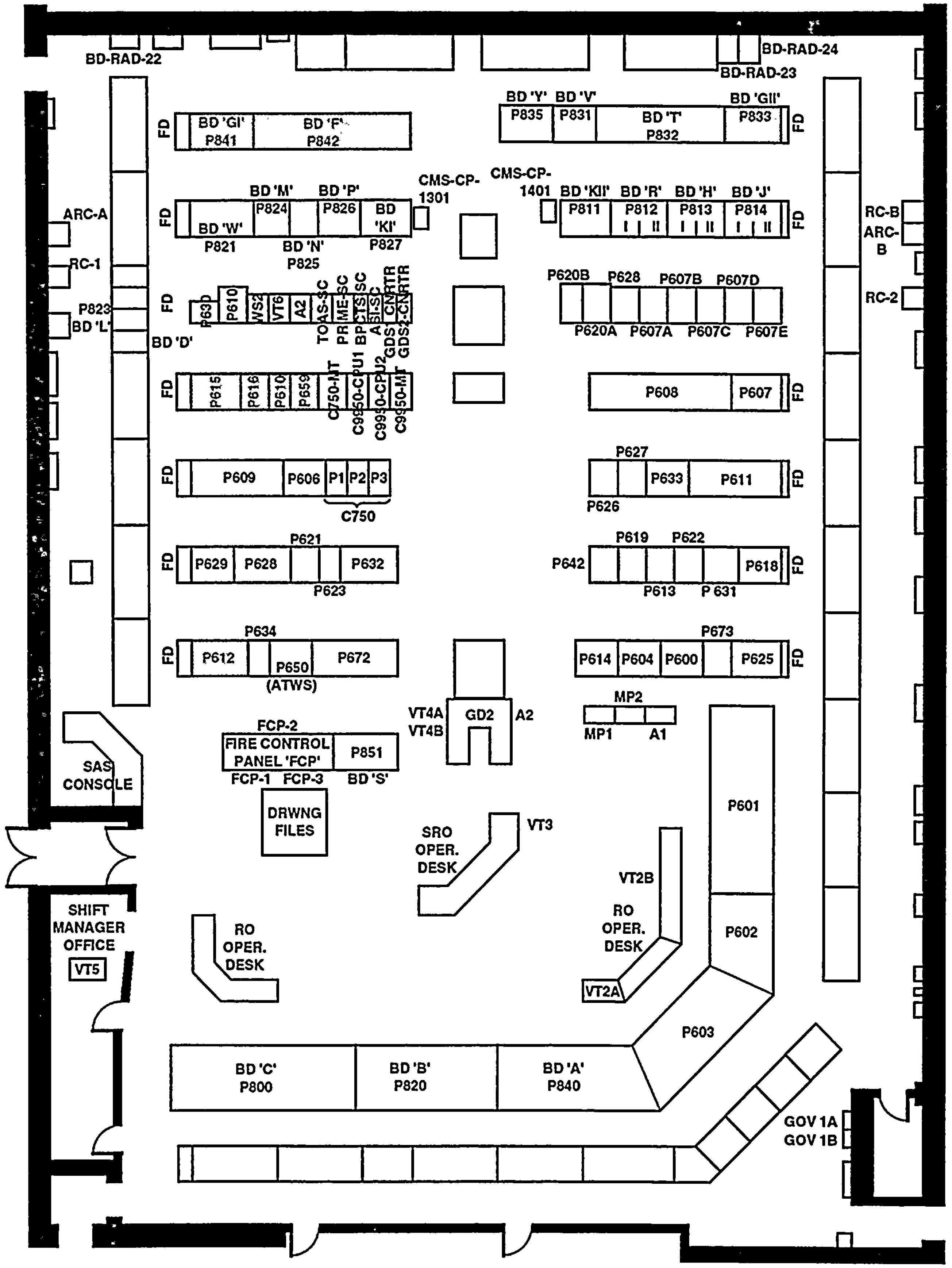
WASHINGTON PUBLIC POWER SUPPLY SYSTEM

SIMULATOR SCOPE DIAGRAMS

Figure A-1 WNP-2 Simulator Scope

WNP-2 SIMULATOR SCOPE

Main Control Room



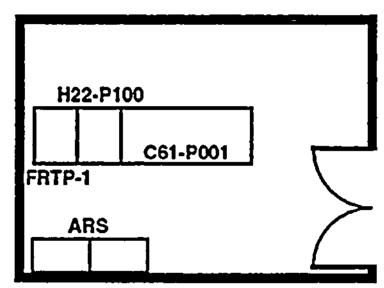
Equipment List

IDENT.	DESCRIPTION
C750-GDS1-TP	TOUCH PAD DISPLAY
C750-GDS1-CRT	CATHODE RAY TUBE DISPLAY
C70-GDS2-TP	TOUCH PAD DISPLAY
C70-GDS2-CRT	CATHODE RAY TUBE DISPLAY
VT2 TO VT5	PPCRS COLOR GRAPHIC TERMINALS
PPCRS-A1&A2	PPCRS ALARM PRINTERS
H22-P100	REMOTE SHUTDOWN
C61-P001	REMOTE SHUTDOWN
ARC-A	RELAY CABINET
RC-1	RELAY CABINET
RC-B	RELAY CABINET
ARC-B	RELAY CABINET
RC-2	RELAY CABINET
H13-P659	ROD SEQUENCE CONTROL SYSTEM
C750-GD2	GRAPHIC DISPLAY TERMINAL 2
C750-MP1	MATRIX PRINTER
C750-MP2	MATRIX PRINTER
FRTP-1	FIRE REMOTE TRANSFER PANEL
BOARD 'A'	BENCHBOARD
BOARD 'B'	BENCHBOARD
BOARD 'C'	BENCHBOARD
BOARD 'D'	TEMPERATURE SCANNER
BOARD 'F'	GEN & TRANSF. PROTECTION
BOARD 'H'	CONTAINMENT VENT & PURGE
BOARD 'J'	CONTAINMENT MONITOR SYSTEM
BOARD 'KI'	SGT TRAIN A & CAC DIV 1
BOARD 'KII'	SGT TRAIN B & CAC DIV 2
BOARD 'L'	STRONG MOTION RECORDR/MET RECD
BOARD 'M'	TMU / COOLING TOWER SYSTEMS
BOARD 'N'	RCC / SW SYSTEMS
BOARD 'P'	CONTROL ROOM HVAC
BOARD 'R'	REACTOR / RADWASTE BLDG HVAC
BOARD 'S'	ISOLATION VALVE & STAT LT DSPLY
BOARD 'T'	FEEDER WTR & HTRBYPASS DSPLY
BOARD 'W'	MNSTREAM LEAKAGE CRNTL SYSTEM. CNTRLS.
BOARD 'V'	WETWELL MONITOR
BOARD 'Y'	FEEDWATER HTR LVL CONTOL
BOARD 'GI'	ANALOG I
BOARD 'GII'	ANALOG II

Equipment List Continued

IDENT.	DESCRIPTION
P600	PROCESS RADIATION MONITORS
P601	BENCHBOARD
P602	BENCHBOARD
P603	BENCH BOARD
P604	PROCESS RADIATION MONITORS
P606	RPS-A / RADIATION MONITOR
P607	TIP CONTROL & MONITOR
P608	POWER RANGE NEUTRON MONITOR
P609	TRIP SYSTEM 'A' RPS
P610	ROD TEST
P611	TRIP SYSTEM 'B' RPS
P612	PROCESS INSTRU.
P613	PROCESS INSTRUMENTATION
P614	PROCESS MISC. MONITORS
P615	CONTROL ROD POSITION
P616	ROD DRIVE
P618	DIVISION II RHR PUMPS 'B' & 'C'
P619	JET PUMP INSTRUMENTATION
P621	REACTOR CORE ISOLATION COOLANT
P622	INBOARD ISOLATION VALVES
P623	OUTBOARD ISOLATION VALVES
P625	HIGH PRESSURE CORE SPRAY
P626	DIV. I FUEL POOL COOLING FPC-1
P627	DIV. II FUEL POOL COOLING FPC-2
P628	AUTOMTC DEPRESSURIZATION SYSTEM 'A'
P629	DIVISION I LPCI & RHR PUMP'A'
P631	AUTOMTC DEPRESSURIZATION SYSTEM 'B'
P632	DIVISION I LEAK DETECTION
P633	RPS-B / RADIATION MONITOR
P634	RECIRCULATION CONTROL
P642	DIVISION II LEAK DETECTION
P650	ATWS (AUTOMATIC TRIP WITHOUT SCRAM)
P672	OFF GAS
P673	AREA RADIATION MONITORING
RFT GOV 1A,B	REACTOR FEED PUMP TURB CNTRL PNL
FCP	FIRE CONTROL PANEL
FD	BOARD FIRE PROTECTION CABINET
ARS	ALTERNATE REMOTE SHUTDOWN PANEL
CP-1301	H2/O2 MONITOR
CP-1401	H2/O2 MONITOR

Remote Shutdown Room



LEGEND:

PARTIAL PANEL SIMULATED

FULL SCOPE SIMULATION

ANSTEC APERTURE CARD

Also Available on Aperture Card

Figure A-1

9501040182-01

920436.2
DECEMBER 1994

APPENDIX B

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

STEADY STATE OPERATION

Attachment B-1 Critical Parameter Listing

APPENDIX B
ATTACHMENT B-1

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

CRITICAL PARAMETERS LISTING

Description	Software Name	Device
RPV FUEL ZONE	LMS:044A	MS-LR-615R
APRM POWER CH A	SNISAMTR(1)	APRM-LI-603A
APRM POWER CH B	SNISAMTR(2)	APRM-LI-603B
APRM POWER CH C	SNISAMTR(3)	APRM-LI-603C
APRM POWER CH D	SNISAMTR(4)	APRM-LI-603D
APRM POWER CH E	SNISAMTR(5)	APRM-LI-603E
APRM POWER CH F	SNISAMTR(6)	APRM-LI-603F
GENERATOR LOAD	TG:00MW	DEH-RI-M06
MAIN TURB 1ST STG PRESS	PMS:020B	MS-PI-20B
TOTAL STEAM FLOW	WFWCST	RFW-FR-607R
TOTAL FEED FLOW	WFWCFT	RFW-FR-607G
STEAM FLOW LINE A	PRF:803A	RFW-FI-603A
STEAM FLOW LINE B	PRF:803B	RFW-FI-603B
STEAM FLOW LINE C	PRF:803C	RFW-FI-603C
STEAM FLOW LINE D	PRF:803D	RFW-FI-603D
RPV NR LEVEL	PRF:004A	RFW-LR-608
RPV WR LEVEL	BRRS51AR	MS-LRPR623A
RPV WR LEVEL	BRRS51BR	MS-LRPR623B
RP PRESSURE WR	PMS:005	RFW-PI-605
TOTAL CORE FLOW	WRRS613	MS-FR-613R
RECIRC LOOP A FLOW	WNISFA(1)	RRC-FR-614R
RECIRC LOOP B FLOW	WNISFB(1)	RRC-FR-614G
RECIRC LOOP A SUCT TEMP	TRR:023A	RRC-TR-650R
RECIRC LOOP B SUCT TEMP	TRR:023B	RRC-TR-650G
DRYWELL PRESSURE NR	PCM:007	CMS-PR-1R
DRYWELL PRESSURE NR	PCM:008	CMS-PR-2R
DRYWELL PRESSURE WR	PCM:001	CMS-PR-1G
DRYWELL PRESSURE WR	PCM:002	CMS-PR-2G
DRYWELL AVE TEMP WR	TPCNDSUM(1)	CMS-TR-5-110
DRYWELL AVE TEMP WR	TPCNDSUM(2)	CMS-TR-6-128
SUPPRESSION POOL LVL WR	LCM:006A	CMS-LR-3G
SUPPRESSION POOL LVL WR	LCM:006B	CMS-LR-4R

APPENDIX B
ATTACHMENT B-1

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

CRITICAL PARAMETERS LISTING

Description	Software Name	Device
SUPPRESSION POOL TEMP	TPCNI41R	CMS-TI-41AR
SUPPRESSION POOL TEMP	TPCNI43R	CMS-TI-43R
SUPPRESSION POOL PRESS	PCM:004	CMS-PR-4R
SUPPRESSION POOL PRESS	PCM:003	CMS-PR-3R
CONDENSER VACUUM	PMS:008A	MS-PI-8A
CONDENSER VACUUM	PMS:008B	MS-PI-8B
CONDENSER VACUUM	PMS:008C	MS-PI-8C
REACTOR PRESSURE NR	PMS:808	MS-PR/FR-609
MAIN TURB GOV VLV POS	RDEHGV(1)	MS-V-GV/1
MAIN TURB GOV VLV POS	RDEHGV(2)	MS-V-GV/2
MAIN TURB GOV VLV POS	RDEHGV(3)	MS-V-GV/3
MAIN TURB GOV VLV POS	RDEHGV(4)	MS-V-GV/4
MAIN TURBINE SPEED	MTG:00SD	DEH-RI-M05
RFP SPEED	MFT:001A	RFT-SI-1A
RFP SPEED	MFT:001B	RFT-SI-1B
RFP SUCT PRESSURE	PCD:028A	COND-PI-28A
RFP SUCT PRESSURE	PCD:028B	COND-PI-28B
RFP DISCH PRESSURE	PRF:001A	RFW-PI-1A
RFP DISCH PRESSURE	PRF:001B	RFW-PI-1B
CBP DISCH PRESSURE	PCD:016	COND-PI-16
MAIN STEAM LINE RAD	ERMSJMI(1)	MS-RIS-601A
MAIN STEAM LINE RAD	ERMSJMI(2)	MS-RIS-601B
MAIN STEAM LINE RAD	ERMSJMI(3)	MS-RIS-601C
MAIN STEAM LINE RAD	ERMSJMI(4)	MS-RIS-601D
MSIV VLV POSITION	RMSH022A	MS-V-22A
MSIV VLV POSITION	RMSH022B	MS-V-22B
MSIV VLV POSITION	RMSH022C	MS-V-22C
MSIV VLV POSITION	RMSH022D	MS-V-22D
MSIV VLV POSITION	RMSH028A	MS-V-28A
MSIV VLV POSITION	RMSH028B	MS-V-28B
MSIV VLV POSITION	RMSH028C	MS-V-28C
MSIV VLV POSITION	RMSH028D	MS-V-28D

APPENDIX B
ATTACHMENT B-1

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

CRITICAL PARAMETERS LISTING

Description	Software Name	Device
SCRAM DISCH VOLUME	LRD:012A	CRD-LI-601A
SCRAM DISCH VOLUME	LRD:P12B	CRD-LI-601B
SCRAM DISCH VOLUME	LRD:012C	CRD-LI-601C
SCRAM DISCH VOLUME	LRD:012D	CRD-LI-601D
RX BLDG VENT HI RAD	ERMSAPMI(2)	REA-RIS-609A
RX BLDG VENT HI RAD	ERMSAPMI(3)	REA-RIS-609B
RX BLDG VENT HI RAD	ERMSAPMI(4)	REA-RIS-609C
RX BLDG VENT HI RAD	ERMSAPMI(5)	REA-RIS-609D

APPENDIX C

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

INSTRUCTOR INTERFACES

Attachment C-1 Simulator Initial Conditions
Attachment C-2 Local Operator Actions
Attachment C-3 Simulator Malfunctions
Attachment C-4 Simulator Component Level Failures

APPENDIX C
Attachment C-1

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
SIMULATOR INITIAL CONDITIONS

IC	CORE AGE	TEMP (degf)	RPV PRESS (psig)	POWER (%)	DESCRIPTION
01	EOC	150	ATMOS	SRM	Ready For Startup - XE Free
02	BOC	150	ATMOS	SRM	Ready for Startup - XE Free
03	BOC	150	ATMOS	SRM	5 Rods Fm Critical
04	BOC	150	ATMOS	1-2	Heatup In Progress
05	BOC	340	100	1-2	Heatup In Progress
06	BOC	480	550	1-2	Heatup In Progress
07	BOC	535	920	1-2	Heatup In Progress
08	BOC	TSAT	PSAT	15	Turbine Ready To Latch
09	BOC	TSAT	PSAT	20	Turbine @ 1800 RDY To SYNC
10	BOC	TSAT	PSAT	11	Ready to Shift RFW-FCV-10A/B
11	BOC	TSAT	PSAT	32	Ready To Xfer RRP to 60HZ
12	BOC	TSAT	PSAT	62	100% Rod Line @ 50% Core Flow
13	BOC	TSAT	PSAT	100	100% Power/Flow
14	BOC	TSAT	PSAT	100	100% Equilibrium Power/Flow
15	BOC	TSAT	PSAT	40	RDY To Xfer RRC Pumps to 15HZ
16	BOC	TSAT	PSAT	20	S/D In Progress
17	BOC	TSAT	850	0	S/D In Progress - All Rods In
18	BOC	350	120	0	C/D In Progress
19	BOC	175	ATMOS	0	S/D Cooling In Progress
20	BOC	520	800	0	S/U In Progress @ PK Xenon
21	BOC	280	32	0	Ready to Start S/D Cooling
22	BOC	175	ATMOS	0	S/D Cooling In Progress-Low XE
23	BOC	260	20	0	Ready To Start S/D Cooling
24	BOC	100	ATMOS	0	Cold S/D - Most Systems Secured
25	MOC	100	ATMOS	0	Cold S/D - Most Systems Secured

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

SIMULATOR INITIAL CONDITIONS

continued

IC	CORE AGE	TEMP (degf)	RPV PRESS (psig)	POWER (%)	DESCRIPTION
26	MOC	540	1000	100	100% Equilibrium Power/Flow
27	EOC	100	ATMOS	0	Cold S/D - Most Systems Secured
28	EOC	540	1000	100	100% Equilibrium Power/Flow
29	EOC	125	ATMOS	0	Refueling In Progress
30	EOC	TSAT	~1000	~95	105% Core Age - Coastdown
31	EOC	120	ATMOS	0	105% Core Age - Ready For S/U XE Free
32	EOC	TSAT	850	0	S/D In Progress- All Rods In
33	EOC	467	500	0	S/D To HSD with MSIV's Closed
34	MOC	540	975	5	Heatup In Progress
35	MOC	150	ATMOS	0	Ready To Startup - XE Free

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
CAC-001	CAC	CAC-FN-1A O/C RESET
CAC-002	CAC	CAC-FN-1B O/C RESET
CAC-003	CAC	CAC-EHC-1A O/C RESET
CAC-004	CAC	CAC-EHC-1B O/C RESET
CAS-001	CAS	CAS-V-152 AIR ISOL TO SERV BLDG
CAS-002	CAS	CAS-V-153 AIR ISOL TO TUR BLDG
CAS-003	CAS	CAS-V-154 AIR ISOL TO TUR BLDG
CAS-004	CAS	CAS-V-155 AIR ISOL TO RW BLDG
CAS-005	CAS	CAS-V-151 AIR ISOL TO RX BLDG
CAS-006	CAS	CAS-V-210 N2 ISOL TO VAC BKR
CAS-007	CAS	AIR DRYER SELECT A/B
CAS-008	CAS	CAS-V-97-55 CAS ISOL TO VAC BKR
CAS-009	CAS	CAS-C-1A RESET
CAS-010	CAS	CAS-C-1B RESET
CAS-011	CAS	CAS-C-1C RESET
CAS-012	CAS	SA-C-1 COMPRESSOR START/STOP
CAS-013	CAS	CAS-C-1A O/C RESET
CAS-014	CAS	CAS-C-1B O/C RESET
CAS-015	CAS	CAS-C-1C O/C RESET
CAS-016	CAS	SA-C-1 O/C RESET
CAS-017	CAS	CN-V-761A BYPASS FOR CN-SPV-61
CAS-018	CAS	CN-V-761B ISOL FOR CN-SPV-61
CAS-019	CAS	CN-V-761C ISOLATION BOTTLE CON.
CAS-020	CAS	CN-V-765A BYPASS FOR CN-SPV-65
CAS-021	CAS	CN-V-765B ISOL FOR CN-SPV-65
CAS-022	CAS	CN-V-765C ISOL FOR BOTTLE CON.
CFW-001	CFW	COND-V-674 COND PCV-105 ISOL VLV
CFW-002	CFW	COND-V-672 COND-PCV-105 BYP VLV
CFW-003	CFW	COND-V-108 GS COND INLET VLV
CFW-004	CFW	COND-V-154 GS COND OUTLET VLV
CFW-005	CFW	COND-V-1062 FIRE WATER CROSS TIE
CFW-006	CFW	COND-V-107A CND PMP 1A DISCH VLV
CFW-007	CFW	COND-V-107B CND PMP 1B DISCH VLV
CFW-008	CFW	COND-V-107C CND PMP 1C DISCH VLV
CFW-009	CFW	COND-V-120A CND BST PMP DIS VLV
CFW-010	CFW	COND-V-120B CND BST PMP DIS VLV
CFW-011	CFW	COND-V-120C CND BST PMP DIS VLV
CFW-012	CFW	COND-V-161A SS-EV-1A LCV BP VLV
CFW-013	CFW	COND-V-161B SS-EV-1B LCV BP VLV
CFW-014	CFW	COND-V-76 CND DEMIN BP VLV
CFW-015	CFW	COND-V-12A CST-1A FILL VLV OPEN
CFW-016	CFW	COND-V-12B CST-1B FILL VLV OPEN
CFW-017	CFW	COND-V-131 CND-LCV-1A BP VLV

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
CFW-018	CFW	COND-V-170 CND-LCV-1C BP VLV
CFW-019	CFW	COND-V-612 CND-LCV-11 BP VLV
CFW-020	CFW	COND-V-147A FW PMP 1A SUCT VLV
CFW-021	CFW	COND-V-147B FW PMP 1B SUCT VLV
CFW-022	CFW	COND-V-15A CST-A DISCH ISOL
CFW-023	CFW	COND-V-15B CST-B DISCH ISOL
CFW-024	CFW	COND-V-28 RHR C FLUSH CONN
CFW-025	CFW	COND-P-3 RB COND SUPPLY PMP ON
CFW-027	CFW	NUMBER OF DEMINERALIZERS
CFW-028	CFW	AR-V-3A,3B,3C COND VAC BRKRS
CFW-029	CFW	COND-P-1A O/C RESET
CFW-030	CFW	COND-P-1B O/C RESET
CFW-031	CFW	COND-P-1C O/C RESET
CFW-032	CFW	COND-P-3 O/C RESET
CFW-033	CFW	COND-P-AOP1A O/C RESET
CFW-034	CFW	COND-P-AOP1B O/C RESET
CFW-035	CFW	COND-P-AOP1C O/C RESET
CFW-036	CFW	MD-M-1A O/C RESET
CFW-037	CFW	MD-M-1B O/C RESET
CFW-038	CFW	COND-V-9A COND-TK-1A ISOLATION
CFW-039	CFW	COND-V-9B COND-TK-1B ISOLATION
CFW-040	CFW	COND-P-2A O/C RESET
CFW-041	CFW	COND-P-2B O/C RESET
CFW-042	CFW	COND-P-2C O/C RESET
CIA-001	CIA	CIA-V-728 N2 INERT ISOL VLV
CIA-002	CIA	REFILL REMOTE STAT 1A CIA-TK-20A
CIA-003	CIA	REFILL REMOTE STAT 1B CIA-TK-2OB
CIA-004	CIA	CIA-V-104A N2 BOTTLE DISCH
CIA-005	CIA	CIA-V-104B N2 BOTTLE DISCH
CIA-006	CIA	CIA-V-740 SUP HDR DNSM BLEED ISO
CIA-007	CIA	CIA-V-741 SUPPLY HDR BLEEDOFF
CIA-008	CIA	CIA-V-739 SUP HDR UPSM BLEED ISO
CIA-009	CIA	CAS-V-98-88 CAS SUPPLY TO CIA
CRD-001	CRD	CRD-FCV-2A LOCAL VAR CTRL
CRD-002	CRD	CRD-FCV-2B LOCAL VAR CTRL
CRD-003	CRD	CRD-FCV-2A M/A SELECTOR SWITCH
CRD-004	CRD	CRD-FCV-2B M/A SELECTOR SWITCH
CRD-005	CRD	CRD-V-4 DRV WTR PRESS STA BYP
CRD-006	CRD	CRD-V-13A P-1A SUCTION
CRD-007	CRD	CRD-V-13B P-1B SUCTION
CRD-008	CRD	CRD-V-14A P-1A DISCHARGE
CRD-009	CRD	CRD-V-14B P-1B DISCHARGE
CRD-010	CRD	CRD-V-20A DRV WTR FLTR 3A INLET

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
CRD-011	CRD	CRD-V-20B DRV WTR FLTR 3B INLET
CRD-012	CRD	CRD-V-21A DRV WTR FLTR 3A OUTLET
CRD-013	CRD	CRD-V-21B DRV WTR FLTR 3B OUTLET
CRD-014	CRD	CRD-V-34 CHARGING WTR HDR ISOLET
CRD-015	CRD	CRD-V-46A FCV-2A INLET ISOL VLV
CRD-016	CRD	CRD-V-46B FCV-2B INLET ISOL VLV
CRD-017	CRD	CRD-V-47A FCV-2A OUTLET ISOL VLV
CRD-018	CRD	CRD-V-47B FCV-2B OUTLET ISOL VLV
CRD-019	CRD	CRD-V-61 DRV WTR PRESS CNTRL OUT
CRD-020	CRD	CRD-V-95 SCRAM AIR HDR ISOL VLV
CRD-021	CRD	CRD-V-520 RWCU PMP MTR PURGE ISO
CRD-022	CRD	CRD-V-114 PMP SUCT FTR 10A OUTLT
CRD-023	CRD	CRD-V-115 PMP SUCT FTR 10A INLT
CRD-024	CRD	CRD-V-116 PMP SUCT FTR 10B OUTLT
CRD-025	CRD	CRD-V-117 PMP SUCT FLT 10B INLET
CRD-026	CRD	CRD-V-729 PI-13 ISOLATION
CRD-027	CRD	CRD-PI-13 VENT PLUG REMOVED
CRD-028	CRD	CRD-V-102 CR 1803 WD LINE VENT
CRD-029	CRD	CRD-V-102 CR 2203 WD LINE VENT
CRD-030	CRD	CRD-V-102 CR 2603 WD LINE VENT
CRD-031	CRD	CRD-V-102 CR 3003 WD LINE VENT
CRD-032	CRD	CRD-V-102 CR 3403 WD LINE VENT
CRD-033	CRD	CRD-V-102 CR 3803 WD LINE VENT
CRD-034	CRD	CRD-V-102 CR 4203 WD LINE VENT
CRD-035	CRD	CRD-V-102 CR 1407 WD LINE VENT
CRD-036	CRD	CRD-V-102 CR 1807 WD LINE VENT
CRD-037	CRD	CRD-V-102 CR 2207 WD LINE VENT
CRD-038	CRD	CRD-V-102 CR 2607 WD LINE VENT
CRD-039	CRD	CRD-V-102 CR 3007 WD LINE VENT
CRD-040	CRD	CRD-V-102 CR 3407 WD LINE VENT
CRD-041	CRD	CRD-V-102 CR 3807 WD LINE VENT
CRD-042	CRD	CRD-V-102 CR 4207 WD LINE VENT
CRD-043	CRD	CRD-V-102 CR 4607 WD LINE VENT
CRD-044	CRD	CRD-V-102 CR 1011 WD LINE VENT
CRD-045	CRD	CRD-V-102 CR 1411 WD LINE VENT
CRD-046	CRD	CRD-V-102 CR 1811 WD LINE VENT
CRD-047	CRD	CRD-V-102 CR 2211 WD LINE VENT
CRD-048	CRD	CRD-V-102 CR 2611 WD LINE VENT
CRD-049	CRD	CRD-V-102 CR 3011 WD LINE VENT
CRD-050	CRD	CRD-V-102 CR 3411 WD LINE VENT
CRD-051	CRD	CRD-V-102 CR 3811 WD LINE VENT
CRD-052	CRD	CRD-V-102 CR 4211 WD LINE VENT
CRD-053	CRD	CRD-V-102 CR 4611 WD LINE VENT

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
CRD-054	CRD	CRD-V-102 CR 5011 WD LINE VENT
CRD-055	CRD	CRD-V-102 CR 0615 WD LINE VENT
CRD-056	CRD	CRD-V-102 CR 1015 WD LINE VENT
CRD-057	CRD	CRD-V-102 CR 1415 WD LINE VENT
CRD-058	CRD	CRD-V-102 CR 1815 WD LINE VENT
CRD-059	CRD	CRD-V-102 CR 2215 WD LINE VENT
CRD-060	CRD	CRD-V-102 CR 2615 WD LINE VENT
CRD-061	CRD	CRD-V-102 CR 3015 WD LINE VENT
CRD-062	CRD	CRD-V-102 CR 3415 WD LINE VENT
CRD-063	CRD	CRD-V-102 CR 3815 WD LINE VENT
CRD-064	CRD	CRD-V-102 CR 4215 WD LINE VENT
CRD-065	CRD	CRD-V-102 CR 4615 WD LINE VENT
CRD-066	CRD	CRD-V-102 CR 5015 WD LINE VENT
CRD-067	CRD	CRD-V-102 CR 5415 WD LINE VENT
CRD-068	CRD	CRD-V-102 CR 0219 WD LINE VENT
CRD-069	CRD	CRD-V-102 CR 0619 WD LINE VENT
CRD-070	CRD	CRD-V-102 CR 1019 WD LINE VENT
CRD-071	CRD	CRD-V-102 CR 1419 WD LINE VENT
CRD-072	CRD	CRD-V-102 CR 1819 WD LINE VENT
CRD-073	CRD	CRD-V-102 CR 2219 WD LINE VENT
CRD-074	CRD	CRD-V-102 CR 2619 WD LINE VENT
CRD-075	CRD	CRD-V-102 CR 3019 WD LINE VENT
CRD-076	CRD	CRD-V-102 CR 3419 WD LINE VENT
CRD-077	CRD	CRD-V-102 CR 3819 WD LINE VENT
CRD-078	CRD	CRD-V-102 CR 4219 WD LINE VENT
CRD-079	CRD	CRD-V-102 CR 4619 WD LINE VENT
CRD-080	CRD	CRD-V-102 CR 5019 WD LINE VENT
CRD-081	CRD	CRD-V-102 CR 5419 WD LINE VENT
CRD-082	CRD	CRD-V-102 CR 5819 WD LINE VENT
CRD-083	CRD	CRD-V-102 CR 0223 WD LINE VENT
CRD-084	CRD	CRD-V-102 CR 0623 WD LINE VENT
CRD-085	CRD	CRD-V-102 CR 1023 WD LINE VENT
CRD-086	CRD	CRD-V-102 CR 1423 WD LINE VENT
CRD-087	CRD	CRD-V-102 CR 1823 WD LINE VENT
CRD-088	CRD	CRD-V-102 CR 2223 WD LINE VENT
CRD-089	CRD	CRD-V-102 CR 2623 WD LINE VENT
CRD-090	CRD	CRD-V-102 CR 3023 WD LINE VENT
CRD-091	CRD	CRD-V-102 CR 3423 WD LINE VENT
CRD-092	CRD	CRD-V-102 CR 3823 WD LINE VENT
CRD-093	CRD	CRD-V-102 CR 4223 WD LINE VENT
CRD-094	CRD	CRD-V-102 CR 4623 WD LINE VENT
CRD-095	CRD	CRD-V-102 CR 5023 WD LINE VENT
CRD-096	CRD	CRD-V-102 CR 5423 WD LINE VENT

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
CRD-097	CRD	CRD-V-102 CR 5823 WD LINE VENT
CRD-098	CRD	CRD-V-102 CR 0227 WD LINE VENT
CRD-099	CRD	CRD-V-102 CR 0627 WD LINE VENT
CRD-100	CRD	CRD-V-102 CR 1027 WD LINE VENT
CRD-101	CRD	CRD-V-102 CR 1427 WD LINE VENT
CRD-102	CRD	CRD-V-102 CR 1827 WD LINE VENT
CRD-103	CRD	CRD-V-102 CR 2227 WD LINE VENT
CRD-104	CRD	CRD-V-102 CR 2627 WD LINE VENT
CRD-105	CRD	CRD-V-102 CR 3027 WD LINE VENT
CRD-106	CRD	CRD-V-102 CR 3427 WD LINE VENT
CRD-107	CRD	CRD-V-102 CR 3827 WD LINE VENT
CRD-108	CRD	CRD-V-102 CR 4227 WD LINE VENT
CRD-109	CRD	CRD-V-102 CR 4627 WD LINE VENT
CRD-110	CRD	CRD-V-102 CR 5027 WD LINE VENT
CRD-111	CRD	CRD-V-102 CR 5427 WD LINE VENT
CRD-112	CRD	CRD-V-102 CR 5827 WD LINE VENT
CRD-113	CRD	CRD-V-102 CR 0231 WD LINE VENT
CRD-114	CRD	CRD-V-102 CR 0631 WD LINE VENT
CRD-115	CRD	CRD-V-102 CR 1031 WD LINE VENT
CRD-116	CRD	CRD-V-102 CR 1431 WD LINE VENT
CRD-117	CRD	CRD-V-102 CR 1831 WD LINE VENT
CRD-118	CRD	CRD-V-102 CR 2231 WD LINE VENT
CRD-119	CRD	CRD-V-102 CR 2631 WD LINE VENT
CRD-120	CRD	CRD-V-102 CR 3031 WD LINE VENT
CRD-121	CRD	CRD-V-102 CR 3431 WD LINE VENT
CRD-122	CRD	CRD-V-102 CR 3831 WD LINE VENT
CRD-123	CRD	CRD-V-102 CR 4231 WD LINE VENT
CRD-124	CRD	CRD-V-102 CR 4631 WD LINE VENT
CRD-125	CRD	CRD-V-102 CR 5031 WD LINE VENT
CRD-126	CRD	CRD-V-102 CR 5431 WD LINE VENT
CRD-127	CRD	CRD-V-102 CR 5831 WD LINE VENT
CRD-128	CRD	CRD-V-102 CR 0235 WD LINE VENT
CRD-129	CRD	CRD-V-102 CR 0635 WD LINE VENT
CRD-130	CRD	CRD-V-102 CR 1035 WD LINE VENT
CRD-131	CRD	CRD-V-102 CR 1435 WD LINE VENT
CRD-132	CRD	CRD-V-102 CR 1835 WD LINE VENT
CRD-133	CRD	CRD-V-102 CR 2235 WD LINE VENT
CRD-134	CRD	CRD-V-102 CR 2635 WD LINE VENT
CRD-135	CRD	CRD-V-102 CR 3035 WD LINE VENT
CRD-136	CRD	CRD-V-102 CR 3435 WD LINE VENT
CRD-137	CRD	CRD-V-102 CR 3835 WD LINE VENT
CRD-138	CRD	CRD-V-102 CR 4235 WD LINE VENT
CRD-139	CRD	CRD-V-102 CR 4635 WD LINE VENT

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
CRD-140	CRD	CRD-V-102 CR 5035 WD LINE VENT
CRD-141	CRD	CRD-V-102 CR 5435 WD LINE VENT
CRD-142	CRD	CRD-V-102 CR 5835 WD LINE VENT
CRD-143	CRD	CRD-V-102 CR 0239 WD LINE VENT
CRD-144	CRD	CRD-V-102 CR 0639 WD LINE VENT
CRD-145	CRD	CRD-V-102 CR 1039 WD LINE VENT
CRD-146	CRD	CRD-V-102 CR 1439 WD LINE VENT
CRD-147	CRD	CRD-V-102 CR 1839 WD LINE VENT
CRD-148	CRD	CRD-V-102 CR 2239 WD LINE VENT
CRD-149	CRD	CRD-V-102 CR 2639 WD LINE VENT
CRD-150	CRD	CRD-V-102 CR 3039 WD LINE VENT
CRD-151	CRD	CRD-V-102 CR 3439 WD LINE VENT
CRD-152	CRD	CRD-V-102 CR 3839 WD LINE VENT
CRD-153	CRD	CRD-V-102 CR 4239 WD LINE VENT
CRD-154	CRD	CRD-V-102 CR 4639 WD LINE VENT
CRD-155	CRD	CRD-V-102 CR 5039 WD LINE VENT
CRD-156	CRD	CRD-V-102 CR 5439 WD LINE VENT
CRD-157	CRD	CRD-V-102 CR 5839 WD LINE VENT
CRD-158	CRD	CRD-V-102 CR 0243 WD LINE VENT
CRD-159	CRD	CRD-V-102 CR 0643 WD LINE VENT
CRD-160	CRD	CRD-V-102 CR 1043 WD LINE VENT
CRD-161	CRD	CRD-V-102 CR 1443 WD LINE VENT
CRD-162	CRD	CRD-V-102 CR 1843 WD LINE VENT
CRD-163	CRD	CRD-V-102 CR 2243 WD LINE VENT
CRD-164	CRD	CRD-V-102 CR 2643 WD LINE VENT
CRD-165	CRD	CRD-V-102 CR 3043 WD LINE VENT
CRD-166	CRD	CRD-V-102 CR 3443 WD LINE VENT
CRD-167	CRD	CRD-V-102 CR 3843 WD LINE VENT
CRD-168	CRD	CRD-V-102 CR 4243 WD LINE VENT
CRD-169	CRD	CRD-V-102 CR 4643 WD LINE VENT
CRD-170	CRD	CRD-V-102 CR 5043 WD LINE VENT
CRD-171	CRD	CRD-V-102 CR 5443 WD LINE VENT
CRD-172	CRD	CRD-V-102 CR 5843 WD LINE VENT
CRD-173	CRD	CRD-V-102 CR 0647 WD LINE VENT
CRD-174	CRD	CRD-V-102 CR 1047 WD LINE VENT
CRD-175	CRD	CRD-V-102 CR 1447 WD LINE VENT
CRD-176	CRD	CRD-V-102 CR 1847 WD LINE VENT
CRD-177	CRD	CRD-V-102 CR 2247 WD LINE VENT
CRD-178	CRD	CRD-V-102 CR 2647 WD LINE VENT
CRD-179	CRD	CRD-V-102 CR 3047 WD LINE VENT
CRD-180	CRD	CRD-V-102 CR 3447 WD LINE VENT
CRD-181	CRD	CRD-V-102 CR 3847 WD LINE VENT
CRD-182	CRD	CRD-V-102 CR 4247 WD LINE VENT

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
CRD-183	CRD	CRD-V-102 CR 4647 WD LINE VENT
CRD-184	CRD	CRD-V-102 CR 5047 WD LINE VENT
CRD-185	CRD	CRD-V-102 CR 5447 WD LINE VENT
CRD-186	CRD	CRD-V-102 CR 1051 WD LINE VENT
CRD-187	CRD	CRD-V-102 CR 1451 WD LINE VENT
CRD-188	CRD	CRD-V-102 CR 1851 WD LINE VENT
CRD-189	CRD	CRD-V-102 CR 2251 WD LINE VENT
CRD-190	CRD	CRD-V-102 CR 2651 WD LINE VENT
CRD-191	CRD	CRD-V-102 CR 3051 WD LINE VENT
CRD-192	CRD	CRD-V-102 CR 3451 WD LINE VENT
CRD-193	CRD	CRD-V-102 CR 3851 WD LINE VENT
CRD-194	CRD	CRD-V-102 CR 4251 WD LINE VENT
CRD-195	CRD	CRD-V-102 CR 4651 WD LINE VENT
CRD-196	CRD	CRD-V-102 CR 5051 WD LINE VENT
CRD-197	CRD	CRD-V-102 CR 1455 WD LINE VENT
CRD-198	CRD	CRD-V-102 CR 1855 WD LINE VENT
CRD-199	CRD	CRD-V-102 CR 2255 WD LINE VENT
CRD-200	CRD	CRD-V-102 CR 2655 WD LINE VENT
CRD-201	CRD	CRD-V-102 CR 3055 WD LINE VENT
CRD-202	CRD	CRD-V-102 CR 3455 WD LINE VENT
CRD-203	CRD	CRD-V-102 CR 3855 WD LINE VENT
CRD-204	CRD	CRD-V-102 CR 4255 WD LINE VENT
CRD-205	CRD	CRD-V-102 CR 4655 WD LINE VENT
CRD-206	CRD	CRD-V-102 CR 1859 WD LINE VENT
CRD-207	CRD	CRD-V-102 CR 2259 WD LINE VENT
CRD-208	CRD	CRD-V-102 CR 2659 WD LINE VENT
CRD-209	CRD	CRD-V-102 CR 3059 WD LINE VENT
CRD-210	CRD	CRD-V-102 CR 3459 WD LINE VENT
CRD-211	CRD	CRD-V-102 CR 3859 WD LINE VENT
CRD-212	CRD	CRD-V-102 CR 4259 WD LINE VENT
CRD-213	CRD	CRD-V-101 CR 1803 HCU INSERT ISO
CRD-214	CRD	CRD-V-101 CR 2203 HCU INSERT ISO
CRD-215	CRD	CRD-V-101 CR 2603 HCU INSERT ISO
CRD-216	CRD	CRD-V-101 CR 3003 HCU INSERT ISO
CRD-217	CRD	CRD-V-101 CR 3403 HCU INSERT ISO
CRD-218	CRD	CRD-V-101 CR 3803 HCU INSERT ISO
CRD-219	CRD	CRD-V-101 CR 4203 HCU INSERT ISO
CRD-220	CRD	CRD-V-101 CR 1407 HCU INSERT ISO
CRD-221	CRD	CRD-V-101 CR 1807 HCU INSERT ISO
CRD-222	CRD	CRD-V-101 CR 2207 HCU INSERT ISO
CRD-223	CRD	CRD-V-101 CR 2607 HCU INSERT ISO
CRD-224	CRD	CRD-V-101 CR 3007 HCU INSERT ISO
CRD-225	CRD	CRD-V-101 CR 3407 HCU INSERT ISO

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
CRD-226	CRD	CRD-V-101 CR 3807 HCU INSERT ISO
CRD-227	CRD	CRD-V-101 CR 4207 HCU INSERT ISO
CRD-228	CRD	CRD-V-101 CR 4607 HCU INSERT ISO
CRD-229	CRD	CRD-V-101 CR 1011 HCU INSERT ISO
CRD-230	CRD	CRD-V-101 CR 1411 HCU INSERT ISO
CRD-231	CRD	CRD-V-101 CR 1811 HCU INSERT ISO
CRD-232	CRD	CRD-V-101 CR 2211 HCU INSERT ISO
CRD-233	CRD	CRD-V-101 CR 2611 HCU INSERT ISO
CRD-234	CRD	CRD-V-101 CR 3011 HCU INSERT ISO
CRD-235	CRD	CRD-V-101 CR 3411 HCU INSERT ISO
CRD-236	CRD	CRD-V-101 CR 3811 HCU INSERT ISO
CRD-237	CRD	CRD-V-101 CR 4211 HCU INSERT ISO
CRD-238	CRD	CRD-V-101 CR 4611 HCU INSERT ISO
CRD-239	CRD	CRD-V-101 CR 5011 HCU INSERT ISO
CRD-240	CRD	CRD-V-101 CR 0615 HCU INSERT ISO
CRD-241	CRD	CRD-V-101 CR 1015 HCU INSERT ISO
CRD-242	CRD	CRD-V-101 CR 1415 HCU INSERT ISO
CRD-243	CRD	CRD-V-101 CR 1815 HCU INSERT ISO
CRD-244	CRD	CRD-V-101 CR 2215 HCU INSERT ISO
CRD-245	CRD	CRD-V-101 CR 2615 HCU INSERT ISO
CRD-246	CRD	CRD-V-101 CR 3015 HCU INSERT ISO
CRD-247	CRD	CRD-V-101 CR 3415 HCU INSERT ISO
CRD-248	CRD	CRD-V-101 CR 3815 HCU INSERT ISO
CRD-249	CRD	CRD-V-101 CR 4215 HCU INSERT ISO
CRD-250	CRD	CRD-V-101 CR 4615 HCU INSERT ISO
CRD-251	CRD	CRD-V-101 CR 5015 HCU INSERT ISO
CRD-252	CRD	CRD-V-101 CR 5415 HCU INSERT ISO
CRD-253	CRD	CRD-V-101 CR 0219 HCU INSERT ISO
CRD-254	CRD	CRD-V-101 CR 0619 HCU INSERT ISO
CRD-255	CRD	CRD-V-101 CR 1019 HCU INSERT ISO
CRD-256	CRD	CRD-V-101 CR 1419 HCU INSERT ISO
CRD-257	CRD	CRD-V-101 CR 1819 HCU INSERT ISO
CRD-258	CRD	CRD-V-101 CR 2219 HCU INSERT ISO
CRD-259	CRD	CRD-V-101 CR 2619 HCU INSERT ISO
CRD-260	CRD	CRD-V-101 CR 3019 HCU INSERT ISO
CRD-261	CRD	CRD-V-101 CR 3419 HCU INSERT ISO
CRD-262	CRD	CRD-V-101 CR 3819 HCU INSERT ISO
CRD-263	CRD	CRD-V-101 CR 4219 HCU INSERT ISO
CRD-264	CRD	CRD-V-101 CR 4619 HCU INSERT ISO
CRD-265	CRD	CRD-V-101 CR 5019 HCU INSERT ISO
CRD-266	CRD	CRD-V-101 CR 5419 HCU INSERT ISO
CRD-267	CRD	CRD-V-101 CR 5819 HCU INSERT ISO
CRD-268	CRD	CRD-V-101 CR 0223 HCU INSERT ISO

APPENDIX C
ATTACHMENT C-2

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
CRD-269	CRD	CRD-V-101 CR 0623 HCU INSERT ISO
CRD-270	CRD	CRD-V-101 CR 1023 HCU INSERT ISO
CRD-271	CRD	CRD-V-101 CR 1423 HCU INSERT ISO
CRD-272	CRD	CRD-V-101 CR 1823 HCU INSERT ISO
CRD-273	CRD	CRD-V-101 CR 2223 HCU INSERT ISO
CRD-274	CRD	CRD-V-101 CR 2623 HCU INSERT ISO
CRD-275	CRD	CRD-V-101 CR 3023 HCU INSERT ISO
CRD-276	CRD	CRD-V-101 CR 3423 HCU INSERT ISO
CRD-277	CRD	CRD-V-101 CR 3823 HCU INSERT ISO
CRD-278	CRD	CRD-V-101 CR 4223 HCU INSERT ISO
CRD-279	CRD	CRD-V-101 CR 4623 HCU INSERT ISO
CRD-280	CRD	CRD-V-101 CR 5023 HCU INSERT ISO
CRD-281	CRD	CRD-V-101 CR 5423 HCU INSERT ISO
CRD-282	CRD	CRD-V-101 CR 5823 HCU INSERT ISO
CRD-283	CRD	CRD-V-101 CR 0227 HCU INSERT ISO
CRD-284	CRD	CRD-V-101 CR 0627 HCU INSERT ISO
CRD-285	CRD	CRD-V-101 CR 1027 HCU INSERT ISO
CRD-286	CRD	CRD-V-101 CR 1427 HCU INSERT ISO
CRD-287	CRD	CRD-V-101 CR 1827 HCU INSERT ISO
CRD-288	CRD	CRD-V-101 CR 2227 HCU INSERT ISO
CRD-289	CRD	CRD-V-101 CR 2627 HCU INSERT ISO
CRD-290	CRD	CRD-V-101 CR 3027 HCU INSERT ISO
CRD-291	CRD	CRD-V-101 CR 3427 HCU INSERT ISO
CRD-292	CRD	CRD-V-101 CR 3827 HCU INSERT ISO
CRD-293	CRD	CRD-V-101 CR 4227 HCU INSERT ISO
CRD-294	CRD	CRD-V-101 CR 4627 HCU INSERT ISO
CRD-295	CRD	CRD-V-101 CR 5027 HCU INSERT ISO
CRD-296	CRD	CRD-V-101 CR 5427 HCU INSERT ISO
CRD-297	CRD	CRD-V-101 CR 5827 HCU INSERT ISO
CRD-298	CRD	CRD-V-101 CR 0231 HCU INSERT ISO
CRD-299	CRD	CRD-V-101 CR 0631 HCU INSERT ISO
CRD-300	CRD	CRD-V-101 CR 1031 HCU INSERT ISO
CRD-301	CRD	CRD-V-101 CR 1431 HCU INSERT ISO
CRD-302	CRD	CRD-V-101 CR 1831 HCU INSERT ISO
CRD-303	CRD	CRD-V-101 CR 2231 HCU INSERT ISO
CRD-304	CRD	CRD-V-101 CR 2631 HCU INSERT ISO
CRD-305	CRD	CRD-V-101 CR 3031 HCU INSERT ISO
CRD-306	CRD	CRD-V-101 CR 3431 HCU INSERT ISO
CRD-307	CRD	CRD-V-101 CR 3831 HCU INSERT ISO
CRD-308	CRD	CRD-V-101 CR 4231 HCU INSERT ISO
CRD-309	CRD	CRD-V-101 CR 4631 HCU INSERT ISO
CRD-310	CRD	CRD-V-101 CR 5031 HCU INSERT ISO
CRD-311	CRD	CRD-V-101 CR 5431 HCU INSERT ISO

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
CRD-312	CRD	CRD-V-101 CR 5831 HCU INSERT ISO
CRD-313	CRD	CRD-V-101 CR 0235 HCU INSERT ISO
CRD-314	CRD	CRD-V-101 CR 0635 HCU INSERT ISO
CRD-315	CRD	CRD-V-101 CR 1035 HCU INSERT ISO
CRD-316	CRD	CRD-V-101 CR 1435 HCU INSERT ISO
CRD-317	CRD	CRD-V-101 CR 1835 HCU INSERT ISO
CRD-318	CRD	CRD-V-101 CR 2235 HCU INSERT ISO
CRD-319	CRD	CRD-V-101 CR 2635 HCU INSERT ISO
CRD-320	CRD	CRD-V-101 CR 3035 HCU INSERT ISO
CRD-321	CRD	CRD-V-101 CR 3435 HCU INSERT ISO
CRD-322	CRD	CRD-V-101 CR 3835 HCU INSERT ISO
CRD-323	CRD	CRD-V-101 CR 4235 HCU INSERT ISO
CRD-324	CRD	CRD-V-101 CR 4635 HCU INSERT ISO
CRD-325	CRD	CRD-V-101 CR 5035 HCU INSERT ISO
CRD-326	CRD	CRD-V-101 CR 5435 HCU INSERT ISO
CRD-327	CRD	CRD-V-101 CR 5835 HCU INSERT ISO
CRD-328	CRD	CRD-V-101 CR 0239 HCU INSERT ISO
CRD-329	CRD	CRD-V-101 CR 0639 HCU INSERT ISO
CRD-330	CRD	CRD-V-101 CR 1039 HCU INSERT ISO
CRD-331	CRD	CRD-V-101 CR 1439 HCU INSERT ISO
CRD-332	CRD	CRD-V-101 CR 1839 HCU INSERT ISO
CRD-333	CRD	CRD-V-101 CR 2239 HCU INSERT ISO
CRD-334	CRD	CRD-V-101 CR 2639 HCU INSERT ISO
CRD-335	CRD	CRD-V-101 CR 3039 HCU INSERT ISO
CRD-336	CRD	CRD-V-101 CR 3439 HCU INSERT ISO
CRD-337	CRD	CRD-V-101 CR 3839 HCU INSERT ISO
CRD-338	CRD	CRD-V-101 CR 4239 HCU INSERT ISO
CRD-339	CRD	CRD-V-101 CR 4639 HCU INSERT ISO
CRD-340	CRD	CRD-V-101 CR 5039 HCU INSERT ISO
CRD-341	CRD	CRD-V-101 CR 5439 HCU INSERT ISO
CRD-342	CRD	CRD-V-101 CR 5839 HCU INSERT ISO
CRD-343	CRD	CRD-V-101 CR 0243 HCU INSERT ISO
CRD-344	CRD	CRD-V-101 CR 0643 HCU INSERT ISO
CRD-345	CRD	CRD-V-101 CR 1043 HCU INSERT ISO
CRD-346	CRD	CRD-V-101 CR 1443 HCU INSERT ISO
CRD-347	CRD	CRD-V-101 CR 1843 HCU INSERT ISO
CRD-348	CRD	CRD-V-101 CR 2243 HCU INSERT ISO
CRD-349	CRD	CRD-V-101 CR 2643 HCU INSERT ISO
CRD-350	CRD	CRD-V-101 CR 3043 HCU INSERT ISO
CRD-351	CRD	CRD-V-101 CR 3443 HCU INSERT ISO
CRD-352	CRD	CRD-V-101 CR 3843 HCU INSERT ISO
CRD-353	CRD	CRD-V-101 CR 4243 HCU INSERT ISO
CRD-354	CRD	CRD-V-101 CR 4643 HCU INSERT ISO

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
CRD-355	CRD	CRD-V-101 CR 5043 HCU INSERT ISO
CRD-356	CRD	CRD-V-101 CR 5443 HCU INSERT ISO
CRD-357	CRD	CRD-V-101 CR 5843 HCU INSERT ISO
CRD-358	CRD	CRD-V-101 CR 0647 HCU INSERT ISO
CRD-359	CRD	CRD-V-101 CR 1047 HCU INSERT ISO
CRD-360	CRD	CRD-V-101 CR 1447 HCU INSERT ISO
CRD-361	CRD	CRD-V-101 CR 1847 HCU INSERT ISO
CRD-362	CRD	CRD-V-101 CR 2247 HCU INSERT ISO
CRD-363	CRD	CRD-V-101 CR 2647 HCU INSERT ISO
CRD-364	CRD	CRD-V-101 CR 3047 HCU INSERT ISO
CRD-365	CRD	CRD-V-101 CR 3447 HCU INSERT ISO
CRD-366	CRD	CRD-V-101 CR 3847 HCU INSERT ISO
CRD-367	CRD	CRD-V-101 CR 4247 HCU INSERT ISO
CRD-368	CRD	CRD-V-101 CR 4647 HCU INSERT ISO
CRD-369	CRD	CRD-V-101 CR 5047 HCU INSERT ISO
CRD-370	CRD	CRD-V-101 CR 5447 HCU INSERT ISO
CRD-371	CRD	CRD-V-101 CR 1051 HCU INSERT ISO
CRD-372	CRD	CRD-V-101 CR 1451 HCU INSERT ISO
CRD-373	CRD	CRD-V-101 CR 1851 HCU INSERT ISO
CRD-374	CRD	CRD-V-101 CR 2251 HCU INSERT ISO
CRD-375	CRD	CRD-V-101 CR 2651 HCU INSERT ISO
CRD-376	CRD	CRD-V-101 CR 3051 HCU INSERT ISO
CRD-377	CRD	CRD-V-101 CR 3451 HCU INSERT ISO
CRD-378	CRD	CRD-V-101 CR 3851 HCU INSERT ISO
CRD-379	CRD	CRD-V-101 CR 4251 HCU INSERT ISO
CRD-380	CRD	CRD-V-101 CR 4651 HCU INSERT ISO
CRD-381	CRD	CRD-V-101 CR 5051 HCU INSERT ISO
CRD-382	CRD	CRD-V-101 CR 1455 HCU INSERT ISO
CRD-383	CRD	CRD-V-101 CR 1855 HCU INSERT ISO
CRD-384	CRD	CRD-V-101 CR 2255 HCU INSERT ISO
CRD-385	CRD	CRD-V-101 CR 2655 HCU INSERT ISO
CRD-386	CRD	CRD-V-101 CR 3055 HCU INSERT ISO
CRD-387	CRD	CRD-V-101 CR 3455 HCU INSERT ISO
CRD-388	CRD	CRD-V-101 CR 3855 HCU INSERT ISO
CRD-389	CRD	CRD-V-101 CR 4255 HCU INSERT ISO
CRD-390	CRD	CRD-V-101 CR 4655 HCU INSERT ISO
CRD-391	CRD	CRD-V-101 CR 1859 HCU INSERT ISO
CRD-392	CRD	CRD-V-101 CR 2259 HCU INSERT ISO
CRD-393	CRD	CRD-V-101 CR 2659 HCU INSERT ISO
CRD-394	CRD	CRD-V-101 CR 3059 HCU INSERT ISO
CRD-395	CRD	CRD-V-101 CR 3459 HCU INSERT ISO
CRD-396	CRD	CRD-V-101 CR 3859 HCU INSERT ISO
CRD-397	CRD	CRD-V-101 CR 4259 HCU INSERT ISO

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
CRD-398	CRD	CRD-V-102 CR 1803 HCU WD HDR ISO
CRD-399	CRD	CRD-V-102 CR 2203 HCU WD HDR ISO
CRD-400	CRD	CRD-V-102 CR 2603 HCU WD HDR ISO
CRD-401	CRD	CRD-V-102 CR 3003 HCU WD HDR ISO
CRD-402	CRD	CRD-V-102 CR 3403 HCU WD HDR ISO
CRD-403	CRD	CRD-V-102 CR 3803 HCU WD HDR ISO
CRD-404	CRD	CRD-V-102 CR 4203 HCU WD HDR ISO
CRD-405	CRD	CRD-V-102 CR 1407 HCU WD HDR ISO
CRD-406	CRD	CRD-V-102 CR 1807 HCU WD HDR ISO
CRD-407	CRD	CRD-V-102 CR 2207 HCU WD HDR ISO
CRD-408	CRD	CRD-V-102 CR 2607 HCU WD HDR ISO
CRD-409	CRD	CRD-V-102 CR 3007 HCU WD HDR ISO
CRD-410	CRD	CRD-V-102 CR 3407 HCU WD HDR ISO
CRD-411	CRD	CRD-V-102 CR 3807 HCU WD HDR ISO
CRD-412	CRD	CRD-V-102 CR 4207 HCU WD HDR ISO
CRD-413	CRD	CRD-V-102 CR 4607 HCU WD HDR ISO
CRD-414	CRD	CRD-V-102 CR 1011 HCU WD HDR ISO
CRD-415	CRD	CRD-V-102 CR 1411 HCU WD HDR ISO
CRD-416	CRD	CRD-V-102 CR 1811 HCU WD HDR ISO
CRD-417	CRD	CRD-V-102 CR 2211 HCU WD HDR ISO
CRD-418	CRD	CRD-V-102 CR 2611 HCU WD HDR ISO
CRD-419	CRD	CRD-V-102 CR 3011 HCU WD HDR ISO
CRD-420	CRD	CRD-V-102 CR 3411 HCU WD HDR ISO
CRD-421	CRD	CRD-V-102 CR 3811 HCU WD HDR ISO
CRD-422	CRD	CRD-V-102 CR 4211 HCU WD HDR ISO
CRD-423	CRD	CRD-V-102 CR 4611 HCU WD HDR ISO
CRD-424	CRD	CRD-V-102 CR 5011 HCU WD HDR ISO
CRD-425	CRD	CRD-V-102 CR 0615 HCU WD HDR ISO
CRD-426	CRD	CRD-V-102 CR 1015 HCU WD HDR ISO
CRD-427	CRD	CRD-V-102 CR 1415 HCU WD HDR ISO
CRD-428	CRD	CRD-V-102 CR 1815 HCU WD HDR ISO
CRD-429	CRD	CRD-V-102 CR 2215 HCU WD HDR ISO
CRD-430	CRD	CRD-V-102 CR 2615 HCU WD HDR ISO
CRD-431	CRD	CRD-V-102 CR 3015 HCU WD HDR ISO
CRD-432	CRD	CRD-V-102 CR 3415 HCU WD HDR ISO
CRD-433	CRD	CRD-V-102 CR 3815 HCU WD HDR ISO
CRD-434	CRD	CRD-V-102 CR 4215 HCU WD HDR ISO
CRD-435	CRD	CRD-V-102 CR 4615 HCU WD HDR ISO
CRD-436	CRD	CRD-V-102 CR 5015 HCU WD HDR ISO
CRD-437	CRD	CRD-V-102 CR 5415 HCU WD HDR ISO
CRD-438	CRD	CRD-V-102 CR 0219 HCU WD HDR ISO
CRD-439	CRD	CRD-V-102 CR 0619 HCU WD HDR ISO
CRD-440	CRD	CRD-V-102 CR 1019 HCU WD HDR ISO

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
CRD-441	CRD	CRD-V-102 CR 1419 HCU WD HDR ISO
CRD-442	CRD	CRD-V-102 CR 1819 HCU WD HDR ISO
CRD-443	CRD	CRD-V-102 CR 2219 HCU WD HDR ISO
CRD-444	CRD	CRD-V-102 CR 2619 HCU WD HDR ISO
CRD-445	CRD	CRD-V-102 CR 3019 HCU WD HDR ISO
CRD-446	CRD	CRD-V-102 CR 3419 HCU WD HDR ISO
CRD-447	CRD	CRD-V-102 CR 3819 HCU WD HDR ISO
CRD-448	CRD	CRD-V-102 CR 4219 HCU WD HDR ISO
CRD-449	CRD	CRD-V-102 CR 4619 HCU WD HDR ISO
CRD-450	CRD	CRD-V-102 CR 5019 HCU WD HDR ISO
CRD-451	CRD	CRD-V-102 CR 5419 HCU WD HDR ISO
CRD-452	CRD	CRD-V-102 CR 5819 HCU WD HDR ISO
CRD-453	CRD	CRD-V-102 CR 0223 HCU WD HDR ISO
CRD-454	CRD	CRD-V-102 CR 0623 HCU WD HDR ISO
CRD-455	CRD	CRD-V-102 CR 1023 HCU WD HDR ISO
CRD-456	CRD	CRD-V-102 CR 1423 HCU WD HDR ISO
CRD-457	CRD	CRD-V-102 CR 1823 HCU WD HDR ISO
CRD-458	CRD	CRD-V-102 CR 2223 HCU WD HDR ISO
CRD-459	CRD	CRD-V-102 CR 2623 HCU WD HDR ISO
CRD-460	CRD	CRD-V-102 CR 3023 HCU WD HDR ISO
CRD-461	CRD	CRD-V-102 CR 3423 HCU WD HDR ISO
CRD-462	CRD	CRD-V-102 CR 3823 HCU WD HDR ISO
CRD-463	CRD	CRD-V-102 CR 4223 HCU WD HDR ISO
CRD-464	CRD	CRD-V-102 CR 4623 HCU WD HDR ISO
CRD-465	CRD	CRD-V-102 CR 5023 HCU WD HDR ISO
CRD-466	CRD	CRD-V-102 CR 5423 HCU WD HDR ISO
CRD-467	CRD	CRD-V-102 CR 5823 HCU WD HDR ISO
CRD-468	CRD	CRD-V-102 CR 0227 HCU WD HDR ISO
CRD-469	CRD	CRD-V-102 CR 0627 HCU WD HDR ISO
CRD-470	CRD	CRD-V-102 CR 1027 HCU WD HDR ISO
CRD-471	CRD	CRD-V-102 CR 1427 HCU WD HDR ISO
CRD-472	CRD	CRD-V-102 CR 1827 HCU WD HDR ISO
CRD-473	CRD	CRD-V-102 CR 2227 HCU WD HDR ISO
CRD-474	CRD	CRD-V-102 CR 2627 HCU WD HDR ISO
CRD-475	CRD	CRD-V-102 CR 3027 HCU WD HDR ISO
CRD-476	CRD	CRD-V-102 CR 3427 HCU WD HDR ISO
CRD-477	CRD	CRD-V-102 CR 3827 HCU WD HDR ISO
CRD-478	CRD	CRD-V-102 CR 4227 HCU WD HDR ISO
CRD-479	CRD	CRD-V-102 CR 4627 HCU WD HDR ISO
CRD-480	CRD	CRD-V-102 CR 5027 HCU WD HDR ISO
CRD-481	CRD	CRD-V-102 CR 5427 HCU WD HDR ISO
CRD-482	CRD	CRD-V-102 CR 5827 HCU WD HDR ISO
CRD-483	CRD	CRD-V-102 CR 0231 HCU WD HDR ISO

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
CRD-484	CRD	CRD-V-102 CR 0631 HCU WD HDR ISO
CRD-485	CRD	CRD-V-102 CR 1031 HCU WD HDR ISO
CRD-486	CRD	CRD-V-102 CR 1431 HCU WD HDR ISO
CRD-487	CRD	CRD-V-102 CR 1831 HCU WD HDR ISO
CRD-488	CRD	CRD-V-102 CR 2231 HCU WD HDR ISO
CRD-489	CRD	CRD-V-102 CR 2631 HCU WD HDR ISO
CRD-490	CRD	CRD-V-102 CR 3031 HCU WD HDR ISO
CRD-491	CRD	CRD-V-102 CR 3431 HCU WD HDR ISO
CRD-492	CRD	CRD-V-102 CR 3831 HCU WD HDR ISO
CRD-493	CRD	CRD-V-102 CR 4231 HCU WD HDR ISO
CRD-494	CRD	CRD-V-102 CR 4631 HCU WD HDR ISO
CRD-495	CRD	CRD-V-102 CR 5031 HCU WD HDR ISO
CRD-496	CRD	CRD-V-102 CR 5431 HCU WD HDR ISO
CRD-497	CRD	CRD-V-102 CR 5831 HCU WD HDR ISO
CRD-498	CRD	CRD-V-102 CR 0235 HCU WD HDR ISO
CRD-499	CRD	CRD-V-102 CR 0635 HCU WD HDR ISO
CRD-500	CRD	CRD-V-102 CR 1035 HCU WD HDR ISO
CRD-501	CRD	CRD-V-102 CR 1435 HCU WD HDR ISO
CRD-502	CRD	CRD-V-102 CR 1835 HCU WD HDR ISO
CRD-503	CRD	CRD-V-102 CR 2235 HCU WD HDR ISO
CRD-504	CRD	CRD-V-102 CR 2635 HCU WD HDR ISO
CRD-505	CRD	CRD-V-102 CR 3035 HCU WD HDR ISO
CRD-506	CRD	CRD-V-102 CR 3435 HCU WD HDR ISO
CRD-507	CRD	CRD-V-102 CR 3835 HCU WD HDR ISO
CRD-508	CRD	CRD-V-102 CR 4235 HCU WD HDR ISO
CRD-509	CRD	CRD-V-102 CR 4635 HCU WD HDR ISO
CRD-510	CRD	CRD-V-102 CR 5035 HCU WD HDR ISO
CRD-511	CRD	CRD-V-102 CR 5435 HCU WD HDR ISO
CRD-512	CRD	CRD-V-102 CR 5835 HCU WD HDR ISO
CRD-513	CRD	CRD-V-102 CR 0239 HCU WD HDR ISO
CRD-514	CRD	CRD-V-102 CR 0639 HCU WD HDR ISO
CRD-515	CRD	CRD-V-102 CR 1039 HCU WD HDR ISO
CRD-516	CRD	CRD-V-102 CR 1439 HCU WD HDR ISO
CRD-517	CRD	CRD-V-102 CR 1839 HCU WD HDR ISO
CRD-518	CRD	CRD-V-102 CR 2239 HCU WD HDR ISO
CRD-519	CRD	CRD-V-102 CR 2639 HCU WD HDR ISO
CRD-520	CRD	CRD-V-102 CR 3039 HCU WD HDR ISO
CRD-521	CRD	CRD-V-102 CR 3439 HCU WD HDR ISO
CRD-522	CRD	CRD-V-102 CR 3839 HCU WD HDR ISO
CRD-523	CRD	CRD-V-102 CR 4239 HCU WD HDR ISO
CRD-524	CRD	CRD-V-102 CR 4639 HCU WD HDR ISO
CRD-525	CRD	CRD-V-102 CR 5039 HCU WD HDR ISO
CRD-526	CRD	CRD-V-102 CR 5439 HCU WD HDR ISO

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
CRD-527	CRD	CRD-V-102 CR 5839 HCU WD HDR ISO
CRD-528	CRD	CRD-V-102 CR 0243 HCU WD HDR ISO
CRD-529	CRD	CRD-V-102 CR 0643 HCU WD HDR ISO
CRD-530	CRD	CRD-V-102 CR 1043 HCU WD HDR ISO
CRD-531	CRD	CRD-V-102 CR 1443 HCU WD HDR ISO
CRD-532	CRD	CRD-V-102 CR 1843 HCU WD HDR ISO
CRD-533	CRD	CRD-V-102 CR 2243 HCU WD HDR ISO
CRD-534	CRD	CRD-V-102 CR 2643 HCU WD HDR ISO
CRD-535	CRD	CRD-V-102 CR 3043 HCU WD HDR ISO
CRD-536	CRD	CRD-V-102 CR 3443 HCU WD HDR ISO
CRD-537	CRD	CRD-V-102 CR 3843 HCU WD HDR ISO
CRD-538	CRD	CRD-V-102 CR 4243 HCU WD HDR ISO
CRD-539	CRD	CRD-V-102 CR 4643 HCU WD HDR ISO
CRD-540	CRD	CRD-V-102 CR 5043 HCU WD HDR ISO
CRD-541	CRD	CRD-V-102 CR 5443 HCU WD HDR ISO
CRD-542	CRD	CRD-V-102 CR 5843 HCU WD HDR ISO
CRD-543	CRD	CRD-V-102 CR 0647 HCU WD HDR ISO
CRD-544	CRD	CRD-V-102 CR 1047 HCU WD HDR ISO
CRD-545	CRD	CRD-V-102 CR 1447 HCU WD HDR ISO
CRD-546	CRD	CRD-V-102 CR 1847 HCU WD HDR ISO
CRD-547	CRD	CRD-V-102 CR 2247 HCU WD HDR ISO
CRD-548	CRD	CRD-V-102 CR 2647 HCU WD HDR ISO
CRD-549	CRD	CRD-V-102 CR 3047 HCU WD HDR ISO
CRD-550	CRD	CRD-V-102 CR 3447 HCU WD HDR ISO
CRD-551	CRD	CRD-V-102 CR 3847 HCU WD HDR ISO
CRD-552	CRD	CRD-V-102 CR 4247 HCU WD HDR ISO
CRD-553	CRD	CRD-V-102 CR 4647 HCU WD HDR ISO
CRD-554	CRD	CRD-V-102 CR 5047 HCU WD HDR ISO
CRD-555	CRD	CRD-V-102 CR 5447 HCU WD HDR ISO
CRD-556	CRD	CRD-V-102 CR 1051 HCU WD HDR ISO
CRD-557	CRD	CRD-V-102 CR 1451 HCU WD HDR ISO
CRD-558	CRD	CRD-V-102 CR 1851 HCU WD HDR ISO
CRD-559	CRD	CRD-V-102 CR 2251 HCU WD HDR ISO
CRD-560	CRD	CRD-V-102 CR 2651 HCU WD HDR ISO
CRD-561	CRD	CRD-V-102 CR 3051 HCU WD HDR ISO
CRD-562	CRD	CRD-V-102 CR 3451 HCU WD HDR ISO
CRD-563	CRD	CRD-V-102 CR 3851 HCU WD HDR ISO
CRD-564	CRD	CRD-V-102 CR 4251 HCU WD HDR ISO
CRD-565	CRD	CRD-V-102 CR 4651 HCU WD HDR ISO
CRD-566	CRD	CRD-V-102 CR 5051 HCU WD HDR ISO
CRD-567	CRD	CRD-V-102 CR 1455 HCU WD HDR ISO
CRD-568	CRD	CRD-V-102 CR 1855 HCU WD HDR ISO
CRD-569	CRD	CRD-V-102 CR 2255 HCU WD HDR ISO

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
CRD-570	CRD	CRD-V-102 CR 2655 HCU WD HDR ISO
CRD-571	CRD	CRD-V-102 CR 3055 HCU WD HDR ISO
CRD-572	CRD	CRD-V-102 CR 3455 HCU WD HDR ISO
CRD-573	CRD	CRD-V-102 CR 3855 HCU WD HDR ISO
CRD-574	CRD	CRD-V-102 CR 4255 HCU WD HDR ISO
CRD-575	CRD	CRD-V-102 CR 4655 HCU WD HDR ISO
CRD-576	CRD	CRD-V-102 CR 1859 HCU WD HDR ISO
CRD-577	CRD	CRD-V-102 CR 2259 HCU WD HDR ISO
CRD-578	CRD	CRD-V-102 CR 2659 HCUWD HDR ISO
CRD-579	CRD	CRD-V-102 CR 3059 HCU WD HDR ISO
CRD-580	CRD	CRD-V-102 CR 3459 HCU WD HDR ISO
CRD-581	CRD	CRD-V-102 CR 3859 HCU WD HDR ISO
CRD-582	CRD	CRD-V-102 CR 4259 HCU WD HDR ISO
CRD-583	CRD	CRD-V-103 CR 1803 HCU DRV ISOL
CRD-584	CRD	CRD-V-103 CR 2203 HCU DRV ISOL
CRD-585	CRD	CRD-V-103 CR 2603 HCU DRV ISOL
CRD-586	CRD	CRD-V-103 CR 3003 HCU DRV ISOL
CRD-587	CRD	CRD-V-103 CR 3403 HCU DRV ISOL
CRD-588	CRD	CRD-V-103 CR 3803 HCU DRV ISOL
CRD-589	CRD	CRD-V-103 CR 4203 HCU DRV ISOL
CRD-590	CRD	CRD-V-103 CR 1407 HCU DRV ISOL
CRD-591	CRD	CRD-V-103 CR 1807 HCU DRV ISOL
CRD-592	CRD	CRD-V-103 CR 2207 HCU DRV ISOL
CRD-593	CRD	CRD-V-103 CR 2607 HCU DRV ISOL
CRD-594	CRD	CRD-V-103 CR 3007 HCU DRV ISOL
CRD-595	CRD	CRD-V-103 CR 3407 HCU DRV ISOL
CRD-596	CRD	CRD-V-103 CR 3807 HCU DRV ISOL
CRD-597	CRD	CRD-V-103 CR 4207 HCU DRV ISOL
CRD-598	CRD	CRD-V-103 CR 4607 HCU DRV ISOL
CRD-599	CRD	CRD-V-103 CR 1011 HCU DRV ISOL
CRD-600	CRD	CRD-V-103 CR 1411 HCU DRV ISOL
CRD-601	CRD	CRD-V-103 CR 1811 HCU DRV ISOL
CRD-602	CRD	CRD-V-103 CR 2211 HCU DRV ISOL
CRD-603	CRD	CRD-V-103 CR 2611 HCU DRV ISOL
CRD-604	CRD	CRD-V-103 CR 3011 HCU DRV ISOL
CRD-605	CRD	CRD-V-103 CR 3411 HCU DRV ISOL
CRD-606	CRD	CRD-V-103 CR 3811 HCU DRV ISOL
CRD-607	CRD	CRD-V-103 CR 4211 HCU DRV ISOL
CRD-608	CRD	CRD-V-103 CR 4611 HCU DRV ISOL
CRD-609	CRD	CRD-V-103 CR 5011 HCU DRV ISOL
CRD-610	CRD	CRD-V-103 CR 0615 HCU DRV ISOL
CRD-611	CRD	CRD-V-103 CR 1015 HCU DRV ISOL
CRD-612	CRD	CRD-V-103 CR 1415 HCU DRV ISOL

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
CRD-613	CRD	CRD-V-103 CR 1815 HCU DRV ISOL
CRD-614	CRD	CRD-V-103 CR 2215 HCU DRV ISOL
CRD-615	CRD	CRD-V-103 CR 2615 HCU DRV ISOL
CRD-616	CRD	CRD-V-103 CR 3015 HCU DRV ISOL
CRD-617	CRD	CRD-V-103 CR 3415 HCU DRV ISOL
CRD-618	CRD	CRD-V-103 CR 3815 HCU DRV ISOL
CRD-619	CRD	CRD-V-103 CR 4215 HCU DRV ISOL
CRD-620	CRD	CRD-V-103 CR 4615 HCU DRV ISOL
CRD-621	CRD	CRD-V-103 CR 5015 HCU DRV ISOL
CRD-622	CRD	CRD-V-103 CR 5415 HCU DRV ISOL
CRD-623	CRD	CRD-V-103 CR 0219 HCU DRV ISOL
CRD-624	CRD	CRD-V-103 CR 0619 HCU DRV ISOL
CRD-625	CRD	CRD-V-103 CR 1019 HCU DRV ISOL
CRD-626	CRD	CRD-V-103 CR 1419 HCU DRV ISOL
CRD-627	CRD	CRD-V-103 CR 1819 HCU DRV ISOL
CRD-628	CRD	CRD-V-103 CR 2219 HCU DRV ISOL
CRD-629	CRD	CRD-V-103 CR 2619 HCU DRV ISOL
CRD-630	CRD	CRD-V-103 CR 3019 HCU DRV ISOL
CRD-631	CRD	CRD-V-103 CR 3419 HCU DRV ISOL
CRD-632	CRD	CRD-V-103 CR 3819 HCU DRV ISOL
CRD-633	CRD	CRD-V-103 CR 4219 HCU DRV ISOL
CRD-634	CRD	CRD-V-103 CR 4619 HCU DRV ISOL
CRD-635	CRD	CRD-V-103 CR 5019 HCU DRV ISOL
CRD-636	CRD	CRD-V-103 CR 5419 HCU DRV ISOL
CRD-637	CRD	CRD-V-103 CR 5819 HCU DRV ISOL
CRD-638	CRD	CRD-V-103 CR 0223 HCU DRV ISOL
CRD-639	CRD	CRD-V-103 CR 0623 HCU DRV ISOL
CRD-640	CRD	CRD-V-103 CR 1023 HCU DRV ISOL
CRD-641	CRD	CRD-V-103 CR 1423 HCU DRV ISOL
CRD-642	CRD	CRD-V-103 CR 1823 HCU DRV ISOL
CRD-643	CRD	CRD-V-103 CR 2223 HCU DRV ISOL
CRD-644	CRD	CRD-V-103 CR 2623 HCU DRV ISOL
CRD-645	CRD	CRD-V-103 CR 3023 HCU DRV ISOL
CRD-646	CRD	CRD-V-103 CR 3423 HCU DRV ISOL
CRD-647	CRD	CRD-V-103 CR 3823 HCU DRV ISOL
CRD-648	CRD	CRD-V-103 CR 4223 HCU DRV ISOL
CRD-649	CRD	CRD-V-103 CR 4623 HCU DRV ISOL
CRD-650	CRD	CRD-V-103 CR 5023 HCU DRV ISOL
CRD-651	CRD	CRD-V-103 CR 5423 HCU DRV ISOL
CRD-652	CRD	CRD-V-103 CR 5823 HCU DRV ISOL
CRD-653	CRD	CRD-V-103 CR 0227 HCU DRV ISOL
CRD-654	CRD	CRD-V-103 CR 0627 HCU DRV ISOL
CRD-655	CRD	CRD-V-103 CR 1027 HCU DRV ISOL

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
CRD-656	CRD	CRD-V-103 CR 1427 HCU DRV ISOL
CRD-657	CRD	CRD-V-103 CR 1827 HCU DRV ISOL
CRD-658	CRD	CRD-V-103 CR 2227 HCU DRV ISOL
CRD-659	CRD	CRD-V-103 CR 2627 HCU DRV ISOL
CRD-660	CRD	CRD-V-103 CR 3027 HCU DRV ISOL
CRD-661	CRD	CRD-V-103 CR 3427 HCU DRV ISOL
CRD-662	CRD	CRD-V-103 CR 3827 HCU DRV ISOL
CRD-663	CRD	CRD-V-103 CR 4227 HCU DRV ISOL
CRD-664	CRD	CRD-V-103 CR 4627 HCU DRV ISOL
CRD-665	CRD	CRD-V-103 CR 5027 HCU DRV ISOL
CRD-666	CRD	CRD-V-103 CR 5427 HCU DRV ISOL
CRD-667	CRD	CRD-V-103 CR 5827 HCU DRV ISOL
CRD-668	CRD	CRD-V-103 CR 0231 HCU DRV ISOL
CRD-669	CRD	CRD-V-103 CR 0631 HCU DRV ISOL
CRD-670	CRD	CRD-V-103 CR 1031 HCU DRV ISOL
CRD-671	CRD	CRD-V-103 CR 1431 HCU DRV ISOL
CRD-672	CRD	CRD-V-103 CR 1831 HCU DRV ISOL
CRD-673	CRD	CRD-V-103 CR 2231 HCU DRV ISOL
CRD-674	CRD	CRD-V-103 CR 2631 HCU DRV ISOL
CRD-675	CRD	CRD-V-103 CR 3031 HCU DRV ISOL
CRD-676	CRD	CRD-V-103 CR 3431 HCU DRV ISOL
CRD-677	CRD	CRD-V-103 CR 3831 HCU DRV ISOL
CRD-678	CRD	CRD-V-103 CR 4231 HCU DRV ISOL
CRD-679	CRD	CRD-V-103 CR 4631 HCU DRV ISOL
CRD-680	CRD	CRD-V-103 CR 5031 HCU DRV ISOL
CRD-681	CRD	CRD-V-103 CR 5431 HCU DRV ISOL
CRD-682	CRD	CRD-V-103 CR 5831 HCU DRV ISOL
CRD-683	CRD	CRD-V-103 CR 0235 HCU DRV ISOL
CRD-684	CRD	CRD-V-103 CR 0635 HCU DRV ISOL
CRD-685	CRD	CRD-V-103 CR 1035 HCU DRV ISOL
CRD-686	CRD	CRD-V-103 CR 1435 HCU DRV ISOL
CRD-687	CRD	CRD-V-103 CR 1835 HCU DRV ISOL
CRD-688	CRD	CRD-V-103 CR 2235 HCU DRV ISOL
CRD-689	CRD	CRD-V-103 CR 2635 HCU DRV ISOL
CRD-690	CRD	CRD-V-103 CR 3035 HCU DRV ISOL
CRD-691	CRD	CRD-V-103 CR 3435 HCU DRV ISOL
CRD-692	CRD	CRD-V-103 CR 3835 HCU DRV ISOL
CRD-693	CRD	CRD-V-103 CR 4235 HCU DRV ISOL
CRD-694	CRD	CRD-V-103 CR 4635 HCU DRV ISOL
CRD-695	CRD	CRD-V-103 CR 5035 HCU DRV ISOL
CRD-696	CRD	CRD-V-103 CR 5435 HCU DRV ISOL
CRD-697	CRD	CRD-V-103 CR 5835 HCU DRV ISOL
CRD-698	CRD	CRD-V-103 CR 0239 HCU DRV ISOL

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
CRD-699	CRD	CRD-V-103 CR 0639 HCU DRV ISOL
CRD-700	CRD	CRD-V-103 CR 1039 HCU DRV ISOL
CRD-701	CRD	CRD-V-103 CR 1439 HCU DRV ISOL
CRD-702	CRD	CRD-V-103 CR 1839 HCU DRV ISOL
CRD-703	CRD	CRD-V-103 CR 2239 HCU DRV ISOL
CRD-704	CRD	CRD-V-103 CR 2639 HCU DRV ISOL
CRD-705	CRD	CRD-V-103 CR 3039 HCU DRV ISOL
CRD-706	CRD	CRD-V-103 CR 3439 HCU DRV ISOL
CRD-707	CRD	CRD-V-103 CR 3839 HCU DRV ISOL
CRD-708	CRD	CRD-V-103 CR 4239 HCU DRV ISOL
CRD-709	CRD	CRD-V-103 CR 4639 HCU DRV ISOL
CRD-710	CRD	CRD-V-103 CR 5039 HCU DRV ISOL
CRD-711	CRD	CRD-V-103 CR 5439 HCU DRV ISOL
CRD-712	CRD	CRD-V-103 CR 5839 HCU DRV ISOL
CRD-713	CRD	CRD-V-103 CR 0243 HCU DRV ISOL
CRD-714	CRD	CRD-V-103 CR 0643 HCU DRV ISOL
CRD-715	CRD	CRD-V-103 CR 1043 HCU DRV ISOL
CRD-716	CRD	CRD-V-103 CR 1443 HCU DRV ISOL
CRD-717	CRD	CRD-V-103 CR 1843 HCU DRV ISOL
CRD-718	CRD	CRD-V-103 CR 2243 HCU DRV ISOL
CRD-719	CRD	CRD-V-103 CR 2643 HCU DRV ISOL
CRD-720	CRD	CRD-V-103 CR 3043 HCU DRV ISOL
CRD-721	CRD	CRD-V-103 CR 3443 HCU DRV ISOL
CRD-722	CRD	CRD-V-103 CR 3843 HCU DRV ISOL
CRD-723	CRD	CRD-V-103 CR 4243 HCU DRV ISOL
CRD-724	CRD	CRD-V-103 CR 4643 HCU DRV ISOL
CRD-725	CRD	CRD-V-103 CR 5043 HCU DRV ISOL
CRD-726	CRD	CRD-V-103 CR 5443 HCU DRV ISOL
CRD-727	CRD	CRD-V-103 CR 5843 HCU DRV ISOL
CRD-728	CRD	CRD-V-103 CR 0647 HCU DRV ISOL
CRD-729	CRD	CRD-V-103 CR 1047 HCU DRV ISOL
CRD-730	CRD	CRD-V-103 CR 1447 HCU DRV ISOL
CRD-731	CRD	CRD-V-103 CR 1847 HCU DRV ISOL
CRD-732	CRD	CRD-V-103 CR 2247 HCU DRV ISOL
CRD-733	CRD	CRD-V-103 CR 2647 HCU DRV ISOL
CRD-734	CRD	CRD-V-103 CR 3047 HCU DRV ISOL
CRD-735	CRD	CRD-V-103 CR 3447 HCU DRV ISOL
CRD-736	CRD	CRD-V-103 CR 3847 HCU DRV ISOL
CRD-737	CRD	CRD-V-103 CR 4247 HCU DRV ISOL
CRD-738	CRD	CRD-V-103 CR 4647 HCU DRV ISOL
CRD-739	CRD	CRD-V-103 CR 5047 HCU DRV ISOL
CRD-740	CRD	CRD-V-103 CR 5447 HCU DRV ISOL
CRD-741	CRD	CRD-V-103 CR 1051 HCU DRV ISOL

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
CRD-742	CRD	CRD-V-103 CR 1451 HCU DRV ISOL
CRD-743	CRD	CRD-V-103 CR 1851 HCU DRV ISOL
CRD-744	CRD	CRD-V-103 CR 2251 HCU DRV ISOL
CRD-745	CRD	CRD-V-103 CR 2651 HCU DRV ISOL
CRD-746	CRD	CRD-V-103 CR 3051 HCU DRV ISOL
CRD-747	CRD	CRD-V-103 CR 3451 HCU DRV ISOL
CRD-748	CRD	CRD-V-103 CR 3851 HCU DRV ISOL
CRD-749	CRD	CRD-V-103 CR 4251 HCU DRV ISOL
CRD-750	CRD	CRD-V-103 CR 4651 HCU DRV ISOL
CRD-751	CRD	CRD-V-103 CR 5051 HCU DRV ISOL
CRD-752	CRD	CRD-V-103 CR 1455 HCU DRV ISOL
CRD-753	CRD	CRD-V-103 CR 1855 HCU DRV ISOL
CRD-754	CRD	CRD-V-103 CR 2255 HCU DRV ISOL
CRD-755	CRD	CRD-V-103 CR 2655 HCU DRV ISOL
CRD-756	CRD	CRD-V-103 CR 3055 HCU DRV ISOL
CRD-757	CRD	CRD-V-103 CR 3455 HCU DRV ISOL
CRD-758	CRD	CRD-V-103 CR 3855 HCU DRV ISOL
CRD-759	CRD	CRD-V-103 CR 4255 HCU DRV ISOL
CRD-760	CRD	CRD-V-103 CR 4655 HCU DRV ISOL
CRD-761	CRD	CRD-V-103 CR 1859 HCU DRV ISOL
CRD-762	CRD	CRD-V-103 CR 2259 HCU DRV ISOL
CRD-763	CRD	CRD-V-103 CR 2659 HCU DRV ISOL
CRD-764	CRD	CRD-V-103 CR 3059 HCU DRV ISOL
CRD-765	CRD	CRD-V-103 CR 3459 HCU DRV ISOL
CRD-766	CRD	CRD-V-103 CR 3859 HCU DRV ISOL
CRD-767	CRD	CRD-V-103 CR 4259 HCU DRV ISOL
CRD-768	CRD	CRD-V-101 CR 1803 INS LINE VENT
CRD-769	CRD	CRD-V-101 CR 2203 INS LINE VENT
CRD-770	CRD	CRD-V-101 CR 2603 INS LINE VENT
CRD-771	CRD	CRD-V-101 CR 3003 INS LINE VENT
CRD-772	CRD	CRD-V-101 CR 3403 INS LINE VENT
CRD-773	CRD	CRD-V-101 CR 3803 INS LINE VENT
CRD-774	CRD	CRD-V-101 CR 4203 INS LINE VENT
CRD-775	CRD	CRD-V-101 CR 1407 INS LINE VENT
CRD-776	CRD	CRD-V-101 CR 1807 INS LINE VENT
CRD-777	CRD	CRD-V-101 CR 2207 INS LINE VENT
CRD-778	CRD	CRD-V-101 CR 2607 INS LINE VENT
CRD-779	CRD	CRD-V-101 CR 3007 INS LINE VENT
CRD-780	CRD	CRD-V-101 CR 3407 INS LINE VENT
CRD-781	CRD	CRD-V-101 CR 3807 INS LINE VENT
CRD-782	CRD	CRD-V-101 CR 4207 INS LINE VENT
CRD-783	CRD	CRD-V-101 CR 4607 INS LINE VENT
CRD-784	CRD	CRD-V-101 CR 1011 INS LINE VENT

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
CRD-785	CRD	CRD-V-101 CR 1411 INS LINE VENT
CRD-786	CRD	CRD-V-101 CR 1811 INS LINE VENT
CRD-787	CRD	CRD-V-101 CR 2211 INS LINE VENT
CRD-788	CRD	CRD-V-101 CR 2611 INS LINE VENT
CRD-789	CRD	CRD-V-101 CR 3011 INS LINE VENT
CRD-790	CRD	CRD-V-101 CR 3411 INS LINE VENT
CRD-791	CRD	CRD-V-101 CR 3811 INS LINE VENT
CRD-792	CRD	CRD-V-101 CR 4211 INS LINE VENT
CRD-793	CRD	CRD-V-101 CR 4611 INS LINE VENT
CRD-794	CRD	CRD-V-101 CR 5011 INS LINE VENT
CRD-795	CRD	CRD-V-101 CR 0615 INS LINE VENT
CRD-796	CRD	CRD-V-101 CR 1015 INS LINE VENT
CRD-797	CRD	CRD-V-101 CR 1415 INS LINE VENT
CRD-798	CRD	CRD-V-101 CR 1815 INS LINE VENT
CRD-799	CRD	CRD-V-101 CR 2215 INS LINE VENT
CRD-800	CRD	CRD-V-101 CR 2615 INS LINE VENT
CRD-801	CRD	CRD-V-101 CR 3015 INS LINE VENT
CRD-802	CRD	CRD-V-101 CR 3415 INS LINE VENT
CRD-803	CRD	CRD-V-101 CR 3815 INS LINE VENT
CRD-804	CRD	CRD-V-101 CR 4215 INS LINE VENT
CRD-805	CRD	CRD-V-101 CR 4615 INS LINE VENT
CRD-806	CRD	CRD-V-101 CR 5015 INS LINE VENT
CRD-807	CRD	CRD-V-101 CR 5415 INS LINE VENT
CRD-808	CRD	CRD-V-101 CR 0219 INS LINE VENT
CRD-809	CRD	CRD-V-101 CR 0619 INS LINE VENT
CRD-810	CRD	CRD-V-101 CR 1019 INS LINE VENT
CRD-811	CRD	CRD-V-101 CR 1419 INS LINE VENT
CRD-812	CRD	CRD-V-101 CR 1819 INS LINE VENT
CRD-813	CRD	CRD-V-101 CR 2219 INS LINE VENT
CRD-814	CRD	CRD-V-101 CR 2619 INS LINE VENT
CRD-815	CRD	CRD-V-101 CR 3019 INS LINE VENT
CRD-816	CRD	CRD-V-101 CR 3419 INS LINE VENT
CRD-817	CRD	CRD-V-101 CR 3819 INS LINE VENT
CRD-818	CRD	CRD-V-101 CR 4219 INS LINE VENT
CRD-819	CRD	CRD-V-101 CR 4619 INS LINE VENT
CRD-820	CRD	CRD-V-101 CR 5019 INS LINE VENT
CRD-821	CRD	CRD-V-101 CR 5419 INS LINE VENT
CRD-822	CRD	CRD-V-101 CR 5819 INS LINE VENT
CRD-823	CRD	CRD-V-101 CR 0223 INS LINE VENT
CRD-824	CRD	CRD-V-101 CR 0623 INS LINE VENT
CRD-825	CRD	CRD-V-101 CR 1023 INS LINE VENT
CRD-826	CRD	CRD-V-101 CR 1423 INS LINE VENT
CRD-827	CRD	CRD-V-101 CR 1823 INS LINE VENT

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
CRD-828	CRD	CRD-V-101 CR 2223 INS LINE VENT
CRD-829	CRD	CRD-V-101 CR 2623 INS LINE VENT
CRD-830	CRD	CRD-V-101 CR 3023 INS LINE VENT
CRD-831	CRD	CRD-V-101 CR 3423 INS LINE VENT
CRD-832	CRD	CRD-V-101 CR 3823 INS LINE VENT
CRD-833	CRD	CRD-V-101 CR 4223 INS LINE VENT
CRD-834	CRD	CRD-V-101 CR 4623 INS LINE VENT
CRD-835	CRD	CRD-V-101 CR 5023 INS LINE VENT
CRD-836	CRD	CRD-V-101 CR 5423 INS LINE VENT
CRD-837	CRD	CRD-V-101 CR 5823 INS LINE VENT
CRD-838	CRD	CRD-V-101 CR 0227 INS LINE VENT
CRD-839	CRD	CRD-V-101 CR 0627 INS LINE VENT
CRD-840	CRD	CRD-V-101 CR 1027 INS LINE VENT
CRD-841	CRD	CRD-V-101 CR 1427 INS LINE VENT
CRD-842	CRD	CRD-V-101 CR 1827 INS LINE VENT
CRD-843	CRD	CRD-V-101 CR 2227 INS LINE VENT
CRD-844	CRD	CRD-V-101 CR 2627 INS LINE VENT
CRD-845	CRD	CRD-V-101 CR 3027 INS LINE VENT
CRD-846	CRD	CRD-V-101 CR 3427 INS LINE VENT
CRD-847	CRD	CRD-V-101 CR 3827 INS LINE VENT
CRD-848	CRD	CRD-V-101 CR 4227 INS LINE VENT
CRD-849	CRD	CRD-V-101 CR 4627 INS LINE VENT
CRD-850	CRD	CRD-V-101 CR 5027 INS LINE VENT
CRD-851	CRD	CRD-V-101 CR 5427 INS LINE VENT
CRD-852	CRD	CRD-V-101 CR 5827 INS LINE VENT
CRD-853	CRD	CRD-V-101 CR 0231 INS LINE VENT
CRD-854	CRD	CRD-V-101 CR 0631 INS LINE VENT
CRD-855	CRD	CRD-V-101 CR 1031 INS LINE VENT
CRD-856	CRD	CRD-V-101 CR 1431 INS LINE VENT
CRD-857	CRD	CRD-V-101 CR 1831 INS LINE VENT
CRD-858	CRD	CRD-V-101 CR 2231 INS LINE VENT
CRD-859	CRD	CRD-V-101 CR 2631 INS LINE VENT
CRD-860	CRD	CRD-V-101 CR 3031 INS LINE VENT
CRD-861	CRD	CRD-V-101 CR 3431 INS LINE VENT
CRD-862	CRD	CRD-V-101 CR 3831 INS LINE VENT
CRD-863	CRD	CRD-V-101 CR 4231 INS LINE VENT
CRD-864	CRD	CRD-V-101 CR 4631 INS LINE VENT
CRD-865	CRD	CRD-V-101 CR 5031 INS LINE VENT
CRD-866	CRD	CRD-V-101 CR 5431 INS LINE VENT
CRD-867	CRD	CRD-V-101 CR 5831 INS LINE VENT
CRD-868	CRD	CRD-V-101 CR 0235 INS LINE VENT
CRD-869	CRD	CRD-V-101 CR 0635 INS LINE VENT
CRD-870	CRD	CRD-V-101 CR 1035 INS LINE VENT

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
CRD-871	CRD	CRD-V-101 CR 1435 INS LINE VENT
CRD-872	CRD	CRD-V-101 CR 1835 INS LINE VENT
CRD-873	CRD	CRD-V-101 CR 2235 INS LINE VENT
CRD-874	CRD	CRD-V-101 CR 2635 INS LINE VENT
CRD-875	CRD	CRD-V-101 CR 3035 INS LINE VENT
CRD-876	CRD	CRD-V-101 CR 3435 INS LINE VENT
CRD-877	CRD	CRD-V-101 CR 3835 INS LINE VENT
CRD-878	CRD	CRD-V-101 CR 4235 INS LINE VENT
CRD-879	CRD	CRD-V-101 CR 4635 INS LINE VENT
CRD-880	CRD	CRD-V-101 CR 5035 INS LINE VENT
CRD-881	CRD	CRD-V-101 CR 5435 INS LINE VENT
CRD-882	CRD	CRD-V-101 CR 5835 INS LINE VENT
CRD-883	CRD	CRD-V-101 CR 0239 INS LINE VENT
CRD-884	CRD	CRD-V-101 CR 0639 INS LINE VENT
CRD-885	CRD	CRD-V-101 CR 1039 INS LINE VENT
CRD-886	CRD	CRD-V-101 CR 1439 INS LINE VENT
CRD-887	CRD	CRD-V-101 CR 1839 INS LINE VENT
CRD-888	CRD	CRD-V-101 CR 2239 INS LINE VENT
CRD-889	CRD	CRD-V-101 CR 2639 INS LINE VENT
CRD-890	CRD	CRD-V-101 CR 3039 INS LINE VENT
CRD-891	CRD	CRD-V-101 CR 3439 INS LINE VENT
CRD-892	CRD	CRD-V-101 CR 3839 INS LINE VENT
CRD-893	CRD	CRD-V-101 CR 4239 INS LINE VENT
CRD-894	CRD	CRD-V-101 CR 4639 INS LINE VENT
CRD-895	CRD	CRD-V-101 CR 5039 INS LINE VENT
CRD-896	CRD	CRD-V-101 CR 5439 INS LINE VENT
CRD-897	CRD	CRD-V-101 CR 5839 INS LINE VENT
CRD-898	CRD	CRD-V-101 CR 0243 INS LINE VENT
CRD-899	CRD	CRD-V-101 CR 0643 INS LINE VENT
CRD-900	CRD	CRD-V-101 CR 1043 INS LINE VENT
CRD-901	CRD	CRD-V-101 CR 1443 INS LINE VENT
CRD-902	CRD	CRD-V-101 CR 1843 INS LINE VENT
CRD-903	CRD	CRD-V-101 CR 2243 INS LINE VENT
CRD-904	CRD	CRD-V-101 CR 2643 INS LINE VENT
CRD-905	CRD	CRD-V-101 CR 3043 INS LINE VENT
CRD-906	CRD	CRD-V-101 CR 3443 INS LINE VENT
CRD-907	CRD	CRD-V-101 CR 3843 INS LINE VENT
CRD-908	CRD	CRD-V-101 CR 4243 INS LINE VENT
CRD-909	CRD	CRD-V-101 CR 4643 INS LINE VENT
CRD-910	CRD	CRD-V-101 CR 5043 INS LINE VENT
CRD-911	CRD	CRD-V-101 CR 5443 INS LINE VENT
CRD-912	CRD	CRD-V-101 CR 5843 INS LINE VENT
CRD-913	CRD	CRD-V-101 CR 0647 INS LINE VENT

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
CRD-914	CRD	CRD-V-101 CR 1047 INS LINE VENT
CRD-915	CRD	CRD-V-101 CR 1447 INS LINE VENT
CRD-916	CRD	CRD-V-101 CR 1847 INS LINE VENT
CRD-917	CRD	CRD-V-101 CR 2247 INS LINE VENT
CRD-918	CRD	CRD-V-101 CR 2647 INS LINE VENT
CRD-919	CRD	CRD-V-101 CR 3047 INS LINE VENT
CRD-920	CRD	CRD-V-101 CR 3447 INS LINE VENT
CRD-921	CRD	CRD-V-101 CR 3847 INS LINE VENT
CRD-922	CRD	CRD-V-101 CR 4247 INS LINE VENT
CRD-923	CRD	CRD-V-101 CR 4647 INS LINE VENT
CRD-924	CRD	CRD-V-101 CR 5047 INS LINE VENT
CRD-925	CRD	CRD-V-101 CR 5447 INS LINE VENT
CRD-926	CRD	CRD-V-101 CR 1051 INS LINE VENT
CRD-927	CRD	CRD-V-101 CR 1451 INS LINE VENT
CRD-928	CRD	CRD-V-101 CR 1851 INS LINE VENT
CRD-929	CRD	CRD-V-101 CR 2251 INS LINE VENT
CRD-930	CRD	CRD-V-101 CR 2651 INS LINE VENT
CRD-931	CRD	CRD-V-101 CR 3051 INS LINE VENT
CRD-932	CRD	CRD-V-101 CR 3451 INS LINE VENT
CRD-933	CRD	CRD-V-101 CR 3851 INS LINE VENT
CRD-934	CRD	CRD-V-101 CR 4251 INS LINE VENT
CRD-935	CRD	CRD-V-101 CR 4651 INS LINE VENT
CRD-936	CRD	CRD-V-101 CR 5051 INS LINE VENT
CRD-937	CRD	CRD-V-101 CR 1455 INS LINE VENT
CRD-938	CRD	CRD-V-101 CR 1855 INS LINE VENT
CRD-939	CRD	CRD-V-101 CR 2255 INS LINE VENT
CRD-940	CRD	CRD-V-101 CR 2655 INS LINE VENT
CRD-941	CRD	CRD-V-101 CR 3055 INS LINE VENT
CRD-942	CRD	CRD-V-101 CR 3455 INS LINE VENT
CRD-943	CRD	CRD-V-101 CR 3855 INS LINE VENT
CRD-944	CRD	CRD-V-101 CR 4255 INS LINE VENT
CRD-945	CRD	CRD-V-101 CR 4655 INS LINE VENT
CRD-946	CRD	CRD-V-101 CR 1859 INS LINE VENT
CRD-947	CRD	CRD-V-101 CR 2259 INS LINE VENT
CRD-948	CRD	CRD-V-101 CR 2659 INS LINE VENT
CRD-949	CRD	CRD-V-101 CR 3059 INS LINE VENT
CRD-950	CRD	CRD-V-101 CR 3459 INS LINE VENT
CRD-951	CRD	CRD-V-101 CR 3859 INS LINE VENT
CRD-952	CRD	CRD-V-101 CR 4259 INS LINE VENT
CRD-953	CRD	CRD-P-1A O/C RESET
CRD-954	CRD	CRD-P-1B O/C RESET
CSS-001	CSS	HPCS-V-4 INJ LINE VLV MAN OPEN
CSS-002	CSS	LPCS-V-5 INJ LINE VLV MAN OPEN

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
CSS-003	CSS	HPCS-V-51 IN CTMT MANUAL SHUTOFF
CSS-004	CSS	LPCS-V-51 IN CTMT MANUAL SHUTOFF
CSS-005	CSS	HPCS-P-1 O/C RESET
CSS-006	CSS	HPCS-P-3 O/C RESET
CSS-007	CSS	LPCS-P-2 O/C RESET
CSS-008	CSS	LPCS-P-1 O/C RESET
CWS-001	CWS	CBD-LCV-1 CIRC WTR BLOWDOWN VLV
CWS-002	CWS	CBD-V-2 CBD-LCV-1 ISOL VLV
CWS-003	CWS	CBD-V-3 CBD-LCV-1 BYPASS VLV
CWS-004	CWS	TMU-V-4 TMU S/U LUB WTR SUP VLV
CWS-005	CWS	TMU-V-5 TMU-LCV-2A ISOL VLV
CWS-006	CWS	TMU-V-9 TMU-LCV-2A BYP VLV
CWS-007	CWS	TMU-V-10A SPRAY POND FILL
CWS-008	CWS	TMU-V-10B SPRAY POND FILL
CWS-009	CWS	TMU-V-103A WEIR BOX SLUICE GATE
CWS-010	CWS	TMU-V-103B WEIR BOX SLUICE GATE
CWS-011	CWS	CW-FN-1 O/C RESET
CWS-012	CWS	CW-FN-2 O/C RESET
CWS-013	CWS	CW-FN-3 O/C RESET
CWS-014	CWS	CW-FN-4 O/C RESET
CWS-015	CWS	CW-FN-5 O/C RESET
CWS-016	CWS	CW-FN-6 O/C RESET
CWS-017	CWS	CW-FN-7 O/C RESET
CWS-018	CWS	CW-FN-8 O/C RESET
CWS-019	CWS	CW-FN-9 O/C RESET
CWS-020	CWS	CW-FN-10 O/C RESET
CWS-021	CWS	CW-FN-11 O/C RESET
CWS-022	CWS	CW-FN-12 O/C RESET
CWS-023	CWS	CW-FN-13 O/C RESET
CWS-024	CWS	CW-FN-14 O/C RESET
CWS-025	CWS	CW-FN-15 O/C RESET
CWS-026	CWS	CW-FN-16 O/C RESET
CWS-027	CWS	CW-FN-17 O/C RESET
CWS-028	CWS	CW-FN-18 O/C RESET
CWS-029	CWS	CW-FN-19 O/C RESET
CWS-030	CWS	CW-FN-20 O/C RESET
CWS-031	CWS	CW-FN-21 O/C RESET
CWS-032	CWS	CW-FN-22 O/C RESET
CWS-033	CWS	CW-FN-23 O/C RESET
CWS-034	CWS	CW-FN-24 O/C RESET
CWS-035	CWS	CW-FN-25 O/C RESET
CWS-036	CWS	CW-FN-26 O/C RESET
CWS-037	CWS	CW-FN-27 O/C RESET

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
CWS-038	CWS	CW-FN-28 O/C RESET
CWS-039	CWS	CW-FN-29 O/C RESET
CWS-040	CWS	CW-FN-30 O/C RESET
CWS-041	CWS	CW-FN-31 O/C RESET
CWS-042	CWS	CW-FN-32 O/C RESET
CWS-043	CWS	CW-FN-33 O/C RESET
CWS-044	CWS	CW-FN-34 O/C RESET
CWS-045	CWS	CW-FN-35 O/C RESET
CWS-046	CWS	CW-FN-36 O/C RESET
CWS-047	CWS	TMU-P-1A O/C RESET
CWS-048	CWS	TMU-P-1B O/C RESET
CWS-049	CWS	TMU-P-1C O/C RESET
DEH-001	DEH	DEH PRESS CONTROLLER A OR B SEL
DEH-002	DEH	MAN TURBINE TRIP AT FRONT STNDRD
DEH-003	DEH	DEH-P-1A O/C RESET
DEH-004	DEH	DEH-P-1B O/C RESET
DEH-005	DEH	DEH-FN-1A O/C RESET
DEH-006	DEH	DEH-FN-1B O/C RESET
DGN-001	DGN	BKR DG1-7 RACKED OUT
DGN-002	DGN	BKR DG2-8 RACKED OUT
DGN-003	DGN	BKR 4-DG3 RACKED OUT
DGN-004	DGN	BKR 4-DG3 DG3 BREAKER CONTROL
DGN-005	DGN	BKR DG1-7 DG1 BREAKER CONTROL
DGN-006	DGN	BKR DG2-8 DG2 BREAKER CONTROL
DGN-007	DGN	DG1 MODE SELECT KEY SWITCH
DGN-008	DGN	DG2 MODE SELECT KEY SWITCH
DGN-009	DGN	DG3 MODE SELECT SWITCH
DGN-010	DGN	DG1 LOCKOUT RLY & OVR SPD RESET
DGN-011	DGN	DG2 LOCKOUT RLY & OVR SPD RESET
DGN-012	DGN	DG3 LOCKOUT RLY & OVR SPD RESET
DGN-013	DGN	DG1 EMERGENCY STOP PUSHBUTTON
DGN-014	DGN	DG2 EMERGENCY STOP PUSHBUTTON
DGN-015	DGN	DG3 EMERGENCY STOP PUSHBUTTON
DGN-016	DGN	DG-1 LOCAL START PUSHBUTTON
DGN-017	DGN	DG-2 LOCAL START PUSHBUTTON
DGN-018	DGN	DG-3 LOCAL START PUSHBUTTON
DGN-019	DGN	DG1 ENGINE CONTROL SELECT
DGN-020	DGN	DG2 ENGINE CONTROL SELECT
DGN-021	DGN	DG1 EMERGENCY BYPASS SELECT
DGN-022	DGN	DG2 EMERGENCY BYPASS SELECT
DGN-023	DGN	DG1 EXCITATION MODE SELECTOR
DGN-024	DGN	DG2 EXCITATION MODE SELECTOR
DGN-025	DGN	DG3 GOVERNOR DROOP SWITCH

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
DGN-026	DGN	DG1 ENGINE SPEED SELECTOR
DGN-027	DGN	DG2 ENGINE SPEED SELECTOR
EPS-001	EPS	BATTERY B0-1A DISC
EPS-002	EPS	BATTERY B0-1A FUSE
EPS-003	EPS	BATTERY B0-1B DISC
EPS-004	EPS	BATTERY B0-1B FUSE
EPS-005	EPS	BATTERY B0-2A DISC
EPS-006	EPS	BATTERY B0-2A FUSE
EPS-007	EPS	BATTERY B0-2B DISC
EPS-008	EPS	BATTERY B0-2B FUSE
EPS-009	EPS	BATTERY B1-1 DISC
EPS-010	EPS	BATTERY B1-1 FUSE
EPS-011	EPS	BATTERY B1-2 DISC
EPS-012	EPS	BATTERY B1-2 FUSE
EPS-013	EPS	BATTERY B1-3 OUTPUT BKR O/C
EPS-014	EPS	BATTERY B1-7 DISC
EPS-015	EPS	BATTERY B1-7 FUSE
EPS-016	EPS	BATTERY B2-1 DISC
EPS-017	EPS	BATTERY B2-1 FUSE
EPS-018	EPS	BKR 52-1-11 O/C RESET
EPS-019	EPS	BKR 52-1-500S O/C RESET
EPS-020	EPS	BKR 52-1-7 O/C RESET
EPS-021	EPS	BKR 52-11-1 O/C RESET
EPS-022	EPS	BKR 52-2-21 O/C RESET
EPS-023	EPS	BKR 52-2-4 O/C RESET
EPS-024	EPS	BKR 52-21-11 O/C RESET
EPS-025	EPS	BKR 52-21-2 O/C RESET
EPS-026	EPS	BKR 52-3-31 O/C RESET
EPS-027	EPS	BKR 52-3-8 O/C RESET
EPS-028	EPS	BKR 52-31-21 O/C RESET
EPS-029	EPS	BKR 52-31-3 O/C RESET
EPS-030	EPS	BKR 52-5-53 O/C RESET
EPS-031	EPS	BKR 52-6-63 O/C RESET
EPS-032	EPS	BKR 52-CTA O/C RESET
EPS-033	EPS	BKR 52-CTB O/C RESET
EPS-034	EPS	BKR 52N1-1 O/C RESET
EPS-035	EPS	BKR 52N1-2 O/C RESET
EPS-036	EPS	BKR 52N1-3 O/C RESET
EPS-037	EPS	BKR 52N2-5 O/C RESET
EPS-038	EPS	BKR 52N2-6 O/C RESET
EPS-039	EPS	BKR 52S-1 O/C RESET
EPS-040	EPS	BKR 52S-2 O/C RESET
EPS-041	EPS	BKR 52S-3 O/C RESET

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
EPS-042	EPS	BKR 52S-5 O/C RESET
EPS-043	EPS	BKR 52S-6 O/C RESET
EPS-044	EPS	BKR CB-4-2 O/C RESET
EPS-045	EPS	BKR CB-4-41 O/C RESET
EPS-046	EPS	BKR CB-LF1A O/C RESET
EPS-047	EPS	BKR CB-LF1B O/C RESET
EPS-048	EPS	BKR CB-LF2A O/C RESET
EPS-049	EPS	BKR CB-LF2B O/C RESET
EPS-050	EPS	BKR CB-RPT-3A O/C RESET
EPS-051	EPS	BKR CB-RPT-3B O/C RESET
EPS-052	EPS	BKR CB-RPT-4A O/C RESET
EPS-053	EPS	BKR CB-RPT-4B O/C RESET
EPS-054	EPS	BKR CB-RRA O/C RESET
EPS-055	EPS	BKR CB-RRB O/C RESET
EPS-056	EPS	BKR CS-3-500S O/C RESET
EPS-057	EPS	BKR CS-7-1 O/C RESET
EPS-058	EPS	BKR CS-7-71 O/C RESET
EPS-059	EPS	BKR CS-7-73 O/C RESET
EPS-060	EPS	BKR CS-7-75/1 O/C RESET
EPS-061	EPS	BKR CS-7-DG1 O/C RESET
EPS-062	EPS	BKR CS-75-72 O/C RESET
EPS-063	EPS	BKR CS-8-3 O/C RESET
EPS-064	EPS	BKR CS-8-81 O/C RESET
EPS-065	EPS	BKR CS-8-83 O/C RESET
EPS-066	EPS	BKR CS-8-85/1 O/C RESET
EPS-067	EPS	BKR CS-8-DG2 O/C RESET
EPS-068	EPS	BKR CS-85-82 O/C RESET
EPS-069	EPS	BKR CS-B-7 O/C RESET
EPS-070	EPS	BKR CS-B-8 O/C RESET
EPS-071	EPS	CHARGER C0-1A INPUT BKR O/C
EPS-072	EPS	CHARGER C0-1A OUTPUT BKR O/C
EPS-073	EPS	CHARGER C0-1B INPUT BKR O/C
EPS-074	EPS	CHARGER C0-1B OUTPUT BKR O/C
EPS-075	EPS	CHARGER C0-2A INPUT BKR O/C
EPS-076	EPS	CHARGER C0-2A OUTPUT BKR O/C
EPS-077	EPS	CHARGER C0-2B INPUT BKR O/C
EPS-078	EPS	CHARGER C0-2B OUTPUT BKR O/C
EPS-079	EPS	CHARGER C1-1 FUSE
EPS-080	EPS	CHARGER C1-1 INPUT BKR O/C
EPS-081	EPS	CHARGER C1-1 INPUT DISC
EPS-082	EPS	CHARGER C1-1 OUTPUT BKR O/C
EPS-083	EPS	CHARGER C1-1 OUTPUT DISC
EPS-084	EPS	CHARGER C1-2 FUSE

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
EPS-085	EPS	CHARGER C1-2 INPUT BKR O/C
EPS-086	EPS	CHARGER C1-2 INPUT DISC
EPS-087	EPS	CHARGER C1-2 OUTPUT BKR O/C
EPS-088	EPS	CHARGER C1-2 OUTPUT DISC
EPS-089	EPS	CHARGER C1-7 FUSE
EPS-090	EPS	CHARGER C1-7 INPUT DISC
EPS-091	EPS	CHARGER C1-7 OUTPUT DISC
EPS-092	EPS	CHARGER C1-HPCS INPUT BKR O/C
EPS-093	EPS	CHARGER C1-HPCS OUTPUT BKR O/C
EPS-094	EPS	CHARGER C2-1 FUSE
EPS-095	EPS	CHARGER C2-1 INPUT BKR O/C
EPS-096	EPS	CHARGER C2-1 INPUT DISC
EPS-097	EPS	CHARGER C2-1 OUTPUT BKR O/C
EPS-098	EPS	CHARGER C2-1 OUTPUT DISC
EPS-099	EPS	IN1 KIRK KEY
EPS-100	EPS	IN1 MAINTENANCE SW
EPS-101	EPS	IN1 STATIC SWITCH
EPS-102	EPS	IN1-CB1 MC-7A NORM INPT AC O/C
EPS-103	EPS	IN1-CB2 DP-S2-1 NORM DC O/C
EPS-104	EPS	IN1-CB3 INV OUTPUT O/C
EPS-105	EPS	IN1-CB4 ALT AC OUT O/C
EPS-106	EPS	IN1-MIS MAINT BYPASS O/C
EPS-107	EPS	IN2 MANUAL XFER SWITCH
EPS-108	EPS	IN2 STATIC SWITCH
EPS-109	EPS	IN2-CB1 IN2 NORM DC BKR O/C
EPS-110	EPS	IN3 MANUAL XFER SWITCH
EPS-111	EPS	IN3 STATIC SWITCH
EPS-112	EPS	IN3-CB1 IN3 NORM DC BKR O/C
EPS-113	EPS	MC-1A DISC DEH-P-1A
EPS-114	EPS	MC-1A DISC HY-P-A2/3
EPS-115	EPS	MC-1A DISC HY-P-B2/3
EPS-116	EPS	MC-1A DISC TO-BOP-1
EPS-117	EPS	MC-1A DISC TO-EX-1A
EPS-118	EPS	MC-1A DISC TO-SOBP-1
EPS-119	EPS	MC-1B DISC RFT-MOP-1A
EPS-120	EPS	MC-1B DISC RFT-TNG-1A
EPS-121	EPS	MC-1E DISC HD-V-15A
EPS-122	EPS	MC-2B DISC COND-V-135C
EPS-123	EPS	MC-2C DISC DEH-P-1B
EPS-124	EPS	MC-2C DISC RFW-V-112B
EPS-125	EPS	MC-2D DISC SCW-P-2
EPS-126	EPS	MC-2D DISC TO-EX-4
EPS-127	EPS	MC-2P DISC CAS-C-1C

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
EPS-128	EPS	MC-2P DISC RFT-MOP-1B
EPS-129	EPS	MC-2P DISC RFT-TNG-1B
EPS-130	EPS	MC-2R DISC BF-1B
EPS-131	EPS	MC-2R-A DISC COND-V-140B
EPS-132	EPS	MC-3A DISC COND-V-140A
EPS-133	EPS	MC-3B DISC BF-1A
EPS-134	EPS	MC-3B DISC TG-TNG-1
EPS-135	EPS	MC-3C DISC AR-EX-1A
EPS-136	EPS	MC-3C DISC TG-ASOP-1
EPS-137	EPS	MC-4A DISC HPCS-P-3
EPS-138	EPS	MC-4A BKR HPCS-V-1 RACKOUT
EPS-139	EPS	MC-4A BKR HPCS-V-15 RACKOUT
EPS-140	EPS	MC-4A BKR HPCS-V-4 RACKOUT
EPS-141	EPS	MC-5L DISC CW-FN-21
EPS-142	EPS	MC-5M DISC CW-FN-23
EPS-143	EPS	MC-5N DISC FP-P-2A
EPS-144	EPS	MC-5P DISC CW-FN-25
EPS-145	EPS	MC-5Q DISC CW-FN-29
EPS-146	EPS	MC-5R DISC CW-V-7
EPS-147	EPS	MC-6B DISC TR-6B-E
EPS-148	EPS	MC-6L DISC CW-FN-2
EPS-149	EPS	MC-6M DISC CW-FN-14
EPS-150	EPS	MC-6N DISC FP-P-2B
EPS-151	EPS	MC-6P DISC CW-FN-7
EPS-152	EPS	MC-6Q DISC CW-FN-11
EPS-153	EPS	MC-6R DISC CW-V-4
EPS-154	EPS	MC-7A BKR MC-7A-A O/C
EPS-155	EPS	MC-7A DISC CAS-C-1A
EPS-156	EPS	MC-7A DISC IN1 NORM AC
EPS-157	EPS	MC-7A DISC RFW-V-65A
EPS-158	EPS	MC-7A DISC RFW-V-65B
EPS-159	EPS	MC-7A DISC RPS-MG-A
EPS-160	EPS	MC-7A DISC SW-V-12A
EPS-161	EPS	MC-7A DISC SW-V-2A
EPS-162	EPS	MC-7A DISC TR-7A
EPS-163	EPS	MC-7A DISC TR-7A-C
EPS-164	EPS	MC-7A-A DISC SW-V-4A
EPS-165	EPS	MC-7B DISC CIA-V-20
EPS-166	EPS	MC-7B DISC CIA-V-30A
EPS-167	EPS	MC-7B DISC CRA-FN-1A-1
EPS-168	EPS	MC-7B DISC CRA-FN-2A-2
EPS-169	EPS	MC-7B DISC LPCS-P-2
EPS-170	EPS	MC-7B DISC RCIC-P-3

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
EPS-171	EPS	MC-7B DISC SLC-P-1A
EPS-172	EPS	MC-7B-A DISC LPCS-V-1
EPS-173	EPS	MC-7B-A DISC LPCS-V-5
EPS-174	EPS	MC-7B-A DISC PP-7A-Z
EPS-175	EPS	MC-7B-A DISC RCC-V-5
EPS-176	EPS	MC-7B-A DISC RHR-FCV-64A
EPS-177	EPS	MC-7B-A DISC RHR-V-24A
EPS-178	EPS	MC-7B-A DISC RHR-V-27A
EPS-179	EPS	MC-7B-A DISC RHR-V-42A
EPS-180	EPS	MC-7B-A DISC RHR-V-4A
EPS-181	EPS	MC-7B-A DISC RHR-V-53A
EPS-182	EPS	MC-7B-A DISC RHR-V-53B
EPS-183	EPS	MC-7B-A DISC RHR-V-6A
EPS-184	EPS	MC-7B-B DISC RHR-V-3A
EPS-185	EPS	MC-7B-B DISC SGT-FN-1A-1
EPS-186	EPS	MC-7B-B DISC SGT-FN-1B-1
EPS-187	EPS	MC-7B-B DISC SGT-V-3A-1
EPS-188	EPS	MC-7C DISC RRA-FN-8
EPS-189	EPS	MC-7C DISC RRC-V-67A
EPS-190	EPS	MC-7C-A DISC CN-V-51
EPS-191	EPS	MC-7C-B DISC TSW-V-64A
EPS-192	EPS	MC-7E DISC WEA-FN-1A
EPS-193	EPS	MC-7F DISC IN1 ALT SUPP
EPS-194	EPS	MC-7F DISC WEA-FN-53A
EPS-195	EPS	MC-7F DISC WMA-FN-51A
EPS-196	EPS	MC-7F DISC WMA-FN-53A
EPS-197	EPS	MC-7F DISC WMA-FN-54A
EPS-198	EPS	MC-7R/MC-8R DISC PP-78
EPS-199	EPS	MC-8A BKR MC-8A-A O/C
EPS-200	EPS	MC-8A DISC CAS-C-1B
EPS-201	EPS	MC-8A DISC CJW-P-1B
EPS-202	EPS	MC-8A DISC RPS-MG-2
EPS-203	EPS	MC-8A DISC SW-V-12B
EPS-204	EPS	MC-8A DISC SW-V-2B
EPS-205	EPS	MC-8A DISC TR-8A
EPS-206	EPS	MC-8A-A DISC SW-V-4B
EPS-207	EPS	MC-8B DISC CRA-FN-1B-1
EPS-208	EPS	MC-8B DISC CRA-FN-1B-2
EPS-209	EPS	MC-8B DISC CRA-FN-2B-1
EPS-210	EPS	MC-8B DISC CRA-FN-2B-2
EPS-211	EPS	MC-8B DISC PP-8A-Z
EPS-212	EPS	MC-8B DISC RHR-P-3
EPS-213	EPS	MC-8B DISC SLC-P-1B

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
EPS-214	EPS	MC-8B-A DISC RCIC-V-63
EPS-215	EPS	MC-8B-A DISC RHR-V-16B
EPS-216	EPS	MC-8B-A DISC RHR-V-17B
EPS-217	EPS	MC-8B-A DISC RHR-V-24B
EPS-218	EPS	MC-8B-A DISC RHR-V-27B
EPS-219	EPS	MC-8B-A DISC RHR-V-42B
EPS-220	EPS	MC-8B-A DISC RHR-V-42C
EPS-221	EPS	MC-8B-A DISC RHR-V-4B
EPS-222	EPS	MC-8B-A DISC RHR-V-4C
EPS-223	EPS	MC-8B-A DISC RHR-V-64B
EPS-224	EPS	MC-8B-A DISC RHR-V-64C
EPS-225	EPS	MC-8B-A DISC RHR-V-6B
EPS-226	EPS	MC-8B-A DISC RHR-V-9
EPS-227	EPS	MC-8B-A DISC RWCU-V-1
EPS-228	EPS	MC-8B-B DISC RHR-V-3B
EPS-229	EPS	MC-8B-B DISC SGT-FN-1A-2
EPS-230	EPS	MC-8B-B DISC SGT-FN-1B-2
EPS-231	EPS	MC-8B-B DISC SGT-V-3A-2
EPS-232	EPS	MC-8C BKR RWCU-P-1A RACKOUT
EPS-233	EPS	MC-8C BKR RWCU-P-1B RACKOUT
EPS-234	EPS	MC-8C DISC HY-P-A1/3
EPS-235	EPS	MC-8C DISC RRA-FN-9
EPS-236	EPS	MC-8C DISC RRC-V-23A
EPS-237	EPS	MC-8C-A DISC HY-P-B1/3
EPS-238	EPS	MC-8C-B DISC TSW-V-64B
EPS-239	EPS	MC-8C-B DISC TSW-V-64C
EPS-240	EPS	MC-8E DISC WEA-FN-1B
EPS-241	EPS	MC-8E DISC WEA-FN-1C
EPS-242	EPS	MC-8F DISC WEA-FN-53B
EPS-243	EPS	MC-8F DISC WMA-FN-51B
EPS-244	EPS	MC-8F DISC WMA-FN-53B
EPS-245	EPS	MC-8F DISC WMA-FN-54B
EPS-246	EPS	MC-S1-1D DISC RCC-V-6
EPS-247	EPS	MC-S1-1D DISC RCIC-V-10
EPS-248	EPS	MC-S1-1D DISC RCIC-V-68
EPS-249	EPS	MC-S1-1D DISC RCIC-V-8
EPS-250	EPS	MC-S1-2D DISC CAC-V-11
EPS-251	EPS	MC-S2-1A DISC RCIC-P-4
EPS-252	EPS	MC-S2-1A DISC RCIC-V-1
EPS-253	EPS	MC-S2-1A DISC RCIC-V-13
EPS-254	EPS	MC-S2-1A DISC RCIC-V-45
EPS-255	EPS	MC-S2-1A DISC RHR-V-8
EPS-256	EPS	MC-S2-1A DISC RWCU-V-4

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
EPS-257	EPS	MC-S2-1B DISC RFT-EOP-1A
EPS-258	EPS	MC-S2-1B DISC RFT-EOP-1B
EPS-259	EPS	MC-S2-1B DISC TG-ASOBP-1
EPS-260	EPS	MC-S2-1B DISC TO-P-1
EPS-261	EPS	PP-7A DISC C0-1A,1B
EPS-262	EPS	PP-7A DISC IN-3
EPS-263	EPS	PP-8A DISC C0-2A,2B
EPS-264	EPS	PP-8A DISC IN-2
EPS-265	EPS	RPS-CB-2A RPS-A TRIP SYS BKR O/C
EPS-266	EPS	RPS-CB-2B RPS-B TRIP SYS BKR O/C
EPS-267	EPS	RPS-CB-3A PWR RNG DIV 1 BKR O/C
EPS-268	EPS	RPS-CB-3B PWR RNG DIV 2 BKR O/C
EPS-269	EPS	RPS-CB-5A NS4 INBD BKR O/C
EPS-270	EPS	RPS-CB-5B NS4 OTBD BKR O/C
EPS-271	EPS	RPS-CB-6A PRM DIV 1 BKR O/C
EPS-272	EPS	RPS-CB-6B PRM DIV 2 BKR O/C
EPS-273	EPS	RPS-CB-7A NS4 OTBD BKR O/C
EPS-274	EPS	RPS-CB-7B NS4 INBD BKR O/C
EPS-275	EPS	RPS-CB-CB1 ALT SUP BKR O/C
EPS-276	EPS	RPS-CB-MG1 MG-A OUTPT BKR O/C
EPS-277	EPS	RPS-CB-MG2 MG-B OUTPT BKR O/C
EPS-278	EPS	RPS-EPA-3A RPS-A EPA-3A O/C
EPS-279	EPS	RPS-EPA-3B RPS-B EPA-3B O/C
EPS-280	EPS	RPS-EPA-3C RPS-A EPA-3C O/C
EPS-281	EPS	RPS-EPA-3D RPS-B EPA-3D O/C
EPS-282	EPS	RPS-EPA-3E ALT RPS EPA-3E O/C
EPS-283	EPS	RPS-EPA-3F ALT RPS EPA-3F O/C
EPS-284	EPS	RPS-MS-1 RPS-MG-A START SW
EPS-285	EPS	RPS-MS-2 RPS-MG-B START SW
EPS-286	EPS	S1-1 DISC DP-S1-1A
EPS-287	EPS	S1-1 DISC MC-S1-1D
EPS-288	EPS	S1-2 DISC MC-S1-2D
EPS-289	EPS	S1-3 DISC 4KV BKR CONTROL S004
EPS-290	EPS	S1-7 DISC DP-S1-2C
EPS-291	EPS	S2-1 DISC IN-1
EPS-292	EPS	S2-1 DISC MC-S2-1A
EPS-293	EPS	S2-1 DISC MC-S2-1B
EPS-294	EPS	SH-05 BKR 5-53 RACKOUT
EPS-295	EPS	SH-05 BKR CTA RACKOUT
EPS-296	EPS	SH-05 BKR N2-5 RACKOUT
EPS-297	EPS	SH-05 BKR RRA RACKOUT
EPS-298	EPS	SH-05 BKR S-5 RACKOUT
EPS-299	EPS	SH-05 PT FUSE SH-5

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
EPS-300	EPS	SH-06 BKR 6-63 RACKOUT
EPS-301	EPS	SH-06 BKR CTB RACKOUT
EPS-302	EPS	SH-06 BKR N2-6 RACKOUT
EPS-303	EPS	SH-06 BKR RRB RACKOUT
EPS-304	EPS	SH-06 BKR S-6 RACKOUT
EPS-305	EPS	SH-06 PT FUSE SH-6
EPS-306	EPS	SH-09 BKR RPT-3A RACKOUT
EPS-307	EPS	SH-10 BKR RPT-3B RACKOUT
EPS-308	EPS	SH-11 BKR RPT-4A RACKOUT
EPS-309	EPS	SH-12 BKR RPT-4B RACKOUT
EPS-310	EPS	SH-13 BKR LF-2A RACKOUT
EPS-311	EPS	SH-14 BKR LF-2B RACKOUT
EPS-312	EPS	SL-11 BKR 11-1 RACKOUT
EPS-313	EPS	SL-11 BKR AR-P-1A RACKOUT
EPS-314	EPS	SL-21 BKR 21-11 RACKOUT
EPS-315	EPS	SL-21 BKR 21-2 RACKOUT
EPS-316	EPS	SL-21 BKR AR-P-1B RACKOUT
EPS-317	EPS	SL-31 BKR 31-21 RACKOUT
EPS-318	EPS	SL-31 BKR 31-3 RACKOUT
EPS-319	EPS	SL-31 BKR MC-5C O/C
EPS-320	EPS	SL-51 BKR MC-5M O/C
EPS-321	EPS	SL-52 BKR MC-5Q O/C
EPS-322	EPS	SL-53 BKR WOA-FN-1A RACKOUT
EPS-323	EPS	SL-61 BKR MC-6M O/C
EPS-324	EPS	SL-62 BKR MC-6Q O/C
EPS-325	EPS	SL-63 BKR WOA-FN-1B RACKOUT
EPS-326	EPS	SL-71 BKR MC-7A-B O/C
EPS-327	EPS	SL-71 BKR MC-7B O/C
EPS-328	EPS	SL-71 BKR MC-7C O/C
EPS-329	EPS	SL-71 BKR RCC-P-1A RACKOUT
EPS-330	EPS	SL-71 BKR REA-FN-1A RACKOUT
EPS-331	EPS	SL-73 BKR MC-7A O/C
EPS-332	EPS	SL-73 BKR MC-7E O/C
EPS-333	EPS	SL-73 BKR MC-7F O/C
EPS-334	EPS	SL-73 BKR ROA-FN-1A RACKOUT
EPS-335	EPS	SL-81 BKR MC-8B O/C
EPS-336	EPS	SL-81 BKR MC-8C O/C
EPS-337	EPS	SL-81 BKR RCC-P-1B RACKOUT
EPS-338	EPS	SL-81 BKR RCC-P-1C RACKOUT
EPS-339	EPS	SL-83 BKR MC-8A O/C
EPS-340	EPS	SL-83 BKR MC-8E O/C
EPS-341	EPS	SL-83 BKR MC-8F O/C
EPS-342	EPS	SL-83 BKR REA-FN-1B RACKOUT

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
EPS-343	EPS	SL-83 BKR ROA-FN-1B RACKOUT
EPS-344	EPS	SM-1 BKR 1-11 RACKOUT
EPS-345	EPS	SM-1 BKR 1-500S RACKOUT
EPS-346	EPS	SM-1 BKR 1-7 RACKOUT
EPS-347	EPS	SM-1 BKR C1A RACKOUT
EPS-348	EPS	SM-1 BKR CB2A RACKOUT
EPS-349	EPS	SM-1 BKR CW1A RACKOUT
EPS-350	EPS	SM-1 BKR LF-1A RACKOUT
EPS-351	EPS	SM-1 BKR N1-1 RACKOUT
EPS-352	EPS	SM-1 BKR S-1 RACKOUT
EPS-353	EPS	SM-1 PT FUSE SM-1
EPS-354	EPS	SM-2 BKR 2-21 RACKOUT
EPS-355	EPS	SM-2 BKR 2-4 RACKOUT
EPS-356	EPS	SM-2 BKR C1B RACKOUT
EPS-357	EPS	SM-2 BKR CB2B RACKOUT
EPS-358	EPS	SM-2 BKR CW1B RACKOUT
EPS-359	EPS	SM-2 BKR N1-2 RACKOUT
EPS-360	EPS	SM-2 BKR S-2 RACKOUT
EPS-361	EPS	SM-2 PT FUSE SM-2
EPS-362	EPS	SM-3 BKR 3-31 RACKOUT
EPS-363	EPS	SM-3 BKR 3-500S RACKOUT
EPS-364	EPS	SM-3 BKR 3-8 RACKOUT
EPS-365	EPS	SM-3 BKR C1C RACKOUT
EPS-366	EPS	SM-3 BKR CB2C RACKOUT
EPS-367	EPS	SM-3 BKR CW1C RACKOUT
EPS-368	EPS	SM-3 BKR LF-1B RACKOUT
EPS-369	EPS	SM-3 BKR N1-3 RACKOUT
EPS-370	EPS	SM-3 BKR S-3 RACKOUT
EPS-371	EPS	SM-3 PT FUSE SM-3
EPS-372	EPS	SM-4 BKR 4-2 RACKOUT
EPS-373	EPS	SM-4 BKR 4-41 RACKOUT
EPS-374	EPS	SM-4 BKR HPCS RACKOUT
EPS-375	EPS	SM-7 BKR 7-1 RACKOUT
EPS-376	EPS	SM-7 BKR 7-71 RACKOUT
EPS-377	EPS	SM-7 BKR 7-73 RACKOUT
EPS-378	EPS	SM-7 BKR 7-75/1 RACKOUT
EPS-379	EPS	SM-7 BKR 7-75/2 RACKOUT
EPS-380	EPS	SM-7 BKR 7-DG1 RACKOUT
EPS-381	EPS	SM-7 BKR B-7 RACKOUT
EPS-382	EPS	SM-7 BKR CRD-1A RACKOUT
EPS-383	EPS	SM-7 BKR LPCS RACKOUT
EPS-384	EPS	SM-7 BKR RHR-2A RACKOUT
EPS-385	EPS	SM-7 BKR SW-1A RACKOUT

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
EPS-386	EPS	SM-72 BKR TMU-1A RACKOUT
EPS-387	EPS	SM-75 BKR 75-72 RACKOUT
EPS-388	EPS	SM-75 BKR TSW-1A RACKOUT
EPS-389	EPS	SM-8 BKR 8-3 RACKOUT
EPS-390	EPS	SM-8 BKR 8-81 RACKOUT
EPS-391	EPS	SM-8 BKR 8-83 RACKOUT
EPS-392	EPS	SM-8 BKR 8-85/1 RACKOUT
EPS-393	EPS	SM-8 BKR 8-85/2 RACKOUT
EPS-394	EPS	SM-8 BKR 8-DG2 RACKOUT
EPS-395	EPS	SM-8 BKR B-8 RACKOUT
EPS-396	EPS	SM-8 BKR CRD-1B RACKOUT
EPS-397	EPS	SM-8 BKR RHR-2B RACKOUT
EPS-398	EPS	SM-8 BKR RHR-2C RACKOUT
EPS-399	EPS	SM-8 BKR SW1B RACKOUT
EPS-400	EPS	SM-82 BKR TMU-1B RACKOUT
EPS-401	EPS	SM-85 BKR 85-82 RACKOUT
EPS-402	EPS	SM-85 BKR TSW-1B RACKOUT
EPS-403	EPS	TMU-1C BKR RACKOUT
EPS-404	EPS	TMU-1C BUS SELECT
EPS-405	EPS	IN1-BTB MAINT BYPASS O/C
EPS-406	EPS	IN1-MBP MAINT BYPASS O/C
EPS-407	EPS	RRC-M-1A1 O/C RESET
EPS-408	EPS	RRC-M-1B1 O/C RESET
EPS-409	EPS	RPS-MG-1 O/C RESET
EPS-410	EPS	RPS-MG-2 O/C RESET
EPS-411	EPS	BKR 7-75/2
EPS-412	EPS	BKR 8-85/2
EPS-413	EPS	MC-8AA DISC MS-V-146
EPS-414	EPS	E-RMS-7FDA, IN-3 POWER
EPS-415	EPS	E-RMS-8FDA, IN-2 POWER
FPC-001	FPC	FPC-V-148 CONDENSER RETURN
FPC-002	FPC	FPC-V-114 PUMP X CONN
FPC-003	FPC	FPC-V-115A HX BYPASS
FPC-004	FPC	FPC-V-115B HX BYPASS
FPC-005	FPC	FPC-V-116A HX INLET ISOL
FPC-006	FPC	FPC-V-116B HX INLET ISOL
FPC-007	FPC	FPC-V-118A HX OUTLET ISOL
FPC-008	FPC	FPC-V-118B HX OUTLET ISOL
FPC-009	FPC	FPC-V-143 RX WELL RECIRC
FPC-010	FPC	FPC-V-141 X-TIE TO RHR
FPC-011	FPC	FPC-V-131 GATE DRAIN
FPC-012	FPC	FPC-V-105 WELL DRAIN
FPC-013	FPC	FPC-V-130 SURGE TANK DRAIN

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
FPC-014	FPC	FPC-V-142 FP RECIRC
FPC-015	FPC	FUEL POOL PLUG POSITION
FPC-016	FPC	FPC-V-147 WETWELL CLEANUP ISOL
FPC-017	FPC	FPC-P-1A O/C RESET
FPC-018	FPC	FPC-P-1B O/C RESET
FPC-019	FPC	FPC-P-3 O/C RESET
FPS-001	FPS	FP-P-1 DIESEL FIRE PUMP
FPS-002	FPS	FP-P-2A ELECTRIC FIRE PUMP
FPS-003	FPS	FP-P-2B ELECTRIC FIRE PUMP
FPS-004	FPS	FP-P-3 JOCKEY PUMP
FPS-005	FPS	FP-P-110 DIESEL FIRE PUMP
FPS-006	FPS	FP-P-111 JOCKEY PUMP
FPS-007	FPS	FP-P-111 O/C RESET
FPS-008	FPS	FP-P-2A O/C RESET
FPS-009	FPS	FP-P-2B O/C RESET
FPS-010	FPS	FP-P-3 O/C RESET
FPS-011	FPS	FP-P-1 O/C RESET
FPS-012	FPS	FP-P-110 O/C RESET
FPT-001	FPT	TO-V-62A RFPT A LO CLR SEL 2A/B
FPT-002	FPT	TO-V-62B RFPT B LO CLR SEL 2C/D
FPT-003	FPT	RFT-P-AOPA O/C RESET
FPT-004	FPT	RFT-P-AOPB O/C RESET
FPT-005	FPT	RFT-P-EOPA O/C RESET
FPT-006	FPT	RFT-P-EOPB O/C RESET
FPT-007	FPT	RFT-P-MOPA O/C RESET
FPT-008	FPT	RFT-P-MOPB O/C RESET
FPT-009	FPT	RFT-TNG-1A O/C RESET
FPT-010	FPT	RFT-TNG-1B O/C RESET
FPT-011	FPT	TO-EX-3A O/C RESET
FPT-012	FPT	TO-EX-3B O/C RESET
FPT-013	FPT	WEDGE REMOVED/INSTALL RFT-TNG-1A
FPT-014	FPT	WEDGE REMOVED/INSTALL RFT-TNG-1B
FWH-001	FWH	HV-V-2D BYP HV-V-23D STRTUP VNT
FWH-002	FWH	HV-V-2C BYP HV-V-23C STRTUP VNT
FWH-003	FWH	HV-V-2H BYP HV-V-23H STRTUP VNT
FWH-004	FWH	HV-V-2G BYP HV-V-23G STRTUP VNT
FWH-005	FWH	HV-V-2L BYP HV-V-23L STRTUP VNT
FWH-006	FWH	HV-V-2K BYP HV-V-23K STRTUP VNT
FWH-007	FWH	HV-V-2I BYP HV-V-23I STRTUP VNT
FWH-008	FWH	HV-V-2J BYP HV-V-23J STRTUP VNT
FWH-009	FWH	HV-V-35A BYP HV-V-37A STRTUP VNT
FWH-010	FWH	HV-V-35B BYP HV-V-37B STRTUP VNT
FWH-011	FWH	HV-V-2A BYP HV-V-23A STRTUP VNT

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
FWH-012	FWH	HV-V-2B BYP HV-V-23B STRTUP VNT
FWH-013	FWH	HV-V-2E BYP HV-V-23E STRTUP VNT
FWH-014	FWH	HV-V-2F BYP HV-V-23F STRTUP VNT
FWH-015	FWH	HV-V-34A BYP HV-V-36A STRTUP VNT
FWH-016	FWH	HV-V-34B BYP HV-V-36B STRTUP VNT
FWH-017	FWH	MSR HD-TKS NON-RETURN VLV RESET
GEA-001	GEA	SO-V-232 SEAL OIL TANK ISOL
GEA-002	GEA	SCW-V-405 HX 2 OUTLET
GEA-003	GEA	SCW-V-406 HX 1 OUTLET ISOLATION
GEA-004	GEA	SCW-V-407 HX 2 INLET
GEA-005	GEA	SCW-V-408 HX 2 INLET ISOLATION
GEA-006	GEA	SCW-V-409 HX 1 INLET
GEA-007	GEA	H2-V-7 H2 ISOLATION VALVE
GEA-008	GEA	SCW-P-1A PUMP AUTO/START/STOP
GEA-009	GEA	SCW-P-1B PUMP AUTO/START/STOP
GEA-010	GEA	TG-HSOP H2 SEAL OIL PUMP
GEA-011	GEA	TG-ASOP AIR SIDE SEAL OIL PUMP
GEA-012	GEA	TG-ASOBP AIR SIDE SO B/U PUMP
GEA-013	GEA	H2-V-52 H2 SUPPLY VALVE
GEA-014	GEA	H2-V-34 H2 VENT VALVE
GEA-015	GEA	CO2-V-60 CO2 SUPPLY VALVE
GEA-016	GEA	CO2-V-6 CO2 ISOLATION
GEA-017	GEA	IBD-AD-13B FRESH AIR INTAKE
GEA-018	GEA	IBD-AD-2 VENT TO ATMOSPHERE
GEA-019	GEA	IBD-AD-13A FRESH AIR INTAKE
GEA-020	GEA	STATOR CLG WTR DEMIN A IN SERV
GEA-021	GEA	STATOR CLG WTR DEMIN B IN SERV
GEA-022	GEA	SO-V-231 SEAL OIL TANK DRAIN
GEA-023	GEA	SCW-V-424 DEMIN BYPASS
GEA-024	GEA	IBD-FN-1A O/C RESET
GEA-025	GEA	IBD-FN-1B O/C RESET
GEA-026	GEA	SCW-P-1A O/C RESET
GEA-027	GEA	SCW-P-1B O/C RESET
GEA-028	GEA	TG-ASOP O/C RESET
GEA-029	GEA	TG-ASOBP O/C RESET
GEA-030	GEA	TG-HSOP O/C RESET
GEA-031	GEA	TO-EX-4 O/C RESET
GEN-001	GEN	MOD BANK 89-P1/P3
GEN-002	GEN	E-MO-DIS189 #1 MTR OP DISC
GEN-003	GEN	E-MO-DIS189 #2 MTR OP DISC
GEN-004	GEN	E-MO-DIS289 #1 MTR OP DISC
GEN-005	GEN	E-MO-DIS289 #2 MTR OP DISC
GEN-006	GEN	GRID BUS SELECT

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
GEN-007	GEN	MAIN GENERATOR DISCONNECT LINK
GEN-008	GEN	BKR 4885 500KV BKR #1 LOCAL CONT
GEN-009	GEN	BKR 4888 500KV BKR #2 LOCAL CONT
LDS-001	LDS	LPDS SINGLE INPUT (SPURIOUS)
LDS-002	LDS	LPDS SUSTAINED INPUT
MSL-001	MSL	MSLC-V-11 AIR INLET
MSL-002	MSL	MSLC-V-12 AIR INLET
MSL-003	MSL	MSLC-FN-1 O/C RESET
MSL-004	MSL	MSLC-FN-2 O/C RESET
NIS-001	NIS	APRM A GAIN ADJ FACTOR 0-10
NIS-002	NIS	APRM B GAIN ADJ FACTOR 0-10
NIS-003	NIS	APRM C GAIN ADJ FACTOR 0-10
NIS-004	NIS	APRM D GAIN ADJ FACTOR 0-10
NIS-005	NIS	APRM E GAIN ADJ FACTOR 0-10
NIS-006	NIS	APRM F GAIN ADJ FACTOR 0-10
NIS-007	NIS	LPRM 08-17A BYPASS/OPERATE SWTCH
NIS-008	NIS	LPRM 08-17C BYPASS/OPERATE SWTCH
NIS-009	NIS	LPRM 08-17D BYPASS/OPERATE SWTCH
NIS-010	NIS	LPRM 08-25A BYPASS/OPERATE SWTCH
NIS-011	NIS	LPRM 08-25B BYPASS/OPERATE SWTCH
NIS-012	NIS	LPRM 08-25D BYPASS/OPERATE SWTCH
NIS-013	NIS	LPRM 08-33A BYPASS/OPERATE SWTCH
NIS-014	NIS	LPRM 08-33B BYPASS/OPERATE SWTCH
NIS-015	NIS	LPRM 08-33C BYPASS/OPERATE SWTCH
NIS-016	NIS	LPRM 08-41B BYPASS/OPERATE SWTCH
NIS-017	NIS	LPRM 08-41C BYPASS/OPERATE SWTCH
NIS-018	NIS	LPRM 08-41D BYPASS/OPERATE SWTCH
NIS-019	NIS	LPRM 08-49A BYPASS/OPERATE SWTCH
NIS-020	NIS	LPRM 08-49C BYPASS/OPERATE SWTCH
NIS-021	NIS	LPRM 08-49D BYPASS/OPERATE SWTCH
NIS-022	NIS	LPRM 16-09B BYPASS/OPERATE SWTCH
NIS-023	NIS	LPRM 16-09C BYPASS/OPERATE SWTCH
NIS-024	NIS	LPRM 16-09D BYPASS/OPERATE SWTCH
NIS-025	NIS	LPRM 16-17A BYPASS/OPERATE SWTCH
NIS-026	NIS	LPRM 16-17B BYPASS/OPERATE SWTCH
NIS-027	NIS	LPRM 16-17C BYPASS/OPERATE SWTCH
NIS-028	NIS	LPRM 16-25A BYPASS/OPERATE SWTCH
NIS-029	NIS	LPRM 16-25B BYPASS/OPERATE SWTCH
NIS-030	NIS	LPRM 16-25D BYPASS/OPERATE SWTCH
NIS-031	NIS	LPRM 16-33A BYPASS/OPERATE SWTCH
NIS-032	NIS	LPRM 16-33C BYPASS/OPERATE SWTCH
NIS-033	NIS	LPRM 16-33D BYPASS/OPERATE SWTCH
NIS-034	NIS	LPRM 16-41B BYPASS/OPERATE SWTCH

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
NIS-035	NIS	LPRM 16-41C BYPASS/OPERATE SWTCH
NIS-036	NIS	LPRM 16-41D BYPASS/OPERATE SWTCH
NIS-037	NIS	LPRM 16-49A BYPASS/OPERATE SWTCH
NIS-038	NIS	LPRM 16-49B BYPASS/OPERATE SWTCH
NIS-039	NIS	LPRM 16-49C BYPASS/OPERATE SWTCH
NIS-040	NIS	LPRM 16-57A BYPASS/OPERATE SWTCH
NIS-041	NIS	LPRM 16-57B BYPASS/OPERATE SWTCH
NIS-042	NIS	LPRM 16-57D BYPASS/OPERATE SWTCH
NIS-043	NIS	LPRM 24-09A BYPASS/OPERATE SWTCH
NIS-044	NIS	LPRM 24-09B BYPASS/OPERATE SWTCH
NIS-045	NIS	LPRM 24-09D BYPASS/OPERATE SWTCH
NIS-046	NIS	LPRM 24-17A BYPASS/OPERATE SWTCH
NIS-047	NIS	LPRM 24-17B BYPASS/OPERATE SWTCH
NIS-048	NIS	LPRM 24-17C BYPASS/OPERATE SWTCH
NIS-049	NIS	LPRM 24-25B BYPASS/OPERATE SWTCH
NIS-050	NIS	LPRM 24-25C BYPASS/OPERATE SWTCH
NIS-051	NIS	LPRM 24-25D BYPASS/OPERATE SWTCH
NIS-052	NIS	LPRM 24-33A BYPASS/OPERATE SWTCH
NIS-053	NIS	LPRM 24-33C BYPASS/OPERATE SWTCH
NIS-054	NIS	LPRM 24-33D BYPASS/OPERATE SWTCH
NIS-055	NIS	LPRM 24-41A BYPASS/OPERATE SWTCH
NIS-056	NIS	LPRM 24-41B BYPASS/OPERATE SWTCH
NIS-057	NIS	LPRM 24-41D BYPASS/OPERATE SWTCH
NIS-058	NIS	LPRM 24-49A BYPASS/OPERATE SWTCH
NIS-059	NIS	LPRM 24-49B BYPASS/OPERATE SWTCH
NIS-060	NIS	LPRM 24-49C BYPASS/OPERATE SWTCH
NIS-061	NIS	LPRM 24-57B BYPASS/OPERATE SWTCH
NIS-062	NIS	LPRM 24-57C BYPASS/OPERATE SWTCH
NIS-063	NIS	LPRM 24-57D BYPASS/OPERATE SWTCH
NIS-064	NIS	LPRM 32-09A BYPASS/OPERATE SWTCH
NIS-065	NIS	LPRM 32-09B BYPASS/OPERATE SWTCH
NIS-066	NIS	LPRM 32-09D BYPASS/OPERATE SWTCH
NIS-067	NIS	LPRM 32-17A BYPASS/OPERATE SWTCH
NIS-068	NIS	LPRM 32-17C BYPASS/OPERATE SWTCH
NIS-069	NIS	LPRM 32-17D BYPASS/OPERATE SWTCH
NIS-070	NIS	LPRM 32-25B BYPASS/OPERATE SWTCH
NIS-071	NIS	LPRM 32-25C BYPASS/OPERATE SWTCH
NIS-072	NIS	LPRM 32-25D BYPASS/OPERATE SWTCH
NIS-073	NIS	LPRM 32-33A BYPASS/OPERATE SWTCH
NIS-074	NIS	LPRM 32-33B BYPASS/OPERATE SWTCH
NIS-075	NIS	LPRM 32-33C BYPASS/OPERATE SWTCH
NIS-076	NIS	LPRM 32-41A BYPASS/OPERATE SWTCH
NIS-077	NIS	LPRM 32-41B BYPASS/OPERATE SWTCH

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
NIS-078	NIS	LPRM 32-41D BYPASS/OPERATE SWTCH
NIS-079	NIS	LPRM 32-49A BYPASS/OPERATE SWTCH
NIS-080	NIS	LPRM 32-49C BYPASS/OPERATE SWTCH
NIS-081	NIS	LPRM 32-49D BYPASS/OPERATE SWTCH
NIS-082	NIS	LPRM 32-57B BYPASS/OPERATE SWTCH
NIS-083	NIS	LPRM 32-57C BYPASS/OPERATE SWTCH
NIS-084	NIS	LPRM 32-57D BYPASS/OPERATE SWTCH
NIS-085	NIS	LPRM 40-09B BYPASS/OPERATE SWTCH
NIS-086	NIS	LPRM 40-09C BYPASS/OPERATE SWTCH
NIS-087	NIS	LPRM 40-09D BYPASS/OPERATE SWTCH
NIS-088	NIS	LPRM 40-17A BYPASS/OPERATE SWTCH
NIS-089	NIS	LPRM 40-17C BYPASS/OPERATE SWTCH
NIS-090	NIS	LPRM 40-17D BYPASS/OPERATE SWTCH
NIS-091	NIS	LPRM 40-25A BYPASS/OPERATE SWTCH
NIS-092	NIS	LPRM 40-25B BYPASS/OPERATE SWTCH
NIS-093	NIS	LPRM 40-25D BYPASS/OPERATE SWTCH
NIS-094	NIS	LPRM 40-33A BYPASS/OPERATE SWTCH
NIS-095	NIS	LPRM 40-33B BYPASS/OPERATE SWTCH
NIS-096	NIS	LPRM 40-33C BYPASS/OPERATE SWTCH
NIS-097	NIS	LPRM 40-41B BYPASS/OPERATE SWTCH
NIS-098	NIS	LPRM 40-41C BYPASS/OPERATE SWTCH
NIS-099	NIS	LPRM 40-41D BYPASS/OPERATE SWTCH
NIS-100	NIS	LPRM 40-49A BYPASS/OPERATE SWTCH
NIS-101	NIS	LPRM 40-49C BYPASS/OPERATE SWTCH
NIS-102	NIS	LPRM 40-49D BYPASS/OPERATE SWTCH
NIS-103	NIS	LPRM 40-57A BYPASS/OPERATE SWTCH
NIS-104	NIS	LPRM 40-57B BYPASS/OPERATE SWTCH
NIS-105	NIS	LPRM 40-57D BYPASS/OPERATE SWTCH
NIS-106	NIS	LPRM 48-09B BYPASS/OPERATE SWTCH
NIS-107	NIS	LPRM 48-09C BYPASS/OPERATE SWTCH
NIS-108	NIS	LPRM 48-09D BYPASS/OPERATE SWTCH
NIS-109	NIS	LPRM 48-17A BYPASS/OPERATE SWTCH
NIS-110	NIS	LPRM 48-17B BYPASS/OPERATE SWTCH
NIS-111	NIS	LPRM 48-17C BYPASS/OPERATE SWTCH
NIS-112	NIS	LPRM 48-25A BYPASS/OPERATE SWTCH
NIS-113	NIS	LPRM 48-25B BYPASS/OPERATE SWTCH
NIS-114	NIS	LPRM 48-25D BYPASS/OPERATE SWTCH
NIS-115	NIS	LPRM 48-33A BYPASS/OPERATE SWTCH
NIS-116	NIS	LPRM 48-33C BYPASS/OPERATE SWTCH
NIS-117	NIS	LPRM 48-33D BYPASS/OPERATE SWTCH
NIS-118	NIS	LPRM 48-41B BYPASS/OPERATE SWTCH
NIS-119	NIS	LPRM 48-41C BYPASS/OPERATE SWTCH
NIS-120	NIS	LPRM 48-41D BYPASS/OPERATE SWTCH

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
NIS-121	NIS	LPRM 48-49A BYPASS/OPERATE SWTCH
NIS-122	NIS	LPRM 48-49B BYPASS/OPERATE SWTCH
NIS-123	NIS	LPRM 48-49C BYPASS/OPERATE SWTCH
NIS-124	NIS	LPRM 56-17A BYPASS/OPERATE SWTCH
NIS-125	NIS	LPRM 56-17B BYPASS/OPERATE SWTCH
NIS-126	NIS	LPRM 56-17C BYPASS/OPERATE SWTCH
NIS-127	NIS	LPRM 56-25B BYPASS/OPERATE SWTCH
NIS-128	NIS	LPRM 56-25C BYPASS/OPERATE SWTCH
NIS-129	NIS	LPRM 56-25D BYPASS/OPERATE SWTCH
NIS-130	NIS	LPRM 56-33A BYPASS/OPERATE SWTCH
NIS-131	NIS	LPRM 56-33C BYPASS/OPERATE SWTCH
NIS-132	NIS	LPRM 56-33D BYPASS/OPERATE SWTCH
NIS-133	NIS	LPRM 56-41A BYPASS/OPERATE SWTCH
NIS-134	NIS	LPRM 56-41B BYPASS/OPERATE SWTCH
NIS-135	NIS	LPRM 56-41D BYPASS/OPERATE SWTCH
OED-001	OED	115 KV LINE MAN DISC SWITCH
OED-002	OED	230 KV STARTUP BKR - CB-TRS
OED-003	OED	BPA RELAY 86/LR STATUS
OGS-001	OGS	OG-V-4B RECOMBINER AIR PURGE
OGS-002	OGS	OG-V-4A RECOMBINER AIR PURGE
OGS-003	OGS	GY-V-80A GLYCOL SUP OG-HX-10A
OGS-004	OGS	GY-V-80B GLYCOL SUP OG-HX-10B
OGS-005	OGS	GY-V-99A GLYCOL SUP OG-HX-31A
OGS-006	OGS	GY-V-99B GLYCOL SUP OG-HX-31B
OGS-007	OGS	OG-V-42 MOIST SEP SEAL WTR FILL
OGS-008	OGS	OG-V-35 CLR COND SEAL WTR FILL
OGS-009	OGS	OG-V-30 HOLDUP LN SEAL FILL
OGS-010	OGS	OG-V-51A INLET ISOL TO OG-HX-11A
OGS-011	OGS	OG-V-51B INLET ISOL TO OG-HX-11B
OGS-012	OGS	OG-V-51C INLET ISOL TO OG-HX-11C
OGS-013	OGS	OG-V-51D INLET ISOL TO OG-HX-11D
OGS-014	OGS	OG-V-102A DRYER CH LOOP SEAL FIL
OGS-015	OGS	OG-V-102B DRYER CH LOOP SEAL FIL
OGS-016	OGS	AR-V-18 GLND SEAL STM COND PRESS
OGS-017	OGS	MS-PC-11A SJAE A CTRL A/M SEL
OGS-018	OGS	MS-PC-11A SJAE A CTRL AUTO SETPT
OGS-019	OGS	MS-PC-11B SJAE B CTRL A/M SEL
OGS-020	OGS	MS-PC-11B SJAE B CTRL AUTO SETPT
OGS-021	OGS	MS-PC-16A SJAE A CTRL A/M SEL
OGS-022	OGS	MS-PC-16A SJAE A CTRL AUTO SETPT
OGS-023	OGS	MS-PC-16B SJAE B CTRL A/M SEL
OGS-024	OGS	MS-PC-16B SJAE B CTRL AUTO SETPT
OGS-025	OGS	MS-PC-17A SJAE A CTRL A/M SEL

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
OGS-026	OGS	MS-PC-17A SJAE A CTRL AUTO SETPT
OGS-027	OGS	MS-PC-17B SJAE B CTRL A/M SEL
OGS-028	OGS	MS-PC-17B SJAE B CTRL AUTO SETPT
OGS-029	OGS	OG DRYER A STATUS
OGS-030	OGS	OG DRYER B STATUS
OGS-031	OGS	OG DRYER C STATUS
OGS-032	OGS	OG DRYER D STATUS
OGS-033	OGS	DRYER HEATER OG-DY-7A MODE
OGS-034	OGS	DRYER HEATER OG-DY-7B MODE
OGS-035	OGS	AR-EX-1A O/C RESET
OGS-036	OGS	AR-EX-1B O/C RESET
OGS-037	OGS	AR-P-1A O/C RESET
OGS-038	OGS	AR-P-1B O/C RESET
OGS-039	OGS	GY-P-1A O/C RESET
OGS-040	OGS	GY-P-1B O/C RESET
OGS-041	OGS	GY-P-1C O/C RESET
OGS-042	OGS	OG-BL-1A O/C RESET
OGS-043	OGS	OG-BL-1B O/C RESET
OGS-044	OGS	OG-V-41A PRE-FILTER OUTLET
OGS-045	OGS	MS-PC-11A SJAE A CTRL MAN OUTPUT
OGS-046	OGS	MS-PC-11B SJAE B CTRL MAN OUTPUT
OGS-047	OGS	MS-PC-16A SJAE A CTRL MAN OUTPUT
OGS-048	OGS	MS-PC-16B SJAE B CTRL MAN OUTPUT
OGS-049	OGS	MS-PC-17A SJAE A CTRL MAN OUTPUT
OGS-050	OGS	MS-PC-17B SJAE B CTRL MAN OUTPUT
OGS-051	OGS	OG-RC-5A O/C RESET
OGS-052	OGS	OG-RC-5B O/C RESET
OGS-053	OGS	OG-RF-20A O/C RESET
OGS-054	OGS	OG-RF-20B O/C RESET
OGS-055	OGS	OG-RF-20C O/C RESET
OGS-056	OGS	OG-DY-7A O/C RESET
OGS-057	OGS	OG-DY-7B O/C RESET
PCN-001	PCN	CSP-V-90 CONTAIN PURGE SUPPLY
PCN-002	PCN	CMS-P-1303 O/C RESET
PCN-003	PCN	CMS-P-1403 O/C RESET
PCN-004	PCN	CRA-FN-1A1 O/C RESET
PCN-005	PCN	CRA-FN-1A2 O/C RESET
PCN-006	PCN	CRA-FN-1B1 O/C RESET
PCN-007	PCN	CRA-FN-1B2 O/C RESET
PCN-008	PCN	CRA-FN-1C1 O/C RESET
PCN-009	PCN	CRA-FN-1C2 O/C RESET
PCN-010	PCN	CRA-FN-2A1 O/C RESET
PCN-011	PCN	CRA-FN-2A2 O/C RESET

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
PCN-012	PCN	CRA-FN-2B1 O/C RESET
PCN-013	PCN	CRA-FN-2B2 O/C RESET
PCN-014	PCN	CRA-FN-3A O/C RESET
PCN-015	PCN	CRA-FN-3B O/C RESET
PCN-016	PCN	CRA-FN-3C O/C RESET
PCN-017	PCN	CRA-FN-4A O/C RESET
PCN-018	PCN	CRA-FN-4B O/C RESET
PCN-019	PCN	CRA-FN-5A O/C RESET
PCN-020	PCN	CRA-FN-5B O/C RESET
PCN-021	PCN	CRA-FN-5C O/C RESET
PCN-022	PCN	CRA-FN-5D O/C RESET
RCC-001	RCC	RCC-V-13A CRD-P-1A CLG WTR IN
RCC-002	RCC	RCC-V-13B CRD-P-1B CLG WTR IN
RCC-003	RCC	RCC-V-79A CRD-P-1A BRG CLG OUT
RCC-004	RCC	RCC-V-79B CRD-P-1B BRG CLG OUT
RCC-005	RCC	RCC-V-2A RCC-P-1A DISCH VLV
RCC-006	RCC	RCC-V-2B RCC-P-1B DISCH VLV
RCC-007	RCC	RCC-V-2C RCC-P-1C DISCH VLV
RCC-008	RCC	RCC-V-3A RCC-HX-1A INLET VLV
RCC-009	RCC	RCC-V-3B RCC-HX-1B INLET VLV
RCC-010	RCC	RCC-V-3C RCC-HX-1C INLET VLV
RCC-011	RCC	RCC-V-9A FPC-HX-1A INLET ISOL
RCC-012	RCC	RCC-V-9B FPC-HX-1B INLET ISOL
RCC-013	RCC	RCC-V-10A FPC-HX-1A OUTLET
RCC-014	RCC	RCC-V-10B FPC-HX-1B OUTLET
RCC-015	RCC	RCC-V-45A RWCU-P-1A CLG WTR IN
RCC-016	RCC	RCC-V-45B RWCU-P-1B CLG WTR IN
RCC-017	RCC	RCC-V-8 RWCU HX OUTLET
RCC-018	RCC	RCC-V-643A RWCU-P-1A CLR WTR OTL
RCC-019	RCC	RCC-V-643B RWCU-P-1B CLR WTR OTL
RCC-020	RCC	RCC-V-104 MAN OPEN
RCC-021	RCC	RCC-V-21 MAN OPEN
RCC-022	RCC	RCC-V-5 MAN OPEN
RCC-023	RCC	RCC-P-1A O/C RESET
RCC-024	RCC	RCC-P-1B O/C RESET
RCC-025	RCC	RCC-P-1C O/C RESET
RCI-001	RCI	RCIC-V-708 PS-9A ISOLATED
RCI-002	RCI	RCIC-V-709 PS-9B ISOLATED
RCI-003	RCI	RCIC-V-623D XTIE TO SLC
RCI-004	RCI	RCIC OVERSPEED TRIP RESET
RCI-005	RCI	RCIC-P-2 O/C RESET
RCI-006	RCI	RCIC-P-3 O/C RESET
RCI-007	RCI	RCIC-P-4 O/C RESET

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
RFC-001	RFC	HY-P-A1 O/C RESET
RFC-002	RFC	HY-P-A2 O/C RESET
RFC-003	RFC	HY-P-B1 O/C RESET
RFC-004	RFC	HY-P-B2 O/C RESET
RHR-001	RHR	RHR-V-72A FLUSH LINE ISOLATION
RHR-002	RHR	LPCS/RHR REMOVABLE SPOOLPIECE
RHR-003	RHR	RHR-V-71A FLUSH LINE ISOL PMP SN
RHR-004	RHR	RHR-V-67 LOOP C CROSS TIE &CONDF
RHR-005	RHR	RHR-V-106 FLUSH SUPPLY
RHR-006	RHR	RHR-V-104 RHR TO FPC INTERTIE
RHR-007	RHR	EDR-V-176 DRAIN TO FDR-R-1
RHR-008	RHR	RHR-V-70 FLUSH LINE TO FLOOR DRN
RHR-009	RHR	RHR-V-71B FLUSH LINE ISOLATION
RHR-010	RHR	RHR-V-72B FLUSH LINE ISOLATION
RHR-011	RHR	RHR-V-40 RHR DRAIN TO RW 0-100%
RHR-012	RHR	RHR-V-49 RHR DRAIN TO RW 0-100%
RHR-013	RHR	RHR-V-42A INJECT MAN OPEN 0-100%
RHR-014	RHR	RHR-V-42B INJECT MAN OPEN 0-100%
RHR-015	RHR	RHR-V-42C INJECT MAN OPEN 0-100%
RHR-016	RHR	RHR-P-3 O/C RESET
RHR-017	RHR	RHR-P-2A O/C RESET
RHR-018	RHR	RHR-P-2B O/C RESET
RHR-019	RHR	RHR-P-2C O/C RESET
RMS-001	RMS	WRA-FN-28 FAN STOP/START
RMS-002	RMS	WRA-FN-31 FAN STOP/START
RMS-003	RMS	TRA-FN-29 FAN STOP/START
RMS-004	RMS	RRA-FN-30 FAN STOP/START
RRP-001	RRP	RRC-P-1A VIBRATION ALARM RESET
RRP-002	RRP	RRC-P-1B VIBRATION ALARM RESET
RRP-003	RRP	RRC-V-8A SEAL PURGE ISOL VLV
RRP-004	RRP	RRC-V-8B SEAL PURGE ISOL VLV
RRP-005	RRP	RRC-FC-2A SEAL PURGE FLW CNTRL
RRP-006	RRP	RRC-FC-2B SEAL PURGE FLW CNTRL
RRP-007	RRP	SPARE
RRP-008	RRP	SPARE
RRP-009	RRP	PWR INTRLCK BYP SW RRC-RMS-118A
RRP-010	RRP	PWR INTRLCK BYP SW RRC-RMS-118B
RRP-011	RRP	FW LW FLOW BYP SW RRC-RMS-119A
RRP-012	RRP	FW LW FLOW BYP SW RRC-RMS-119B
RRP-013	RRP	RRC-P-1A O/C RESET
RRP-014	RRP	RRC-P-1B O/C RESET
RRS-1	RRS	REACTOR VESSEL HEAD
RWB-001	RWB	FDR-V-187/COLL TK DISCH TO RIVER

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
RWB-002	RWB	FDR-V-474/COLL TK DISCH TO COND
RWB-003	RWB	EDR-V-161/EDR TK DISCH TO FDR
RWB-004	RWB	EDR-V-158B/EDR TK DISCH TO CST
RWB-005	RWB	WOA-V-51A/#1 REMOTE INTAKE ISOL
RWB-006	RWB	WOA-V-51B/#2 REMOTE INTAKE ISOL
RWB-007	RWB	WOA-V-52A/#1 REMOTE INTAKE ISOL
RWB-008	RWB	WOA-V-52B/#2 REMOTE INTAKE ISOL
RWB-009	RWB	WEA-AD-52 IN DAMP TO WMA-AH-52A
RWB-010	RWB	WEA-FN-1A O/C RESET
RWB-011	RWB	WEA-FN-1B O/C RESET
RWB-012	RWB	WEA-FN-1C O/C RESET
RWB-013	RWB	WEA-FN-51 O/C RESET
RWB-014	RWB	WEA-FN-53A O/C RESET
RWB-015	RWB	WEA-FN-53B O/C RESET
RWB-016	RWB	WMA-FN-51A O/C RESET
RWB-017	RWB	WMA-FN-51B O/C RESET
RWB-018	RWB	WMA-FN-52A O/C RESET
RWB-019	RWB	WMA-FN-52B O/C RESET
RWB-020	RWB	WMA-FN-53A O/C RESET
RWB-021	RWB	WMA-FN-53B O/C RESET
RWB-022	RWB	WMA-FN-54A O/C RESET
RWB-023	RWB	WMA-FN-54B O/C RESET
RWB-024	RWB	WOA-FN-1A O/C RESET
RWB-025	RWB	WOA-FN-1B O/C RESET
RWU-001	RWU	RWCU-V-266A AUTO MANUAL
RWU-002	RWU	RWCU-V-266B AUTO MANUAL
RWU-003	RWU	RWCU-V-266A AUTO FLW SETPT V266A
RWU-004	RWU	RWCU-V-266B AUTO FLW SETPT V266B
RWU-005	RWU	RWCU-V-266A MANUL CNTRL VLV 266A
RWU-006	RWU	RWCU-V-266B MANUL CNTRL VLV 266B
RWU-007	RWU	RWCU-V-206A RWCU DEMN A INLT VLV
RWU-008	RWU	RWCU-V-206B RWCU DEMN B INLT VLV
RWU-009	RWU	RWCU-V-005A PMP A SUCT ISOL VLV
RWU-010	RWU	RWCU-V-005B PMP B SUCT ISOL VLV
RWU-011	RWU	RWCU-V-013A PMP A DISCH ISOL VLV
RWU-012	RWU	RWCU-V-013B PMP B DISCH ISOL VLV
RWU-013	RWU	RWCU-V-105 REGEN HX INLT ISO VLV
RWU-014	RWU	CRD-FCV-512A RWCU-P-1A MTR PURGE
RWU-015	RWU	CRD-FCV-512B RWCU-P-1B MTR PURGE
RWU-016	RWU	RWCU-V-266A SEAL-IN RESET
RWU-017	RWU	RWCU-V-266B SEAL-IN RESET
RWU-018	RWU	RWCU-P-1A O/C RESET
RWU-019	RWU	RWCU-P-1B O/C RESET

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
SCN-001	SCN	REA-FN-15 ANALYZER RM 1B
SCN-002	SCN	RRA-FN-16 ACCESS AREA
SCN-003	SCN	FDR-P-1A RX BLDG FDR SUMP 1 PUMP
SCN-004	SCN	FDR-P-1B RX BLDG FDR SUMP 1 PUMP
SCN-005	SCN	FDR-P-2 RX BLDG FDR SUMP 2 PUMP
SCN-006	SCN	FDR-P-3 RX BLDG FDR SUMP 4 PUMP
SCN-007	SCN	FDR-P-4A RX BLDG FDR SUMP 3 PUMP
SCN-008	SCN	FDR-P-4B RX BLDG FDR SUMP 3 PUMP
SCN-009	SCN	REA-V-F21 FIRE PROT FOR FU-2B
SCN-010	SCN	REA-V-F11 FIRE PROT FOR FU-2A
SCN-011	SCN	RRA-FN-8 MAIN STEAM TUNNEL FAN
SCN-012	SCN	RRA-FN-9 MAIN STEAM TUNNEL FAN
SCN-013	SCN	EDR-P-5 O/C RESET
SCN-014	SCN	FDR-P-1A O/C RESET
SCN-015	SCN	FDR-P-1B O/C RESET
SCN-016	SCN	FDR-P-2 O/C RESET
SCN-017	SCN	FDR-P-3 O/C RESET
SCN-018	SCN	FDR-P-4A O/C RESET
SCN-019	SCN	FDR-P-4B O/C RESET
SCN-020	SCN	REA-FN-1A O/C RESET
SCN-021	SCN	REA-FN-1B O/C RESET
SCN-022	SCN	REA-FN-2A O/C RESET
SCN-023	SCN	REA-FN-2B O/C RESET
SCN-024	SCN	REA-FN-15 O/C RESET
SCN-025	SCN	ROA-FN-1A O/C RESET
SCN-026	SCN	ROA-FN-1B O/C RESET
SCN-027	SCN	ROA-P-1A O/C RESET
SCN-028	SCN	ROA-P-1B O/C RESET
SCN-029	SCN	RRA-FN-1 O/C RESET
SCN-030	SCN	RRA-FN-2 O/C RESET
SCN-031	SCN	RRA-FN-3 O/C RESET
SCN-032	SCN	RRA-FN-4 O/C RESET
SCN-033	SCN	RRA-FN-5 O/C RESET
SCN-034	SCN	RRA-FN-6 O/C RESET
SCN-035	SCN	RRA-FN-8 O/C RESET
SCN-036	SCN	RRA-FN-9 O/C RESET
SCN-037	SCN	RRA-FN-10 O/C RESET
SCN-038	SCN	RRA-FN-11 O/C RESET
SCN-039	SCN	RRA-FN-12 O/C RESET
SCN-040	SCN	RRA-FN-13 O/C RESET
SCN-041	SCN	RRA-FN-14 O/C RESET
SCN-042	SCN	RRA-FN-15 O/C RESET
SCN-043	SCN	RRA-FN-16 O/C RESET

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
SCN-044	SCN	RRA-FN-17 O/C RESET
SCN-045	SCN	RRA-FN-19 O/C RESET
SCN-046	SCN	RRA-FN-20 O/C RESET
SCN-047	SCN	SGT-FN-1A-1 O/C RESET
SCN-048	SCN	SGT-FN-1A-2 O/C RESET
SCN-049	SCN	SGT-FN-1B-1 O/C RESET
SCN-050	SCN	SGT-FN-1B-2 O/C RESET
SCN-051	SCN	RRA-FN-21 O/C RESET
SCN-052	SCN	SGT-EHC-1A1 O/C RESET
SCN-053	SCN	SGT-EHC-1A2 O/C RESET
SCN-054	SCN	SGT-EHC-1B1
SCN-055	SCN	SGT-EHC-1B2 O/C RESET
SLC-001	SLC	SLC-V-16 SYS CIRC TEST VLV
SLC-002	SLC	SLC-V-31 TEST TANK OUTLET VALVE
SLC-003	SLC	SLC-RV-29B REMOVED/CONN TO RCIC
SLC-004	SLC	SLC-RV-29A REMOVED/CONN TO RCIC
SLC-005	SLC	SLC-V-2A SLC PUMP 1A SUCTION VLV
SLC-006	SLC	SLC-V-2B SLC PUMP 1B SUCTION VLV
SLC-007	SLC	SLC-P-1A LOCAL START/STOP
SLC-008	SLC	SLC-P-1B LOCAL START/STOP
SLC-009	SLC	SLC-P-1A O/C RESET
SLC-010	SLC	SLC-P-1B O/C RESET
SSW-001	SSW	RHR-V-14A HX A MAN ISOL
SSW-002	SSW	RHR-V-14B HX B MAN ISOL
SSW-003	SSW	SW-V-165A SPRAY RING BYPASS
SSW-004	SSW	SW-V-165B SPRAY RING BYPASS
SSW-005	SSW	SW-V-170A SPRAY RING ISOL
SSW-006	SSW	SW-V-170B SPRAY RING ISOL
SSW-007	SSW	SW-V-71A SPRAY XOVER A-B
SSW-008	SSW	SW-V-72A SPRAY XOVER B-A
SSW-009	SSW	SW-P-2A LOOP A KEEP FILL PMP
SSW-010	SSW	SW-P-2B LOOP B KEEP FILL PMP
SSW-011	SSW	SW-P-1A 86 LOCKOUT RELAY RESET
SSW-012	SSW	SW-P-1B 86 LOCKOUT RELAY RESET
SSW-013	SSW	HPCS-P-2 O/C RESET
SSW-014	SSW	SW-P-2A O/C RESET
SSW-015	SSW	SW-P-2B O/C RESET
TBS-001	TBS	TURB BLDG OUTSIDE AIR SPLY FAN1A
TBS-002	TBS	TURB BLDG OUTSIDE AIR SPLY FAN1B
TBS-003	TBS	TURB BLDG OUTSIDE AIR SPLY FAN2A
TBS-004	TBS	TURB BLDG OUTSIDE AIR SPLY FAN2B
TBS-005	TBS	TURB BLDG EXHAUST AIR FAN1A
TBS-006	TBS	TURB BLDG EXHAUST AIR FAN1B

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
TBS-007	TBS	TURB BLDG EXHAUST AIR FAN1C
TBS-008	TBS	TURB BLDG EXHAUST AIR FAN1D
TBS-009	TBS	TEA-FN-1A O/C RESET
TBS-010	TBS	TEA-FN-1B O/C RESET
TBS-011	TBS	TEA-FN-1C O/C RESET
TBS-012	TBS	TEA-FN-1D O/C RESET
TBS-013	TBS	TOA-FN-1A O/C RESET
TBS-014	TBS	TOA-FN-1B O/C RESET
TBS-015	TBS	TOA-FN-2A O/C RESET
TBS-016	TBS	TOA-FN-2B O/C RESET
TLO-001	TLO	OIL COOLER SELECT 1A/1B
TLO-002	TLO	TO-EX-1 O/C RESET
TLO-003	TLO	TO-P-BLP O/C RESET
TLO-004	TLO	TO-P-BOP O/C RESET
TLO-005	TLO	TO-P-EOP O/C RESET
TLO-006	TLO	TO-P-SOBP O/C RESET
TSW-001	TSW	TSW-V-63A RCC-HX-1A INLET VLV
TSW-002	TSW	TSW-V-63B RCC-HX-1B INLET VLV
TSW-003	TSW	TSW-V-63C RCC-HX-1C INLET VLV
TSW-004	TSW	TSW-V-46 TSW-TCV-4 BYPASS
TSW-005	TSW	TSW-V-21 TSW-TCV-8 BYPASS
TSW-006	TSW	TSW-V-29 TSW-TCV-9 BYPASS
TSW-007	TSW	TSW-V-10A TSW-TCV-14B BYPASS
TSW-008	TSW	TSW-V-10B TSW-TCV-14A BYPASS
TSW-009	TSW	TSW-F-1A TSW LUBE WTR FLTR ON
TSW-010	TSW	TSW-F-1B TSW LUBE WTR FLTR ON
TSW-011	TSW	TSW-V-78 TSW RTN ISOL CW BASIN
TSW-012	TSW	TSW-V-38 AIR SIDE S CLR TSW IN
TSW-013	TSW	TSW-V-39 H2 SIDE S CLR TSW IN
TSW-014	TSW	TSW-V-40 AIR SIDE S CLR TSW OUT
TSW-015	TSW	TSW-V-41 H2 SIDE S CLR TSW OUT
TSW-016	TSW	TSW-V-42A BUS DCT CLR A TSW IN
TSW-017	TSW	TSW-V-42B BUS DCT CLR B TSW IN
TSW-018	TSW	TSW-V-43A BUS DCT CLR A TSW OUT
TSW-019	TSW	TSW-V-43B BUS DCT CLR B TSW OUT
TSW-020	TSW	TSW-V-230 TSW SU LUBE WTR SUP
TSW-021	TSW	TSW-V-45B TCV-4 ISOLATION
TSW-022	TSW	TSW-V-9D TCV-14A ISOLATION
TSW-023	TSW	TSW-V-9B TCV-14B ISOLATION
TSW-024	TSW	TSW-V-20B TCV-8 ISOLATION
TSW-025	TSW	TSW-V-28B TCV-9 ISOLATION
TSW-026	TSW	TSW-V-33 TCV-11 BYPASS
TSW-027	TSW	TSW-V-32B TCV-11 ISOLATION

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
TSW-028	TSW	TSW-V-44 PCV-20 BYPASS
TSW-029	TSW	TSW-V-48B PCV-20 ISOLATION
TSW-030	TSW	CJW-P-1A JACKET WATER CIRC PUMP
TSW-031	TSW	CJW-P-1B JACKET WATER CIRC PUMP
TSW-032	TSW	CJW-V-201 TO TSW DISCH HEADER
TSW-033	TSW	CJW-V-5 TCV INLET ISOLATION
TSW-034	TSW	CJW-V-12 TCV-1 INLET ISOLATION
TSW-035	TSW	CJW-V-18 TCV-1 BYPASS
TSW-036	TSW	CJW-V-9 TCV-1 BYPASS
TSW-037	TSW	CJW-V-16A CAS-C-1A OUTLET ISOL
TSW-038	TSW	CJW-V-16B CAS-C-1B OUTLET ISOL
TSW-039	TSW	TSW-V-684 INLET TO CJW-HX-1B
TSW-040	TSW	TSW-V-685 INLET TO CJW-HX-1A
TSW-041	TSW	TSW-V-687 OUTLET FROM CJW-HX-1B
TSW-042	TSW	TSW-V-688 OUTLET FROM CJW-HX-1A
TSW-043	TSW	CJW-V-751 FPS CONNECTION
TSW-044	TSW	TSW-V-237,243,244 FPS CONNECTION
TSW-045	TSW	TSW-V-69 TSW SUPPLY CW FILL
TSW-046	TSW	CJW-V-16C CAS-C-1C OUTLET ISOL
TSW-047	TSW	TSW-V-695 FIREWATER TO TSW
TSW-048	TSW	CJW-V-22A CJW-HX-1A OUTLET ISOL
TSW-049	TSW	CJW-V-22B CJW-HX-1B OUTLET ISOL
TSW-050	TSW	TSW-F-2A FLTR CIRC WTR LUBE WTR
TSW-051	TSW	TSW-F-2B FLTR CIRC WTR LUBE WTR
TSW-052	TSW	TSW-V-94A FLTR TSW-F-2A ISOL VLV
TSW-053	TSW	TSW-V-94B FLTR TSW-F-2B ISOL VLV
TSW-054	TSW	TSW-V-683 CJW HTX COMMON ISOL
TSW-055	TSW	TSW-P-1A 86 LOCKOUT RELAY RESET
TSW-056	TSW	TSW-P-1B 86 LOCKOUT RELAY RESET
TSW-057	TSW	CJW-P-1A O/C RESET
TSW-058	TSW	CJW-P-1B O/C RESET
TSW-059	TSW	TSW-V-140A OUTLET FROM TO-HX-2A
TSW-060	TSW	TSW-V-140B OUTLET FROM TO-HX-2B
TSW-061	TSW	TSW-V-140C OUTLET FROM TO-HX-2C
TSW-062	TSW	TSW-V-140D OUTLET FROM TO-HX-2D
TSW-063	TSW	TSW-V-5A INLET TO TO-HX-2A
TSW-064	TSW	TSW-V-5B INLET TO TO-HX-2B
TSW-065	TSW	TSW-V-5C INLET TO TO-HX-2C
TSW-066	TSW	TSW-V-5D INLET TO TO-HX-2D
TUR-001	TUR	SS-V-49F SS-PCV-4F BYP VLV
TUR-002	TUR	SS-V-48F SS-PCV-4F ISOL VLV
TUR-003	TUR	SS-V-49E SS-PCV-4E BYP VLV
TUR-004	TUR	SS-V-48E SS-PCV-4E ISOL VLV

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
LOCAL OPERATOR ACTIONS LISTING

ID	SYSTEM	DESCRIPTION
TUR-005	TUR	SS-V-49D SS-PCV-4D BYP VLV
TUR-006	TUR	SS-V-48D SS-PCV-4D ISOL VLV
TUR-007	TUR	SS-V-49C SS-PCV-4C BYP VLV
TUR-008	TUR	SS-V-48C SS-PCV-4C ISOL VLV
TUR-009	TUR	SS-V-49B SS-PCV-4B BYP VLV
TUR-010	TUR	SS-V-48B SS-PCV-4B ISOL VLV
TUR-011	TUR	SS-V-49A SS-PCV-4A BYP VLV
TUR-012	TUR	SS-V-48A SS-PCV-4A ISOL VLV
TUR-013	TUR	SS-V-43B SS-PCV-2B BYP VLV
TUR-014	TUR	SS-V-42B SS-PCV-2B ISOL VLV
TUR-015	TUR	SS-V-43A SS-PCV-2A BYP VLV
TUR-016	TUR	SS-V-42A SS-PCV-2A ISOL VLV
TUR-017	TUR	SS-V-25 SS-PCV-126 BYPASS VLV
TUR-018	TUR	SS-V-24 SS-PCV-126 ISOL
TUR-019	TUR	SS-V-46 SS-PCV-3 BYP VLV
TUR-020	TUR	SS-V-47 SS-PCV-3 ISOL VLV
TUR-021	TUR	AS-BLR-1 AUX BOILER
TUR-022	TUR	HV-V-28A,HV-V-29A BYPASS
TUR-023	TUR	HV-V-28B,HV-V-29B BYPASS
TUR-024	TUR	HEATER EXT NON-RETURN VLV RESET
TUR-025	TUR	TG-M-TG LOCAL START PUSHBUTTON
TUR-026	TUR	TG-M-TG O/C RESET

TOTAL COUNT: 2172

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
MALFUNCTIONS LISTING

ID	SYSTEM	DESCRIPTION
ADS-1	ADS	ADS LOGIC FAILURE
CAS-1	CAS	COMPRESSOR LUBE OIL LEAK A,B,C
CAS-1A	CAS	A COMPRESSOR LUBE OIL LEAK
CAS-1B	CAS	B COMPRESSOR LUBE OIL LEAK
CAS-1C	CAS	C COMPRESSOR LUBE OIL LEAK
CAS-2	CAS	CTL AIR HDR LK DNSTRM CAS-V-15
CAS-2A	CAS	CTL AIR HDR LK DNSTRM CAS-V-151
CAS-2B	CAS	CTL AIR HDR LK DNSTRM CAS-V-152
CAS-2C	CAS	CTL AIR HDR LK DNSTRM CAS-V-153
CAS-2D	CAS	CTL AIR HDR LK DNSTRM CAS-V-155
CAS-3	CAS	SERV AIR HDR LK DNSTRM SA-PCV-2
CAS-4	CAS	LEAK DNSTRM OF CAS DRYER A/B
CFW-1	CFW	CONDENSER TUBE LEAK
CFW-10	CFW	FEEDWATER HEATER TUBE RUPTURE
CFW-10A	CFW	FEEDWATER HEATER 1A TUBE RUPTURE
CFW-10B	CFW	FEEDWATER HEATER 1B TUBE RUPTURE
CFW-10C	CFW	FEEDWATER HEATER 1C TUBE RUPTURE
CFW-10D	CFW	FEEDWATER HEATER 2A TUBE RUPTURE
CFW-10E	CFW	FEEDWATER HEATER 2B TUBE RUPTURE
CFW-10F	CFW	FEEDWATER HEATER 2C TUBE RUPTURE
CFW-10G	CFW	FEEDWATER HEATER 3A TUBE RUPTURE
CFW-10H	CFW	FEEDWATER HEATER 3B TUBE RUPTURE
CFW-10I	CFW	FEEDWATER HEATER 3C TUBE RUPTURE
CFW-10J	CFW	FEEDWATER HEATER 4A TUBE RUPTURE
CFW-10K	CFW	FEEDWATER HEATER 4B TUBE RUPTURE
CFW-10L	CFW	FEEDWATER HEATER 4C TUBE RUPTURE
CFW-10M	CFW	FEEDWATER HEATER 5A TUBE RUPTURE
CFW-10N	CFW	FEEDWATER HEATER 5B TUBE RUPTURE
CFW-10O	CFW	FEEDWATER HEATER 6A TUBE RUPTURE
CFW-10P	CFW	FEEDWATER HEATER 6B TUBE RUPTURE
CFW-1A	CFW	CONDENSER TUBE LEAK EAST END
CFW-1B	CFW	CONDENSER TUBE LEAK MIDDLE
CFW-1C	CFW	CONDENSER TUBE LEAK WEST END
CFW-2	CFW	LK IN CST SUPPLY HDR TO COND
CFW-3	CFW	CONDENSER AIR LEAK
CFW-4	CFW	LEAK IN COMMON COND PUMP DISCH
CFW-5	CFW	FEED LINE LEAK IN TURBINE BLDG
CFW-6	CFW	LEAK IN COMMON CBP DISCHARGE
CFW-7	CFW	LEAK AT RFP SUCTION
CFW-8	CFW	FEED LINE LEAK IN STEAM TUNNEL
CFW-8A	CFW	FEED LINE LEAK IN STEAM TUNNEL A
CFW-8B	CFW	FEED LINE LEAK IN STEAM TUNNEL B
CFW-9	CFW	FEED LINE LEAK IN DRYWELL

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
MALFUNCTIONS LISTING

ID	SYSTEM	DESCRIPTION
CFW-9A	CFW	FEED LINE LEAK IN DRYWELL A
CFW-9B	CFW	FEED LINE LEAK IN DRYWELL B
CIA-1	CIA	CONTAINMENT INSTRUMENT AIR LEAK
CIA-2	CIA	LEAK IN CIA LINE DNSTRM CIA-V-21
CIA-3	CIA	LK CIA LINE DNSTRM CIA-V-31A/B
CIA-3A	CIA	LK IN SUPP LINE TO SRV-4A/4B/5B
CIA-3B	CIA	LK IN SUPP LINE SRV-3D/4C/4D/5C
CRD-1	CRD	HCU ACCUMULATOR TROUBLE
CRD-1A	CRD	HCU ACCUMULATOR TROUBLE
CRD-1AA	CRD	HCU ACCUMULATOR TROUBLE
CRD-1AB	CRD	HCU ACCUMULATOR TROUBLE
CRD-1AC	CRD	HCU ACCUMULATOR TROUBLE
CRD-1AD	CRD	HCU ACCUMULATOR TROUBLE
CRD-1AE	CRD	HCU ACCUMULATOR TROUBLE
CRD-1AF	CRD	HCU ACCUMULATOR TROUBLE
CRD-1AG	CRD	HCU ACCUMULATOR TROUBLE
CRD-1AH	CRD	HCU ACCUMULATOR TROUBLE
CRD-1AI	CRD	HCU ACCUMULATOR TROUBLE
CRD-1AJ	CRD	HCU ACCUMULATOR TROUBLE
CRD-1AK	CRD	HCU ACCUMULATOR TROUBLE
CRD-1AL	CRD	HCU ACCUMULATOR TROUBLE
CRD-1AM	CRD	HCU ACCUMULATOR TROUBLE
CRD-1AN	CRD	HCU ACCUMULATOR TROUBLE
CRD-1AO	CRD	HCU ACCUMULATOR TROUBLE
CRD-1AP	CRD	HCU ACCUMULATOR TROUBLE
CRD-1AQ	CRD	HCU ACCUMULATOR TROUBLE
CRD-1AR	CRD	HCU ACCUMULATOR TROUBLE
CRD-1AS	CRD	HCU ACCUMULATOR TROUBLE
CRD-1AT	CRD	HCU ACCUMULATOR TROUBLE
CRD-1AU	CRD	HCU ACCUMULATOR TROUBLE
CRD-1AV	CRD	HCU ACCUMULATOR TROUBLE
CRD-1AW	CRD	HCU ACCUMULATOR TROUBLE
CRD-1AX	CRD	HCU ACCUMULATOR TROUBLE
CRD-1B	CRD	HCU ACCUMULATOR TROUBLE
CRD-1C	CRD	HCU ACCUMULATOR TROUBLE
CRD-1D	CRD	HCU ACCUMULATOR TROUBLE
CRD-1E	CRD	HCU ACCUMULATOR TROUBLE
CRD-1F	CRD	HCU ACCUMULATOR TROUBLE
CRD-1G	CRD	HCU ACCUMULATOR TROUBLE
CRD-1H	CRD	HCU ACCUMULATOR TROUBLE
CRD-1I	CRD	HCU ACCUMULATOR TROUBLE
CRD-1J	CRD	HCU ACCUMULATOR TROUBLE
CRD-1K	CRD	HCU ACCUMULATOR TROUBLE

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
MALFUNCTIONS LISTING

ID	SYSTEM	DESCRIPTION
CRD-1L	CRD	HCU ACCUMULATOR TROUBLE
CRD-1M	CRD	HCU ACCUMULATOR TROUBLE
CRD-1N	CRD	HCU ACCUMULATOR TROUBLE
CRD-1O	CRD	HCU ACCUMULATOR TROUBLE
CRD-1P	CRD	HCU ACCUMULATOR TROUBLE
CRD-1Q	CRD	HCU ACCUMULATOR TROUBLE
CRD-1R	CRD	HCU ACCUMULATOR TROUBLE
CRD-1S	CRD	HCU ACCUMULATOR TROUBLE
CRD-1T	CRD	HCU ACCUMULATOR TROUBLE
CRD-1U	CRD	HCU ACCUMULATOR TROUBLE
CRD-1V	CRD	HCU ACCUMULATOR TROUBLE
CRD-1W	CRD	HCU ACCUMULATOR TROUBLE
CRD-1X	CRD	HCU ACCUMULATOR TROUBLE
CRD-1Y	CRD	HCU ACCUMULATOR TROUBLE
CRD-1Z	CRD	HCU ACCUMULATOR TROUBLE
CRD-2	CRD	CONTROL ROD DRIVE SEALS WORN
CRD-3	CRD	CRD HYD LINE BREAK AT INLET PORT
CRD-4	CRD	CRD HYD LINE BREAK OUTLET PORT
CRD-5	CRD	RUPTURE IN CRD AIR HEADER
CRD-6	CRD	RUPTURE IN CRD WATER HEADER
CRD-7	CRD	HYDRAULIC ATWS
CRD-7A	CRD	HYDRAULIC ATWS EAST SDV
CRD-7B	CRD	HYDRAULIC ATWS WEST SDV
CSS-1	CSS	HPCS HEADER BREAK
CSS-2	CSS	LPCS HEADER BREAK
CSS-3	CSS	LPCS SUCTION LINE LEAK AT PUMP
CSS-4	CSS	HPCS DISCHARGE LINE LEAK AT PUMP
CSS-5	CSS	HPCS DISCH LN BRK DNSTRM FI-603
CSS-6	CSS	HPCS LOGIC FAILURE
CSS-7	CSS	LPCS/LPCI-A LOGIC FAILURE
CWS-1	CWS	CW TOWER ICING
CWS-1A	CWS	CW TOWER 1A ICING
CWS-1B	CWS	CW TOWER 1B ICING
CWS-1C	CWS	CW TOWER 1C ICING
CWS-1D	CWS	CW TOWER 2A ICING
CWS-1E	CWS	CW TOWER 2B ICING
CWS-1F	CWS	CW TOWER 2C ICING
CWS-2	CWS	CW SYS RUPTURE AT COMMON DISCH
CWS-3	CWS	CW SYS RUPTURE CONDENSER INLET
CWS-3A	CWS	CW SYS RUPTURE CONDENSER A INLET
CWS-3B	CWS	CW SYS RUPTURE CONDENSER B INLET
CWS-3C	CWS	CW SYS RUPTURE CONDENSER C INLET
CWS-4	CWS	CW SYS RUPTURE AT CONDSER OUTLET

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
MALFUNCTIONS LISTING

ID	SYSTEM	DESCRIPTION
CWS-4A	CWS	CW SYS RUPTURE AT CNDSR A OUTLET
CWS-4B	CWS	CW SYS RUPTURE AT CNDSR B OUTLET
CWS-4C	CWS	CW SYS RUPTURE AT CNDSR C OUTLET
CWS-5	CWS	CW SYS RUPT AT EACH COOLING TOWR
CWS-5A	CWS	CW SYS RUPTURE AT CLG TOWER 1A
CWS-5B	CWS	CW SYS RUPTURE AT CLG TOWER 1B
CWS-5C	CWS	CW SYS RUPTURE AT CLG TOWER 1C
CWS-5D	CWS	CW SYS RUPTURE AT CLG TOWER 2A
CWS-5E	CWS	CW SYS RUPTURE AT CLG TOWER 2B
CWS-5F	CWS	CW SYS RUPTURE AT CLG TOWER 2C
CWS-6	CWS	TMU RUPTURE IN 3.5 MILE M/U LINE
DEH-1	DEH	MAIN TURBINE TRIP/FAIL TO TRIP
DEH-10	DEH	TURBINE THROTTLE VALVE FAILURE
DEH-10A	DEH	TURBINE THROTTLE VALVE #1 FAIL
DEH-10B	DEH	TURBINE THROTTLE VALVE #2 FAIL
DEH-10C	DEH	TURBINE THROTTLE VALVE #3 FAIL
DEH-10D	DEH	TURBINE THROTTLE VALVE #4 FAIL
DEH-11	DEH	TURBINE GOVERNOR VALVE FAILURE
DEH-11A	DEH	TURBINE GOVERNOR VALVE #1 FAIL
DEH-11B	DEH	TURBINE GOVERNOR VALVE #2 FAIL
DEH-11C	DEH	TURBINE GOVERNOR VALVE #3 FAIL
DEH-11D	DEH	TURBINE GOVERNOR VALVE #4 FAIL
DEH-12	DEH	INTERCEPT AND STOP VALVE FAILURE
DEH-12A	DEH	INTERCEPT/STOP VALVE FAIL L-1IV
DEH-12B	DEH	INTERCEPT/STOP VALVE FAIL L-1RV
DEH-12C	DEH	INTERCEPT/STOP VALVE FAIL L-2IV
DEH-12D	DEH	INTERCEPT/STOP VALVE FAIL L-2RV
DEH-12E	DEH	INTERCEPT/STOP VALVE FAIL L-3IV
DEH-12F	DEH	INTERCEPT/STOP VALVE FAIL L-3RV
DEH-12G	DEH	INTERCEPT/STOP VALVE FAIL R-1IV
DEH-12H	DEH	INTERCEPT/STOP VALVE FAIL R-1RV
DEH-12I	DEH	INTERCEPT/STOP VALVE FAIL R-2IV
DEH-12J	DEH	INTERCEPT/STOP VALVE FAIL R-2RV
DEH-12K	DEH	INTERCEPT/STOP VALVE FAIL R-3IV
DEH-12L	DEH	INTERCEPT/STOP VALVE FAIL R-3RV
DEH-13	DEH	TURBINE BYPASS VALVE FAILURE
DEH-13A	DEH	TURBINE BYPASS VALVE #1 FAILURE
DEH-13B	DEH	TURBINE BYPASS VALVE #2 FAILURE
DEH-13C	DEH	TURBINE BYPASS VALVE #3 FAILURE
DEH-13D	DEH	TURBINE BYPASS VALVE #4 FAILURE
DEH-2	DEH	RUPTURE IN COMMON DEH DISCHARGE
DEH-3	DEH	EH OIL LEAK AT PUMP DISCHARGE
DEH-4	DEH	DEH STM PRESS INPUT AMP OSCIL

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
MALFUNCTIONS LISTING

ID	SYSTEM	DESCRIPTION
DEH-4A	DEH	DEH STM PRESS A INPUT AMP OSCIL
DEH-4B	DEH	DEH STM PRESS B INPUT AMP OSCIL
DEH-5	DEH	DEH PRESS CONTROLLER OUTPUT FAIL
DEH-6	DEH	DEH COMPUTER FAILURE
DEH-7	DEH	DEH ANALOG CONTROLLER FAILURE
DEH-7A	DEH	DEH ANALOG CONTROLLER FAIL-BPV'S
DEH-7B	DEH	DEH ANALOG CONTROLLER FAIL-GV'S
DEH-8	DEH	GOV VALVE LOW SIGNAL SELECT FAIL
DEH-9	DEH	TURB ACCELERATION CNTRL FAILURE
DGN-1	DGN	DG FAIL TO AUTO START-INCOMP SEQ
DGN-1A	DGN	DG1 FAIL AUTO START-INCOMPL SEQ
DGN-1B	DGN	DG2 FAIL AUTO START-INCOMPL SEQ
DGN-1C	DGN	DG3 FAIL AUTO START-INCOMPL SEQ
DGN-2	DGN	DG TRIP- HI DIFFERENTIAL CURRENT
DGN-2A	DGN	DG1 TRIP - HIGH DIFF CURRENT
DGN-2B	DGN	DG2 TRIP - HIGH DIFF CURRENT
DGN-2C	DGN	DG3 TRIP - HIGH DIFF CURRENT
DGN-3	DGN	DG GOVERNOR FAILURE - SPEED/LOAD
DGN-3A	DGN	DG1 GOVERNOR FAIL - SPEED/LOAD
DGN-3B	DGN	DG2 GOVERNOR FAIL - SPEED/LOAD
DGN-3C	DGN	DG3 GOVERNOR FAIL - SPEED/LOAD
DGN-4	DGN	DG VOLT REG FAIL-OSCILLATION
DGN-4A	DGN	DG1 VOLT REG FAIL - OSCILLATION
DGN-4B	DGN	DG2 VOLT REG FAIL - OSCILLATION
DGN-4C	DGN	DG3 VOLT REG FAIL - OSCILLATION
DGN-5	DGN	DG HIGH VIBRATION
DGN-5A	DGN	DG1 HIGH VIBRATION
DGN-5B	DGN	DG2 HIGH VIBRATION
DGN-5C	DGN	DG3 HIGH VIBRATION
EPS-1	EPS	4160 VAC BUS OVERCURRENT- GROUND
EPS-1A	EPS	4160 VAC BUS OVRCUR/GND SM1
EPS-1B	EPS	4160 VAC BUS OVRCUR/GND SM2
EPS-1C	EPS	4160 VAC BUS OVRCUR/GND SM3
EPS-1D	EPS	4160 VAC BUS OVRCUR/GND SM4
EPS-1E	EPS	4160 VAC BUS OVRCUR/GND SM75
EPS-1F	EPS	4160 VAC BUS OVRCUR/GND SM85
EPS-1G	EPS	4160 VAC BUS OVRCUR/GND SM7
EPS-1H	EPS	4160 VAC BUS OVRCUR/GND SM8
EPS-1I	EPS	4160 VAC BUS OVRCUR/GND SM72
EPS-1J	EPS	4160 VAC BUS OVRCUR/GND SM82
EPS-2	EPS	480 VAC BUS OVERCURRENT - GROUND
EPS-2A	EPS	480 VAC BUS OVRCUR/GND SL11
EPS-2B	EPS	480 VAC BUS OVRCUR/GND SL21

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
MALFUNCTIONS LISTING

ID	SYSTEM	DESCRIPTION
EPS-2C	EPS	480 VAC BUS OVRCUR/GND SL31
EPS-2D	EPS	480 VAC BUS OVRCUR/GND MC4A
EPS-2E	EPS	480 VAC BUS OVRCUR/GND SL51-SL52
EPS-2F	EPS	480 VAC BUS OVRCUR/GND SL53
EPS-2G	EPS	480 VAC BUS OVRCUR/GND SL61-SL62
EPS-2H	EPS	480 VAC BUS OVRCUR/GND SL63
EPS-2I	EPS	480 VAC BUS OVRCUR/GND SL71
EPS-2J	EPS	480 VAC BUS OVRCUR/GND SL73
EPS-2K	EPS	480 VAC BUS OVRCUR/GND SL81
EPS-2L	EPS	480 VAC BUS OVRCUR/GND SL83
EPS-3	EPS	GROUNDED DC BUS
EPS-3A	EPS	GROUNDED DC BUS DP-S0-1A
EPS-3B	EPS	GROUNDED DC BUS DP-S0-1B
EPS-3C	EPS	GROUNDED DC BUS DP-S1-1
EPS-3D	EPS	GROUNDED DC BUS DP-S1-2
EPS-3E	EPS	GROUNDED DC BUS DP-S1-7
EPS-3F	EPS	GROUNDED DC BUS DP-S1-HPCS
EPS-3G	EPS	GROUNDED DC BUS DP-S2-1
EPS-4	EPS	UPS STATIC SWITCH FAILURE
EPS-4A	EPS	UPS STATIC SWITCH FAILURE - IN1
EPS-4B	EPS	UPS STATIC SWITCH FAILURE - IN2
EPS-4C	EPS	UPS STATIC SWITCH FAILURE - IN3
EPS-5	EPS	6900 VAC BUS OVERCURRENT- GROUND
EPS-5A	EPS	6900 VAC BUS OVRCUR/GND SH5
EPS-5B	EPS	6900 VAC BUS OVRCUR/GND SH6
FPC-1	FPC	LEAK IN SPENT FUEL POOL
FPC-2	FPC	RUPTURE IN FPC PUMP SUCTION LINE
FPC-3	FPC	DROPPED SPENT FUEL BUNDLE IN SFP
FPS-1	FPS	FIRE MAIN HEADER BREAK
FPT-1	FPT	TO-TK-3A/3B LUBE OIL LEAK
FPT-1A	FPT	TO-TK-3A LUBE OIL LEAK
FPT-1B	FPT	TO-TK-3B LUBE OIL LEAK
FPT-2	FPT	RFPT TRIP/FAIL TO TRIP
FPT-2A	FPT	RFPT-A TRIP/FAIL TO TRIP
FPT-2B	FPT	RFPT-B TRIP/FAIL TO TRIP
FPT-3	FPT	RFPT LOSS OF LUBE OIL
FPT-3A	FPT	RFPT-A LOSS OF LUBE OIL
FPT-3B	FPT	RFPT-B LOSS OF LUBE OIL
FPT-4	FPT	RFPT GOVERNOR FAILURE
FPT-4A	FPT	RFPT-A GOVERNOR FAILURE
FPT-4B	FPT	RFPT-B GOVERNOR FAILURE
FPT-5	FPT	RFPT HIGH VIBRATION
FPT-5A	FPT	RFPT-A HIGH VIBRATION

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
MALFUNCTIONS LISTING

ID	SYSTEM	DESCRIPTION
FPT-5B	FPT	RFPT-B HIGH VIBRATION
FPT-6	FPT	STM LK RFP SUPPLY BETWEEN SV/GOV
FPT-6A	FPT	STM LK RFP-A SUP BETWEEN SV/GV
FPT-6B	FPT	STM LK RFP-B SUP BETWEEN SV/GV
FWC-1	FWC	STEAM FLOW TOTALIZER FAILURE
FWC-2	FWC	FEED FLOW TOTALIZER FAILURE
FWH-1	FWH	DRAIN LINE LEAK TO MSR DRAIN TK
FWH-1A	FWH	DRAIN LINE LEAK TO HD-TK-1A
FWH-1B	FWH	DRAIN LINE LEAK TO HD-TK-1B
FWH-1C	FWH	DRAIN LINE LEAK TO HD-TK-2A
FWH-1D	FWH	DRAIN LINE LEAK TO HD-TK-2B
FWH-1E	FWH	DRAIN LINE LEAK TO HD-TK-2C
FWH-1F	FWH	DRAIN LINE LEAK TO HD-TK-2D
FWH-1G	FWH	DRAIN LINE LEAK TO HD-TK-3A
FWH-1H	FWH	DRAIN LINE LEAK TO HD-TK-3B
FWH-1I	FWH	DRAIN LINE LEAK TO HD-TK-3C
FWH-1J	FWH	DRAIN LINE LEAK TO HD-TK-3D
FWH-2	FWH	FW HTR DRAIN LK BETWEEN DUMP VLV
FWH-2A	FWH	FW HTR DR LK BETWEEN DUMPS HTR2A
FWH-2B	FWH	FW HTR DR LK BETWEEN DUMPS HTR2B
FWH-2C	FWH	FW HTR DR LK BETWEEN DUMPS HTR2C
FWH-2D	FWH	FW HTR DR LK BETWEEN DUMPS HTR3A
FWH-2E	FWH	FW HTR DR LK BETWEEN DUMPS HTR3B
FWH-2F	FWH	FW HTR DR LK BETWEEN DUMPS HTR3C
FWH-2G	FWH	FW HTR DR LK BETWEEN DUMPS HTR4A
FWH-2H	FWH	FW HTR DR LK BETWEEN DUMPS HTR4B
FWH-2I	FWH	FW HTR DR LK BETWEEN DUMPS HTR4C
FWH-2J	FWH	FW HTR DR LK BETWEEN DUMPS HTR5A
FWH-2K	FWH	FW HTR DR LK BETWEEN DUMPS HTR5B
FWH-2L	FWH	FW HTR DR LK BETWEEN DUMPS HTR6A
FWH-2M	FWH	FW HTR DR LK BETWEEN DUMPS HTR6B
GEA-1	GEA	RUPTURE OF GEN SEAL OIL FILTERS
GEA-1A	GEA	RUPT OF AIR SIDE SEAL OIL FILTER
GEA-1B	GEA	RUPT OF HYDROGEN SEAL OIL FILTER
GEA-2	GEA	H2 LEAK IN SUPPLY LINE TO GEN
GEA-3	GEA	SCC PUMPS SUCTION LINE LEAK
GEA-3A	GEA	SCC-A PUMP SUCTION LINE LEAK
GEA-3B	GEA	SCC-B PUMP SUCTION LINE LEAK
GEA-4	GEA	GEN CLG WATER HIGH CONDUCTIVITY
GEA-5	GEA	STATOR CLG WTR LEAK IN MAIN GEN
GEN-1	GEN	MAIN GENERATOR TRIP/FAIL TO TRIP
GEN-2	GEN	GENERATOR VOLTAGE REG FAILURE
GEN-3	GEN	TRANSFORMER LOCKOUT TR-N1

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
MALFUNCTIONS LISTING

ID	SYSTEM	DESCRIPTION
GEN-4	GEN	TRANSFORMER LOCKOUT TR-N2
GEN-5	GEN	500KV BREAKER TRIP
GEN-5A	GEN	500KV ASHE BKR #1 (4885) TRIP
GEN-5B	GEN	500KV ASHE BKR #2 (4888) TRIP
GEN-6	GEN	MWTT FAILURE
GEN-7	GEN	MAIN GEN POTENTIAL XFMR FAILURE
GEN-7A	GEN	GEN INST POTENTIAL XFMR G2 FAIL
GEN-7B	GEN	VOLT REG POTENTIAL XFMR G3 FAIL
GEN-8	GEN	MAIN TRANSFORMER LOCKOUT
GEN-8A	GEN	MAIN TRANSFORMER TR-M1 LOCKOUT
GEN-8B	GEN	MAIN TRANSFORMER TR-M2 LOCKOUT
GEN-8C	GEN	MAIN TRANSFORMER TR-M3 LOCKOUT
NIS-1	NIS	SRM INSTR FLR HI-LO-ERRAT-INOP
NIS-1A	NIS	SRM INSTR FLR HI-LO-ERRAT-INOP A
NIS-1B	NIS	SRM INSTR FLR HI-LO-ERRAT-INOP B
NIS-1C	NIS	SRM INSTR FLR HI-LO-ERRAT-INOP C
NIS-1D	NIS	SRM INSTR FLR HI-LO-ERRAT-INOP D
NIS-2	NIS	IRM INSTR FLR HI-LO-ERRAT-INOP
NIS-2A	NIS	IRM INSTR FLR HI-LO-ERRAT-INOP A
NIS-2B	NIS	IRM INSTR FLR HI-LO-ERRAT-INOP B
NIS-2C	NIS	IRM INSTR FLR HI-LO-ERRAT-INOP C
NIS-2D	NIS	IRM INSTR FLR HI-LO-ERRAT-INOP D
NIS-2E	NIS	IRM INSTR FLR HI-LO-ERRAT-INOP E
NIS-2F	NIS	IRM INSTR FLR HI-LO-ERRAT-INOP F
NIS-2G	NIS	IRM INSTR FLR HI-LO-ERRAT-INOP G
NIS-2H	NIS	IRM INSTR FLR HI-LO-ERRAT-INOP H
NIS-3	NIS	SRM DT DR FAIL-STCK,CIR FAIL.
NIS-3A	NIS	SRM DT DR FAIL.-STCK,CIR FAIL A
NIS-3B	NIS	SRM DT DR FAIL-STCK,CIR FAIL B
NIS-3C	NIS	SRM DT DR FAIL-STCK,CIR FAIL C
NIS-3D	NIS	SRM DT DR FAIL-STCK,CIR FAIL D
NIS-4	NIS	IRM DT DR FAIL-STCK,CKT FAIL.
NIS-4A	NIS	IRM DT DR FAIL-STCK,CKT FAIL A
NIS-4B	NIS	IRM DT DR FAIL-STCK,CKT FAIL B
NIS-4C	NIS	IRM DT DR FAIL-STCK,CKT FAIL C
NIS-4D	NIS	IRM DT DR FAIL-STCK,CKT FAIL D
NIS-4E	NIS	IRM DT DR FAIL-STCK,CKT FAIL E
NIS-4F	NIS	IRM DT DR FAIL-STCK,CKT FAIL F
NIS-4G	NIS	IRM DT DR FAIL-STCK,CKT FAIL G
NIS-4H	NIS	IRM DT DR FAIL-STCK,CKT FAIL H
NIS-5	NIS	APRM FAILURE-DWNSCL/UPSCL/INOP
NIS-5A	NIS	APRM-A FAILURE-DWNSCL/UPSCL/INOP
NIS-5B	NIS	APRM-B FAILURE-DWNSCL/UPSCL/INOP

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
MALFUNCTIONS LISTING

ID	SYSTEM	DESCRIPTION
NIS-5C	NIS	APRM-C FAILURE/DWNSCL/UPSCL/INOP
NIS-5D	NIS	APRM-D FAILURE-DWNSCL/UPSCL/INOP
NIS-5E	NIS	APRM-E FAILURE/DWNSCL/UPSCL/INOP
NIS-5F	NIS	APRM-F FAILURE/DWNSCL/UPSCL/INOP
NIS-6	NIS	APRM FLOW UNIT FAILURE
NIS-6A	NIS	APRM FLOW UNIT A FAIL
NIS-6B	NIS	APRM FLOW UNIT B FAIL
NIS-6C	NIS	APRM FLOW UNIT C FAIL
NIS-6D	NIS	APRM FLOW UNIT D FAIL
NIS-7	NIS	SRM-IRM INADEQUATE OVERLAP
NIS-7A	NIS	SRM-IRM A INADEQUATE OVERLAP
NIS-7B	NIS	SRM-IRM B INADEQUATE OVERLAP
NIS-7C	NIS	SRM-IRM C INADEQUATE OVERLAP
NIS-7D	NIS	SRM-IRM D INADEQUATE OVERLAP
NIS-7E	NIS	SRM-IRM E INADEQUATE OVERLAP
NIS-7F	NIS	SRM-IRM F INADEQUATE OVERLAP
NIS-7G	NIS	SRM-IRM G INADEQUATE OVERLAP
NIS-7H	NIS	SRM-IRM H INADEQUATE OVERLAP
NIS-8	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8A	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8AA	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8AB	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8AC	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8AD	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8AE	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8AF	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8AG	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8AH	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8AI	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8AJ	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8AK	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8AL	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8AM	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8AN	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8AO	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8AP	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8AQ	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8AR	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8AS	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8AT	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8AU	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8AV	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8AW	NIS	LPRM FAILURE UPSCALE/DOWNSCALE

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
MALFUNCTIONS LISTING

ID	SYSTEM	DESCRIPTION
NIS-8AX	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8AY	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8AZ	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8B	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8BA	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8BB	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8BC	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8BD	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8BE	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8BF	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8BG	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8BH	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8C	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8D	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8E	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8F	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8G	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8H	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8I	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8J	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8K	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8L	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8M	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8N	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8O	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8P	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8Q	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8R	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8S	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8T	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8U	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8V	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8W	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8X	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8Y	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NIS-8Z	NIS	LPRM FAILURE UPSCALE/DOWNSCALE
NSF-1	EPS	POWER SUPPLY FAILURE- FUSE BLOWN
NSF-1A	EPS	P/S FAILURE - FUSE CB7A BLOWN
NSF-1B	EPS	P/S FAILURE - FUSE CB7B BLOWN
OED-1	OED	TRANSFORMER LOCKOUT TR-S
OED-2	OED	LOSS OF ALL OFFSITE POWER
OED-3	OED	TRANSFORMER LOCKOUT TR-B
OGS-1	OGS	SYSTEM LEAK CATALYTIC RECOMBINER

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
MALFUNCTIONS LISTING

ID	SYSTEM	DESCRIPTION
OGS-1A	OGS	SYSTEM LEAK RECOMBINER OG-RC-5A
OGS-1B	OGS	SYSTEM LEAK RECOMBINER OG-RC-5B
OGS-2	OGS	SYSTEM LEAK PREFILTER AREA
OGS-3	OGS	SYSTEM LEAK IN CHARCOAL ADSORBER
OGS-3A	OGS	SYSTEM LEAK IN ADSORBER TRAIN A
OGS-3B	OGS	SYSTEM LEAK IN ADSORBER TRAIN B
OGS-4	OGS	DEACTIVATED
OGS-5	OGS	STM LEAK IN EACH SJAE ROOM
OGS-5A	OGS	STM LEAK IN SJAE ROOM A
OGS-5B	OGS	STM LEAK IN SJAE ROOM B
PCN-1	PCN	LK IN CONT DWNSTRM OF CEP-V-1A/B
PCN-2	PCN	RUPT TAILPIP ABOVE SUPP POOL LVL
PCN-2A	PCN	RUPT MS-RV-1A TAILPIP ABV SP LVL
PCN-2B	PCN	RUPT MS-RV-2A TAILPIP ABV SP LVL
PCN-2C	PCN	RUPT MS-RV-3A TAILPIP ABV SP LVL
PCN-2D	PCN	RUPT MS-RV-4A TAILPIP ABV SP LVL
PCN-2E	PCN	RUPT MS-RV-1B TAILPIP ABV SP LVL
PCN-2F	PCN	RUPT MS-RV-2B TAILPIP ABV SP LVL
PCN-2G	PCN	RUPT MS-RV-3B TAILPIP ABV SP LVL
PCN-2H	PCN	RUPT MS-RV-4B TAILPIP ABV SP LVL
PCN-2I	PCN	RUPT MS-RV-5B TAILPIP ABV SP LVL
PCN-2J	PCN	RUPT MS-RV-1C TAILPIP ABV SP LVL
PCN-2K	PCN	RUPT MS-RV-2C TAILPIP ABV SP LVL
PCN-2L	PCN	RUPT MS-RV-3C TAILPIP ABV SP LVL
PCN-2M	PCN	RUPT MS-RV-4C TAILPIP ABV SP LVL
PCN-2N	PCN	RUPT MS-RV-5C TAILPIP ABV SP LVL
PCN-2O	PCN	RUPT MS-RV-1D TAILPIP ABV SP LVL
PCN-2P	PCN	RUPT MS-RV-2D TAILPIP ABV SP LVL
PCN-2Q	PCN	RUPT MS-RV-3D TAILPIP ABV SP LVL
PCN-2R	PCN	RUPT MS-RV-4D TAILPIP ABV SP LVL
PCN-3	PCN	HI GAS CONCENTRATION IN PRI CONT
PCN-3A	PCN	HI H2 CONCENTRATION IN DRYWELL
PCN-3B	PCN	HI O2 CONCENTRATION IN DRYWELL
PCN-3C	PCN	HI H2 CONCENTRATION IN WETWELL
PCN-3D	PCN	HI O2 CONCENTRATION IN WETWELL
PCN-4	PCN	HYDROGEN IGNITION
PCN-5	PCN	CEP LEAKAGE
PCN-5A	PCN	CEP LEAKAGE (DRYWELL)
PCN-5B	PCN	CEP LEAKAGE (WETWELL)
PCR-1	PCR	PLACE HOLDER
PCR-10	PCR	PLACE HOLDER
PCR-2	PCR	PLACE HOLDER
PCR-3	PCR	PLACE HOLDER

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
MALFUNCTIONS LISTING

ID	SYSTEM	DESCRIPTION
PCR-4	PCR	PLACE HOLDER
PCR-5	PCR	PLACE HOLDER
PCR-6	PCR	PLACE HOLDER
PCR-7	PCR	PLACE HOLDER
PCR-8	PCR	PLACE HOLDER
PCR-9	PCR	PLACE HOLDER
RBM-1	RBM	ROD BLOCK MONITOR FAILURE
RBM-1A	RBM	RBM-A FAILURE
RBM-1B	RBM	RBM-B FAILURE
RCC-1	RCC	RCC LK IN SUPPLY HDR IN PRI CONT
RCC-10	RCC	RUPT DW COOLING LN INLET/OUTLET
RCC-10A	RCC	RUPT DW COOLING LN CRA-CC-1A/B/C
RCC-10B	RCC	RUPT DW COOLING LN TO CRA-CC-2B
RCC-10C	RCC	RUPT DW COOLING LN FRM CRA-CC-2B
RCC-2	RCC	RCCW RETURN HDR LK IN PRI CONT
RCC-3	RCC	RCCW LEAK AT PUMP SUCTION
RCC-4	RCC	RCCW LK IN SUPPLY HDR TO OFF GAS
RCC-5	RCC	LOSS RCCW COOLING TO RECIRC PUMP
RCC-5A	RCC	LOSS OF RCCW COOLING TO RRC-P-1A
RCC-5B	RCC	LOSS OF RCCW COOLING TO RRC-P-1B
RCC-6	RCC	RCCW LK DOWNSTREAM OF RCC-FT-29
RCC-7	RCC	RCCW LK CRD PUMP BEARING COOLER
RCC-7A	RCC	RCCW LK AT CRD-P-1A BRNG COOLER
RCC-7B	RCC	RCCW LK AT CRD-P-1B BRNG COOLER
RCC-8	RCC	LOSS RCCW FLOW CRD PMP BRNG CLR
RCC-8A	RCC	LOSS RCCW FLOW CRD-P-1A BRNG CLR
RCC-8B	RCC	LOSS RCCW FLOW CRD-P-1B BRNG CLR
RCC-9	RCC	LOSS RCCW FLOW TO DW EDR COOLER
RCI-1	RCI	RCIC TURBINE TRIP/FAILS TO TRIP
RCI-2	RCI	RUPTURE STM SUPPLY TO RCIC IN PC
RCI-3	RCI	RCIC TUR EXH DIA RUPTURE IN RB
RCI-4	RCI	RUPT IN STM LN DWNSTRM RCIC-V-45
RCI-5	RCI	RUPTURE TURB EXH LINE IN RX BLDG
RCI-6	RCI	STEAM LINE BREAK AT RCIC TURBINE
RCI-7	RCI	RCIC LOGIC FAILURE
RCI-7A	RCI	RCIC LOGIC FAILURE DIVISION 1
RCI-7B	RCI	RCIC LOGIC FAILURE DIVISION 2
RCX-1	RCX	CLAD PERFORATION
RCX-2	RCX	GROSS CLAD FAILURE
RCX-3	RCX	HIGH ROD WORTH
RCX-4	RCX	SKEWED FLUX DISTRIBUTION
RCX-4A	RCX	SKEWED FLUX DISTRIBUTION
RCX-4AA	RCX	SKEWED FLUX DISTRIBUTION

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
MALFUNCTIONS LISTING

ID	SYSTEM	DESCRIPTION
RCX-4AB	RCX	SKEWED FLUX DISTRIBUTION
RCX-4AC	RCX	SKEWED FLUX DISTRIBUTION
RCX-4AD	RCX	SKEWED FLUX DISTRIBUTION
RCX-4AE	RCX	SKEWED FLUX DISTRIBUTION
RCX-4AF	RCX	SKEWED FLUX DISTRIBUTION
RCX-4AG	RCX	SKEWED FLUX DISTRIBUTION
RCX-4AH	RCX	SKEWED FLUX DISTRIBUTION
RCX-4AI	RCX	SKEWED FLUX DISTRIBUTION
RCX-4AJ	RCX	SKEWED FLUX DISTRIBUTION
RCX-4AK	RCX	SKEWED FLUX DISTRIBUTION
RCX-4AL	RCX	SKEWED FLUX DISTRIBUTION
RCX-4AM	RCX	SKEWED FLUX DISTRIBUTION
RCX-4AN	RCX	SKEWED FLUX DISTRIBUTION
RCX-4AO	RCX	SKEWED FLUX DISTRIBUTION
RCX-4AP	RCX	SKEWED FLUX DISTRIBUTION
RCX-4AQ	RCX	SKEWED FLUX DISTRIBUTION
RCX-4AR	RCX	SKEWED FLUX DISTRIBUTION
RCX-4AS	RCX	SKEWED FLUX DISTRIBUTION
RCX-4AT	RCX	SKEWED FLUX DISTRIBUTION
RCX-4AU	RCX	SKEWED FLUX DISTRIBUTION
RCX-4AV	RCX	SKEWED FLUX DISTRIBUTION
RCX-4AW	RCX	SKEWED FLUX DISTRIBUTION
RCX-4AX	RCX	SKEWED FLUX DISTRIBUTION
RCX-4B	RCX	SKEWED FLUX DISTRIBUTION
RCX-4C	RCX	SKEWED FLUX DISTRIBUTION
RCX-4D	RCX	SKEWED FLUX DISTRIBUTION
RCX-4E	RCX	SKEWED FLUX DISTRIBUTION
RCX-4F	RCX	SKEWED FLUX DISTRIBUTION
RCX-4G	RCX	SKEWED FLUX DISTRIBUTION
RCX-4H	RCX	SKEWED FLUX DISTRIBUTION
RCX-4I	RCX	SKEWED FLUX DISTRIBUTION
RCX-4J	RCX	SKEWED FLUX DISTRIBUTION
RCX-4K	RCX	SKEWED FLUX DISTRIBUTION
RCX-4L	RCX	SKEWED FLUX DISTRIBUTION
RCX-4M	RCX	SKEWED FLUX DISTRIBUTION
RCX-4N	RCX	SKEWED FLUX DISTRIBUTION
RCX-4O	RCX	SKEWED FLUX DISTRIBUTION
RCX-4P	RCX	SKEWED FLUX DISTRIBUTION
RCX-4Q	RCX	SKEWED FLUX DISTRIBUTION
RCX-4R	RCX	SKEWED FLUX DISTRIBUTION
RCX-4S	RCX	SKEWED FLUX DISTRIBUTION
RCX-4T	RCX	SKEWED FLUX DISTRIBUTION
RCX-4U	RCX	SKEWED FLUX DISTRIBUTION

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
MALFUNCTIONS LISTING

ID	SYSTEM	DESCRIPTION
RCX-4V	RCX	SKEWED FLUX DISTRIBUTION
RCX-4W	RCX	SKEWED FLUX DISTRIBUTION
RCX-4X	RCX	SKEWED FLUX DISTRIBUTION
RCX-4Y	RCX	SKEWED FLUX DISTRIBUTION
RCX-4Z	RCX	SKEWED FLUX DISTRIBUTION
RCX-5	RCX	POWER OSCILLATIONS
RCX-5A	RCX	PWR OSCILL,GLOBAL (IN PHASE)
RCX-5B	RCX	PWR OSCILL,REGION (OUT OF PHASE)
RFC-1	RFC	RUPT IN HYD LN AT RRC-V-60B ACT
RFC-2	RFC	RUPT IN HYD LN AT RRC-V-60A ACT
RFC-3	RFC	FAIL IN FEEDBACK LOOP - VLV POS
RFC-3A	RFC	FAIL IN VLV POS FB RRC-M/A-611A
RFC-3B	RFC	FAIL IN VLV POS FB RRC-M/A-611B
RFC-4	RFC	HPU FAILURE - LEAD/BACKUP SYSTEM
RFC-4A	RFC	HPU A SYS 1 FAILS - HY-HP-A1
RFC-4B	RFC	HPU B SYS 1 FAILS - HY-HP-B1
RFC-4C	RFC	HPU A SYS 2 FAILS - HY-HP-A2
RFC-4D	RFC	HPU B SYS 2 FAILS - HY-HP-B2
RFC-5	RFC	DEACTIVATED
RHR-1	RHR	LINE BREAK AT RHR-P-2A SUCTION
RHR-2	RHR	LINE BREAK AT RHR-HX-1B
RHR-3	RHR	S/D COOLING LINE BRK IN SEC CONT
RHR-4	RHR	LPCI LOGIC FAILURE-A, B, AND C
RHR-4A	RHR	LPCI LOGIC FAILURE A
RHR-4B	RHR	LPCI LOGIC FAILURE B AND C
RMC-1	RMC	HCU TRANSPONDER FAILURE
RMC-1A	RMC	HCU TRANSPONDER FAILURE
RMC-1AA	RMC	HCU TRANSPONDER FAILURE
RMC-1AB	RMC	HCU TRANSPONDER FAILURE
RMC-1AC	RMC	HCU TRANSPONDER FAILURE
RMC-1AD	RMC	HCU TRANSPONDER FAILURE
RMC-1AE	RMC	HCU TRANSPONDER FAILURE
RMC-1AF	RMC	HCU TRANSPONDER FAILURE
RMC-1AG	RMC	HCU TRANSPONDER FAILURE
RMC-1AH	RMC	HCU TRANSPONDER FAILURE
RMC-1AI	RMC	HCU TRANSPONDER FAILURE
RMC-1AJ	RMC	HCU TRANSPONDER FAILURE
RMC-1AK	RMC	HCU TRANSPONDER FAILURE
RMC-1AL	RMC	HCU TRANSPONDER FAILURE
RMC-1AM	RMC	HCU TRANSPONDER FAILURE
RMC-1AN	RMC	HCU TRANSPONDER FAILURE
RMC-1AO	RMC	HCU TRANSPONDER FAILURE
RMC-1AP	RMC	HCU TRANSPONDER FAILURE

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
MALFUNCTIONS LISTING

ID	SYSTEM	DESCRIPTION
RMC-1AQ	RMC	HCU TRANSPONDER FAILURE
RMC-1AR	RMC	HCU TRANSPONDER FAILURE
RMC-1AS	RMC	HCU TRANSPONDER FAILURE
RMC-1AT	RMC	HCU TRANSPONDER FAILURE
RMC-1AU	RMC	HCU TRANSPONDER FAILURE
RMC-1AV	RMC	HCU TRANSPONDER FAILURE
RMC-1AW	RMC	HCU TRANSPONDER FAILURE
RMC-1AX	RMC	HCU TRANSPONDER FAILURE
RMC-1AY	RMC	HCU TRANSPONDER FAILURE
RMC-1AZ	RMC	HCU TRANSPONDER FAILURE
RMC-1B	RMC	HCU TRANSPONDER FAILURE
RMC-1BA	RMC	HCU TRANSPONDER FAILURE
RMC-1BB	RMC	HCU TRANSPONDER FAILURE
RMC-1BC	RMC	HCU TRANSPONDER FAILURE
RMC-1BD	RMC	HCU TRANSPONDER FAILURE
RMC-1BE	RMC	HCU TRANSPONDER FAILURE
RMC-1BF	RMC	HCU TRANSPONDER FAILURE
RMC-1BG	RMC	HCU TRANSPONDER FAILURE
RMC-1BH	RMC	HCU TRANSPONDER FAILURE
RMC-1C	RMC	HCU TRANSPONDER FAILURE
RMC-1D	RMC	HCU TRANSPONDER FAILURE
RMC-1E	RMC	HCU TRANSPONDER FAILURE
RMC-1F	RMC	HCU TRANSPONDER FAILURE
RMC-1G	RMC	HCU TRANSPONDER FAILURE
RMC-1H	RMC	HCU TRANSPONDER FAILURE
RMC-1I	RMC	HCU TRANSPONDER FAILURE
RMC-1J	RMC	HCU TRANSPONDER FAILURE
RMC-1K	RMC	HCU TRANSPONDER FAILURE
RMC-1L	RMC	HCU TRANSPONDER FAILURE
RMC-1M	RMC	HCU TRANSPONDER FAILURE
RMC-1N	RMC	HCU TRANSPONDER FAILURE
RMC-1O	RMC	HCU TRANSPONDER FAILURE
RMC-1P	RMC	HCU TRANSPONDER FAILURE
RMC-1Q	RMC	HCU TRANSPONDER FAILURE
RMC-1R	RMC	HCU TRANSPONDER FAILURE
RMC-1S	RMC	HCU TRANSPONDER FAILURE
RMC-1T	RMC	HCU TRANSPONDER FAILURE
RMC-1U	RMC	HCU TRANSPONDER FAILURE
RMC-1V	RMC	HCU TRANSPONDER FAILURE
RMC-1W	RMC	HCU TRANSPONDER FAILURE
RMC-1X	RMC	HCU TRANSPONDER FAILURE
RMC-1Y	RMC	HCU TRANSPONDER FAILURE
RMC-1Z	RMC	HCU TRANSPONDER FAILURE

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
MALFUNCTIONS LISTING

ID	SYSTEM	DESCRIPTION
RMC-2	RMC	ROD POSITION INDICATION FAILURE
RMC-3	RMC	RDCS FAILURE
RMC-4	CRD	ROD DRIFTS IN/OUT
RMC-4A	CRD	ROD DRIFTS IN/OUT
RMC-4AA	CRD	ROD DRIFTS IN/OUT
RMC-4AB	CRD	ROD DRIFTS IN/OUT
RMC-4AC	CRD	ROD DRIFTS IN/OUT
RMC-4AD	CRD	ROD DRIFTS IN/OUT
RMC-4AE	CRD	ROD DRIFTS IN/OUT
RMC-4AF	CRD	ROD DRIFTS IN/OUT
RMC-4AG	CRD	ROD DRIFTS IN/OUT
RMC-4AH	CRD	ROD DRIFTS IN/OUT
RMC-4AI	CRD	ROD DRIFTS IN/OUT
RMC-4AJ	CRD	ROD DRIFTS IN/OUT
RMC-4AK	CRD	ROD DRIFTS IN/OUT
RMC-4AL	CRD	ROD DRIFTS IN/OUT
RMC-4AM	CRD	ROD DRIFTS IN/OUT
RMC-4AN	CRD	ROD DRIFTS IN/OUT
RMC-4AO	CRD	ROD DRIFTS IN/OUT
RMC-4AP	CRD	ROD DRIFTS IN/OUT
RMC-4AQ	CRD	ROD DRIFTS IN/OUT
RMC-4AR	CRD	ROD DRIFTS IN/OUT
RMC-4AS	CRD	ROD DRIFTS IN/OUT
RMC-4AT	CRD	ROD DRIFTS IN/OUT
RMC-4AU	CRD	ROD DRIFTS IN/OUT
RMC-4AV	CRD	ROD DRIFTS IN/OUT
RMC-4AW	CRD	ROD DRIFTS IN/OUT
RMC-4AX	CRD	ROD DRIFTS IN/OUT
RMC-4AY	CRD	ROD DRIFTS IN/OUT
RMC-4AZ	CRD	ROD DRIFTS IN/OUT
RMC-4B	CRD	ROD DRIFTS IN/OUT
RMC-4BA	CRD	ROD DRIFTS IN/OUT
RMC-4BB	CRD	ROD DRIFTS IN/OUT
RMC-4BC	CRD	ROD DRIFTS IN/OUT
RMC-4BD	CRD	ROD DRIFTS IN/OUT
RMC-4BE	CRD	ROD DRIFTS IN/OUT
RMC-4BF	CRD	ROD DRIFTS IN/OUT
RMC-4BG	CRD	ROD DRIFTS IN/OUT
RMC-4BH	CRD	ROD DRIFTS IN/OUT
RMC-4C	CRD	ROD DRIFTS IN/OUT
RMC-4D	CRD	ROD DRIFTS IN/OUT
RMC-4E	CRD	ROD DRIFTS IN/OUT
RMC-4F	CRD	ROD DRIFTS IN/OUT

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
MALFUNCTIONS LISTING

ID	SYSTEM	DESCRIPTION
RMC-4G	CRD	ROD DRIFTS IN/OUT
RMC-4H	CRD	ROD DRIFTS IN/OUT
RMC-4I	CRD	ROD DRIFTS IN/OUT
RMC-4J	CRD	ROD DRIFTS IN/OUT
RMC-4K	CRD	ROD DRIFTS IN/OUT
RMC-4L	CRD	ROD DRIFTS IN/OUT
RMC-4M	CRD	ROD DRIFTS IN/OUT
RMC-4N	CRD	ROD DRIFTS IN/OUT
RMC-4O	CRD	ROD DRIFTS IN/OUT
RMC-4P	CRD	ROD DRIFTS IN/OUT
RMC-4Q	CRD	ROD DRIFTS IN/OUT
RMC-4R	CRD	ROD DRIFTS IN/OUT
RMC-4S	CRD	ROD DRIFTS IN/OUT
RMC-4T	CRD	ROD DRIFTS IN/OUT
RMC-4U	CRD	ROD DRIFTS IN/OUT
RMC-4V	CRD	ROD DRIFTS IN/OUT
RMC-4W	CRD	ROD DRIFTS IN/OUT
RMC-4X	CRD	ROD DRIFTS IN/OUT
RMC-4Y	CRD	ROD DRIFTS IN/OUT
RMC-4Z	CRD	ROD DRIFTS IN/OUT
RMC-5	CRD	STUCK ROD
RMC-5A	CRD	STUCK ROD
RMC-5AA	CRD	STUCK ROD
RMC-5AB	CRD	STUCK ROD
RMC-5AC	CRD	STUCK ROD
RMC-5AD	CRD	STUCK ROD
RMC-5AE	CRD	STUCK ROD
RMC-5AF	CRD	STUCK ROD
RMC-5AG	CRD	STUCK ROD
RMC-5AH	CRD	STUCK ROD
RMC-5AI	CRD	STUCK ROD
RMC-5AJ	CRD	STUCK ROD
RMC-5AK	CRD	STUCK ROD
RMC-5AL	CRD	STUCK ROD
RMC-5AM	CRD	STUCK ROD
RMC-5AN	CRD	STUCK ROD
RMC-5AO	CRD	STUCK ROD
RMC-5AP	CRD	STUCK ROD
RMC-5AQ	CRD	STUCK ROD
RMC-5AR	CRD	STUCK ROD
RMC-5AS	CRD	STUCK ROD
RMC-5AT	CRD	STUCK ROD
RMC-5AU	CRD	STUCK ROD

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
MALFUNCTIONS LISTING

ID	SYSTEM	DESCRIPTION
RMC-5AV	CRD	STUCK ROD
RMC-5AW	CRD	STUCK ROD
RMC-5AX	CRD	STUCK ROD
RMC-5AY	CRD	STUCK ROD
RMC-5AZ	CRD	STUCK ROD
RMC-5B	CRD	STUCK ROD
RMC-5BA	CRD	STUCK ROD
RMC-5BB	CRD	STUCK ROD
RMC-5BC	CRD	STUCK ROD
RMC-5BD	CRD	STUCK ROD
RMC-5BE	CRD	STUCK ROD
RMC-5BF	CRD	STUCK ROD
RMC-5BG	CRD	STUCK ROD
RMC-5BH	CRD	STUCK ROD
RMC-5C	CRD	STUCK ROD
RMC-5D	CRD	STUCK ROD
RMC-5E	CRD	STUCK ROD
RMC-5F	CRD	STUCK ROD
RMC-5G	CRD	STUCK ROD
RMC-5H	CRD	STUCK ROD
RMC-5I	CRD	STUCK ROD
RMC-5J	CRD	STUCK ROD
RMC-5K	CRD	STUCK ROD
RMC-5L	CRD	STUCK ROD
RMC-5M	CRD	STUCK ROD
RMC-5N	CRD	STUCK ROD
RMC-5O	CRD	STUCK ROD
RMC-5P	CRD	STUCK ROD
RMC-5Q	CRD	STUCK ROD
RMC-5R	CRD	STUCK ROD
RMC-5S	CRD	STUCK ROD
RMC-5T	CRD	STUCK ROD
RMC-5U	CRD	STUCK ROD
RMC-5V	CRD	STUCK ROD
RMC-5W	CRD	STUCK ROD
RMC-5X	CRD	STUCK ROD
RMC-5Y	CRD	STUCK ROD
RMC-5Z	CRD	STUCK ROD
RMC-6	CRD	UNCOUPLED ROD
RMC-6A	CRD	UNCOUPLED ROD
RMC-6AA	CRD	UNCOUPLED ROD
RMC-6AB	CRD	UNCOUPLED ROD
RMC-6AC	CRD	UNCOUPLED ROD

APPENDIX C
ATTACHMENT C-3

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
MALFUNCTIONS LISTING

ID	SYSTEM	DESCRIPTION
RMC-6AD	CRD	UNCOUPLED ROD
RMC-6AE	CRD	UNCOUPLED ROD
RMC-6AF	CRD	UNCOUPLED ROD
RMC-6AG	CRD	UNCOUPLED ROD
RMC-6AH	CRD	UNCOUPLED ROD
RMC-6AI	CRD	UNCOUPLED ROD
RMC-6AJ	CRD	UNCOUPLED ROD
RMC-6AK	CRD	UNCOUPLED ROD
RMC-6AL	CRD	UNCOUPLED ROD
RMC-6AM	CRD	UNCOUPLED ROD
RMC-6AN	CRD	UNCOUPLED ROD
RMC-6AO	CRD	UNCOUPLED ROD
RMC-6AP	CRD	UNCOUPLED ROD
RMC-6AQ	CRD	UNCOUPLED ROD
RMC-6AR	CRD	UNCOUPLED ROD
RMC-6AS	CRD	UNCOUPLED ROD
RMC-6AT	CRD	UNCOUPLED ROD
RMC-6AU	CRD	UNCOUPLED ROD
RMC-6AV	CRD	UNCOUPLED ROD
RMC-6AW	CRD	UNCOUPLED ROD
RMC-6AX	CRD	UNCOUPLED ROD
RMC-6AY	CRD	UNCOUPLED ROD
RMC-6AZ	CRD	UNCOUPLED ROD
RMC-6B	CRD	UNCOUPLED ROD
RMC-6BA	CRD	UNCOUPLED ROD
RMC-6BB	CRD	UNCOUPLED ROD
RMC-6BC	CRD	UNCOUPLED ROD
RMC-6BD	CRD	UNCOUPLED ROD
RMC-6BE	CRD	UNCOUPLED ROD
RMC-6BF	CRD	UNCOUPLED ROD
RMC-6BG	CRD	UNCOUPLED ROD
RMC-6BH	CRD	UNCOUPLED ROD
RMC-6C	CRD	UNCOUPLED ROD
RMC-6D	CRD	UNCOUPLED ROD
RMC-6E	CRD	UNCOUPLED ROD
RMC-6F	CRD	UNCOUPLED ROD
RMC-6G	CRD	UNCOUPLED ROD
RMC-6H	CRD	UNCOUPLED ROD
RMC-6I	CRD	UNCOUPLED ROD
RMC-6J	CRD	UNCOUPLED ROD
RMC-6K	CRD	UNCOUPLED ROD
RMC-6L	CRD	UNCOUPLED ROD
RMC-6M	CRD	UNCOUPLED ROD

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
MALFUNCTIONS LISTING

ID	SYSTEM	DESCRIPTION
RMC-6N	CRD	UNCOUPLED ROD
RMC-6O	CRD	UNCOUPLED ROD
RMC-6P	CRD	UNCOUPLED ROD
RMC-6Q	CRD	UNCOUPLED ROD
RMC-6R	CRD	UNCOUPLED ROD
RMC-6S	CRD	UNCOUPLED ROD
RMC-6T	CRD	UNCOUPLED ROD
RMC-6U	CRD	UNCOUPLED ROD
RMC-6V	CRD	UNCOUPLED ROD
RMC-6W	CRD	UNCOUPLED ROD
RMC-6X	CRD	UNCOUPLED ROD
RMC-6Y	CRD	UNCOUPLED ROD
RMC-6Z	CRD	UNCOUPLED ROD
RMC-7	RPS	SINGLE ROD SCRAM
RMC-7A	RPS	SINGLE ROD SCRAM
RMC-7AA	RPS	SINGLE ROD SCRAM
RMC-7AB	RPS	SINGLE ROD SCRAM
RMC-7AC	RPS	SINGLE ROD SCRAM
RMC-7AD	RPS	SINGLE ROD SCRAM
RMC-7AE	RPS	SINGLE ROD SCRAM
RMC-7AF	RPS	SINGLE ROD SCRAM
RMC-7AG	RPS	SINGLE ROD SCRAM
RMC-7AH	RPS	SINGLE ROD SCRAM
RMC-7AI	RPS	SINGLE ROD SCRAM
RMC-7AJ	RPS	SINGLE ROD SCRAM
RMC-7AK	RPS	SINGLE ROD SCRAM
RMC-7AL	RPS	SINGLE ROD SCRAM
RMC-7AM	RPS	SINGLE ROD SCRAM
RMC-7AN	RPS	SINGLE ROD SCRAM
RMC-7AO	RPS	SINGLE ROD SCRAM
RMC-7AP	RPS	SINGLE ROD SCRAM
RMC-7AQ	RPS	SINGLE ROD SCRAM
RMC-7AR	RPS	SINGLE ROD SCRAM
RMC-7AS	RPS	SINGLE ROD SCRAM
RMC-7AT	RPS	SINGLE ROD SCRAM
RMC-7AU	RPS	SINGLE ROD SCRAM
RMC-7AV	RPS	SINGLE ROD SCRAM
RMC-7AW	RPS	SINGLE ROD SCRAM
RMC-7AX	RPS	SINGLE ROD SCRAM
RMC-7AY	RPS	SINGLE ROD SCRAM
RMC-7AZ	RPS	SINGLE ROD SCRAM
RMC-7B	RPS	SINGLE ROD SCRAM
RMC-7BA	RPS	SINGLE ROD SCRAM

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
MALFUNCTIONS LISTING

ID	SYSTEM	DESCRIPTION
RMC-7BB	RPS	SINGLE ROD SCRAM
RMC-7BC	RPS	SINGLE ROD SCRAM
RMC-7BD	RPS	SINGLE ROD SCRAM
RMC-7BE	RPS	SINGLE ROD SCRAM
RMC-7BF	RPS	SINGLE ROD SCRAM
RMC-7BG	RPS	SINGLE ROD SCRAM
RMC-7BH	RPS	SINGLE ROD SCRAM
RMC-7C	RPS	SINGLE ROD SCRAM
RMC-7D	RPS	SINGLE ROD SCRAM
RMC-7E	RPS	SINGLE ROD SCRAM
RMC-7F	RPS	SINGLE ROD SCRAM
RMC-7G	RPS	SINGLE ROD SCRAM
RMC-7H	RPS	SINGLE ROD SCRAM
RMC-7I	RPS	SINGLE ROD SCRAM
RMC-7J	RPS	SINGLE ROD SCRAM
RMC-7K	RPS	SINGLE ROD SCRAM
RMC-7L	RPS	SINGLE ROD SCRAM
RMC-7M	RPS	SINGLE ROD SCRAM
RMC-7N	RPS	SINGLE ROD SCRAM
RMC-7O	RPS	SINGLE ROD SCRAM
RMC-7P	RPS	SINGLE ROD SCRAM
RMC-7Q	RPS	SINGLE ROD SCRAM
RMC-7R	RPS	SINGLE ROD SCRAM
RMC-7S	RPS	SINGLE ROD SCRAM
RMC-7T	RPS	SINGLE ROD SCRAM
RMC-7U	RPS	SINGLE ROD SCRAM
RMC-7V	RPS	SINGLE ROD SCRAM
RMC-7W	RPS	SINGLE ROD SCRAM
RMC-7X	RPS	SINGLE ROD SCRAM
RMC-7Y	RPS	SINGLE ROD SCRAM
RMC-7Z	RPS	SINGLE ROD SCRAM
RMC-8	RMC	REED SWITCH FAILURE
RMC-8A	RMC	REED SWITCH FAILURE
RMC-8AA	RMC	REED SWITCH FAILURE
RMC-8AB	RMC	REED SWITCH FAILURE
RMC-8AC	RMC	REED SWITCH FAILURE
RMC-8AD	RMC	REED SWITCH FAILURE
RMC-8AE	RMC	REED SWITCH FAILURE
RMC-8AF	RMC	REED SWITCH FAILURE
RMC-8AG	RMC	REED SWITCH FAILURE
RMC-8AH	RMC	REED SWITCH FAILURE
RMC-8AI	RMC	REED SWITCH FAILURE
RMC-8AJ	RMC	REED SWITCH FAILURE

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
MALFUNCTIONS LISTING

ID	SYSTEM	DESCRIPTION
RMC-8AK	RMC	REED SWITCH FAILURE
RMC-8AL	RMC	REED SWITCH FAILURE
RMC-8AM	RMC	REED SWITCH FAILURE
RMC-8AN	RMC	REED SWITCH FAILURE
RMC-8AO	RMC	REED SWITCH FAILURE
RMC-8AP	RMC	REED SWITCH FAILURE
RMC-8AQ	RMC	REED SWITCH FAILURE
RMC-8AR	RMC	REED SWITCH FAILURE
RMC-8AS	RMC	REED SWITCH FAILURE
RMC-8AT	RMC	REED SWITCH FAILURE
RMC-8AU	RMC	REED SWITCH FAILURE
RMC-8AV	RMC	REED SWITCH FAILURE
RMC-8AW	RMC	REED SWITCH FAILURE
RMC-8AX	RMC	REED SWITCH FAILURE
RMC-8AY	RMC	REED SWITCH FAILURE
RMC-8AZ	RMC	REED SWITCH FAILURE
RMC-8B	RMC	REED SWITCH FAILURE
RMC-8BA	RMC	REED SWITCH FAILURE
RMC-8BB	RMC	REED SWITCH FAILURE
RMC-8BC	RMC	REED SWITCH FAILURE
RMC-8BD	RMC	REED SWITCH FAILURE
RMC-8BE	RMC	REED SWITCH FAILURE
RMC-8BF	RMC	REED SWITCH FAILURE
RMC-8BG	RMC	REED SWITCH FAILURE
RMC-8BH	RMC	REED SWITCH FAILURE
RMC-8C	RMC	REED SWITCH FAILURE
RMC-8D	RMC	REED SWITCH FAILURE
RMC-8E	RMC	REED SWITCH FAILURE
RMC-8F	RMC	REED SWITCH FAILURE
RMC-8G	RMC	REED SWITCH FAILURE
RMC-8H	RMC	REED SWITCH FAILURE
RMC-8I	RMC	REED SWITCH FAILURE
RMC-8J	RMC	REED SWITCH FAILURE
RMC-8K	RMC	REED SWITCH FAILURE
RMC-8L	RMC	REED SWITCH FAILURE
RMC-8M	RMC	REED SWITCH FAILURE
RMC-8N	RMC	REED SWITCH FAILURE
RMC-8O	RMC	REED SWITCH FAILURE
RMC-8P	RMC	REED SWITCH FAILURE
RMC-8Q	RMC	REED SWITCH FAILURE
RMC-8R	RMC	REED SWITCH FAILURE
RMC-8S	RMC	REED SWITCH FAILURE
RMC-8T	RMC	REED SWITCH FAILURE

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
MALFUNCTIONS LISTING

ID	SYSTEM	DESCRIPTION
RMC-8U	RMC	REED SWITCH FAILURE
RMC-8V	RMC	REED SWITCH FAILURE
RMC-8W	RMC	REED SWITCH FAILURE
RMC-8X	RMC	REED SWITCH FAILURE
RMC-8Y	RMC	REED SWITCH FAILURE
RMC-8Z	RMC	REED SWITCH FAILURE
RPS-1	RPS	RPS SCRAM GROUP FUSES BLOWN
RPS-1A	RPS	RPS SCRAM FUSE BLOWN - GP1 F18A
RPS-1B	RPS	RPS SCRAM FUSE BLOWN - GP1 F18B
RPS-1C	RPS	RPS SCRAM FUSE BLOWN - GP2 F18E
RPS-1D	RPS	RPS SCRAM FUSE BLOWN - GP2 F18F
RPS-1E	RPS	RPS SCRAM FUSE BLOWN - GP3 F18C
RPS-1F	RPS	RPS SCRAM FUSE BLOWN - GP3 F18D
RPS-1G	RPS	RPS SCRAM FUSE BLOWN - GP4 F18G
RPS-1H	RPS	RPS SCRAM FUSE BLOWN - GP4 F18H
RRP-1	RRP	RECIRCULATION PUMP SEAL FAILURE
RRP-1A	RRP	RRC-P-1A LOWER SEAL FAILURE
RRP-1B	RRP	RRC-P-1B LOWER SEAL FAILURE
RRP-1C	RRP	RRC-P-1A UPPER SEAL FAILURE
RRP-1D	RRP	RRC-P-1B UPPER SEAL FAILURE
RRP-2	RRP	RECIRCULATION PUMP HI VIBRATION
RRP-2A	RRP	RRC-P-1A HIGH VIBRATION
RRP-2B	RRP	RRC-P-1B HIGH VIBRATION
RRS-1	RRS	HIGH REACTOR WATER CONDUCTIVITY
RRS-1A	RRS	HI RX WATER COND VIA RWCU-DM-A
RRS-1B	RRS	HI RX WATER COND VIA RWCU-DM-B
RRS-2	RRS	JET PUMP FAILURE
RRS-2A	RRS	FAILURE JET PUMPS 1 AND 2
RRS-2B	RRS	FAILURE JET PUMPS 3 AND 4
RRS-2C	RRS	FAILURE JET PUMPS 5 AND 6
RRS-2D	RRS	FAILURE JET PUMPS 7 AND 8
RRS-2E	RRS	FAILURE JET PUMPS 9 AND 10
RRS-2F	RRS	FAILURE JET PUMPS 11 AND 12
RRS-2G	RRS	FAILURE JET PUMPS 13 AND 14
RRS-2H	RRS	FAILURE JET PUMPS 15 AND 16
RRS-2I	RRS	FAILURE JET PUMPS 17 AND 18
RRS-2J	RRS	FAILURE JET PUMPS 19 AND 20
RRS-3	RRS	MN STM LN BRK AFTER FLOW RSTRCTR
RRS-3A	RRS	MN STM LN A BRK AFT FLOW RSTRCTR
RRS-3B	RRS	MN STM LN B BRK AFT FLOW RSTRCTR
RRS-3C	RRS	MN STM LN C BRK AFT FLOW RSTRCTR
RRS-3D	RRS	MN STM LN D BRK AFT FLOW RSTRCTR
RRS-4	RRS	RECIRC LN RUPT-PMP A/B SUCT/DISC

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
MALFUNCTIONS LISTING

ID	SYSTEM	DESCRIPTION
RRS-4A	RRS	RECIRC LINE RUPT- RRC-P-1A SUCT
RRS-4B	RRS	RECIRC LINE RUPT- RRC-P-1B SUCT
RRS-4C	RRS	RECIRC LINE RUPT- RRC-P-1A DISCH
RRS-4D	RRS	RECIRC LINE RUPT- RRC-P-1B DISCH
RRS-5	RRS	INSTRUMENT LINE VARIABLE LEG BRK
RRS-5A	RRS	INST VAR LN BRK- PENETRATION 12A
RRS-5B	RRS	INST VAR LN BRK- PENETRATION 12B
RRS-5C	RRS	INST VAR LN BRK- PENETRATION 12C
RRS-5D	RRS	INST VAR LN BRK- PENETRATION 12D
RRS-5E	RRS	INST VAR LN BRK- PENETRATION 13A
RRS-5F	RRS	INST VAR LN BRK- PENETRATION 13B
RRS-6	RRS	MAIN STM LN BREAK IN STM TUNNEL
RRS-6A	RRS	MSL-A BREAK IN THE STEAM TUNNEL
RRS-6B	RRS	MSL-B BREAK IN THE STEAM TUNNEL
RRS-6C	RRS	MSL-C BREAK IN THE STEAM TUNNEL
RRS-6D	RRS	MSL-D BREAK IN THE STEAM TUNNEL
RRS-7	RRS	INST LINE REFERENCE LEG BREAK
RRS-7A	RRS	INST LN BRK BTW RPV&CU4A IN CONT
RRS-7B	RRS	INST LN BRK BTW RPV&CU4B IN CONT
RRS-7C	RRS	INST LN BRK BTW RPV&CU4C IN CONT
RRS-7D	RRS	INST LN BRK BTW RPV&CU4D IN CONT
RRS-7E	RRS	INST LN BRK DOWNSTRM PI-EFC-X114
RRS-7F	RRS	INST LN BRK DOWNSTRM PI-EFC-X109
RRS-7G	RRS	INST LN BRK DOWNSTRM PI-EFC-X112
RRS-7H	RRS	INST LN BRK DOWNSTRM PI-EFC-X106
RRS-8	RRS	MN STEAM LN BRK IN TURBINE BLDG
RRS-8A	RRS	MSL-A BREAK IN TURBINE BUILDING
RRS-8B	RRS	MSL-B BREAK IN TURBINE BUILDING
RRS-8C	RRS	MSL-C BREAK IN TURBINE BUILDING
RRS-8D	RRS	MSL-D BREAK IN TURBINE BUILDING
RRS-9	RRS	MN STM LN BRK BEFORE FLW RSTRCTR
RRS-9A	RRS	MN STM LN A BRK BFR FLOW RSTRCTR
RRS-9B	RRS	MN STM LN B BRK BFR FLOW RSTRCTR
RRS-9C	RRS	MN STM LN C BRK BFR FLOW RSTRCTR
RRS-9D	RRS	MN STM LN D BRK BFR FLOW RSTRCTR
RSC-1	RSC	RSCS FAILURE
RWB-1	RWB	EARTHQUAKE
RWB-2	RWB	RADWASTE TANK LEAKS
RWB-2A	RWB	RADWASTE TANK EDR-TK-2 LEAK
RWB-2B	RWB	RADWASTE TANK FDR-TK-6 LEAK
RWM-1	RWM	RWM FAILURE
RWU-1	RWU	RWCU LEAK IN PUMP ROOM
RWU-1A	RWU	LEAK IN RWCU PUMP ROOM -A

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
MALFUNCTIONS LISTING

ID	SYSTEM	DESCRIPTION
RWU-1B	RWU	LEAK IN RWCU PUMP ROOM -B
RWU-2	RWU	RWCU LEAK IN RETURN LINE
RWU-3	RWU	RWCU LEAK IN DRYWELL SUCT LINE
RWU-4	RWU	RWCU LEAK IN HEAT EXCHANGER AREA
RWU-5	RWU	RWCU DEMINERALIZER PLUGGED
RWU-5A	RWU	RWCU DEMIN-A PLUGGED
RWU-5B	RWU	RWCU DEMIN-B PLUGGED
SCN-1	SCN	RUPTURE IN SGT FILTER UNITS
SCN-1A	SCN	RUPT IN SGT FILTER UNIT- TRAIN A
SCN-1B	SCN	RUPT IN SGT FILTER UNIT- TRAIN B
SLC-1	SLC	RUPTURE IN SLC COMMON PUMP DISCH
SSW-1	SSW	LEAK BETWN SW-V-2B AND FI-602B
TLO-1	TLO	TO-TK-2 TANK LEAK
TL0-2	TLO	TURBINE LUBE OIL SYSTEM LEAK
TL0-2A	TLO	TURBINE LUBE OIL SYSTEM LEAK A
TL0-2B	TLO	TURBINE LUBE OIL SYSTEM LEAK B
TL0-2C	TLO	TURBINE LUBE OIL SYSTEM LEAK C
TL0-2D	TLO	TURBINE LUBE OIL SYSTEM LEAK D
TLO-3	TLO	RESTRICTED BEARING OIL PATH
TLO-3A	TLO	RESTRICTED OIL PATH BEARING #1
TLO-3B	TLO	RESTRICTED OIL PATH BEARING #2
TLO-3C	TLO	RESTRICTED OIL PATH BEARING #3
TLO-3D	TLO	RESTRICTED OIL PATH BEARING #4
TLO-3E	TLO	RESTRICTED OIL PATH BEARING #5
TLO-3F	TLO	RESTRICTED OIL PATH BEARING #6
TLO-3G	TLO	RESTRICTED OIL PATH BEARING #7
TLO-3H	TLO	RESTRICTED OIL PATH BEARING #8
TLO-3I	TLO	RESTRICTED OIL PATH BEARING #9
TLO-3J	TLO	RESTRICTED OIL PATH BEARING #10
TLO-3K	TLO	RESTRICTED OIL PATH BEARING #11
TSI-1	TSI	HIGH TURBINE/GEN BEARING TEMP.
TSI-1A	TSI	HIGH TG TEMPERATURE BEARING #1
TSI-1B	TSI	HIGH TG TEMPERATURE BEARING #2
TSI-1C	TSI	HIGH TG TEMPERATURE BEARING #3
TSI-1D	TSI	HIGH TG TEMPERATURE BEARING #4
TSI-1E	TSI	HIGH TG TEMPERATURE BEARING #5
TSI-1F	TSI	HIGH TG TEMPERATURE BEARING #6
TSI-1G	TSI	HIGH TG TEMPERATURE BEARING #7
TSI-1H	TSI	HIGH TG TEMPERATURE BEARING #8
TSI-1I	TSI	HIGH TG TEMPERATURE BEARING #9
TSI-1J	TSI	HIGH TG TEMPERATURE BEARING #10
TSI-1K	TSI	HIGH TG TEMPERATURE BEARING #11
TSI-2	TSI	HIGH THRUST BEARING WEAR

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
MALFUNCTIONS LISTING

ID	SYSTEM	DESCRIPTION
TSI-3	TSI	TURBINE GEN. HIGH VIBRATION
TSI-3A	TSI	TG HIGH VIBRATION BEARING #1
TSI-3B	TSI	TG HIGH VIBRATION BEARING #2
TSI-3C	TSI	TG HIGH VIBRATION BEARING #3
TSI-3D	TSI	TG HIGH VIBRATION BEARING #4
TSI-3E	TSI	TG HIGH VIBRATION BEARING #5
TSI-3F	TSI	TG HIGH VIBRATION BEARING #6
TSI-3G	TSI	TG HIGH VIBRATION BEARING #7
TSI-3H	TSI	TG HIGH VIBRATION BEARING #8
TSI-3I	TSI	TG HIGH VIBRATION BEARING #9
TSI-3J	TSI	TG HIGH VIBRATION BEARING #10
TSI-3K	TSI	TG HIGH VIBRATION BEARING #11
TSI-4	TSI	HIGH ECCENTRICITY
TSI-5	TSI	HIGH DIFFERENTIAL EXPANSION
TSI-5A	TSI	HIGH DIFF EXPANSION - GOV END
TSI-5B	TSI	HIGH DIFF EXPANSION - GEN END
TSW-1	TSW	TSW LEAK AT COMMON PUMP DISCHRGE
TSW-2	TSW	TSW LEAK IN REACTOR BLDG.
TSW-3	TSW	TSW LEAK DOWNSTRM OF TSW-PCV-20
TSW-4	TSW	LOSS OF TSW TO BUS DUCT COOLERS
TSW-5	TSW	LOSS OF TSW TO H2 SEAL OIL CLRS
TUR-1	TUR	DRAIN LINE LEAK HD-TK-5A(B)
TUR-1A	TUR	DRN LINE LEAK HD-TK-5A
TUR-1B	TUR	DRN LINE LEAK HD-TK-5B
TUR-2	TUR	MSR LN BRK BETWN INCEPT/STOP VLV
TUR-2A	TUR	MSR LN BRK DOWNSTRM OF MS-V-166A
TUR-2B	TUR	MSR LN BRK DOWNSTRM OF MS-V-166B
TUR-2C	TUR	MSR LN BRK DOWNSTRM OF MS-V-166C
TUR-2D	TUR	MSR LN BRK DOWNSTRM OF MS-V-163A
TUR-2E	TUR	MSR LN BRK DOWNSTRM OF MS-V-163B
TUR-2F	TUR	MSR LN BRK DOWNSTRM OF MS-V-163C
TUR-3	TUR	STM LEAK AT EA MOIST SEPARATOR
TUR-3A	TUR	STEAM LEAK AT A MSR
TUR-3B	TUR	STEAM LEAK AT B MSR
TUR-4	TUR	RUPTURE IN STEAM SEAL HEADER
TUR-4A	TUR	RUPTURE IN STM SEAL MAIN HEADER
TUR-4B	TUR	RUPTURE IN STEAM SEAL HDR RFT-1A
TUR-4C	TUR	RUPTURE IN STEAM SEAL HDR RFT-1B
TUR-4D	TUR	RUPT SEAL STM HDR NEAR BRG1
TUR-4E	TUR	RUPT SEAL STM HDR NEAR BRG2
TUR-4F	TUR	RUPT SEAL STM HDR NEAR BRG3
TUR-4G	TUR	RUPT SEAL STM HDR NEAR BRG4
TUR-4H	TUR	RUPT SEAL STM HDR NEAR BRG5

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
MALFUNCTIONS LISTING

ID	SYSTEM	DESCRIPTION
TUR-4I	TUR	RUPT SEAL STM HDR NEAR BRG6
TUR-4J	TUR	RUPT SEAL STM HDR NEAR BRG7
TUR-4K	TUR	RUPT SEAL STM HDR NEAR BRG8
TUR-5	TUR	STEAM LEAK AFTER STEAM CHESTS
TUR-6	TUR	STEAM LEAK IN LOW PRESS TURBINE
TUR-6A	TUR	STEAM LEAK IN LP TURBINE-A
TUR-6B	TUR	STEAM LEAK IN LP TURBINE-B
TUR-6C	TUR	STEAM LEAK IN LP TURBINE-C
TUR-7	TUR	REHEATER TUBE RUPTURE
TUR-7A	TUR	1ST STGE RHTR A TUBE BUNDLE RUPT
TUR-7B	TUR	2ND STGE RHTR A TUBE BUNDLE RUPT
TUR-7C	TUR	1ST STGE RHTR B TUBE BUNDLE RUPT
TUR-7D	TUR	2ND STGE RHTR B TUBE BUNDLE RUPT
TUR-8	TUR	LEAK AT TURBINE BYPASS MANIFOLD

TOTAL COUNT: 1132

WASHINGTON PUBLIC POWER SUPPLY SYSYTEM

COMPONENT LEVEL FAILURES LISTING

The following component level failures are provided via touch screen selection, of the associated plant system and Equipment Piece Number (EPN) for the specific device.

A. Remotely Controlled Circuit Breakers:

1) Spurious breaker trip due to internal failure in the trip logic.
2) Spurious breaker closure due to internal failure in the closing logic.
3) Failure of breaker automatic trip logic. Manual trip circuitry is unaffected.
4) Failure of breaker automatic closing logic. Manual closing logic is unaffected.
5) Mechanical seizure of the breaker in its current position.
6) Blown fuse in circuit breaker control power circuit resulting in loss of position indication as well as failure of the breaker in its current position.
7) Failure of breaker spring charging motor. Breaker will trip but cannot be re-closed.

B. Motored Operated Valves:

1) Blown fuse in valve control power circuit resulting in loss of valve position indication as well as inability to electrically position the valve.
2) Spurious valve opening due to electrical failure in valve motor contractor closing circuit. Valve ramps normally to full closed position. If valve closure is attempted (manually or automatically), valve will close, but will reopen as soon as the closing signal clears.
3) Spurious valve closure due to electrical failure in valve motor contractor closing circuit. Valve ramps normally to full open position. If valve opening is attempted (manually or automatically), valve will open, but will re-close as soon as the opening signal clears.
4) Automatic open signal failure. Valve may be opened manually but automatic open signals have no effect.
5) Automatic close signal failure. Valve may be closed manually but automatic close signals have no effect.
6) Mechanical seizure of valve in its current position, resulting in thermal overload activation if valve movement is attempted or in progress.

7) Open limit/torque switch failure. Valve control circuit does not de-energize when valve reaches the open limit switch position or the open mechanical torque, potentially resulting in mechanical stall of the actuator motor when the valve reaches mechanical end of travel and activation of electrical protection devices.

8) Closed limit/torque switch failure. Valve control circuit does not de-energize when valve reaches the closed limit switch position or the closed mechanical torque, potentially resulting in mechanical stall of the actuator motor when the valve reaches mechanical end of travel and activation of electrical protection devices.

C. Centrifugal Pumps:

1) Break in shaft between pump impeller and prime mover. Prime mover operates normally at no load condition. Impeller is free to "windmill" in fluid stream.

2) Rapid seizure of pump impeller. Prime mover is stopped with the pump.

3) Variable degradation of pump developed head for a given value of impeller speed and flow.

D. Positive Displacement Pumps:

1) Break in shaft between pump and prime mover. Prime mover operates normally at no load condition.

2) Rapid seizure of pump. Prime mover is stopped with the pump.

3) Variable degradation of pump flow for a given discharge head due to internal leakage (seals, internal bypass valves).

E. Mixed Flow Pumps:

1) Break in shaft between pump impeller and prime mover. Prime mover operates normally at no load condition. Impeller is free to "windmill" in fluid stream.

2) Rapid seizure of pump impeller. Prime mover is stopped with the pump.

3). Variable degradation of pump developed head for a given value of impeller speed and flow.

WASHINGTON PUBLIC POWER SUPPLY SYSYTEM
COMPONENT LEVEL FAILURES LISTING

F. Heat Exchangers:

1) Variable severity fouling of tube side. Overall Heat transfer coefficient and hydraulic admittance of tubes are both affected.

2) Variable severity leakage between tube and shell sides. Leakage shall affect conductivity and activity of fluids as applicable in addition to mass/energy inventory and heat exchanger performance.

3) Variable severity tube rupture. Same as e.2 above except severity is related to number of tubes ruptured.

G. Air Operated Valves:

1) Positioner (or pilot valve) failure; valve ramps to full open position and will not respond to electrical control.

2) Positioner (or pilot valve) failure; valve ramps to full closed position and will not respond to electrical control.

3) Fault in valve position indication circuitry; valve functions normally but valve position indication is lost.

4) Valve mechanically seizes in current position.

H. Major Check Valves:

1) Check valves open seizure; check valve seizes at full open position when moved to that position by fluid flow while this failure is active.

2) Check valves closed seizure; check valve seizes at full closed position when moved to that position by fluid flow while this failure is active.

3) Variable severity valve leakage; valve leakage during back-seat condition is a function of failure severity value.

I. Major Mechanically Activated Safety and Relief Valves:

1) Variable severity valve setpoint drift; valve nominal opening setpoint increases or decreases by percentage severity value (+ or -) entered.

2) Variable severity leakage; valve seat leakage is a function of failure severity value.

3) Valve open failure; valve trips to full open position when failure is activated and remains at that position independent of system pressure while failure is active.

4) Valve closure failure; valve remains in full closed position independent of system pressure while failure is active.

5) Variable valve performance; mass flow rate through open valve is a function of failure severity level.

J. Local Process Controllers (i.e. external to Simulator Control Room):

1) Variable controller failure; output signal is set equal to the severity value. If no severity is entered, controller output remains at the value in existence just prior to the failure initiation.

2) Variable severity controller instability; controller output oscillates in a periodic manner. Magnitude of oscillation is a function of failure severity; period of oscillation is determined by separate model constant for each type of local process controller.

K. Control Room Process Control Hardware:

1) Variable device failure; output signal is set equal to the severity value. If no severity is entered, device output remains at the value in existence just prior to the failure initiation. This failure shall apply to controllers, ratio stations, bias stations, and automatic/manual stations and shall affect all station operating modes.

2) Variable device failure - automatic mode. Identical to K.1above except affects only the automatic (and, if applicable, cascade) mode output of controllers and automatic/manual stations. The device functions normally in the manual mode.

3) Variable severity controller instability; controller automatic (and, if applicable, cascade) oscillates in periodic manner. The magnitude of oscillation is a function of failure severity; the period of oscillation is determined by separate model constant for each type of process controller.

L. Electronic Bistables:

1) Bistable fail to trip; bistable output signal fails to change to trip state for any value of the monitored variable parameter.

2) Bistable spurious trip; bistable output maintained in the tripped state for any value of the monitored variable parameter.

3) Variable severity bistable setpoint drift; bistable nominal trip setpoint increases or decreases by percentage severity value (+ or -) entered.

M. Reactor Protection System Relays and Engineered Safety Features System Relays.

1) Relay coil failure; coil develops an open circuit, relay contracts move to coil de-energized state and fail to respond when the coil is energized.

2) Relay armature failure; armature is mechanically stuck in position existing just prior to failure activation.

N. Process Transmitters (including radiation monitoring system detectors):

1) Variable severity transmitter failure; transmitter output set equal to severity value in percent of span. If no severity value is entered, the transmitter output is frozen at the value in existence just prior to failure activation.

2) Variable severity transmitter offset; transmitter output is offset from the process value by a constant percentage equal to the severity value (+ or -) entered.

O. Resistance temperature detectors (RTD):

1) Open circuit on the sensor (resistance element) side of the RTD.

2) Variable severity transmitter offset; RTD output is offset from the process temperature value by a constant percentage equal to the severity value (+ or -) entered.

P. Process Loop Power Supplies:

1) Power supply output fails to zero volts (open circuit)

APPENDIX D

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

SIMULATOR ACCEPTANCE TESTS

APPENDIX D

ATTACHMENT D-1

WASHINGTON PUBLIC POWER SUPPLY SYSYTEM

ANSI/ANS-3.5 (1985) REQUIREMENTS
VERSUS
SIMULATOR ACCEPTANCE TEST PROCEDURES

General Requirements

3.1 Simulator Capabilities

3.1.1 Normal Plant Evolutions

3.1.1(1) Plant Startup
14.4.7.1 - Normal Plant Operations

3.1.1(2) Nuclear Startup
14.4.7.2.1 - Startup from Hot Shutdown to Rated Pressure

3.1.1(3) Turbine Startup and Gen Synchronization
14.4.7.1 - Normal Plant Operations

3.1.1(4) Reactor SCRAM/Recovery to 100% Power
14.4.7.2.1 - Startup from Hot Shutdown to Rated Pressure

3.1.1(5) Operations at Hot Standby
14.4.7.2.3 - SD to HSD

3.1.1(6) Load Changes
14.4.7.1 - Normal Plant Operations

3.1.1(8) Plant S/D from Rated Power to Cold S/D
14.4.7.1 - Normal Plant Operations

3.1.1(9) Core Performance Testing
14.4.6.1 - Core Reactivity/Shutdown Margin
14.4.6.3 - Fission Product Poison Test
14.4.6.5 - SRM/IRM vs. Control Rod Motion

3.1.1(10) Operator Conducted Surveillance Testing (Safety Eq.)
07.04.00.05.06 - EDR, FDR, RRC, MS & RRC Valve Ops
07.04.00.05.13 - Reactor Vx & Trip Valve Operability
07.04.00.05.15 - CIA Valve Operability
07.04.00.05.18 - HPCS Service Water Operability/Demo
07.04.01.03.01.01 - Scram Discharge Volume Vent & Drain Valve Operability
07.04.01.03.01.02 - Control Rod Exercise
07.04.03.01.01.22 - Manual SCRAM Function Test
07.04.03.06.09 - SDV Bypass Rod Block
07.04.03.07.04.01 - Remote Shutdown Panel Channel Check

07.04.03.08.02.01 - Monthly Turbine Valve Tests

07.04.04.07 - MSIV Closure Test

07.04.05.01.05 - LPCS Valve Lineup/Ads Inhibit CFT

07.04.05.01.06 - HPCS Valve Lineup

07.04.05.01.11 - HPCS System Operability Test

07.04.06.01.04.02A - MSIV Valve Operability

07.04.06.02.02.01 - RHR Valve Position Verification

07.04.06.03.03 - Containment Isolation Valve Operability

07.04.06.04.01.02 - Suppression Chamber-Dry Well Vacuum Breaker Operability

07.04.06.05.02.01 - Reactor Building Ventilation Isolation Valve Operability

07.04.06.05.03.01A - Standby Gas Treatment Operability Test

07.04.06.05.03.04A - Standby Gas Treatment Manual Initiation Bypass Damper & Heater Test

07.04.07.01.01.02 - Standby Service Water Loop B valve Position Verification

07.04.07.09.01 - Weekly Bypass Valves Test

07.04.08.01.01.01.02 - 18 Month Manual & Auto XFR Test, Start-Up to Backup Station Power

07.04.08.01.01.02.01 - Diesel Generator #1 - Operability Test

07.04.08.01.01.02.06 - HPCS Diesel Generator - Loss of Power Test

07.04.08.01.01.02.11 - Diesel Generator #2 - Operability Test

07.04.08.01.01.02.12 - HPCS Diesel Generator - Operability Test

3.1.2 Plant Malfunctions

3.1.2(1) Loss of Coolant

3.1.2(1) (a) Large and Small Reactor Coolant Breaks

14.4.9.18.3 - Instrument Line Break (Ref)

14.4.9.18.6 - Instrument Line Break (Var)

14.4.10.7 - Maximum Size Reactor Coolant System Rupture w/Loss of Offsite Power

3.1.2(1)(b) Failure of Safety and Relief Valves

14.4.9.24.27 - Main Steam Safety Relief Valve Fails Open

14.4.9.25.14 - SRV's - Fail Closed

14.4.10.10 - MSIV ISOL with SRV FO

3.1.2(2) Loss of Instrument Air

14.4.9.4.4 - Leak Downstream Control Air Dryer

3.1.2(3)	Loss or Degraded Electrical Power
	14.4.9.8.3 - 4160 Vac Bus Sm-8 Overcurrent
	14.4.9.8.3A - 4160 Vac Bus Sm-7 Overcurrent
	14.4.9.8.3B - Overcurrent SM-1
	14.4.9.8.4 - S1-2 DC Ground
	14.4.9.8.5 - 6900 Vac Bus SH-6 OL-GND
	14.4.9.8.7 - Loss of All Offsite Power
	14.4.9.8.8 - DG-2 Trip High Diff. Current
	14.4.9.24.15 - S1-1 DC Ground
	14.4.9.24.15A - S1-1 Trip
	14.4.9.24.18 - RPS B MG Set Trip
	14.4.9.24.56 - Battery Charger C1-1 Trip
	14.4.10.2 - Loss of All AC Power - Station Blackout
3.1.2(4)	Loss of Forced Coolant Flow Due to Pump Failure
	14.4.9.24.34 - Recirculation Pump B Trip
	14.4.10.6 - Trip of all Recirculation Pumps
3.1.2(5)	Loss of Cond Vacuum/Loss of Cond Lvl Control
	14.4.9.2.2 - Condenser Air Leak
	14.4.9.24.86 - COND-LIC-1 Fails Condenser Level Low
3.1.2(6)	Loss of Service Wtr or Cooling to Indiv. Comp
	14.4.9.24.5 - SW Pump A Trip
	14.4.9.24.64 - TSW Pump A Trip
	14.4.9.25.15 - RCC-P-1A - Trip
3.1.2(7)	Loss of Shutdown Cooling
	14.4.9.24.5 - SW Pump A Trip
3.1.2(8)	Loss of Comp Cooling Sys or Cool to Indiv. Comp
	14.4.9.24.5 - SW Pump A Trip
	14.4.9.24.73 - SW-V-2B Fails Closed
	14.4.9.24.64 - TSW Pump A Trip
3.1.2(9)	Loss of Normal Feedwater or System Failure
	14.4.9.2.9 - RFPT A Trip
	14.4.9.24.2 - COND-P-2A Shaft Break
	14.4.9.24.48 - COND-P-1B Trip
	14.4.10.1 - Loss of All Feedwater
3.1.2(10)	Loss of All Feedwater (Nor and Emer)
	14.4.10.16 - Loss FW with Emergency Depressurization
	14.4.10.40 - Loss of Normal and Emergency FW
3.1.2(11)	Loss of Protective System Channel
	14.4.9.16.4 - HPCS Logic Failure
	14.4.9.21.1 - ADS Logic Failure
	14.4.9.24.78 - ATWS/ARI Failure

	14.4.9.24.80 - RPS Fails to SCRAM
3.1.2(12)	Control Rod Failure
	14.4.9.3.1 - Rod Drift
	14.4.9.3.2 - Stuck Rod
	14.4.9.3.3 - Uncoupled Rod
	14.4.9.3.4 - Single Rod SCRAM
	14.4.9.3.12 - Hydraulic ATWS
	14.4.9.3.13 - Dropped Rod
3.1.2(13)	Inability to Drive Rods
	14.4.9.3.6 - RDCS Failure
3.1.2(14)	Fuel Cladding Failure
	14.4.9.7.1 - Small Clad Fail
	14.4.9.7.2 - Gross Clad Fail
3.1.2(15)	Turbine Trip
	14.4.9.24.31 - Main Turbine Trip
	14.4.9.24.31A - Main Turbine Trip From LT 30%
	14.4.10.13 - Mn Turbine Trip W/O Bypass Valves
3.1.2(16)	Generator Trip
	14.4.9.13.1 - Main Generator Trip
3.1.2(17)	Failure in Auto Cont Sys Affect React/Heat Removal
	14.4.9.23.3 - DEH Press Reg. Output Failure High
	14.4.9.23.3A - DEH Press Reg. Output Fails Low
	14.4.9.24.40 - BPV-1 Failure
3.1.2(19)	Reactor Trip
	14.4.9.24.33 - Manual Scram
3.1.2(20)	Main Steamline/Main Feed Line Breaks
	14.4.9.2.3 - Feed Line Break in DW
	14.4.9.2.8 - FW Rupture in Turbine Bldg.
	14.4.9.21.4 - MS Break in DW Dwnstrm of Flow Restrict
	14.4.9.21.5A MS Rupture in Turbine Bldg.
	14.4.9.21.6 - RCIC Steam Line Break at Turbine
3.1.2(21)	Nuclear Instrumentation Failures
	14.4.9.14.1 - SRM A Failure - Low
	14.4.9.14.2 - APRM Failure
	14.4.9.14.5 - IRM Failure - High
	14.4.9.14.8 - LPRM Failure - Downscale
3.1.2(22)	Process Inst, Alarms, Cont Sys Failures
	14.4.9.9.4A - RCIC Turbine Trip Due to RCIC-V-8 Closure
	14.4.9.24.43 - Annunciator Failure
	14.4.9.24.67 - RPV/L Trip Channel Failure HI
	14.4.9.24.67B - RFW-L1-606B - Fails Low

14.4.9.24.67C - RFW-L1-606B Fails High

3.1.2(23) Passive Malf in Sys (ESF, Emer Feedwater)

14.4.9.3.10 - Rod Worth Minimizer Fails

14.4.9.9.2 - LPCS Suct Line Break at Pump

14.4.9.24.37 - HPCS-V-4 Fails Thermal Overload

14.4.9.25.2 - RHR-P-2B Shaft Shear

14.4.9.25.5 - RHR-P-2A Trip

3.1.2(24) Failure of Auto Reactor Trip System

14.4.9.3.12 - Hydraulic ATWS

14.4.9.24.80 - RPS Fails to SCRAM

14.4.9.25.19 - RPS Spurious Scram A

14.4.10.11 - 100% Hydraulic ATWS

3.1.2(25) Reactor Press Cont Sys Failure (BWR)

14.4.9.23.3 - DEH Press Reg. Output Failure High

14.4.9.23.3A - DEH Press Reg. Output Fails Low

14.4.9.24.27 - Main Steam Safety Relief Valve Fails Open

14.4.9.24.40 - BPV-1 Failure

14.4.9.24.63 - DEH Pump 1A Trip

4 Performance Criteria

4.1 Steady-State Operation

14.4.4.1 - 100% SS Accuracy

14.4.4.2 - 66% SS Accuracy

14.4.4.3 - 40% SS Accuracy

14.4.4.4 - Cold Shutdown - BOC

14.4.5.1 - 100% Heat Balance

APPENDIX A of ANSI/ANS-3.5 Requirements

A3.1 Computer Spare Capacity Test

14.5.2 Computer Spare Capacity Test

APPENDIX B of ANSI/ANS.3.5 Requirements

B.1 BWR Simulator Operability Test

B1.1 Steady-State Performance

B1.1(1) Primary Plant

14.4.3.1.1 - 1 Hour Stability

14.4.3.1.2 - Initial Condition Stability

B1.1(2) Secondary Plant

14.4.3.1.1 - 1 Hour Stability

14.4.3.1.2 - Initial Condition Stability

B1.2 Transient Performance

B1.2(1) Manual SCRAM

14.4.9.24.33 Manual Scram

B1.2(2) Simultaneous Trip of All Feedwater Pumps

14.4.10.5 - Simultaneous Trip of All RFP's

B1.2(3) Simultaneous Closure of All Main Steam Isolation Valves

14.4.10.3 - Closure of All Main Steam Isolation Valves

B1.2(4) Simultaneous Trip of All Recirculation Pumps

14.4.10.6 - Trip of All Recirculation Pumps

B1.2(5) Single Recirculation Pump Trip

14.4.9.24.34 - Recirculation Pump B Trip

B1.2(6) Main Turbine Trip (No Immediate Reactor SCRAM)

14.4.9.24.31A - Main Turbine Trip from LT 30%

B1.2(7) Maximum Rate Power Ramp (100%-75%-100%)

14.4.8.4 - Power Ramp from 100% PWR to 75% to 100%

B1.2(8) DBA LOCA with Loss of All Off-site Power

14.4.10.7 - Maximum Size Reactor Coolant System Rupture w/Loss of Offsite Power

B1.2(9) DBA Steamline Rupture

14.4.10.9 - Maximum Size Unisolatable MSL Rupture

B1.2(10) Simultaneous Closure of All MSIVs with Single Stuck-Open Safety/Relief Valve (Inhibit High Press ECCS)

14.4.10.10 - MSIV ISOL with SRV Failed Open

APPENDIX D

ATTACHMENT D-2

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

COMPUTER SPARE CAPACITY ABSTRACT

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Computer Spare Capacity TEST No. **14.5.2** REV. 4

TITLE: ***COMPUTER SPARE CAPACITY***

DESIRED RESPONSE:

Duty Cycle is evaluated during conduct of DBA LOCA and is verified not to exceed 75% for CPU's, IPU's and Compute Node.

Additionally during the transient which is allowed to run for one (1) hour the Simtime is evaluated against clock time and a maximum differential of 5 seconds was verified.

INITIAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon.**

FINAL CONDITIONS: **Post DBA LOCA.**

SOURCE OF COMPARISON DATA:

- [ ] PLANT DATA SET ______________
- [x] ENGINEERING EVALUATION ______________
- [ ] FSAR ______________
- [ ] SOER / LER ______________
- [ ] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [x] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

APPENDIX D

ATTACHMENT D-3

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

NORMAL PLANT EVOLUTION TEST ABSTRACTS

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Normal Operations TEST No. **14.4.7.1** REV. 4

TITLE: *NORMAL PLANT OPERATIONS*

DESIRED RESPONSE:

This test was performed to verify simulator response to a shutdown from rated power conditions to CSD and subsequent startup to rated conditions. The applicable steps of PPM 3.2.1,Normal SD to CSD (Attachment A), PPM 3.1.2 Reactor Plant Cold Startup (Attachment B) and PPM 7.4.4.6.1.1, HU/CD Log (Attachment C) were completed. All applicable steps for PPM 3.2.1 Normal SD to CSD, PPM 3.1.2 Reactor Plant Cold Startup and PPM 7.4.4.6.1.1 HU/CD Log were tested and verified.

INITIAL CONDITIONS: **IC-14 100% Power Equilibrium Xenon.**

FINAL CONDITIONS: **100% Power Xenon Concentration Increasing to Equilibrium.**

SOURCE OF COMPARISON DATA:

[X] PLANT DATA SET	PLANTSD DATASET
[ ] ENGINEERING EVALUATION	SHUTDOWN.DOC
[ ] FSAR	STARTUP.DOC
[ ] SOER / LER	SU99109.DOC
[X] OPERATIONAL ASSESSMENT	CY6STARTUP1
	CY6STARTUP2

TEST RESULTS:

[ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES

[X] TEST RESULTS SATISFACTORY WITH DISCREPANCIES

[ ] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Normal Operations TEST No. **14.4.7.2.1** REV. 4

TITLE: *PLANT OPERATION TESTS - STARTUP FROM HOT SHUTDOWN TO RATED PRESSURE*

DESIRED RESPONSE:

This test is performed to verify simulator response to a startup from the HSD condition at 4-8 hours after the initial SCRAM from rated power conditions with Equilibrium Xenon present. The applicable steps of PPM 3.1.3, SU from HSD (Attachment A) were completed.

Comments: Reactor SU from HSD discontinued at rated RPV/P due to previous data evaluation during normal operations for the Startup to 100% power. Xenon burn resulted in Reactor Power increase from 1% to 3%.

INITIAL CONDITIONS: **IC-20 - 0% Power Ready for Startup, or HSD IC-0% Power Ready for Startup.**

FINAL CONDITIONS: **Reactor Critical, RPV/P Control via MT bypass valves, at Rated Pressure.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________
- ☐ ENGINEERING EVALUATION ____________
- ☐ FSAR ____________
- ☐ SOER / LER ____________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Normal Operations TEST No. **14.4.7.2.3** REV. 4

TITLE: ***PLANT OPERATION TESTS - SD FROM RATED RPV/P TO HSD***

DESIRED RESPONSE:

This test is performed to verify the minimum evolutions that the simulator shall be capable of performing, using only operator action normal to the reference plant for operations at hot shutdown. The applicable steps of PPM 3.2.2, SD to HSD (Attachment A) and PPM 7.4.4.6.1.1 (Attachment B)should be completed.

INITIAL CONDITIONS: **IC-16, Shutdown in progress, @14% Power, 920 psig.**

FINAL CONDITIONS: **Reactor is Shutdown and Plant is in Hot Shutdown.**

SOURCE OF COMPARISON DATA:

- [X] PLANT DATA SET — Cycle 6 Shutdown Data
- [ ] ENGINEERING EVALUATION — ____________________
- [ ] FSAR — ____________________
- [ ] SOER / LER — ____________________
- [X] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [X] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Normal Operations TEST No. **14.4.6.1** REV. 4

TITLE: ***CORE PERFORMANCE TESTS - CORE REACTIVITY and SHUTDOWN MARGIN***

DESIRED RESPONSE:

BOC Shutdown Margin verified to be within Technical Specification 3/4.1.2 requirements. BOC, MOC and EOC 100% power equilibrium Xenon Control Rod Patterns verified to match target rod pattern calculations. Additionally, the BOC, MOC, and EOC Critical Control Rod Patterns evaluated for Cold Clean Xenon free conditions against calculated Critical Rod Patterns. The SDM, 100% Rod Patterns and Critical Rod Positions were verified to match predicted conditions. Proper reactivity response evaluated during approach to critical and through the point of adding heat.

INITIAL CONDITIONS: **Multiple IC's for BOC, MOC and EOC.**

FINAL CONDITIONS: **As Above.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________________
- ☐ ENGINEERING EVALUATION ____________________
- ☐ FSAR ____________________
- ☐ SOER / LER ____________________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Normal Operations TEST No. 14.4.6.3 REV. 3

TITLE: *CORE PERFORMANCE TESTS - FISSION PRODUCT POISON TEST*

DESIRED RESPONSE:

This test was performed to demonstrate proper Xenon response to Rx Power transients. Power ramp from 100 to 75% with Xe placed in fast time to verify time interval to maximum value and subsequent equilibrium conditions. Power subsequently ramped to 100% and Xe minimum valve and time to equilibrium verified. Lastly a Reactor SCRAM initiated with evaluation of time to peak and subsequent decay to minimum verified.

INITIAL CONDITIONS: **IC-14, 100% Power with Equilibrium Xenon.**

FINAL CONDITIONS: **Reactor Scrammed with minimum CSD Xe conditions.**

SOURCE OF COMPARISON DATA:

- [ ] PLANT DATA SET ____________
- [x] ENGINEERING EVALUATION NEDE-24810, Vol. 1
- [ ] FSAR ____________
- [ ] SOER / LER ____________
- [x] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [x] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Normal Operations TEST No. 14.4.6.5 REV. 3

TITLE: *CORE PERFORMANCE TESTS - SRM/IRM REPONSE TO CONTROL ROD MOTION TEST*

DESIRED RESPONSE:

This test was performed to demonstrate the proper SRM/IRM response to control rod motion. The SRM's and IRM's adjacent to control rods being withdrawn are verified to respond more dramatically than they do when other control rods are withdrawn. The SRM response includes a verification of the Prompt Jump and subcritical multiplication effects as demonstrated by the associated plots of SRM response. The SRM and IRM response to control rod motion were tested and verified.

INITIAL CONDITIONS: **IC-3 Startup in progress approaching criticality.**

FINAL CONDITIONS: **Reactor Critical IRM Range 7-8**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________
- ☐ ENGINEERING EVALUATION ____________
- ☐ FSAR ____________
- ☐ SOER / LER ____________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Normal Operations TEST No. **07.04.00.05.06** REV. 10

TITLE: ***EDR, FDR, RRC, MS & RCC VALVE OPERABILITY***

DESIRED RESPONSE:

This test was performed to demonstrate Simulator System Operability in accordance with approved Plant Surveillance Procedures. Proper valve stroking & timing were tested and verified.

INITIAL CONDITIONS: **In accordance with the testing requirements of the specific Surveillance.**

FINAL CONDITIONS: **In accordance with the testing requirements of the specific Surveillance.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________
- ☒ ENGINEERING EVALUATION TSS 7.4.0.5.6
- ☐ FSAR ____________
- ☐ SOER / LER ____________
- ☐ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Normal Operations TEST No. **07.04.00.05.13** REV. 9

TITLE: ***PI-VX & TIP VALVE OPERABILITY***

DESIRED RESPONSE:

This test was performed to demonstrate Simulator System Operability in accordance with approved Plant Surveillance Procedures. Proper valve stroking & timing were tested and verified.

INITIAL CONDITIONS: **In accordance with the testing requirements of the specific Surveillance.**

FINAL CONDITIONS: **In accordance with the testing requirements of the specific Surveillance.**

SOURCE OF COMPARISON DATA:

- [ ] PLANT DATA SET ______
- [x] ENGINEERING EVALUATION TSS 7.4.0.5.13
- [ ] FSAR ______
- [ ] SOER / LER ______
- [ ] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [x] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Normal Operations TEST No. **07.04.00.05.15** REV. 8

TITLE: ***CIA VALVE OPERABILITY***

DESIRED RESPONSE:

This test is performed to demonstrate Simulator System Operability in accordance with approved Plant Surveillance Procedures. Proper valve stroking & timing were tested and verified.

INITIAL CONDITIONS: **In accordance with the testing requirements of the specific Surveillance.**

FINAL CONDITIONS: **In accordance with the testing requirements of the specific Surveillance.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________
- ☒ ENGINEERING EVALUATION TSS 7.4.0.5.15
- ☐ FSAR ____________
- ☐ SOER / LER ____________
- ☐ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Normal Operations TEST No. **07.04.00.05.18** REV. 11

TITLE: ***HPCS SERVICE WATER OPERABILITY DEMONSTRATION***

DESIRED RESPONSE:

This test is performed to demonstrate Simulator System Operability in accordance with approved Plant Surveillance Procedures. Proper valve stroking & timing were tested and verified.

The systems capabilities were verified for delivery of required cooling to system loads. Valve stroke timing is taken to verify valve operability. Proper system flow balance is verified.

INITIAL CONDITIONS: **In accordance with the testing requirements of the specific Surveillance.**

FINAL CONDITIONS: **In accordance with the testing requirements of the specific Surveillance.**

SOURCE OF COMPARISON DATA:

- [ ] PLANT DATA SET ____________________
- [X] ENGINEERING EVALUATION TSS 7.4.0.5.18
- [ ] FSAR ____________________
- [ ] SOER / LER ____________________
- [ ] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [X] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Normal Operations   TEST No. **07.04.01.03.01.01A**   REV. 1

TITLE: ***SCRAM DISCHARGE VOLUME VENT & DRAIN VALVE OPERABILITY***

DESIRED RESPONSE:

This test is performed to demonstrate Simulator System Operability in accordance with approved Plant Surveillance Procedures.

INITIAL CONDITIONS: **In accordance with the testing requirements of the specific Surveillance.**

FINAL CONDITIONS: **In accordance with the testing requirements of the specific Surveillance.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________
- ☒ ENGINEERING EVALUATION TSS 7.4.1.3.1.1
- ☐ FSAR ____________
- ☐ SOER / LER ____________
- ☐ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Normal Operations TEST No. **07.04.01.03.01.02** REV. 14

TITLE: *CONTROL ROD EXERCISE*

DESIRED RESPONSE:

This test was performed to demonstrate Simulator System Operability in accordance with approved Plant Surveillance Procedures. Proper valve stroking & timing were tested and verified.

INITIAL CONDITIONS: **In accordance with the testing requirements of the specific Surveillance.**

FINAL CONDITIONS: **In accordance with the testing requirements of the specific Surveillance.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________
- ☒ ENGINEERING EVALUATION 50.59 Review
- ☐ FSAR ____________
- ☐ SOER / LER ____________
- ☐ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Normal Operations TEST No. **07.04.03.01.01.22** REV. 8

TITLE: *MANUAL SCRAM FUNCTIONAL TEST*

DESIRED RESPONSE:

This test was performed to demonstrate Simulator System Operability in accordance with approved Plant Surveillance Procedures.

INITIAL CONDITIONS: **IC-14, Plant operating at 100% power or less.**

FINAL CONDITIONS: **IC-14, Plant operating at 100% power or less.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET __________
- ☒ ENGINEERING EVALUATION 50.59 Review
- ☐ FSAR __________
- ☐ SOER / LER __________
- ☐ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Normal Operations TEST No. **07.04.03.06.09** REV. 5

TITLE: ***SDV BYPASS ROD BLOCK***

DESIRED RESPONSE:

This test was performed to demonstrate Simulator System Operability in accordance with approved Plant Surveillance Procedures. The SDV High Water Level Bypass switch functionality with Mode Switch in REFUEL was verified.

INITIAL CONDITIONS: **IC-2.**

FINAL CONDITIONS: **IC-2.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________
- ☒ ENGINEERING EVALUATION T.S Table 4.3.6 -1.5.A
- ☐ FSAR ____________
- ☐ SOER / LER ____________
- ☐ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Normal Operations TEST No. **07.04.03.07.04.01** REV. 0

TITLE: ***REMOTE SHUTDOWN PANEL CHANNEL CHECK***

DESIRED RESPONSE:

This test is performed to demonstrate Simulator System Operability in accordance with approved Plant Surveillance Procedures.The RSDP instrumentation is verified.

INITIAL CONDITIONS: **Plant operating at 80% power or less.**

FINAL CONDITIONS: **Plant operating at 80% power or less.**

SOURCE OF COMPARISON DATA:

- [ ] PLANT DATA SET ____________________
- [x] ENGINEERING EVALUATION ____________________
- [ ] FSAR ____________________
- [ ] SOER / LER ____________________
- [ ] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [x] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Normal Operations   TEST No. **07.04.03.08.02.01**   REV. 0

TITLE: *MONTHLY TURBINE VALVE TEST*

DESIRED RESPONSE:

This test is performed to demonstrate Simulator System Operability in accordance with approved Plant Surveillance Procedures.

This stroking of all turbine steam valves was conducted to verify valve operability.

INITIAL CONDITIONS: **Plant operating at 80% power or less.**

FINAL CONDITIONS: **Plant operating at 80% power or less.**

SOURCE OF COMPARISON DATA:

- [ ] PLANT DATA SET ____________
- [x] ENGINEERING EVALUATION T.S. 4.3.8.2
- [ ] FSAR ____________
- [ ] SOER / LER ____________
- [ ] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [x] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Normal Operations TEST No. **07.04.04.07** REV. 11

TITLE: ***MSIV CLOSURE TEST***

DESIRED RESPONSE:

This test is performed to demonstrate Simulator System Operability in accordance with approved Plant Surveillance Procedures.

MSIV Fast closure stroke times were measured and validated against timing requirements. Opening Stroke times were also measured.

INITIAL CONDITIONS: **Plant operating at power LE 80%.**

FINAL CONDITIONS: **Plant operating at power LE 80%.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________
- ☒ ENGINEERING EVALUATION T.S. 4.4.7
- ☐ FSAR ____________
- ☐ SOER / LER ____________
- ☐ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Normal Operations TEST No. **07.04.05.01.05** REV. 1

TITLE: ***LPCS VALVE LINEUP***

DESIRED RESPONSE:

This test is performed to demonstrate Simulator System Operability in accordance with approved Plant Surveillance Procedures.

This test verifies that LPCS valves are in their correct position for a normal standby lineup.

INITIAL CONDITIONS: **100% Power.**

FINAL CONDITIONS: **100% Power.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET __________
- ☒ ENGINEERING EVALUATION T.S. 4.5.1.A.2
- ☐ FSAR __________
- ☐ SOER / LER __________
- ☐ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Normal Operations TEST No. **07.04.05.01.06** REV. 1

TITLE: ***HPCS VALVE LINEUP***

DESIRED RESPONSE:

This test is performed to demonstrate Simulator System Operability in accordance with approved Plant Surveillance Procedures.

This test verifies that the HPCS valves are in their correct position for a normal standby lineup.

INITIAL CONDITIONS: **IC-14 100% Power.**

FINAL CONDITIONS: **IC-14 100% Power.**

SOURCE OF COMPARISON DATA:

- [ ] PLANT DATA SET ____________
- [x] ENGINEERING EVALUATION T.S. 4.5.1.A.2
- [ ] FSAR ____________
- [ ] SOER / LER ____________
- [ ] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [x] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Normal Operations TEST No. **07.04.05.01.11** REV. 0

TITLE: *HPCS SYSTEM OPERABILITY TEST*

DESIRED RESPONSE:

This test is performed to demonstrate Simulator System Operability in accordance with approved Plant Surveillance Procedures.

HPCS flow testing from CST to CST was performed and valve stroke timing measurements were taken.

INITIAL CONDITIONS: **IC-14 100% power, equiliberium Xenon.**

FINAL CONDITIONS: **IC-14 100% power, equiliberium Xenon.**

SOURCE OF COMPARISON DATA:

- [ ] PLANT DATA SET ______________
- [x] ENGINEERING EVALUATION T.S. 4.5.1.b.3
- [ ] FSAR ______________
- [ ] SOER / LER ______________
- [ ] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [x] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Normal Operations TEST No. **07.04.06.01.04.02A** REV. 1

TITLE: *MSIV VALVE QUARTERLY OPERABILITY SURVEILLANCE*

DESIRED RESPONSE:

This test is performed to demonstrate MSIV Leakage Control System Operability in accordance with approved Plant Surveillance Procedures. Proper valve stroking & timing were tested and verified.

INITIAL CONDITIONS: **Plant shutdown and depressurized, or IC-14.**

FINAL CONDITIONS: **Plant shutdown and depressurized or IC-14.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________________
- ☒ ENGINEERING EVALUATION ____________________
- ☐ FSAR ____________________
- ☐ SOER / LER ____________________
- ☐ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Normal Operations TEST No. **07.04.06.02.02.01** REV. 0

TITLE: ***RHR SYSTEM VALVE POSITION VERIFICATION***

DESIRED RESPONSE:

This test is performed to demonstrate Simulator System Operability in accordance with approved Plant Surveillance Procedures.

This test is done to verify RHR valve positions to confirm system operability.

INITIAL CONDITIONS: N / A

FINAL CONDITIONS: N / A

SOURCE OF COMPARISON DATA:

- [ ] PLANT DATA SET ____________________
- [x] ENGINEERING EVALUATION ____________________
- [ ] FSAR ____________________
- [ ] SOER / LER ____________________
- [ ] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [x] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Normal Operations TEST No. **07.04.06.03.03** REV. 9

TITLE: ***CSP & CEP CONTAINMENT ISOLATION VALVE OPERABILITY***

DESIRED RESPONSE:

This test is performed to demonstrate Simulator System Operability in accordance with approved Plant Surveillance Procedures. Proper valve stroking & timing were tested and verified.

INITIAL CONDITIONS: **In accordance with the testing requirements of the specific Surveillance.**

FINAL CONDITIONS: **In accordance with the testing requirements of the specific Surveillance.**

SOURCE OF COMPARISON DATA:

- [ ] PLANT DATA SET ____________________
- [x] ENGINEERING EVALUATION ____________________
- [ ] FSAR ____________________
- [ ] SOER / LER ____________________
- [ ] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [x] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Normal Operations TEST No. **07.04.06.04.01.02** REV. 12

TITLE: ***SUPPRESSION CHAMBER DRY WELL VACUUM BREAKER OPERABILITY***

DESIRED RESPONSE:

This test is performed to demonstrate Simulator System Operability in accordance with approved Plant Surveillance Procedures.

This test demonstrates the operability of each suppression chamber and drywell vacuum breaker.

INITIAL CONDITIONS: **In accordance with the testing requirements of the specific Surveillance.**

FINAL CONDITIONS: **In accordance with the testing requirements of the specific Surveillance.**

SOURCE OF COMPARISON DATA:

- [ ] PLANT DATA SET __________
- [x] ENGINEERING EVALUATION __________
- [ ] FSAR __________
- [ ] SOER / LER __________
- [ ] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [x] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Normal Operations TEST No. **07.04.06.05.02.01** REV. 8

TITLE: *REACTOR BUILDING ISOLATION VALVE OPERABILITY*

DESIRED RESPONSE:

This test is performed to demonstrate Simulator System Operability in accordance with approved Plant Surveillance Procedures. Proper valve stroking & timing were tested and verified.

Valve operability and stroke times were checked and verified to meet procedure requirements.

INITIAL CONDITIONS: **IC-14 100% Pwr/Flow RB HVAC In Service.**

FINAL CONDITIONS: **IC-14 100% Pwr/Flow RB HVAC In Service.**

SOURCE OF COMPARISON DATA:

- [ ] PLANT DATA SET ____________
- [x] ENGINEERING EVALUATION 50.59
- [ ] FSAR ____________
- [ ] SOER / LER ____________
- [ ] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [x] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Normal Operations   TEST No. **07.04.06.05.03.01A**   REV 2

TITLE: ***STANDBY GAS TREATMENT SYSTEM OPERABILITY TEST***

DESIRED RESPONSE:

This test is performed to demonstrate Simulator System Operability in accordance with approved Plant Surveillance Procedures. Proper valve stroking & timing were tested and verified.

Valve operability and stroke times were checked and verified to meet procedure requirements.

INITIAL CONDITIONS: **Any IC SGT in STBY.**

FINAL CONDITIONS: **Any IC SGT in STBY.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________________
- ☒ ENGINEERING EVALUATION ____________________
- ☐ FSAR ____________________
- ☐ SOER / LER ____________________
- ☐ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Normal Operations TEST No. **07.04.07.01.01.02** REV. 15

TITLE: ***STANDBY SERVICE WATER LOOP B VALVE POSITION VERIFICATION***

DESIRED RESPONSE:

This test was performed to demonstrate Simulator System Operability in accordance with approved Plant Surveillance Procedures. Proper valve stroking & timing were tested and verified.

The systems capabilities were verified for delivery of required cooling to system loads. Valve stroke timing was taken to verify operability. Proper system flow balance was verified.

INITIAL CONDITIONS: N / A

FINAL CONDITIONS: N / A

SOURCE OF COMPARISON DATA:

- [ ] PLANT DATA SET ____________
- [x] ENGINEERING EVALUATION 50.59 Review
- [ ] FSAR ____________
- [ ] SOER / LER ____________
- [ ] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [x] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Normal Operations TEST No. **07.04.07.09.01** REV. 10

TITLE: *WEEKLY BY PASS VALVES TEST*

DESIRED RESPONSE:

This test was performed to demonstrate Simulator System Operability in accordance with approved Plant Surveillance Procedures. Proper valve stroking was tested and verified.

This stroking of all turbine steam valves was conducted to verify valve operability.

INITIAL CONDITIONS: **IC-14 100% Pwr/Flow.**

FINAL CONDITIONS: **IC-14 100% Pwr/Flow.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________
- ☒ ENGINEERING EVALUATION 50.59 Review
- ☐ FSAR ____________
- ☐ SOER / LER ____________
- ☐ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Normal Operations TEST No. **07.04.08.01.01.01.02** REV. 6

TITLE: ***18 MONTH MANUAL & AUTO TRANSFER TEST/ STARTUP TO BACKUP STATION POWER***

DESIRED RESPONSE:

This test was performed to demonstrate Simulator System Operability in accordance with approved Plant Surveillance Procedures.

Manual and auto transfers for breakers B7 & B8 to SM-7 and SM-8 were conducted.

INITIAL CONDITIONS: **IC-14 100% Power/ Flow.**

FINAL CONDITIONS: **IC-14 100% Power/ Flow.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ______
- ☒ ENGINEERING EVALUATION 50.59 Review
- ☐ FSAR ______
- ☐ SOER / LER ______
- ☐ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Normal Operations TEST No. **07.04.08.01.01.02.01** REV. 23

TITLE: ***DG-1 MONTHLY OPERABILITY***

DESIRED RESPONSE:

This test was performed to demonstrate Simulator System Operability in accordance with approved Plant Surveillance Procedures. Proper valve stroking & timing were tested and verified.

This test verifies the load carrying capability of the Diesel Generator.

INITIAL CONDITIONS: N/A

FINAL CONDITIONS: N/A

SOURCE OF COMPARISON DATA:

- [ ] PLANT DATA SET ______________
- [x] ENGINEERING EVALUATION 50.59 Review
- [ ] FSAR ______________
- [ ] SOER / LER ______________
- [ ] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [x] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Normal Operations   TEST No. **07.04.08.01.01.02.06**   REV. 7

TITLE: ***HPCS DIESEL GENERATOR - LOSS OF POWER TEST***

DESIRED RESPONSE:

This test was performed to demonstrate Simulator System Operability in accordance with approved Plant Surveillance Procedures. Proper timing was tested and verified.

This test required the diesel to auto start, come up to speed and voltage auto close onto the respective bus, with a prescribed time, with minimum specified drop in voltage and frequency.

INITIAL CONDITIONS: **IC-14 100% Pwr/Flow.**

FINAL CONDITIONS: **IC-14 100% Pwr/Flow.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________
- ☒ ENGINEERING EVALUATION ____50.59 Review____
- ☐ FSAR ____________
- ☐ SOER / LER ____________
- ☐ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Normal Operations TEST No. **07.04.08.01.01.02.11** REV. 22

TITLE: *DG-2 MONTHLY OPERABILITY*

DESIRED RESPONSE:

This test was performed to demonstrate Simulator System Operability in accordance with approved Plant Surveillance Procedures. Proper valve stroking & timing were tested and verified.

This test verifies the load carrying capability of the Diesel Generator.

INITIAL CONDITIONS: N/A

FINAL CONDITIONS: N/A

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________
- ☒ ENGINEERING EVALUATION 50.59 Review
- ☐ FSAR ____________
- ☐ SOER / LER ____________
- ☐ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Normal Operations TEST No. 07.04.08.01.01.02.12 REV. 25

TITLE: *HPCS DIESEL GENERATOR MONTHLY OPERABILITY TEST*

DESIRED RESPONSE:

This test was performed to demonstrate Simulator System Operability in accordance with approved Plant Surveillance Procedures. Proper valve stroking & timing were tested and verified.

This test verifies the load carrying capability of the Diesel Generator.

INITIAL CONDITIONS: N/A

FINAL CONDITIONS: N/A

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________
- ☒ ENGINEERING EVALUATION 50.59 Review
- ☐ FSAR ____________
- ☐ SOER / LER ____________
- ☐ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

APPENDIX D

ATTACHMENT D-4

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

STEADY STATE OPERATION TEST ABSTRACTS

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Steady State Operation   TEST No. **14.4.3.1.1**   REV. 6

TITLE: ***INITIAL CONDITION STABILITY TEST***

DESIRED RESPONSE:

The Initial Condition Stability Test is performed to verify simulator critical parameters do not vary by more than ± 2% over a period of one hour. Additionally, selected simulator non-critical parameters were verified to not vary by more that, ± 2% over the same one hour period. The Critical and selected Non-Critical parameters were recorded for each minute and plotted for the one hour period.

INITIAL CONDITIONS: **IC-14, 100% Power Equilibrium Xenon.**

FINAL CONDITIONS: **IC-14, 100% Power Equilibrium Xenon.**

SOURCE OF COMPARISON DATA:

- [X] PLANT DATA SET   100% PWR DATA
- [ ] ENGINEERING EVALUATION   ____________
- [ ] FSAR   ____________
- [ ] SOER / LER   ____________
- [X] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [X] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Steady State Operation TEST No. 14.4.3.1.2 REV. 6

TITLE: *INITIAL CONDITION STABILITY - 4-HOUR STABILITY*

DESIRED RESPONSE:

The Initial Condition Stability Test is performed to verify simulator critical parameters do not vary by more than ± 2% over a period of one hour. Additionally, selected simulator non-critical parameters were verified to not vary by more that, ± 2% over the same one hour period. The Critical and selected Non-Critical parameters were recorded for each minute and plotted for the one hour period.

INITIAL CONDITIONS: **IC-14, 100% Power Equilibrium Xenon.**

FINAL CONDITIONS: **IC-14, 100% Power Equilibrium Xenon.**

SOURCE OF COMPARISON DATA:

- [X] PLANT DATA SET 100% PWR DATA
- [ ] ENGINEERING EVALUATION
- [ ] FSAR
- [ ] SOER / LER
- [X] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [X] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Steady State Operation TEST No. 14.4.3.1.2 REV. 6

TITLE: *INITIAL CONDITION STABILITY - 4-HOUR STABILITY*

DESIRED RESPONSE:

The Initial Condition Stability Test is performed to verify simulator critical parameters do not vary by more than ± 2% over a period of one hour. Additionally, selected simulator non-critical parameters were verified to not vary by more that, ± 2% over the same one hour period. The Critical and selected Non-Critical parameters were recorded for each minute and plotted for the one hour period.

INITIAL CONDITIONS: **IC-14, 100% Power Equilibrium Xenon.**

FINAL CONDITIONS: **IC-14, 100% Power Equilibrium Xenon.**

SOURCE OF COMPARISON DATA:

- [X] PLANT DATA SET — 100% PWR DATA
- [ ] ENGINEERING EVALUATION — ____________
- [ ] FSAR — ____________
- [ ] SOER / LER — ____________
- [X] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [X] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Steady State Operation TEST No. **14.4.4.1** REV. 3

TITLE: ***STEADY-STATE ACCURACY TESTS -100 PERCENT POWER AND FLOW, EQ XE***

DESIRED RESPONSE:

This test is performed to verify that the computed values of simulated plant parameters at 100 percent power, Equilibrium Xenon correspond to plant parameters, to within the accuracy requirements of ANSI/ANS-3.5-1985, Nuclear Power Plant Simulators for use in Operator Training. Simulator is run for one hour and then data is taken. Critical Parameters monitored included but were not limited to the following categories: RPV LEVEL's, APRM PWR's, GENERATOR LOAD, MN TURB 1ST STAGE PRESS, STEAM FLOW's, FEED FLOW's, RPV PRESS's, CORE FLOW's, RECIRC LOOP FLOW's, DRYWELL PRESS's, DRYWELL TEMP's, SUPPRESSION POOL LVL's, SUPPRESSION POOL TEMP's, CONDENSER VACUUM's, MAIN TURB GOV VLV POS's, MAIN TURB SPEED, RFP SPEED's, RFP PRESS's, and as listed. Values were within specifications or identified for correction.

INITIAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon.**

FINAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon.**

SOURCE OF COMPARISON DATA:

- [X] PLANT DATA SET — 100 PWR Jan 22, 100 PWR Jan 18
- [ ] ENGINEERING EVALUATION
- [ ] FSAR
- [ ] SOER / LER
- [X] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [X] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Steady State Operation TEST No. **14.4.4.1** REV. 3

TITLE: ***STEADY-STATE ACCURACY TESTS -100 PERCENT POWER AND FLOW, EQ XE***

DESIRED RESPONSE:

This test is performed to verify that the computed values of simulated plant parameters at 100 percent power, Equilibrium Xenon correspond to plant parameters, to within the accuracy requirements of ANSI/ANS-3.5-1985, Nuclear Power Plant Simulators for use in Operator Training. Simulator is run for one hour and then data is taken. Critical Parameters monitored included but were not limited to the following categories: RPV LEVEL's, APRM PWR's, GENERATOR LOAD, MN TURB 1ST STAGE PRESS, STEAM FLOW's, FEED FLOW's, RPV PRESS's, CORE FLOW's, RECIRC LOOP FLOW's, DRYWELL PRESS's, DRYWELL TEMP's, SUPPRESSION POOL LVL's, SUPPRESSION POOL TEMP's, CONDENSER VACUUM's, MAIN TURB GOV VLV POS's, MAIN TURB SPEED, RFP SPEED's, RFP PRESS's, and as listed. Values were within specifications or identified for correction.

INITIAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon.**

FINAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon.**

SOURCE OF COMPARISON DATA:

- [X] PLANT DATA SET 100 PWR Jan 22 / 100 PWR Jan 18
- [ ] ENGINEERING EVALUATION
- [ ] FSAR
- [ ] SOER / LER
- [X] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [X] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

[illegible]

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Steady State Operation TEST No. **14.4.4.2** REV. 4

TITLE: ***STEADY-STATE ACCURACY TESTS - 66 PERCENT POWER***

DESIRED RESPONSE:

This test is performed to verify that the computed values of simulated plant parameters at 66 percent power, correspond to plant parameters, to within the accuracy requirements of ANSI/ANS-3.5-1985, Nuclear Power Plant Simulators for use in Operator Training. Simulator power is reduced to 66% allowed to run for one hour and then data is taken. Critical Parameters monitored included but were not limited to the following categories: RPV LEVEL's, APRM PWR's, GENERATOR LOAD, MN TURB 1ST STAGE PRESS, STEAM FLOW's, FEED FLOW's, RPV PRESS's, CORE FLOW's, RECIRC LOOP FLOW's, DRYWELL PRESS's, DRYWELL TEMP's, SUPPRESSION POOL LVL's, SUPPRESSION POOL TEMP's, CONDENSER VACUUM's, MAIN TURB GOV VLV POS's, MAIN TURB SPEED, RFP SPEED's, RFP PRESS's, and others as listed. Values were within specifications or identified for correction.

INITIAL CONDITIONS: **IC-14 , Adjusted power to 66%.**

FINAL CONDITIONS: **66% Power**

SOURCE OF COMPARISON DATA:

- [X] PLANT DATA SET 66 PWR Mar 1
- [ ] ENGINEERING EVALUATION ____________
- [ ] FSAR ____________
- [ ] SOER / LER ____________
- [X] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [X] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Steady State Operation   TEST No. **14.4.4.2**   REV. 4

TITLE: ***STEADY-STATE ACCURACY TESTS - 66 PERCENT POWER***

DESIRED RESPONSE:

This test is performed to verify that the computed values of simulated plant parameters at 66 percent power, correspond to plant parameters, to within the accuracy requirements of ANSI/ANS-3.5-1985, Nuclear Power Plant Simulators for use in Operator Training. Simulator power is reduced to 66% allowed to run for one hour and then data is taken. Critical Parameters monitored included but were not limited to the following categories: RPV LEVEL's, APRM PWR's, GENERATOR LOAD, MN TURB 1ST STAGE PRESS, STEAM FLOW's, FEED FLOW's, RPV PRESS's, CORE FLOW's, RECIRC LOOP FLOW's, DRYWELL PRESS's, DRYWELL TEMP's, SUPPRESSION POOL LVL's, SUPPRESSION POOL TEMP's, CONDENSER VACUUM's, MAIN TURB GOV VLV POS's, MAIN TURB SPEED, RFP SPEED's, RFP PRESS's, and others as listed. Values were within specifications or identified for correction.

INITIAL CONDITIONS: **IC-14 , Adjusted power to 66%.**

FINAL CONDITIONS: **66% Power**

SOURCE OF COMPARISON DATA:

- [X] PLANT DATA SET — 66 PWR Mar 1
- [ ] ENGINEERING EVALUATION — ______
- [ ] FSAR — ______
- [ ] SOER / LER — ______
- [X] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [X] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Steady State Operation TEST No. **14.4.4.3** REV. 3

TITLE: *STEADY-STATE ACCURACY TESTS -40 PERCENT POWER*

DESIRED RESPONSE:

This test is performed to verify that the computed values of simulated plant parameters at 40 percent power, correspond to plant parameters, to within the accuracy requirements of ANSI/ANS-3.5-1985, Nuclear Power Plant Simulators for use in Operator Training. Simulator is allowed to run for one hour and then data is taken. Critical Parameters monitored included but were not limited to the following categories: RPV LEVEL's, APRM PWR's, GENERATOR LOAD, MN TURB 1ST STAGE PRESS, STEAM FLOW's, FEED FLOW's, RPV PRESS's, CORE FLOW's, RECIRC LOOP FLOW's, DRYWELL PRESS's, DRYWELL TEMP's, SUPPRESSION POOL LVL's, SUPPRESSION POOL TEMP's, CONDENSER VACUUM's, MAIN TURB GOV VLV POS's, MAIN TURB SPEED, RFP SPEED's, RFP PRESS's, and others as listed. Values were within specifications or identified for correction.

INITIAL CONDITIONS: **IC-62 40% Power**

FINAL CONDITIONS: **40% Power**

SOURCE OF COMPARISON DATA:

- [X] PLANT DATA SET 40 PWR Apr 20
- [ ] ENGINEERING EVALUATION ____
- [ ] FSAR ____
- [ ] SOER / LER ____
- [X] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [X] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Steady State Operation TEST No. **14.4.4.3** REV. 3

TITLE: ***STEADY-STATE ACCURACY TESTS -40 PERCENT POWER***

DESIRED RESPONSE:

This test is performed to verify that the computed values of simulated plant parameters at 40 percent power, correspond to plant parameters, to within the accuracy requirements of ANSI/ANS-3.5-1985, Nuclear Power Plant Simulators for use in Operator Training. Simulator is allowed to run for one hour and then data is taken. Critical Parameters monitored included but were not limited to the following categories: RPV LEVEL's, APRM PWR's, GENERATOR LOAD, MN TURB 1ST STAGE PRESS, STEAM FLOW's, FEED FLOW's, RPV PRESS's, CORE FLOW's, RECIRC LOOP FLOW's, DRYWELL PRESS's, DRYWELL TEMP's, SUPPRESSION POOL LVL's, SUPPRESSION POOL TEMP's, CONDENSER VACUUM's, MAIN TURB GOV VLV POS's, MAIN TURB SPEED, RFP SPEED's, RFP PRESS's, and others as listed. Values were within specifications or identified for correction.

INITIAL CONDITIONS: **IC-62 40% Power**

FINAL CONDITIONS: **40% Power**

SOURCE OF COMPARISON DATA:

- [X] PLANT DATA SET 40 PWR Apr 20
- [ ] ENGINEERING EVALUATION
- [ ] FSAR
- [ ] SOER / LER
- [X] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [X] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Steady State Operation TEST No. **14.4.4.4** REV. 4

TITLE: ***STEADY-STATE ACCURACY TESTS - COLD SHUTDOWN, BOC***

DESIRED RESPONSE:

This test is performed to verify that compiled values of plant parameter at COLD SHUTDOWN, correspond with plant parameters, to within the accuracy reuirements of Nuclear Plant Simulators for use in Operator Training. Valves were within specifications or identified for correction.

INITIAL CONDITIONS: **IC-24, Cold Shutdown**

FINAL CONDITIONS: **Cold Shutdown**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________
- ☐ ENGINEERING EVALUATION ____________
- ☐ FSAR ____________
- ☐ SOER / LER ____________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Steady State Operation TEST No. **14.4.4.4** REV. 4

TITLE: ***STEADY-STATE ACCURACY TESTS - COLD SHUTDOWN, BOC***

DESIRED RESPONSE:

This test is performed to verify that compiled values of plant parameter at COLD SHUTDOWN, correspond with plant parameters, to within the accuracy reuirements of Nuclear Plant Simulators for use in Operator Training. Valves were within specifications or identified for correction.

INITIAL CONDITIONS: **IC-24, Cold Shutdown**

FINAL CONDITIONS: **Cold Shutdown**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________
- ☐ ENGINEERING EVALUATION ____________
- ☐ FSAR ____________
- ☐ SOER / LER ____________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Steady State Operation TEST No. **14.4.5.1** REV. 4

TITLE: ***HEAT AND MASS BALANCE TESTS - 100 PERCENT POWER HEAT BALANCE***

DESIRED RESPONSE:

This test is performed to verify that the principal mass and energy balances are satisfied as required by ANSI/ANS-3.5.-1985, Nuclear Power Plant Simulators for Use in Operator Training. Simulator is run for at least thirty minutes and then data is taken. Data is collected and recorded for Attachment A, 100% Heat Balance Control Board Data. Calculations were performed as indicated in Attachment B. Data is evaluated against the Acceptance Criteria of section 5.0, as applicable.

NOTE This test can be run with 100% Steady-State Accuracy Test, 14.4.4.1.

INITIAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon.**

FINAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon.**

SOURCE OF COMPARISON DATA:

- [ ] PLANT DATA SET ____________________
- [ ] ENGINEERING EVALUATION ____________________
- [ ] FSAR ____________________
- [ ] SOER / LER ____________________
- [x] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [x] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Steady State Operation TEST No. **14.4.5.1** REV. 4

TITLE: ***HEAT AND MASS BALANCE TESTS - 100 PERCENT POWER HEAT BALANCE***

DESIRED RESPONSE:

This test is performed to verify that the principal mass and energy balances are satisfied as required by ANSI/ANS-3.5.-1985, Nuclear Power Plant Simulators for Use in Operator Training. Simulator is run for at least thirty minutes and then data is taken. Data is collected and recorded for Attachment A, 100% Heat Balance Control Board Data. Calculations were performed as indicated in Attachment B. Data is evaluated against the Acceptance Criteria of section 5.0, as applicable.

NOTE This test can be run with 100% Steady-State Accuracy Test, 14.4.4.1.

INITIAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon.**

FINAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ______________
- ☐ ENGINEERING EVALUATION ______________
- ☐ FSAR ______________
- ☐ SOER / LER ______________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

APPENDIX D

ATTACHMENT D-5

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

TRANSIENT PERFORMANCE TEST ABSTRACTS

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Transients   TEST No. **14.4.8.4**   REV. 4

TITLE: ***INDUCED TRANSIENT TESTS - POWER RAMP FROM 100 PERCENT POWER TO 75 PERCENT TO 100 PERCENT***

DESIRED RESPONSE:

This test is performed to evaluate the tuning of the feedwater system. Using the RRC FCV's power is ramped down from 100 percent to 75 percent in 10 seconds. After stabilizing Rx level, power is ramped from 75 percent to 100 percent in 10 seconds. Proper response of the induced transient was tested and verified.

INITIAL CONDITIONS: **IC-14 100% Power Equilibrium Xenon.**

FINAL CONDITIONS: **100% Power.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ______
- ☐ ENGINEERING EVALUATION ______
- ☐ FSAR ______
- ☒ SOER / LER 84-124 12/03/84; 84-125 11/27/84
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Transient   TEST No. **14.4.10.1**   REV. 5

TITLE: *LOSS OF ALL REACTOR FEEDWATER*

DESIRED RESPONSE:

RFW Turbines 'A' and 'B' and RCIC Trip. Followed by Reactor SCRAM on Low RPV/L. RRC FCV RunBack and Pump Downshift to 15 Hz verified. Simulated Operator actions include: MT Trip, Reactor Mode Switch being placed in Shutdown and HPCS Manual Initiation. HPCS-V-4 Auto Closure at RPV/L 8 (54.5") is verified. Proper Control Board Indications and annunciation verified throughout transient.

INITIAL CONDITIONS: **IC-14, 100% Power Equilibrium Xenon.**

FINAL CONDITIONS: **Reactor Scrammed. RPV/L Restored via HPCS. MSIV's isolated with RPV/P slowly increasing after termination of HPCS Flow.**

SOURCE OF COMPARISON DATA:

- [ ] PLANT DATA SET ____________
- [ ] ENGINEERING EVALUATION ____________
- [ ] FSAR ____________
- [ ] SOER / LER ____________
- [X] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [X] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Transient   TEST No. **14.4.10.2**   REV. 4

TITLE: ***LOSS OF ALL AC STATION BLACKOUT***

DESIRED RESPONSE:

Loss of All AC with exception of DG-3. Subsequent NS4 Isolations with RPV/P Control via SRV's with HPCS and RCIC Initiation at 30 seconds to restore and control RPV/L. Primary Containment heatup verified for proper direction and trend for associated variables. HPCS and RCIC Operation for RPV/L Control on isolated RPV verified.

INITIAL CONDITIONS: **IC-14, 100% Power Equil Xenon**

FINAL CONDITIONS: **Shutdown with DGN-3 supplying HPCS; RCIC Operation controlling RPV/L.**

SOURCE OF COMPARISON DATA:

- [ ] PLANT DATA SET ____________________
- [ ] ENGINEERING EVALUATION ____________________
- [ ] FSAR ____________________
- [ ] SOER / LER ____________________
- [x] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [x] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Transients   TEST No. **14.4.10.3**   REV. 4

TITLE: *MSIV ISOLATION*

DESIRED RESPONSE:

This test was performed to verify the Simulators response to an MSIV Isolation. The MSIV isolation was verified to cause RPV/P increase and subsequent SRV operation followed by the initiation of HPCS and RCIC at -50 inches. SRV operation at setpoint was verified in conjunction with RCIC-V-45 closure and HPCS-V-4 closure and subsequent cycling closed at RPV/L 8. The SRV flow decrease was verified as RPV Decay Heat decreased. The relationship between decay heat generation, RPV/P, SRV Flow, HPCS and RCIC flow (at LT saturated conditions) were evaluated. No operator actions were taken as specified in ANS 3.5 Attachment B, item B1.2. ANS 3.5 item B1.2.1 variables were plotted and evaluated at .5 sec resolution as specified.

INITIAL CONDITIONS: **IC-14 100% Power Equilibrium Xenon.**

FINAL CONDITIONS: **Reactor Shutdown with SRV Operation controlling RPV/P at setpoint and periodic HPCS injection controlling RPV/L between RPV/L 8 and RPV/L 2.**

SOURCE OF COMPARISON DATA:

- [X] PLANT DATA SET — SCRMLER88.03
- [ ] ENGINEERING EVALUATION — ______
- [ ] FSAR — ______
- [X] SOER / LER — LER 88-03
- [X] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [X] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Transients TEST No. **14.4.10.5** REV. 4

TITLE: *SIMULTANEOUS TRIP OF ALL RFP'S - SLF: FPT 2A and FPT 2B*

DESIRED RESPONSE:

This test is performed to verify the Simulators response to a simultaneous trip of all RFP's. The RRC FCV runback at RPV/L 4 with coincident RFP trip is verified. Reactor Scram and RRC pump trip to 15 hz is verified at RPV/L 3. The Scram induced RPV/P reduction with Mode Switch in run is verified to cause a MSIV isolation. The subsequent SRV operation with resultant inventory loss and initiation of the RPV/L 2 NS4 isolation, HPCS initiation, RCIC initiation, and RRC pumps tripping to off were verified and evaluated. HPCS-V-4 and RCIC-V-45 closure at RPV/L 8 and subsequent reopening of HPCS-V-4 at RPV/L 2 were verified. No operator actions were taken as specified in ANS 3.5 Attachment B, item B1.2. ANS 3.5 item B1.2.1 variables were plotted and evaluated at .5 sec resolution as specified. Note: Scram details evaluated in detail in 14.4.9.24.33, MT Trip details evaluated in 14.4.9.24.31, Main Gen Trip details evaluated in 14.4.9.13.1, NS4 Isolation at RPV/L 2 evaluated in 14.4.9.2.3 RFW Break in DW.

INITIAL CONDITIONS: **IC-14, 100% Power Equilibrium Xenon.**

FINAL CONDITIONS: **Reactor Shutdown with SRV Operation controlling RPV/P at setpoint and periodic HPCS injection controlling RPV/L between RPV/L 8 and RPV/L 2.**

SOURCE OF COMPARISON DATA:

- [X] PLANT DATA SET SCRMLER84.114
- [ ] ENGINEERING EVALUATION
- [ ] FSAR
- [X] SOER / LER LER 84-114
- [X] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [X] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Transients   TEST No. **14.4.10.6**   REV. 4

TITLE: ***SIMULTANEOUS TRIP OF ALL RECIRCULATION PUMPS - SLF: EPS 43 & EPS 44***

DESIRED RESPONSE:

This test is performed to verify the Simulators response to a trip of all Recirculation Pumps. Core Power is verified to decrease due to the Core flow reduction to Natural Circulation. Activation of mechanistic power oscillations on entry to Region A of power to flow map, verified. No operator actions were taken as specified in ANS 3.5 Attachment B, item B1.2. ANS 3.5 item B1.2.2 variables were plotted and evaluated at .5 sec resolution as specified.

INITIAL CONDITIONS: **IC-14, 100% Power Equilibrium Xenon.**

FINAL CONDITIONS: **40% ± 4 % Power and 25% Core Flow.**

SOURCE OF COMPARISON DATA:

- [X] PLANT DATA SET ______PAT 30B______
- [ ] ENGINEERING EVALUATION ____________
- [ ] FSAR ____________
- [ ] SOER / LER ____________
- [X] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [X] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Transients TEST No. **14.4.10.7** REV. 4

TITLE: ***MAXIMUM SIZE DBA LOCA WITH LOSS OFFSITE POWER***
SLF: RRS 4 and OED2

DESIRED RESPONSE:

This test was performed to verify the Simulators response to a Maximum size DBA LOCA with LOP. The DW/P increase initiation of Reactor Scram, NS4 Isolation and RRC FCV lockup were verified. The RRC pump trip to 15 Hz via RPV/L 3 signals is verified. The initiation of the RPV/L 2 NS4 isolation, HPCS initiation, RCIC initiation, and RRC pumps tripping to off were verified and evaluated. Div 1 and Div 2 DG's and ECCS initiation were verified. DW/P response and subsequent WW/P response are verified as the DW/P overcomes downcomer submergence. No operator actions were taken as specified in ANS 3.5 Attachment B, item B1.2. ANS 3.5 item B1.2.3 variables were plotted and evaluated at .5 sec resolution as specified. Note: Scram details evaluated in detail in 14.4.9.24.33, MT Trip details evaluated in 14.4.9.24.31, Main Gen Trip details evaluated in 14.4.9.13.1, NS4 Isolation at RPV/L 2 evaluated in 14.4.9.2.3 RFW Break in DW.

INITIAL CONDITIONS: **IC-14 100% Power Equilibrium Xenon.**

FINAL CONDITIONS: **Reactor Shutdown with RPV/L being controlled GT Two-Thirds Core Height via ECCS Div 1-3 Injection. Primary Containment Isolation complete via NS4 Isolations.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________
- ☒ ENGINEERING EVALUATION ANF LOCA ANALYSIS
- ☐ FSAR ____________
- ☐ SOER / LER ____________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Transients TEST No. **14.4.10.9** REV. 0

TITLE: *MAXIMUM SIZE MAIN STEAMLINE RUPTURE*

DESIRED RESPONSE:

This test is performed to verify the Simulators response to a Maximum size MSL Break. The DW/P increase initiation of Reactor Scram, NS4 Isolation and RRC FCV lockup were verified. The RRC pump trip to 15 Hz via RPV/L 3 signals is verified. The initiation of the RPV/L 2 NS4 isolation, HPCS initiation, RCIC initiation, and RRC pumps tripping to off were verified and evaluated. Div 3 DG and HPCS initiation were verified. DW/P response and subsequent WW/P response are verified as the DW/P overcomes downcomer submergence. CBP injection and subsequent RPV/L restoration, with DW cooling via break verified. No operator actions were taken as specified in ANS 3.5 Attachment B, item B1.2. ANS 3.5 item B1.2.3 variables were plotted and evaluated at.5 sec resolution as specified. Note: Scram details evaluated in detail in 14.4.9.24.33, MT Trip details evaluated in 14.4.9.24.31, Main Gen Trip details evaluated in 14.4.9.13.1, NS4 Isolation at RPV/L 2 evaluated in 14.4.9.2.3 RFW Break in DW.

INITIAL CONDITIONS: **IC-14 100% Power Equilibrium Xenon.**

FINAL CONDITIONS: **Reactor Shutdown with RPV/L GT the MSL 110 inches. Primary Containment Isolation complete via NS4 isolations.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________
- ☐ ENGINEERING EVALUATION ____________
- ☒ FSAR 15.6.5, 6.2.1.1.3.b
- ☐ SOER / LER ____________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Transients TEST No. **14.4.10.10** REV. 4

TITLE: *MSIV ISOLATION WITH SRV FAILED OPEN*

DESIRED RESPONSE:

This test is performed to verify the Simulators response to an MSIV Isolation with a SRV failed open. The MSIV isolation with SORV is verified to cause a RPV/P reduction with a subsequent injection by the Condensate Booster Pumps at approximately 630 psig. The SRV flow decrease is verified as RPV/P decreased. The relationship between decay heat generation, RPV/P, SRV Flow, and Condensate Booster Pump flow (at LT saturated conditions) were evaluated. No operator actions were taken as specified in ANS 3.5 Attachment B, item B1.2. ANS 3.5 item B1.2.3 variables were plotted and evaluated at.5 sec resolution as specified.

INITIAL CONDITIONS: **IC-14 100% Power Equilibrium Xenon.**

FINAL CONDITIONS: **Reactor Shutdown and depressurized with CBP injection and RPV/L GT the MS lines resulting in liquid flow via the SORV.**

SOURCE OF COMPARISON DATA:

- [X] PLANT DATA SET — SCRMLER88.03
- [ ] ENGINEERING EVALUATION — ______
- [ ] FSAR — ______
- [X] SOER / LER — LER 88-03
- [X] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [X] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Transient TEST No. **14.4.10.16** REV. 4

TITLE: *LOSS FW WITH EMERGENCY DEPRESSURIZATION*

DESIRED RESPONSE:

Loss of Normal RFW and HP Injection, followed by Emergency Depressurization when RPV/L decreases to Top of Active Fuel. RPV/L, RPV/P and Core Flow as well as significant Primary Containment variables evaluated during conduct of test. The NS4 Isolation is subsequently reset and plant placed in the Shutdown Cooling Alignment followed Emergency Depressurization and RPV Level Restoration with Low Press ECCS.

INITIAL CONDITIONS: **IC-14 100% Power and Flow with Equilibrium Xenon.**

FINAL CONDITIONS: **Plant SD with RHR B in the Shutdown Cooling Alignment and RHR B in Suppression Pool Cooling.**

SOURCE OF COMPARISON DATA:

- [ ] PLANT DATA SET ____________________
- [ ] ENGINEERING EVALUATION ____________________
- [ ] FSAR ____________________
- [ ] SOER / LER ____________________
- [x] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [x] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

APPENDIX D

ATTACHMENT D-6

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

PLANT MALFUNCTION TEST ABSTRACTS

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.18.3** REV. 6

TITLE: *INSTRUMENT REFERENCE LINE BREAK D004C (PENX112) - SLF: RRS7C*

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the INSTRUMENT REF LINE BREAK D004C (PENX112). Rupture of INST Line between REACTOR and CONDENSATE POT for DOO4C (PENX112). Apparent level increased MS-LIS-100B, P601-A1-2-6 Injection Vlv Closure RPV LEVEL HIGH +54.5" alarmed, and HPCS-V-4 remained shut. Apparent level increased RFW-DPT-4C, MS-LI-604 and RFW-LI 606C indicated upscale high. REACTOR VESSEL HIGH LEVEL C SEAL light illuminated and RFW/TURBINE RPV LEVEL HIGH TRIP alarm activated. Leak is allowed to run and caused drywell pressure to increase. DRYWELL PRESS HIGH/LOW ALERT alarmed followed by the Drywell Press High Trip. Proper response on activation of INST REF LINE break DOO4C was tested and verified. NOTE: Details of Reactor Scram evaluated in test 14.4.9.24.33, DBA LOCA evaluated in test 14.4.10.7.

INITIAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon**

FINAL CONDITIONS: **Reactor has Scrammed on Hi Drywell pressure.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________
- ☐ ENGINEERING EVALUATION ____________
- ☒ FSAR 15.6.2
- ☒ SOER / LER 85-053 08/04/85
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction　　TEST No. **14.4.9.16.4**　　REV. 3

TITLE: *HPCS LOGIC FAILURE - SLF: CSS-6*

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the HPCS LOGIC FAILURE Malfunction. HPCS Initiation Failure to automatically respond. System responses include: P601-A1-6.8, HPCS SYSTEM OUT OF SERVICE, HPCS-BISI - HPCS LOGIC PWR FAIL, failure of HPCS Injection valve V-4 to automatically close when RPV level is GT +54" and minimum flow Bypass valve V-12 to automatically open or close on HPCS flow.

INITIAL CONDITIONS: **IC-12 100% Power with Equilibrium Xenon.**

FINAL CONDITIONS: **100% Power with HPCS injection in progress.**

SOURCE OF COMPARISON DATA:

- [ ] PLANT DATA SET ____________
- [ ] ENGINEERING EVALUATION ____________
- [X] FSAR 15.5.1
- [ ] SOER / LER ____________
- [X] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [X] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.18.6** REV. 5

TITLE: *INSTRUMENT VARIABLE LEG LINE BREAK X111 - SLF:RRS 5C*

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the INSTRUMENT VARIABLE LEG LINE BREAK X111 SLF. System responses included: PI-EFC-X111 changed position from open to closed, apparent loss of level as indicated by MS-LR/PR-623B downscale, NS4 ISOL RPV LEVEL LOW -50"alarmed, MSIV Half Trip System B, and RC-2 HALF TRIP annunciated. Proper response on activation of the INSTRUMENT VARIABLE LEG LINE BREAK X111 malfunction was tested and verified.

INITIAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon**

FINAL CONDITIONS: **Reactor Scrammed, RRC Pumps Off, RCIC-V-45 Oscillating with RPV/L 8 controlling RPV/L.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________
- ☐ ENGINEERING EVALUATION ____________
- ☒ FSAR 15.6.2
- ☐ SOER / LER ____________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction   TEST No. **14.4.9.24.27**   REV. 3

TITLE: *MAIN STEAM SAFETY RELIEF VALVE FAILS OPEN - CLF: RRS 1 STPT DRIFT*

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the MAIN STEAM SAFETY RELIEF VALVE STPT DRIFT Component Level Failure. Mechanical setpoint adjustment out of adjustment. System responses included: SRV MS-RV-1A opened, P601-A2-5-8 SRV OPEN, SRV ACOUSTICAL VALVE MON DRAWER (MS-RV-1A) SRV cards alarmed and the flow card indicated 100 percent flow. Steam-line A flow dropped as indicated on RFW-FI-603A. At the DEH panel, Generator Output MW's dropped. An attempt to use the manual control switch for MS-RV-1A had no effect. Proper response on activation of the Main Steam Safety Relief Valve Fails Open malfunction was tested and verified.

INITIAL CONDITIONS: **IC-14 100% Power Equilibrium Xenon**

FINAL CONDITIONS: **100% Power, SRV open, reduced MW's from Generator**

SOURCE OF COMPARISON DATA:

- [X] PLANT DATA SET   PAT SRVTEST
- [ ] ENGINEERING EVALUATION   ____
- [X] FSAR   15.1.4
- [ ] SOER / LER   ____
- [X] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [X] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.25.14** REV. 1

TITLE: ***SRV'S - FAIL CLOSED - CLF: RRS 12 - RRS 18 (OPTION 4)***

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the SRV's FAIL CLOSED Malfunction. SRV's fail closed due to electrical fault. Malfunction is selected on seven ADS valves. Attempts were then made to open the SRV's: Manually from P601, arming and depressing DIV I ADS push-buttons, key switches to open on P628 and P631 none of the SRV's opened. Proper response on activation of the individual malfunctions were tested and verified

INITIAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon.**

FINAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon.**

SOURCE OF COMPARISON DATA:

- [ ] PLANT DATA SET ____________
- [ ] ENGINEERING EVALUATION ____________
- [ ] FSAR ____________
- [ ] SOER / LER ____________
- [X] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [X] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Transients   TEST No. **14.4.10.10**   REV. 4

TITLE: *MSIV ISOLATION WITH SRV FAILED OPEN*

DESIRED RESPONSE:

This test is performed to verify the Simulators response to an MSIV Isolation with a SRV failed open. The MSIV isolation with SORV is verified to cause a RPV/P reduction with a subsequent injection by the Condensate Booster Pumps at approximately 630 psig. The SRV flow decrease is verified as RPV/P decreased. The relationship between decay heat generation, RPV/P, SRV Flow, and Condensate Booster Pump flow (at LT saturated conditions) were evaluated. No operator actions were taken as specified in ANS 3.5 Attachment B, item B1.2. ANS 3.5 item B1.2.3 variables were plotted and evaluated at .5 sec resolution as specified.

INITIAL CONDITIONS: **IC-14 100% Power Equilibrium Xenon.**

FINAL CONDITIONS: **Reactor Shutdown and depressurized with CBP injection and RPV/L GT the MS lines resulting in liquid flow via the SORV.**

SOURCE OF COMPARISON DATA:

- [X] PLANT DATA SET   SCRMLER88.03
- [ ] ENGINEERING EVALUATION   ______
- [ ] FSAR   ______
- [X] SOER / LER   LER 88-03
- [X] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [X] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.4.4** REV. 3

TITLE: *LEAK DOWNSTREAM OF CONTROL AIR DRYER - SLF: CAS-4*

DESIRED RESPONSE:

This test was performed to demonstrate the functionality of the LEAK DOWNSTREAM OF CONTROL AIR DRYER Malfunction. Leak occurs in the control air line between the dryers and the after filters. System responses included: control room indication showed decreasing air pressure, standby air compressors started at 90 psig, applicable annunciators alarmed, service air header isolation valve (SA-PCV-2) shut at 80 psig, SCRAM VALVE PILOT AIR HDR PRESS LOW alarmed at 65 psig, rods started drifting in, and the Reactor SCRAM occurred from SDV/L scram stpt. Significant BOP responses included: condenser water level increased, Feedwater Heater level control valves failed open, Rx bldg. supply and return valves shut, REA and ROA fans tripped, and RB pressure increased. Valves and systems failed IAW Attachment E. Proper system response on activation of the LEAK DOWNSTREAM OF CONTROL AIR DRYER malfunction was tested and verified.

INITIAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon.**

FINAL CONDITIONS: **Reactor SCRAM with significant systems and valves in loss of air failed positions.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________________
- ☐ ENGINEERING EVALUATION ____________________
- ☐ FSAR ____________________
- ☐ SOER / LER ____________________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.8.3** REV. 3

TITLE: *4160 VAC BUS SM-8 OVERCURRENT - SLF: BOP, EPS, EPS 1H*

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the 4160 VAC BUS SM-8 OVERCURRENT - GRND Malfunction. Electrical insulation failure causes a ground and overcurrent on SM-8. System responses included: appropriate annunciators alarmed, bkr 8-3 tripped open and was locked out, bkr B-8 open, 8-DG2 open, (volt and amp) meters on SM-8 and her daughter buses indicated zero readings, DG-2 auto-started and was running unloaded without SW cooling, TSW-P-1A started on low pressure, and RPS bus B half-SCRAM occurred. Proper response to the loss of motive power provided by SM-8 and her daughter busses was tested and verified. Proper response to the loss of control and indication power provided by SM-8 and her daughter busses were tested and verified

INITIAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon.**

FINAL CONDITIONS: **100% Power, 1/2 Scram B Channel.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________________
- ☐ ENGINEERING EVALUATION ____________________
- ☐ FSAR ____________________
- ☐ SOER / LER ____________________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.8.3A** REV. 0

TITLE: *4160 VAC BUS SM-7 OVERCURRENT - SLF: BOP, EPS, EPS 1G*

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the 4160 VAC BUS SM-7 OVERCURRENT - GRND Malfunction. Electrical insulation failure causes a ground and overcurrent on SM-7. System responses included: appropriate annunciators alarmed, bkr 7-1 tripped open and was locked out, bkr B-7 open, 7-DG1 open, (volt and amp) meters on SM-7 and her daughter buses indicated zero readings, DG-1 auto-started and was running unloaded without SW cooling, TSW-P-1B started on low pressure, and RPS bus A half-SCRAM occurred. Proper response to the loss of motive power provided by SM-7 and her daughter busses was tested and verified. Proper response to the loss of control and indication power provided by SM-7 and her daughter busses was tested and verified

INITIAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon.**

FINAL CONDITIONS: **100% Power, 1/2 Scram A channel.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________
- ☐ ENGINEERING EVALUATION ____________
- ☐ FSAR ____________
- ☐ SOER / LER ____________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.8.3B** REV. 1

TITLE: *OVERCURRENT SM-1 - SLF: EPS 1A*

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the 4160 VAC BUS SM-1 OVERCURRENT Malfunction. Overcurrent & Lockout Condition of Bus SM-1. System responses included: appropriate annunciators alarmed, Bkr N1-1 tripped open and is locked out, Bkr 1-11 tripped and locked out, Bkrs (1-7,7-1,11-1) tripped, (volt and amp) meters on SM-1 indicated zero readings, DG-1 auto-started and is running unloaded, Bkr B-7 closed and supplied SM-7. Proper response to the loss of motive power provided by SM-1 is tested and verified. NOTE: LOSS OF BUS SM-7 is evaluated in 14.4.9.8.3.A

INITIAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon.**

FINAL CONDITIONS: **One third of the Condensate system capacity has been lost and will cause a subsequent reactor SCRAM.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ______________
- ☐ ENGINEERING EVALUATION ______________
- ☐ FSAR ______________
- ☐ SOER / LER ______________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.8.4** REV. 3

TITLE: ***GROUNDED DC BUS - DP-S1-2 - SLF: EPS 3D***

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the GROUNDED DC BUS - DP S1-2 TRIP Malfunction. Electrical insulation failure causes a ground. System responses included: Appropriate Annunciator alarms, applicable BISI panel alarms, IN-2 shifted to the alternate AC source, ampmeters (AM-B1-2 & AM-C1-2) indicated zero, and VM-S1-2 indicated zero. Proper response to the loss of motive power provided by DP-S1-2 is tested and verified for all loads. Proper response to the loss of control and indication power provided by DP-S1-2 was tested and verified

INITIAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon.**

FINAL CONDITIONS: **RCIC and CAC systems OOS, numerous indications OOS.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________________
- ☐ ENGINEERING EVALUATION ____________________
- ☐ FSAR ____________________
- ☐ SOER / LER ____________________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

[illegible]

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.8.5** REV. 3

TITLE: *6900 VAC BUS SH-6 OVERCURRENT - GND - BOP , EPS, EPS-5B*

DESIRED RESPONSE:

This test is performed to demonstrate the loss of power to Bus SH-6 using malfunction 6900 VAC BUS SH-6 OVERCURRENT - GRND. Proper response to the loss of motive power provided by SH-6 and her daughter busses was tested and verified. Proper response to the loss of control and indication power provided by SH-6 and her daughter busses was tested and verified

INITIAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon.**

FINAL CONDITIONS: **Bus SH-6 has tripped, RRC-P-1B has tripped, Rx is in single loop with final feedflow and steam flow greater than 45%.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ______________
- ☐ ENGINEERING EVALUATION ______________
- ☐ FSAR ______________
- ☐ SOER / LER ______________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction　　TEST No. **14.4.9.8.7**　　REV. 3

TITLE: *LOSS OF ALL OFF- SITE POWER - SLF: OED 2*

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the LOSS OF ALL OFF-SITE POWER Malfunction. A tornado destroys all outside transmission lines to the plant. Simulator is frozen at six seconds for initial evaluation. Simulator is then placed in RUN again. System responses included: appropriate annunciators alarmed, multiple A.C. Amp meters indicated zero, multiple A.C. Volt meters indicated zero, the Reactor had scrammed, the Turbine had tripped, the MSIV'S were closed, and the SRV's were controlling pressure. All major electrical breakers tripped opened as listed. Emergency diesels are running unloaded and DC pumps have started. Simulator is restarted and runs for twenty sec. Proper response to the loss of motive power provided by all major A.C. Busses and their daughter busses was tested and verified. Proper response to the loss of control and indication power provided by major A.C. Busses and their daughter busses were tested and verified

INITIAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon.**

FINAL CONDITIONS: **Reactor Scrammed, all major AC Busses de-energized, Vital AC Busses powered by EDG's, pressure controlled by SRV's.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________
- ☐ ENGINEERING EVALUATION ____________
- ☒ FSAR 15.2.6
- ☐ SOER / LER ____________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.8.8** REV. 3

TITLE: *DG 2 TRIP - HIGH DIFFERENTIAL CURRENT - SLF: BOP, DGN, DGN 2, DGN 2B*

DESIRED RESPONSE::

This test is performed to demonstrate the functionality of the DG 2 TRIP - HIGH DIFFERENTIAL CURRENT Malfunction. Defective electrical insulation causes high phase-to-phase differential current. System responses included: appropriate annunciators alarmed, CB-8DG2 tripped, Bkr DG2-8 tripped, and EDG2 control room indications failed to zero. Proper response on activation of High Differential Current on DG2 and attendant loss of power to SM-8 is tested and verified. NOTE: Response to the loss of motive, control, and indication power provided by SM-8 are evaluated in Test No. 14.4.9.8.3 (LOSS OF POWER TO SM-8).

INITIAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon.**

FINAL CONDITIONS: **SM-8 is De-Energized and a half scram has occurred on RPS-B.**

SOURCE OF COMPARISON DATA:

- [ ] PLANT DATA SET ____________________
- [ ] ENGINEERING EVALUATION ____________________
- [ ] FSAR ____________________
- [ ] SOER / LER ____________________
- [x] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [x] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.24.15** REV. 3

TITLE: ***DC BUS TRIP LOAS'S EPS80 and EPS009***

DESIRED RESPONSE:

This test was performed to demonstrate the functionality of the S1-1 Charger and Battery Breaker LOA's. Proper response to the loss of Control and Indication power provided by S1-1 was tested and verified. All control board indications and annunciators verified to be correct.

Note: Control Power Verification and response is tested in 14.4.9.24.56, BATTERY CHARGER C1-1 TRIP Test.

INITIAL CONDITIONS: **IC-14 100% Power Equilibrium Xenon.**

FINAL CONDITIONS: **Bus S1-1 de-energized.**

SOURCE OF COMPARISON DATA:

- [ ] PLANT DATA SET ________________
- [ ] ENGINEERING EVALUATION ________________
- [ ] FSAR ________________
- [ ] SOER / LER ________________
- [x] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [x] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction   TEST No. **14.4.9.24.15A**   REV. 1

TITLE: ***S1-1 TRIP -SLF: EPS 3C***

DESIRED RESPONSE:

This test was performed to demonstrate the functionality of the S1-1 TRIP Malfunction. DC Bus S1-1 Trip. Proper response to the loss of Control and Indication power provided by S1-1 was tested and verified IAW Attachment E.
NOTE: All final control board indications and annunciators activated are identical to test 14.4.9.24.15, S1-1 DC GROUND, with the exception of no battery ground annunciator and no ground detection meter deflection.

Additionally - 14.4.9.24.56, BATTERY CHARGER C1-1 TRIP evaluates Loss Power, Loss Control Power and Loss Control Board indication, therefore evaluation not performed in this test.

INITIAL CONDITIONS: **IC-14 100% Power Equilibrium Xenon**

FINAL CONDITIONS: **IC-14 100% Power with BUS S1-1 De-Energized**

SOURCE OF COMPARISON DATA:

- [ ] PLANT DATA SET ______________________
- [ ] ENGINEERING EVALUATION ______________________
- [ ] FSAR ______________________
- [ ] SOER / LER ______________________
- [x] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [x] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.24.18** REV. 3

TITLE: *RPS B MG SET TRIP - LOA: BOP, EPS, EPS-279, OPEN*

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the RPS B MG SET TRIP Malfunction. RPS-EPA-3B breaker opens. System responses included: Multiple annunciators associated with a total loss of RPS Bus B, Scram Group Solenoid lights for Gps 1,2,3,&4 extinguished, BU Scram amber lights illuminated, RPS Bus B power available light extinguished, and APRM groups B, D, and F indicated downscale. An NSSSS inboard and outboard isolation occurred. Group's 1,2,4,& 7 (inboard and outboard) valves closed and could not be opened, MSIV's remained open (half isolation). Proper response to the loss of control and indication power provided by RPS-PP-001-B is tested and verified IAW attachment E. Proper response on activation of the RPS B MG SET TRIP malfunction was tested and verified

INITIAL CONDITIONS: **IC-14 100% Power Equilibrium Xenon.**

FINAL CONDITIONS: **RPS Bus B de-energized, NSSSS inboard and outboard isolation present.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET __________
- ☐ ENGINEERING EVALUATION __________
- ☐ FSAR __________
- ☒ SOER / LER 87-014
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction   TEST No. **14.4.9.24.56**   REV. 3

TITLE: ***BATTERY CHARGER C1-1 TRIP - LOA: BOP, EPS, EPS-081***

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the BATTERY CHARGER C1-1 TRIP Malfunction. Activated spurious breaker trip. System responses included: CHARGER C1-1 TROUBLE alarm, other appropriate alarms, dropping DC voltage, AM-C1-1 indicates zero amps, AM-B1-1 indicates about 100 amps. Proper response on activation of Battery Charger C1-1 Trip was tested and verified.

INITIAL CONDITIONS: **IC-14 100% Power Equilibrium Xenon.**

FINAL CONDITIONS: **IC-14 100% Power Equilibrium Xenon.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________
- ☐ ENGINEERING EVALUATION ____________
- ☐ FSAR ____________
- ☐ SOER / LER ____________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Transient TEST No. **14.4.10.2** REV. 4

TITLE: *LOSS OF ALL AC STATION BLACKOUT*

DESIRED RESPONSE:

Loss of All AC with exception of DG-3. Subsequent NS4 Isolations with RPV/P Control via SRV's with HPCS and RCIC Initiation at 30 seconds to restore and control RPV/L. Primary Containment heatup verified for proper direction and trend for associated variables. HPCS and RCIC Operation for RPV/L Control on isolated RPV verified.

INITIAL CONDITIONS: **IC-14, 100% Power Equil Xenon**

FINAL CONDITIONS: **Shutdown with DGN-3 supplying HPCS; RCIC Operation controlling RPV/L.**

SOURCE OF COMPARISON DATA:

- [ ] PLANT DATA SET ____________________
- [ ] ENGINEERING EVALUATION ____________________
- [ ] FSAR ____________________
- [ ] SOER / LER ____________________
- [X] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [X] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Transients TEST No. 14.4.9.24.34 REV. 3

TITLE: *RECIRCULATION PUMP B TRIP - CLF, NSSS, RRP, PMP SHAFT SHEAR*

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the RECIRCULATION PUMP B TRIP Malfunction. Pump Motor will trip on overcurrent due to shaft seizure. System responses included: Multiple JP meter response IAW test procedure, RRC B Loop JP flow decreased to zero and then increased as reverse flow initiated , RRC A Loop JP flow increased as RRC B loop entered reverse flow, appropriate annunciators alarmed, and total core flow and core DP decreased as indicated on MS-DPR/FR-613. Reactor power decreased as indicated on IRM/APRM recorders. RPV level increased as indicated on RFW-LR-608.

Proper response on activation of the Recirculation Pump B Trip malfunction is tested and verified.

INITIAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon.**

FINAL CONDITIONS: **Reactor Plant in Single Loop at reduced power.**

SOURCE OF COMPARISON DATA:

- [X] PLANT DATA SET — PAT30A
- [ ] ENGINEERING EVALUATION — ______
- [X] FSAR — 15.3.1
- [ ] SOER / LER — ______
- [X] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [X] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Transients TEST No. **14.4.10.6** REV. 4

TITLE: ***SIMULTANEOUS TRIP OF ALL RECIRCULATION PUMPS - SLF: EPS 43 & EPS 44***

DESIRED RESPONSE:

This test is performed to verify the Simulators response to a trip of all Recirculation Pumps. Core Power is verified to decrease due to the Core flow reduction to Natural Circulation. Activation of mechanistic power oscillations on entry to Region A of power to flow map, verified. No operator actions were taken as specified in ANS 3.5 Attachment B, item B1.2. ANS 3.5 item B1.2.2 variables were plotted and evaluated at .5 sec resolution as specified.

INITIAL CONDITIONS: **IC-14, 100% Power Equilibrium Xenon.**

FINAL CONDITIONS: **40% ± 4 % Power and 25% Core Flow.**

SOURCE OF COMPARISON DATA:

- [X] PLANT DATA SET PAT 30B
- [ ] ENGINEERING EVALUATION
- [ ] FSAR
- [ ] SOER / LER
- [X] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [X] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction   TEST No. **14.4.9.2.2**   REV. 3

TITLE: ***CONDENSER AIR LEAK - SLF: CFW 3***

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the CONDENSER AIR LEAK Malfunction. Metal fatigue causes a crack in the condenser shell. System responses included: Control Room indications showed decreasing main condenser vacuum, off gas flow increased, appropriate annunciators alarmed, and Generator load is decreasing. The TURBINE GENERATOR tripped on low vacuum and caused a reactor SCRAM. As vacuum continued to decrease an NSSSS isolation occurred and the Main Steam isolation valves closed. Proper response on activation of the CONDENSER AIR LEAK malfunction was tested and verified.
NOTE: Turbine Trip evaluated in test 14.4.9.24.31, Reactor Scram evaluated in test 14.4.9.24.33, MSIV Isolation evaluated in test 14.4.10.3

INITIAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon.**

FINAL CONDITIONS: **Reactor Shutdown, RPV/P control via SRV operation, RPV/L decreasing towards RPV/L 2.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ______
- ☐ ENGINEERING EVALUATION ______
- ☒ FSAR 15.2.5
- ☒ SOER / LER 84-125
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.24.86** REV. 0

TITLE: ***COND-LIC-1 FAILS CONDENSER LEVEL LOW***

DESIRED RESPONSE:

Controller Input signal Fails High resulting in Condensate Dump valve opening and a subsequent Low Condenser Level. Level control was then changed to the LIC-2 position. COND-LIC-2 Output signal decreased. Main Condser Hotwell Level Low alarm cleared.

INITIAL CONDITIONS: **IC-14, 100% Power Equilibrium Xenon, Hotwell Level Normal.**

FINAL CONDITIONS: **IC-14, 100% Power Equilibrium Xenon, Hotwell Level Normal.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ________________
- ☐ ENGINEERING EVALUATION ________________
- ☐ FSAR ________________
- ☐ SOER / LER ________________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.24.5** REV. 3

TITLE: *SW PUMP B TRIP - CLF: SSW 3 - OPT 1*

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the SW PUMP A TRIP Malfunction. Mechanical fault initiates Shaft Shear. System responses included: Service water flow decreased, applicable Service Water flow annunciators alarmed, and multiple BISI lights illuminated from systems affected by a loss of Service water flow. Proper response on activation of the SW PUMP B Shaft Shear component level failure was tested and verified

The subsequent heatup of Reactor Coolant System due to Loss of SDC was verified.

INITIAL CONDITIONS: **IC-19 SDC in Progress.**

FINAL CONDITIONS: **IC-19 SDC in Progress without SW Flow to RHR B HX.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________________
- ☐ ENGINEERING EVALUATION ____________________
- ☐ FSAR ____________________
- ☐ SOER / LER ____________________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.24.64** REV. 3

TITLE: ***TSW PUMP TRIP***

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the TSW PUMP A TRIP Malfunction. A piece of the impeller separates from the impeller and wedges between the impeller and the casing. System responses included: TSW-P-1A motor current increased, TSW-P-1A tripped, appropriate alarms occurred, TSW-P-1B started at less than or equal to 80 psig, TSW-V-53A closes, and TSW-V-53B opens. The following TSW Loads responded as follows: TCV's held temperatures relatively constant, RFP A&B oil cooler outlet temperature increased, Main turbine oil cooler outlet temperature increased, turbine lube oil temperatures increased as indicated on TG-TR-48 and TG-TR-144. Drywell temperature and Containment pressure increased. Proper response on activation of the TSW pump trip was tested and verified.

INITIAL CONDITIONS: **IC-14 100% Power Equilibrium Xenon.**

FINAL CONDITIONS: **100% Power but with higher temperatures on all the loads cooled with TSW.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________________
- ☐ ENGINEERING EVALUATION ____________________
- ☐ FSAR ____________________
- ☐ SOER / LER ____________________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.25.15** REV. 1

TITLE: *RCC-P-1A TRIP - CLF: RCC 1*

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the RCC-P-1A TRIP malfunction. RCC-P-1A Trips on Thermal OL due to electrical fault. System responses included: RCC-P-1A tripped, RCC Pump A Motor OL Trip annunciator alarmed, RCC-P-1C auto started, RCC HDR PRESS RCC-PI-3 decreased and then returned to normal, and RCC-V-6 remained open. Proper response on activation of the RCC-P-1A TRIP malfunction was tested and verified

INITIAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon RCC-P-1A and RCC-P-1B running.**

FINAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon, RCC-P-1B and RCC-P-1C running.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________
- ☐ ENGINEERING EVALUATION ____________
- ☐ FSAR ____________
- ☐ SOER / LER ____________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.24.73** REV. 3

TITLE: *SW-V-2B FAILS CLOSED - OVERRIDE SWZV2BC*

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the SW-V-2B FAILS CLOSED Malfunction. Internal electrical failure in the auto-open logic circuit. RHR-P-2B is started using control switch, with subsequent auto start signal for SW-P-1B. System responses included: SW-V-2B PUMP DISCHARGE did not open, SW-P-1B DISCH PRESS SW-PI-32B decreases to ~25 psig, SW-FI-9B did not increase, and SW-P-1B Amp Ind is less than rated amps for normal operation. Proper response on activation of the SW-V-2B FAILS CLOSED Malfunction was tested and verified.

INITIAL CONDITIONS: **IC-14 100% Power Equilibrium Xenon.**

FINAL CONDITIONS: **IC-14 100% Power Equilibrium Xenon.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________
- ☐ ENGINEERING EVALUATION ____________
- ☐ FSAR ____________
- ☐ SOER / LER ____________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. 14.4.9.2.9 REV. 4

TITLE: *RFPT A TRIP - SLF: FPT-2A*

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the RFPT A TRIP Malfunction. Circuit failure causes RFW-DT-1A trip. System responses included the following alarms: TUR A TRIP, TUR A CONTR OIL PRESS LOW, and RFW PMP A DISCH FLOW LOW. Reactor water level decreased on all control room instruments and the RPV LEVEL HIGH/LOW ALERT alarmed. A Recirc Flow Control Runback occurred and the Reactor did not Scram. Proper response on activation of the RFPT A TRIP malfunction was tested and verified.

INITIAL CONDITIONS: **IC-14 100% Power Equilibrium Xenon**

FINAL CONDITIONS: **Recirc Flow Control valves have runback, RFPT B has increased flow to maximum, Reactor is at approx. 68 to 72% Power.**

SOURCE OF COMPARISON DATA:

- [ ] PLANT DATA SET ____________
- [ ] ENGINEERING EVALUATION ____________
- [ ] FSAR ____________
- [X] SOER / LER 86-030, 84-079
- [X] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [X] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.24.2** REV. 3

TITLE: ***CONDENSATE BOOSTER PUMP 2A TRIP - CLF: CFW 4, 2***

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the CONDENSATE BOOSTER PUMP 2A TRIP Malfunction. Electrical Malfunction causes pump trip. System responses included: booster motor amps peg high and then decreased to zero, appropriate alarms occur, booster pump discharge header pressure decreases, RFW pump suction pressure decreases, and possible trip of one or both RFW pumps. Proper response on activation of the CONDENSATE BOOSTER PUMP 2A Trip is tested and verified.NOTE: RFPT TRIP evaluated per 14.4.9.2.9, REACTOR SCRAM evaluated per 14.4.9.24.33, MT/GEN TRIP evaluated per 14.4.9.24.31, MSIV ISOLATION evaluated per 14.4.10.3, LOSS OF ALL RFW evaluated per 14.4.10.1

INITIAL CONDITIONS: **IC-12 100% Power Equilibrium Xenon**

FINAL CONDITIONS: **One or both RFW pumps may have tripped, Reactor has scrammed.**

SOURCE OF COMPARISON DATA:

- [ ] PLANT DATA SET ______________
- [ ] ENGINEERING EVALUATION ______________
- [ ] FSAR ______________
- [x] SOER / LER 86-024
- [x] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [x] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Malfunction Tests TEST No. **14.4.9.24.48** REV. 3

TITLE: *COND-P-1B TRIP*

DESIRED RESPONSE:

This test was performed to demonstrate the functionality of the COND-P-1B TRIP Malfunction. Electrical Malfunction causes pump trip. System responses included: Cond Pump B motor amps decreased, Cond Pumps A & C amps increase, appropriate alarms occurred, condensate pump discharge header pressure decreased, Booster and RFW pump suction pressures decreased, and RFW pumps tripped. Proper response on activation of the COND-P-1B TRIP was tested and verified. NOTE: RFPT TRIP evaluated per 14.4.9.2.9, REACTOR SCRAM evaluated per 14.4.9.24.33, MT/GEN TRIP evaluated per 14.4.9.24.31, MSIV ISOLATION evaluated per 14.4.10.3, LOSS OF ALL RFW evaluated per 14.4.10.1.

INITIAL CONDITIONS: **IC-14, 100% Power with Equilibrium Xenon.**

FINAL CONDITIONS: **RFW Pumps tripped, Reactor has scrammed.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________
- ☐ ENGINEERING EVALUATION ____________
- ☐ FSAR ____________
- ☐ SOER / LER ____________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.10.40** REV. 4

TITLE: *LOSS OF NORMAL AND EMERGENCY FW - Multiple*

DESIRED RESPONSE:

This test is performed to verify the Simulators response to a LOSS OF ALL NORMAL and EMERGENCY FW. The Reactor Scram, NS4 isolation, RRC pump trip, Loss of normal ECCS and RCIC injection sources is verified. RPV/P is verified to increase with the subsequent operation of SRV's to control RPV/P at setpoint following the MSIV isolation. The RPV/L is verified to slowly decrease as the Core is blowndown via SRV operation with no normal or emergency feedwater sources available. SRV operation is verified to diminish as Core Decay heat decreased following the Scram. Note: Scram details evaluated in detail in 14.4.9.24.33, MT Trip details evaluated in 14.4.9.24.31,MSIV Isolation details evaluated in 14.4.10.3, NS4 Isolation at RPV/L 2 evaluated in 14.4.9.2.3 RFW Break in DW, RFP Trip is evaluated in 14.4.9.2.9.

INITIAL CONDITIONS: **IC-14 100% Power Equilibrium Xenon.**

FINAL CONDITIONS: **Reactor Shutdown with RPV/P being controlled at setpoint via SRV operation resulting in the core slowly blowing down to the Suppression Pool.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________
- ☐ ENGINEERING EVALUATION ____________
- ☐ FSAR ____________
- ☐ SOER / LER ____________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.16.4** REV. 3

TITLE: *HPCS LOGIC FAILURE - SLF: CSS-6*

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the HPCS LOGIC FAILURE Malfunction. HPCS manually initiated via activation of ARM/DEPRESS push-button and the failure to automatically start, verified. Subsequent manual start of HPCS-P-1 and manual opening of HPCS-V-4. System responses include: P601-A1-6.8, HPCS SYSTEM OUT OF SERVICE, HPCS-BISI - HPCS LOGIC PWR FAIL, failure of HPCS Injection valve V-4 to automatically close when RPV level is GT +54" and minimum flow Bypass valve V-12 to automatically open or close on HPCS flow.

INITIAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon.**

FINAL CONDITIONS: **Reactor Scrammed with both RFW Turbines tripped on HIGH RPV/L with HPCS Injection ongoing.**

SOURCE OF COMPARISON DATA:

- [ ] PLANT DATA SET ______
- [ ] ENGINEERING EVALUATION ______
- [X] FSAR 15.5.1
- [ ] SOER / LER ______
- [X] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [X] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.21.1** REV. 3

TITLE: *ADS LOGIC FAILURE (INADVERTENT INITIATION) - ADS 1*

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the ADS LOGIC FAILURE (INADVERTENT INITIATION) Malfunction. A surveillance being performed results in an inadvertent initiation of the ADS. System responses included: Applicable annunciator's alarmed, the seven ADS valves opened and their respective acoustic monitor lights illuminated, suppression pool temperatures and pool level increased, and Reactor pressure decreased. Steam flow to Main Turbine decreased and Generator MWE output decreased followed by a Reactor power increase when feedwater temperature decreases. The steam flow, feed flow mismatch error to the level control system causes the RPV water level to be maintained at < 30". DW Temperature, DW Pressure as well as Wetwell Air Temperature and Suppression Pool Temperature increasing. Proper response on activation of ADS Logic Failure (Inadvertent Initiation) malfunction was tested and verified.

INITIAL CONDITIONS: **IC-14 100% Power Equilibrium Xenon**

FINAL CONDITIONS: **RPV pressure @ ~984 psig with 7 ADS valves open and Main Turbine/ Generator @ ~60% load. Simulator placed in FREEZE prior to DW High Pressure activation**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________
- ☐ ENGINEERING EVALUATION ____________
- ☐ FSAR ____________
- ☐ SOER / LER ____________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.24.78** REV. 3

TITLE: *ATWS/ARI B LOGIC FAILURE - (See ATP for Listing)*

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the ATWS/ARI FAILURE. The ATWS-ARI SYS A switch was placed in trip. ATWS-ARI SYS B Switch was overidden to AUTO TO PRECLUDE OPERATION and CRD-V-24B, 25B, 26B, 27B Failed As Is. Then ATWS-ARI-SYS B Switch placed to Trip. Subsequent System B response was noted. No ANN of P603-A8-3.1 and NO valves CRD-V-24B - 27B changed position. P603-A7-3.1, ATWS-ARI SYS TRIP activated. When ATWS-ARI-SYS A Switch placed in TRIP. System responses included: no scram lights were illuminated on the full core display, no rods had moved as indicated on the RSCS full core display, and all of the CRD ARI SYS B valves indicated closed. Proper response on activation of the ATWS/ARI FAILURE malfunction was tested and verified.

INITIAL CONDITIONS: **IC-14 100% Power Equilibrium Xenon.**

FINAL CONDITIONS: **IC-14 100% Power Equilibrium Xenon.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ________________
- ☐ ENGINEERING EVALUATION ________________
- ☐ FSAR ________________
- ☐ SOER / LER ________________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.24.80** REV. 3

TITLE: *RPS FAILS TO SCRAM - CLF's: (RPS 25 - RPS 32)*

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the RPS FAILS TO SCRAM Malfunction. The relay logic is shorted. A manual scram is initiated. System alarms that did not initiate included: REACTOR SCRAM A1 AND B1 LOGIC, 1/2 SCRAM SYSTEM A, REACTOR SCRAM A2 AND B2 LOGIC, and 1/2 SCRAM SYSTEM B. All of the SCRAM Group Solenoid lights remained illuminated. The Backup SCRAM lights remained extinguished. The SDV vent and drain valves remained open. Proper response on activation of the RPS FAILS TO SCRAM malfunction was tested and verified.

INITIAL CONDITIONS: **IC-14 100% Power Equilibrium Xenon.**

FINAL CONDITIONS: **IC-14 100% Power Equilibrium Xenon.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ________________
- ☐ ENGINEERING EVALUATION ________________
- ☐ FSAR ________________
- ☐ SOER / LER ________________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.3.1** REV. 3

TITLE: *ROD DRIFT - SLF: RMC4 CR 30-31 DRIFTS OUT*

DESIRED RESPONSE:

This test is written to demonstrate the functionality of the ROD DRIFT Malfunction. A rod drifts out due to HCU 4 Valve Manifold Failure. System responses included: P603-A7-5-7 ROD DRIFT alarmed, the red Drift light on the full core display illuminated, P603-A7-5-7 ROD DRIFT alarm P603-A8-3.5, RBM UPSCL or INOP Alarms cleared when the rod is selected, the rod changed position on the four-rod display and the Rod Drift alarm annunciated when the next odd reed switch is activated, LPRM strings indicated a power increase on the 4 Rod Display, APRM's indicated an increase in power, and the full core display illuminated 48 when the rod reach its final position. Proper response on activation of the ROD DRIFT malfunction was tested and verified.

INITIAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon.**

FINAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon.**

SOURCE OF COMPARISON DATA:

- [X] PLANT DATA SET — PowerPlex Data
- [ ] ENGINEERING EVALUATION
- [ ] FSAR
- [ ] SOER / LER
- [X] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [X] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.3.2** REV. 2

TITLE: *STUCK ROD - SLF: RMC 5A*

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the STUCK ROD Malfunction. Air in the insert and withdraw lines of the CRD causes a stuck rod. The rod select matrix switch is illuminated and the blue background is on for the selected rod on the four rod display. The INSERT, WITHDRAW, and SETTLE lights illuminated normally when attempting to withdraw a rod. System responses included: rod position remained constant, and rod did not change indicated position on the RDCS Four Rod display. Proper response on activation of the STUCK ROD malfunction was tested and verified.

INITIAL CONDITIONS: **IC-14, 100% Power with Equilibrium Xenon.**

FINAL CONDITIONS: **IC-14, 100% Power with Equilibrium Xenon.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________________
- ☐ ENGINEERING EVALUATION ____________________
- ☐ FSAR ____________________
- ☐ SOER / LER ____________________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.3.3** REV. 3

TITLE: *UNCOUPLED ROD -SLF: RMC 6A*

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the Uncoupled Rod Malfunction. The coupling release handle for the rod becomes mechanically bound and the rod becomes uncoupled. Subsequent control rod withdrawal is initiated resulting in the control rod being withdrawn to the overtravel position. System responses included: Proper response on activation of the STUCK ROD malfunction was tested and verified. Activation of P603-A7-1-8, ROD OVERTRAVEL and P603-A7-2.7, ROD OUT BLOCK verified. Proper RWM, RSCS and RDCS response verified.

INITIAL CONDITIONS: **IC-3 approximately five (5) rods from critical.**

FINAL CONDITIONS: **IC-3 approximately five (5) rods from critical.**

SOURCE OF COMPARISON DATA:

- [ ] PLANT DATA SET ____________________
- [ ] ENGINEERING EVALUATION ____________________
- [ ] FSAR ____________________
- [ ] SOER / LER ____________________
- [X] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [X] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.3.4** REV. 4

TITLE: *SINGLE ROD SCRAM - SLF: RMC 7A*

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the SINGLE ROD SCRAM Malfunction. Blown fuses cause a single rod SCRAM (rod 34-31). System responses included: P603-A7-6-7 ACCUMULATOR TROUBLE alarmed, P603-A7-5-7 ROD DRIFT alarmed, APRM's indicated a decrease in power, the scram light for the rod illuminated on the full core display, the ACCUM light for the rod illuminated on the full core display, and the FULL IN light for the rod illuminated. The RSCS full core display indicated 00 and the four rod display for the affected rod is blank while the malfunction is active. The LPRM strings surrounding the rod showed a noticeable decrease in flux levels. Proper response on activation of the SINGLE ROD SCRAM malfunction was tested and verified.

INITIAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon.**

FINAL CONDITIONS: **Power is less than 100% and MWE less than 1150.**

SOURCE OF COMPARISON DATA:

- [X] PLANT DATA SET — PowerPlex Data
- [ ] ENGINEERING EVALUATION
- [ ] FSAR
- [ ] SOER / LER
- [X] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [X] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction   TEST No. **14.4.9.3.12**   REV. 4

TITLE: ***HYDRAULIC ATWS - SLF: 7A & 7B at 100% Severity***

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the HYDRAULIC ATWS Malfunction. Proper response on activation of a Manual SCRAM without Control Rod insertion was tested and verified

INITIAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon.**

FINAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon.**

SOURCE OF COMPARISON DATA:

- [ ] PLANT DATA SET ____________________
- [ ] ENGINEERING EVALUATION ____________________
- [ ] FSAR ____________________
- [ ] SOER / LER ____________________
- [x] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [x] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.3.13** REV. 0

TITLE: ***DROPPED ROD***

DESIRED RESPONSE:

Activation of the Stuck Rod and Uncoupled Rod during Reactor Start-up with subsequent withdrawal of drive mechanism by operator. Later the Stuck Rod malfunction is cleared and the control rod drops out of core. Rod Overtravel Annunciation verified as well as proper NI Control Board Indications and alarms as the Control Rod Free Falls out of core.

INITIAL CONDITIONS: **IC-3 SU Ongoing.**

FINAL CONDITIONS: **IC-3 SU Ongoing with a Dropped Rod Event in progress.**

SOURCE OF COMPARISON DATA:

- [ ] PLANT DATA SET ____________________
- [ ] ENGINEERING EVALUATION ____________________
- [ ] FSAR ____________________
- [ ] SOER / LER ____________________
- [x] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [x] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.3.6** REV. 3

TITLE: *RDCS FAILURE - SLF: RMC 3*

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the RDCS FAILURE Malfunction. A rod select module generates a channel disagreement due to timer A Failure. System responses included: the ACTIVITY CONTROLS DISAGREE light illuminates on Reactor Control Console, and random indication on activity Control Unit input to ROD DRIVE CONTROL SYSTEM ANALYZER on Panel P616. Proper response on activation of the RDCS FAILURE malfunction was tested and verified

INITIAL CONDITIONS: **IC-14 100% Power.**

FINAL CONDITIONS: **IC-14 100% Power.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ________________
- ☐ ENGINEERING EVALUATION ________________
- ☐ FSAR ________________
- ☐ SOER / LER ________________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.7.1** REV. 4

TITLE: *CLADDING PERFORATION - SLF: RCX 1 , 40 PINS*

DESIRED RESPONSE::

This test is performed to demonstrate the functionality of the CLADDING PERFORATION Malfunction. Forty fuel pins experience cladding failure from PCI. System responses included: radiation levels on log radiation monitors for the main steam lines increased, counts on the off gas pre-treatment monitor increased, radiation level on carbon adsorber vault monitor increased, and the off gas post-treatment recorder increased.

INITIAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon.**

FINAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon.**

SOURCE OF COMPARISON DATA:

- [ ] PLANT DATA SET ____________
- [ ] ENGINEERING EVALUATION ____________
- [ ] FSAR ____________
- [ ] SOER / LER ____________
- [X] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [X] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.7.2** REV. 4

TITLE: *GROSS CLAD FAILURE - SLF; RCX 1*

DESIRED RESPONSE::

This test is performed to demonstrate the functionality of the GROSS CLAD FAILURE Malfunction. System responses included: OG-RR-604 off gas pretreatment radiation increased, SJAE CONDSR RAD HI-HI alarmed at 1800mr/hr, SJAE CONDSR RAD HIGH alarmed at 2300 mr/hr. P603-A8-2-4 MSL RAD HIGH TRIP alarmed causing a half SCRAM and half MSL isolation. P603-A7-2.4 MSL RAD HIGH TRIP alarmed causing a half SCRAM and half MSL isolation. With the second MSL RAD HIGH TRIP and RX SCRAM and MSIV isolation occurred. NOTE: Details of the reactor SCRAM detailed in test 14.4.9.24.33, Details of the Turbine Trip are in test 14.4.9.24.31

INITIAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon, OG-V-45 is open.**

FINAL CONDITIONS: **Reactor SCRAM and MSIV isolation have occurred.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ________________
- ☐ ENGINEERING EVALUATION ________________
- ☐ FSAR ________________
- ☐ SOER / LER ________________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunctions TEST No. **14.4.9.24.31** REV. 5

TITLE: *MAIN TURBINE TRIP - SLF DEH 1*

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the MAIN TURBINE TRIP malfunction. Electronic malfunction. System responses included: MAIN GENERATOR tripped, MAIN TURBINE tripped, Reactor Scrammed with RRC Pumps tripping to *OFF*. Multiple meter responses on P603, P840, P820, DEH Turbine Control, DEH Valve Test, BWR Control, TG-TR-SMT, and P800 occurred IAW with requirements listed in this test procedure. MT Bypass valves and SRV Gp 1 opened to control RPV/P, ATWS/ARI, RPV/P trip initiated. Multiple annunciators alarmed as listed in this test procedure. The required heater dump valves opened and the required extraction non-return valves closed. The Turbine auxiliaries functioned properly during Turbine coastdown.

NOTE: Manual Scram evaluated in 14.4.9.24.33, Main Generator Trip evaluated in 14.4.9.13.1

INITIAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon.**

FINAL CONDITIONS: **Reactor has Scrammed, MainTurbine has tripped.**

SOURCE OF COMPARISON DATA:

[X]	PLANT DATA SET	SCRAM12.7
[ ]	ENGINEERING EVALUATION	
[X]	FSAR	15.2.3
[X]	SOER / LER	85-002, 01/01/85 85-003, 01/25/85
[X]	OPERATIONAL ASSESSMENT	

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [X] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Transients TEST No. **14.4.9.24.31A** REV. 0

TITLE: *MAIN TURBINE TRIP FROM LT 30% - SLF: DEH 1*

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the MAIN TURBINE TRIP FROM LT 30% malfunction. System responses included: MAIN GENERATOR tripped, MAIN TURBINE tripped, Multiple meter responses on P603, P840, P820, DEH Turbine Control, DEH Valve Test, BWR Control, TG-TR-SMT, and P800 occurred IAW with requirements listed in this test procedure. MT Bypass valves opened to control RPV/P. Multiple annunciators alarmed as listed in this test procedure. The required heater dump valves opened and the required extraction non-return valves closed. The Turbine auxiliaries functioned properly during Turbine coastdown. Proper response on activation of the Main Turbine Trip From LT 30% malfunction was tested and verified.

NOTE: Main Generator Trip evaluated in 14.4.9.13.1

INITIAL CONDITIONS: **IC-10, Adjusted Power to ~28%.**

FINAL CONDITIONS: **Main Turbine has tripped, DEH controlling pressure with Bypass valves.**

SOURCE OF COMPARISON DATA:

- [X] PLANT DATA SET — PLANTSD.DOC
- [ ] ENGINEERING EVALUATION — ____
- [X] FSAR — 15.2.3
- [ ] SOER / LER — ____
- [X] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [X] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Transient   TEST No. **14.4.10.13**   REV. 4

TITLE: ***MAIN TURBINE TRIP from RATED CONDITIONS W/O BYPASS VALVES***

DESIRED RESPONSE:

Main Turbine Trip, ByPass Valves fail to OPEN with resultant RPV Pressurization limited by SRV operation. RPT Trip of RRC Pumps to 15 Hz and subsequent trip to OFF via 1076 psig setpoint. MS-RV-1A Setpoint failed to 930 psig which will cycle to Control RPV Press. FW alignment made to FCV 10A/10B and RPV/L restored to normal.

INITIAL CONDITIONS: **IC-14 - 100% Power Equilibrium Xenon.**

FINAL CONDITIONS: **Reactor SD, MS-RV-1A controlling RPV/P and SU LCV controlling level via RFP Turbine 1A.**

SOURCE OF COMPARISON DATA:

- [X] PLANT DATA SET   SCRAM.LER 88-03
- [ ] ENGINEERING EVALUATION   ______
- [ ] FSAR   ______
- [ ] SOER / LER   ______
- [X] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [X] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY Plant Malfunctions TEST No. **14.4.9.13.1** REV. 4

TITLE: ***MAIN GENERATOR TRIP - SLF: GEN-1***

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the MAIN GENERATOR TRIP Malfunction, The 86 lockout trip is actuated. Alarm responses included: Turbine Throttle Vlv Closure, Turbine Gov Vlv Fast Closure, Scram, Turb Trip Sol Energ, Tg Auto Stop Trip, Unit Primary Lockout Trip, Main Gen Lockout Trip, Main Gen Exciter Field Bkr Trip, and Oscillograph Started. System responses included: Recirc Pumps tripped to OFF due to ATWS (high RPV pressure) condition, TO-P-BOP started, Trip Circuit Available light out, (throttle, governor, reheat stop, and intercept) valves closed, turbine speed decreased, generator MWE output is zero, bypass valves controlled DEH pressure, turbine drains opened, MSR temperature control valves shut, (86XU, 86XIU, & 86G) tripped, Generator output bkrs opened, N bkr's opened, S bkr's shut, Generator parameters were sat, non-return valves closed, and dump valves opened. Proper response on activation of the Main Generator Trip malf was tested and verified.

INITIAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon**

FINAL CONDITIONS: **Main Generator tripped, Reactor Scrammed.**
NOTE: Refer to 14.4.9.24.33 for SCRAM details.

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ______
- ☐ ENGINEERING EVALUATION ______
- ☒ FSAR 15.2.2
- ☒ SOER / LER 85-002, 85-003
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.23.3** REV. 5

TITLE: ***DEH PRESS REGULATOR OUTPUT FAILURE HIGH - SLF: DEH 5***

DESIRED RESPONSE:

This test was performed to demonstrate the functionality of the DEH PRESS REGULATOR OUTPUT FAILURE HIGH Malfunction. Circuit failure cause controller high signal select circuit to fail high. System responses included: governor valves full open, Generator output increased, and Reactor press decreased rapidly. The following annunciators alarmed: MSL PRESS LOW, MSIV HALF TRIP SYSTEM B, MSIV HALF TRIP SYSTEM A, and MSL ISOL VLVS CLOSURE TRIP. The MSIV's all closed. Proper response on activation of the DEH Press Regulator Output Failure Low was tested and verified. NOTE: Reactor Scram evaluated in 14.4.9.24.33 Turbine Trip evaluated in 14.4.9.24.31

INITIAL CONDITIONS: **IC-12 100% Power Equilibrium Xenon**

FINAL CONDITIONS: **Reactor Scrams on MSIV closure.**

SOURCE OF COMPARISON DATA:

- [X] PLANT DATA SET PAT 22
- [ ] ENGINEERING EVALUATION
- [X] FSAR 15.1.3
- [ ] SOER / LER
- [X] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [X] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.23.3A** REV. 1

TITLE: ***DEH PRESS REGULATOR OUTPUT FAILURE LOW -SLF: DEH 5***

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the DEH PRESS REGULATOR OUTPUT FAILURE LOW Malfunction. Circuit failure cause PRESS REGULATOR OUTPUT to go low, due to HSS Circuit internal failure. System responses included: governor valves go full shut, Turbine/Generator trips off-line, bypass valves are full closed, reactor pressure is increasing, appropriate alarms occur, Rx scrams on high Neutron Pwr, and SRV's control pressure. Proper response on activation of the DEH Press Regulator Output Failure Low was tested and verified.

INITIAL CONDITIONS: **IC-14 100% Power Equilibrium Xenon**

FINAL CONDITIONS: **REACTOR SCRAMS on either High Pressure or HI APRM Trips.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________
- ☐ ENGINEERING EVALUATION ____________
- ☐ FSAR ____________
- ☒ SOER / LER 85-024
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.24.40** REV. 3

TITLE: ***TURBINE BYPASS VALVE (BPV-1) FAILURE - SLF: DEH 13A***

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the TURBINE BYPASS VALVE (BPV-1) FAILURE Malfunction. Thermal binding results in valve seizure. Test is activated by going to BPV MANUAL and depressing the BPV RAISE at the BWR DEH panel on P820. System responses included: BPV TRACK decreased, BPV-1 position remained at zero, BPV-(2,3,4) opened, MWE on DEH TURBINE CONTROL decreased, BPV-(2,3,4) open lights energized, and BPV-1 closed light remained energized. The Governor valve additive position decreased and the GV's closed to maintain setpoint pressure.

INITIAL CONDITIONS: **IC-14 100% Power Equilibrium Xenon.**

FINAL CONDITIONS: **BPV's-(2,3,4) are open, BPV-1 is shut, MWE has decreased.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET __________
- ☐ ENGINEERING EVALUATION __________
- ☐ FSAR __________
- ☒ SOER / LER 84-056, 84-044, 84-104
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Transients　　　TEST No. **14.4.9.24.33**　　　REV. 5

TITLE: *MANUAL SCRAM*

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the MANUAL SCRAM Malfunction. Plant responses included: All control rods inserted as indicated by (Full Core Display, RSCS, & PPCRS), RPS (A & B) Scram Group Solenoid lights extinguished, Flow/APRM/Rbm & Rbm/APRM/Flow Status lamps indicated downscale, Lvl Setpoint/Setdown light lit, and CRD-V-(10/180,11/181) closed. The response of multiple (meters, recorders, & devices) is IAW the test procedure. Multiple annunciators listed in the test alarmed correctly. Simulator Data Set 9-24-33 is compared to Plant Data Set SCRAM LER 89-35. Proper response on activation of the MANUAL SCRAM malfunction is tested and verified.

INITIAL CONDITIONS: **IC-14, Adjusted flow to 100% using FCV's.**

FINAL CONDITIONS: **Reactor Scrammed, BOP shutdown in progress.**

SOURCE OF COMPARISON DATA:

- [X] PLANT DATA SET　　　SCRAM LER 89-35
- [ ] ENGINEERING EVALUATION　　　________
- [ ] FSAR　　　________
- [ ] SOER / LER　　　90-021, 85-016
- [X] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [X] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.2.3** REV. 3

TITLE: ***FEEDWATER LINE BREAK IN DRYWELL - SLF: CFW 9A***

DESIRED RESPONSE:

This test is performed to verify the Simulators response to a Feedwater Line Break in the DW on Reactor Side of the inboard check valves. The DW/P response is verified to initiate a Reactor Scram with subsequent NS4 and ECCS initiations. The RRC pump trip to 15 hz via RPV/L 3 signals is verified. The isolation of the MSIV's is verified to occur on low RPV/P. The subsequent RPV/P increase is verified to trip the RRC pumps off via ATWS logic. The SRV's are verified to control RPV/P at setpoint. The RFP's are verified to coast down as HP and LP steam sources expended. HPCS-V-4 is verified to auto close at RPV/L 8. Condensate Flow is verified to continue with a subsequen DW/P reduction as FW/T decreased.

Note: Scram details evaluated in detail in 14.4.9.24.33, MT Trip details evaluated in 14.4.9.24.31, Main Gen Trip details evaluated in 14.4.9.13.1, MSIV Isolation details evaluated in 14.4.10.3. Proper Annunciation response was verified.

INITIAL CONDITIONS: **IC-14 100% Power Equilibrium Xenon**

FINAL CONDITIONS: **Reactor Shutdown with RPV/P control via SRV's with the Primary Containment isolation complete. Condensate Flow continuing via the break cooling the DW.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________________
- ☐ ENGINEERING EVALUATION ____________________
- ☐ FSAR ____________________
- ☐ SOER / LER ____________________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.2.8** REV. 5

TITLE: ***FEEDWATER LINE BREAK IN TURBINE BUILDING - SLF: CFW 5***

DESIRED RESPONSE:

This test is performed to verify Simulator response to RFW line break in Turbine Building. RFW Header Pressure decreases, RPV/L decreases initiating Rx SCRAM and RRC Pump Trip to 15Hz. RFW pumps accelerate to runout conditions and trip on low suction pressure. Condensate Booster Pumps trip on low suction pressure when condenser level decreases such that condensate pumps cannot maintain CBP suction pressure. RPV Level decreases to RPV LVL 2 with subsequent HPCS and RCIC Auto Start and NS4 Isolation. Turbine Building temperatures increase.

Proper Annunciation response was verified.

INITIAL CONDITIONS: **IC-14 100% Power Equilibrium Xenon**

FINAL CONDITIONS: **Reactor has scrammed, Turbine Bldg. Temp. increases, RPV Level increases, LVL 8 RCIC-V-45A & HPCS-V-14 shut.**

SOURCE OF COMPARISON DATA:

- [ ] PLANT DATA SET ____________
- [ ] ENGINEERING EVALUATION ____________
- [x] FSAR 15.6.6
- [ ] SOER / LER ____________
- [x] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [x] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.21.4** REV. 5

TITLE: *MAIN STEAM RUPTURE IN DRYWELL - SLF: RRS 3C (DOWNSTREAM OF FLOW RESTRICTORS)*

DESIRED RESPONSE:

This test was performed to verify the Simulators response to a Main Steam Line Rupture in the Drywell. The DW/P increase initiation of Reactor Scram, NS4 Isolation and RRC FCV lockup were verified. The RRC pump trip to 15 Hz via RPV/L 3 signals was verified. The initiation of the RPV/L 2 NS4 isolation, HPCS initiation, and RRC pumps tripping to off were verified and evaluated. DG 1, 2 & 3 and HPCS initiation were verified. DW/P response and subsequent WW/P response are verified as the DW/P overcomes downcomer submergence. CBP injection and subsequent RPV/L restoration, with DW cooling via break verified. Note: Scram details evaluated in detail in 14.4.9.24.33, MT Trip details evaluated in 14.4.9.24.31, Main Gen Trip details evaluated in 14.4.9.13.1, NS4 Isolation at RPV/L 2 evaluated in 14.4.9.2.3 RFW Break in DW. Proper Annunciation response was verified.

INITIAL CONDITIONS: **IC-14 100% Power Equilibrium Xenon**

FINAL CONDITIONS: **Reactor Shutdown with RPV/L GT the MSL 110 inches. Primary Containment Isolation complete via NS4 isolation**

SOURCE OF COMPARISON DATA:

- [ ] PLANT DATA SET ____________________
- [ ] ENGINEERING EVALUATION ____________________
- [x] FSAR 15.6.5, 6.2.1.1.3.b
- [ ] SOER / LER ____________________
- [x] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [x] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.21.5A** REV. 1

TITLE: *MAIN STEAM RUPTURE IN TURBINE BUILDING - SLF: RRS 8C*

DESIRED RESPONSE:

This test is performed to verify the Simulators response to a Main Steam Line Rupture in the Turbine Building. The RRC pump trip to 15 Hz and Reactor Scram initiation via RPV/L 3 signals is verified. The isolation of the MSIV's is verified to occur on low RPV/P or MSL HIGH FLOW. The subsequent RPV/P increase or RPV/L decrease is verified to trip the RRC pumps to off via ATWS logic. The SRV's were verified to control RPV/P at setpoint. Note: Scram details evaluated in detail in 14.4.9.24.33, MT Trip details evaluated in 14.4.9.24.31, Main Gen Trip details evaluated in 14.4.9.13.1, MSIV Isolation details evaluated in 14.4.10.3. Proper Annunciation response was verified.

INITIAL CONDITIONS: **IC-14 100% Power Equilibrium Xenon.**

FINAL CONDITIONS: **Reactor Shutdown with RPV/P control via SRV's.**

SOURCE OF COMPARISON DATA:

- [ ] PLANT DATA SET ______
- [ ] ENGINEERING EVALUATION ______
- [x] FSAR 15.6.4
- [ ] SOER / LER ______
- [x] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [x] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.21.6** REV. 3

TITLE: ***RUPTURE IN STEAMLINE DOWNSTREAM RCIC-V-45 - SLF RCI 4***

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the RCIC STEAMLINE BREAK AT TURBINE. RCIC Steam Line break between RCIC-V-45 and RCIV-V-2. System responses included: (RCIC TURBINE TRIP, RCIC STEAM LINE INTEGRITY DP HIGH, RCIC DIV1 OUT OF SERVICE, RCIC TURBINE STEAM SUPPLY PRESS LOW, and others) alarmed, RCIC-V-(8, 63, 1) closed, and Turbine Coasts to a stop. RCIC room radiation levels increased and RCIC room temperatures increased. Proper response on activation of the RCIC STEAMLINE BREAK AT TURBINE malfunction was tested and verified.

INITIAL CONDITION: **IC-14 100% Power Equilibrium Xenon, RCIC in Full Flow Test to CST.**

FINAL CONDITION: **RCIC System Isolated, Reactor at 100% Power**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ________________
- ☐ ENGINEERING EVALUATION ________________
- ☐ FSAR ________________
- ☐ SOER / LER ________________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.14.1** REV. 2

TITLE: *SRM A FAILURE - LOW - SLF: NIS 1A*

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the SRM A FAILURE - LOW Malfunction. SRM MONITOR DOWNSCALE, P603-A7-6.6 and ROD OUT BLOCK, P603-A7-2.7 verified. SRM count rate and period downscale indications verified on P603 and P609 on SRM DRAWER. Proper response on activation of SRM-A failing low was tested and verified.

INITIAL CONDITIONS: **IC-3, 5 Rods from critical**

FINAL CONDITIONS: **IC-3, 5 Rods from critical**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________
- ☐ ENGINEERING EVALUATION ____________
- ☐ FSAR ____________
- ☐ SOER / LER ____________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.14.2** REV. 3

TITLE: ***APRM D FAILS UPSCALE -SLF: NIS 5A , OPT 2***

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the APRM A FAILS UPSCALE Malfunction. Malfunction in the averaging circuit. Alarm responses included: APRM UPSCALE, APRM ACE UPSCL TRIP or INOP, ROD OUT BLOCK, NEUTRON MONITOR SYSTEM TRIP, and 1/2 SCRAM SYSTEM A. APRM A UPSC TR OR INOP and UPSC ALARM lights illuminated on P603. System responses included: APRM A read upscale on IRM-LR-603B, APRM A is upscale on P608, UPSCL (Therm Trip, Alarm, Neut Trip, Neut First) lights illuminated on P608, RPS A logic scram group solenoid lamps extinguished on P603, RPS A SCRAM GP 1-4 Solenoid lights extinguished and the Backup Scram Valve Solenoid Lights for RPS A logic illuminated. Proper response on activation of APRM A Fails Upscale malfunction is tested and verified.

INITIAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon.**

FINAL CONDITIONS: **100% Power, 1/2 SCRAM RPS A.**

SOURCE OF COMPARISON DATA:

- [ ] PLANT DATA SET ____________
- [ ] ENGINEERING EVALUATION ____________
- [ ] FSAR ____________
- [ ] SOER / LER ____________
- [x] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [x] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.14.5** REV. 2

TITLE: *IRM INSTRUMENT FAILURE - HIGH - SLF: NIS 2A*

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the IRM INSTR. FAILURE-HIGH Malfunction. IRM output amp shorted. The following annunciators alarmed: IRM ACEG UPSCL TRIP OR INOP, IRM MONITORS UPSCALE, ROD OUT BLOCK, NEUTRON MONITOR SYSTEM TRIP, and 1/2 SCRAM SYSTEM A. System responses included: IRM A indicated upscale on IRM-LR-603A, IRM A UPSC TR OR INOP light illuminated, IRM A UPSC ALARM light illuminated P603, IRM A upscale on IRM A drawer, UPSCALE ALARM light illuminated on P606. RPS A logic SCRAM group solenoid lamps extinguished. Backup SCRAM valve solenoid lights for RPS A logic illuminated. Proper response on activation of IRM Instr. Failure - High was tested and verified.

INITIAL CONDITIONS: **IC-5**

FINAL CONDITIONS: **Half Scram System A and accompanying alarms.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ________________
- ☐ ENGINEERING EVALUATION ________________
- ☐ FSAR ________________
- ☐ SOER / LER ________________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.14.8** REV. 3

TITLE: *LPRM FAILURE - DOWNSCALE - SLF: NIS 8AA*

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the LPRM FAILURE - DOWNSCALE Malfunction. The LPRM flux amplifier fails. System responses included: P603-A8-5-6 LPRM DOWN SCALE alarmed, 24-33a DNSC light illuminated on the Full Core display, and LPRM% HEAT FLUX meter (bottom rt, A level) indicated downscale when rod 22-35 is selected. Proper response on activation of the LPRM FAILURE - DOWNSCALE malfunction was tested and verified.

INITIAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon.**

FINAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ________________
- ☐ ENGINEERING EVALUATION ________________
- ☐ FSAR ________________
- ☐ SOER / LER ________________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction   TEST No. **14.4.9.9.4A**   REV. 1

TITLE: ***RCIC TURBINE TRIP - CLF: NSSS, RCI (RCI 26, OPTION 2) (RCI 28, OPTION 2)***

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the RCIC TURBINE TRIP DUE TO RCIC-V-8 CLOSURE CLF. The RCIC turbine tripped due to RCIC-V-8 failing closed. System responses included: RCIC-V-8 closed, RCIC TURBINE TRIP alarmed, Turbine (speed, exhaust pressure, flow, suction press, and discharge press) decreased, RCIC-V-(1 and 19) indicated closed, RCIC WATER LEG PUMP DISCH PRESSURE LOW, and RCIC LUBE OIL CLR WATER PRESSURE HIGH/LOW annunciators alarmed and cleared.
Proper response on activation of the RCIC TURBINE TRIP due to RCIC-V-8 closure malfunction was tested and verified.

INITIAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon, RCIC placed in Full Flow Test Mode CST to CST.**

FINAL CONDITIONS: **IC-14 100% Power, RCIC TURBINE has tripped.**

SOURCE OF COMPARISON DATA:

- [ ] PLANT DATA SET ____________________
- [ ] ENGINEERING EVALUATION ____________________
- [ ] FSAR ____________________
- [ ] SOER / LER ____________________
- [x] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [x] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction   TEST No. **14.4.9.24.43**   REV. 3

TITLE: ***ANNUNCIATOR FAILURE***

DESIRED RESPONCE:

This test was performed to demonstrate the functionality of the Annunciator Failure Malfunction. The failure to Annunciate malfunction is initiated with a subsequent system condition establish to initiate the associated Annunciator and its failure to activate was verified.

INITIAL CONDITIONS: **IC-14 100% Power Equilibrium Xenon.**

FINAL CONDITIONS: **IC-14 100% Power Equilibrium Xenon.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________
- ☐ ENGINEERING EVALUATION ____________
- ☐ FSAR ____________
- ☐ SOER / LER ____________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: TEST No. **14.4.9.24.67** REV. 3

TITLE: *RPV/L TRIP CHANNEL FAILURE HI: RRS18 and RRS-2)*

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the RRS malfunction type BST for MS-LIC-24B and MS-LIS-24D Option 2(trip). System responses included: RCIC-RLY-K68 (21/025) RCIC-V-45, ISOL RPV LEVEL HIGH energized and RCIC-V-45, Failed shut. Proper response on activation of the Malf (RRS18 and RRS 2) was tested and verified.

INITIAL CONDITIONS: **IC-14 100% Power Equilibrium Xenon.**

FINAL CONDITIONS: **100% Power Equilibrium Xenon, RCIC-V-45 has Failed shut.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________
- ☐ ENGINEERING EVALUATION ____________
- ☐ FSAR ____________
- ☐ SOER / LER ____________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.24.67B** REV. 1

TITLE: ***RFW-LI-606B FAILS DOWNSCALE - CLF: RRS-83, OPT 4, 50%***

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the RFW-LI-606B FAILS DOWNSCALE Malfunction. Level Sensor C34-N004B Fails low. System responses included: RFW-LI-606B indicated downscale, P603-A8-2-8 RFW TURB Control Signal or Level Channel failure alarmed, and FWC sensor A is automatically selected. The RPV Level Control Channel is manually selected to Channel A. Proper response on activation of the RFW-LI-606B FAILS DOWNSCALE malfunction was tested and verified.

INITIAL CONDITIONS: **IC-14 100% Power Equilibrium Xenon**

FINAL CONDITIONS: **IC-14 100% Power Equilibrium Xenon**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET __________
- ☐ ENGINEERING EVALUATION __________
- ☐ FSAR __________
- ☒ SOER / LER 85-016
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction   TEST No. **14.4.9.24.67C**   REV. 1

TITLE: *RFW-DPT-4B - FAILS HIGH - CLF: RRS 83*

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the RFW-LI-606B FAILS HIGH Malfunction. Level Sensor C34-N004B Fails high. System responses included: RPV Level HIGH/LOW ALERT alarmed, RPV high level channel B seal in amber light illuminated, RFW/TURBINE RPV level high Trip alarmed, RFW-LI-606B indicated upscale, and RFW-LR-608 indicated upscale. RFW Level Control System, (RFW-LIC-600, RFW-SC-601A & 601B output demands decreased) causing both RFW Turbines to decrease in speed causing feedwater flow to decrease to less than steam flow and RPV/L to drop. At RPV level 3 a Rx SCRAM occurred. Proper response on activation of the RFW-LI-606B FAILS HIGH malfunction was tested and verified.

INITIAL CONDITIONS: **IC-14 100% Power Equilibrium Xenon.**

FINAL CONDITIONS: **Reactor Scrammed on actual low level.**

SOURCE OF COMPARISON DATA:

- [ ] PLANT DATA SET ____________
- [ ] ENGINEERING EVALUATION ____________
- [ ] FSAR ____________
- [ ] SOER / LER ____________
- [x] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [x] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Malfunction Test TEST No. **14.4.9.3.10** REV. 3

TITLE: *ROD WORTH MINIMIZER FAILS*

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the ROD WORTH MINIMIZER FAILS Malfunction. A parity check error causes the RWM to go INOP. System responses included: P603-A7-2.7 ROD OUT BLOCK alarmed, INSERT BLOCK and WITHDRAWN BLOCK lights illuminated on the (Reactor Control Console and on RWM Console). Proper response on activation of the Rod Worth Minimizer Fails malfunction was tested and verified.

INITIAL CONDITIONS: **IC-9 HEAT UP @ 850#.**

FINAL CONDITIONS: **IC-9 HEAT UP @ 850#.**

SOURCE OF COMPARISON DATA:

- [ ] PLANT DATA SET ____________________
- [ ] ENGINEERING EVALUATION ____________________
- [ ] FSAR ____________________
- [ ] SOER / LER ____________________
- [X] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [X] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.9.2** REV. 3

TITLE: ***LPCS SUCT LINE LEAK AT PUMP***

DESIRED RESPONSE:

LPCS SUCTION LINE BREAK results in RB FD R4 Level alarms, isolation of FDR-V-109, LPCS Room Hi Level alarm, SP/L Low alarm, and LPCS Pump Trip on overload when LPCS Pump Room Level shorts out pump, with assocaiated annunciation.

INITIAL CONDITIONS: **IC-14 100 % 100% Power with Equilibrium Xenon, LPCS Pump in Full Flow test to Suppression Pool.**

FINAL CONDITIONS: **IC-14 100 % 100% Power with Equilibrium Xenon, LPCS Pump Tripped and Low Suppression Pool Water Level.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________________
- ☐ ENGINEERING EVALUATION ____________________
- ☐ FSAR ____________________
- ☐ SOER / LER ____________________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. 14.4.9.24.37 REV. 3

TITLE: *HPCS-V-4 FAILS THERMAL OVERLOAD- CLF: CSS7 - OPT 6*

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the HPCS-V-4 FAILS OPEN Malfunction. Thermal binding results in valve seizure. HPCS system is initiated. Once HPCS-V-4 is open the malfunction is initiated. System response included: HPCS-V-4 did not close after placing manual switch in closed position and it did not close after receiving a close signal on a Reactor high level of 54.5". Proper response on activation of the HPCS-V-4 Fails Open was tested and verified.

INITIAL CONDITIONS: **IC-14 100% Power Equilibrium Xenon.**

FINAL CONDITIONS: **Reactor Scrammed, RFW and MT Tripped at RPV/L 8, DEH Controlling RPV/P via MT ByPass Valves.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET __________
- ☐ ENGINEERING EVALUATION __________
- ☐ FSAR __________
- ☐ SOER / LER __________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.25.2** REV. 1

TITLE: ***RHR-P-2B SHAFT SHEAR- CLF: NSSS, RHR***

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the RHR-P-2B, Shaft Shear Malfunction. System responses included: RHR-P-2B AMPS decreasing, RHR-P-2B Flow decreasing, RHR-P-2B Discharge Pressure decreasing and appropriate annunciators alarmed.
Proper response on activation of malfunction RHR-P-2B Shaft Shear was tested and verified

INITIAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon, RHR-P-2B in Full Flow Test at rated flow.**

FINAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon, RHR-P-2B sheared shaft.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ________________
- ☐ ENGINEERING EVALUATION ________________
- ☐ FSAR ________________
- ☐ SOER / LER ________________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.25.5** REV. 1

TITLE: *RHR-P-2A TRIP -Select CLF: NSSS, RHR MOTOR, RHR 1*

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the RHR-P-2A Malfunction. RHR-P-2A Trip on overload due to electrical fault. System responses included: RHR-P-2A AMPS icreased to trip point and then decreased , RHR-P-2A Flow and Discharge Pressure decreased, switch lights indicated pump tripped, and appropriate annunciators alarmed. Proper response on activation of malfunction RHR-P-2A TRIP was tested and verified.

INITIAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon, RHR-P-2A in Full Flow Test at rated flow.**

FINAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon, RHR-P-2A is tripped.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET ____________________
- ☐ ENGINEERING EVALUATION ____________________
- ☐ FSAR ____________________
- ☐ SOER / LER ____________________
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction   TEST No. **14.4.9.25.19**   REV. 1

TITLE: *RPS SPURIOUS SCRAM A - CLF:*

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the RPS SPURIOUS SCRAM A Malfunction. Spurious trip of RPS CH.A DIV I 1/2 SCRAM (due to trip of RPV HIGH PRESS switch). System responses included: RPV PRESS HI trip annunciator alarmed, 1/2 SCRAM SYS A annunciator alarmed, RPS A Logic Groups 1-4 SCRAM lights on panels P603 and P609 extinguished, and backup SCRAM, System A and System B Solenoid lights illuminate. Proper response on activation of the RPS SPURIOUS SCRAM A malfunction was tested and verified.

INITIAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon.**

FINAL CONDITIONS: **IC-14 100% Power with Equilibrium Xenon, 1/2 SCRAM ON RPS A.**

SOURCE OF COMPARISON DATA:

- [ ] PLANT DATA SET ____________________
- [ ] ENGINEERING EVALUATION ____________________
- [ ] FSAR ____________________
- [ ] SOER / LER ____________________
- [X] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [X] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Transient TEST No. **14.4.10.11** REV. 3

TITLE: *100% HYDRAULIC ATWS, WITH MSIV ISOLATION*

DESIRED RESPONSE:

MSIV ISOLATION with all rods remaining Full Out. RPV Level reduction due to steaming rate GT Feed rate due to RCIC. HPCS disabled per EOP directions. SLC Injection at 60 seconds and RPV/L reduction jointly decrease Reactor Power to APRMS DOWNSCALE within 6 minutes in accordance with ANF ATWS Analysis. SRV Operation controls RPV/P with time interval between successive SRV LIFTS increasing with time due to power reduction.

INITIAL CONDITIONS: **IC-14 100% Power Equilibrium Xenon.**

FINAL CONDITIONS: **SD due to CSD BORON Weight Injected via SLC at 43 minutes.**

SOURCE OF COMPARISON DATA:

- [X] PLANT DATA SET — ANF ATWS/RPT Analysis
- [ ] ENGINEERING EVALUATION — ______
- [ ] FSAR — ______
- [ ] SOER / LER — ______
- [X] OPERATIONAL ASSESSMENT

TEST RESULTS:

- [ ] TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- [X] TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- [ ] TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

OPERATIONAL REVIEW SUMMARY

TEST CATEGORY: Plant Malfunction TEST No. **14.4.9.24.63** REV. 3

TITLE: ***DEH PUMP TRIP - CLF: DEH-P-1A, SHAFT SEIZURE***

DESIRED RESPONSE:

This test is performed to demonstrate the functionality of the DEH PUMP 1A TRIP Malfunction. Spurious breaker trip. System responses included: DEH-P-1A tripped, DEH HDR pressure decreased, appropriate annunciators alarmed, and the standby DEH-P-1B auto started at 1800 psig. Proper response on activation of the DEH-P-1A trip was tested and verified.

INITIAL CONDITIONS: **IC-14 100% Power Equilibrium Xenon.**

FINAL CONDITIONS: **Standby DEH-P-1B is running, plant is still at 100% Power.**

SOURCE OF COMPARISON DATA:

- ☐ PLANT DATA SET __________
- ☐ ENGINEERING EVALUATION __________
- ☐ FSAR __________
- ☒ SOER / LER 84-045, 90-021
- ☒ OPERATIONAL ASSESSMENT

TEST RESULTS:

- ☐ TEST RESULTS UNSATISFACTORY WITH DISCREPANCIES
- ☐ TEST RESULTS SATISFACTORY WITH DISCREPANCIES
- ☒ TEST RESULTS SATISFACTORY WITHOUT DISCREPANCIES

APPENDIX E

WASHINGTON PUBLIC POWER SUPPLY SYSYTEM

QUADRENNIAL TESTING

Attachment E-1 - Quadrennial Test Schedule

APPENDIX E

Attachment E-1

WASHINGTON PUBLIC POWER SUPPLY SYSYTEM

QUADRENNIAL TESTING

<u>ANNUAL TESTING</u>

1. Computer Spare Capacity Verification
   Test No. 14.5.2 - Simulator Computer Spare Capacity Test

2. Steady-State Operation Tests
   Test No. 14.4.3.1 - 1 Hour Stability
   Test No. 14.4.4.1 - 100% SS Accuracy
   Test No. 14.4.4.2 - 66% SS Accuracy
   Test No. 14.4.4.3 - 40% SS Accuracy
   Test No. 14.4.4.4 - Cold Shutdown - BOC

3. Benchmark Transient Tests
   Test No. 14.4.7.1 - Normal Plant Operations
   Test No. 14.4.9.24.33 - Manual Scram
   Test No. 14.4.10.5 - Simultaneous Trip of All RFP's
   Test No. 14.4.10.3 - Closure of All Main Steam Isolation Valves
   Test No. 14.4.10.6 - Trip of All Recirculation Pumps
   Test No. 14.4.9.24.34 - Recirculation Pump B Trip
   Test No. 14.4.9.24.31A - Main Turbine Trip from LT 30%
   Test No. 14.4.8.4 - Power Ramp from 100% PWR to 75% to 100%
   Test No. 14.4.10.7 - Maximum Size Reactor Coolant System Rupture w/Loss of Offsite Power
   Test No. 14.4.10.9 - Maximum Size Unisolatable MSL Rupture
   Test No. 14.4.10.10 - MSIV ISOL with SRV Full Open

APPENDIX E

Attachment E-1

WASHINGTON PUBLIC POWER SUPPLY SYSYTEM

QUADRENNIAL TESTING

Year 1

1. Normal Plant Evolutions

   07.04.00.05.13 - Reactor Vx & Trip Valve Operability

   07.04.01.03.01.02 - Control Rod Exercise

   07.04.03.07.04.01 - Remote Shutdown Panel Channel Check

   07.04.04.07 - MSIV Closure Test

   07.04.05.01.11 - HPCS System Operability Test

   07.04.06.03.03 - Containment Isolation Valve Operability

   07.04.06.05.03.01A - Standby Gas Treatment Operability Test

   07.04.07.09.01 - Weekly Bypass Valves Test

   07.04.08.01.01.02.06 - HPCS Diesel Generator - Loss of Power Test

2. Malfunction Tests

   14.4.9.18.3 - Instrument Line Break (Ref)

   14.4.9.8.3B - Overcurrent SM-1

   14.4.9.8.7 - Loss of All Offsite Power

   14.4.9.24.56 - Battery Charger C1-1 Trip

   14.4.9.2.2 - Condenser Air Leak

   14.4.9.24.48A - COND-P-1A Trip

   14.4.9.21.1 - ADS Logic Failure

   14.4.9.3.1 - Rod Drift

   14.4.9.3.13 - Dropped Rod

   14.4.9.24.31 - Main Turbine Trip

   14.4.9.24.40 - BPV-1 Failure

   14.4.9.24.33 - Manual Scram

   14.4.9.21.5A - MS Rupture In Turbine Bldg.

   14.4.9.14.5 - IRM Failure - High

   14.4.9.24.67C - RFW-L1-606B Fails High

   14.4.9.25.5 - RHR-P-2A Trip

   14.4.9.25.19 - RPS Spurious Scram A

   14.4.9.24.63 - DEH Pump 1A Trip

WASHINGTON PUBLIC POWER SUPPLY SYSYTEM

QUADRENNIAL TESTING

Year 2

1. Normal Plant Evolutions
   - 14.4.7.2.1 - Startup from Hot Shutdown to Rated Pressure
   - 14.4.7.2.3 - SD to HSD
   - 14.4.6.1 - Core Reactivity/Shutdown Margin
   - 14.4.6.3 - Fission Product Poison Test
   - 07.04.00.05.15 - CIA Valve Operability
   - 07.04.03.08.02.01 - Monthly Turbine Valve Tests
   - 07.04.06.01.04.02 - MSIV Leakage Control System
   - 07.04.06.04.01.02 - Suppression Chamber-Dry Well Vacuum Breaker Operability
   - 07.04.06.05.03.04A - Standby Gas Treatment Manual Initiation Bypass Damper & Heater Test

2. Malfunction Tests
   - 14.4.9.18.6 - Instrument Line Break (Var)
   - 14.4.10.10 - MSIV ISOL with SRV FO
   - 14.4.9.8.4 - S1-2 DC Ground
   - 14.4.9.8.8 - DG-2 Trip High Diff. Current
   - 14.4.9.24.64A - TSW Pump B Trip
   - 14.4.9.24.78 - ATWS/ARI Failure
   - 14.4.9.2.9 - RFPT B Trip
   - 14.4.9.3.2 - Stuck Rod
   - 14.4.9.3.6 - RDCS Failure
   - 14.4.9.13.1 - Main Generator Trip
   - 14.4.9.21.6 - RCIC Steam Line Break at Turbine
   - 14.4.9.14.8 - LPRM Failure - Downscale
   - 14.4.9.9.4C - RCIC Turbine Trip - (Mechanical Overspeed)
   - 14.4.9.3.12 - Hydraulic ATWS
   - 14.4.9.23.3 - DEH Press Reg. Output Failure High
   - 14.4.9.24.27 - Main Steam Safety Relief Valve Fails Open
   - 14.4.9.24.37A - HPCS-V-4 Fails to Open
   - 14.4.9.25.2 - RHR-P-2B Shaft Shear

APPENDIX E

Attachment E-1

WASHINGTON PUBLIC POWER SUPPLY SYSYTEM

QUADRENNIAL TESTING

Year 3

1. Normal Plant Evolutions

    14.4.6.5 - SRM/IRM vs. Control Rod Motion

    07.04.00.05.18 HPCS Service Water Operability/Demo

    07.04.03.01.01.22 - Manual SCRAM Function Test

    07.04.05.01.05 - LPCS Valve Lineup/Ads Inhibit CFT

    07.04.06.01.04.02A - MSIV Valve Operability

    07.04.06.05.02.01 - Reactor Building Ventilation Isolation Valve Operability

    07.04.07.01.01.02 - Standby Service Water Loop B valve Position Verification

    07.04.08.01.01.01.02 - 18 Month Manual & Auto XFR Test, Start-Up to Backup Station Power

    07.04.08.01.01.02.11 - Diesel Generator #2 - Operability Test

2. Malfunction Tests

    14.4.9.24.27 - Main Steam Safety Relief Valve Fails Open

    14.4.9.4.4 - Leak Downstream Control Air Dryer

    14.4.9.24.15 - S1-1 DC Ground

    14.4.9.24.15A - S1-1 Trip

    14.4.9.24.34 - Recirculation Pump B Trip

    14.4.9.24.64 - TSW Pump A Trip

    14.4.9.24.5 - SW Pump A Trip

    14.4.9.2.9 - RFPT A Trip

    14.4.10.40 - Loss of Normal and Emergency FW

    14.4.9.24.80 - RPS Fails to SCRAM

    14.4.9.3.3 - Uncoupled Rod

    14.4.9.7.1 - Small Clad Fail

    14.4.9.23.3 - DEH Press Reg. Output Failure High

    14.4.9.2.8 - FW Rupture in Turbine Bldg

    14.4.9.14.1 - SRM A Failure - Low

    14.4.9.9.4A - RCIC Turbine Trip Due to RCIC-V-8 Closure

    14.4.9.24.43 - Annunciator Failure

APPENDIX E

Attachment E-1

WASHINGTON PUBLIC POWER SUPPLY SYSYTEM

QUADRENNIAL TESTING

<u>Year 4</u>

1. Normal Plant Evolutions
   - 07.04.00.05.06 - EDR, FDR, RRC, MS & RRC Valve Ops
   - 07.04.01.03.01.01 - Scram Discharge Volume Vent & Drain Valves Operability
   - 07.04.03.06.09 - SDV Bypass Rod Block
   - 07.04.05.01.06 - HPCS Valve Lineup
   - 07.04.06.02.02.01 - RHR Valve Position Verification
   - 07.04.08.01.01.02.01 - Diesel Generator #1 - Operability Test
   - 07.04.08.01.01.02.12 - HPCS Diesel Generator - Operability Test

2. Malfunction Tests
   - 14.4.9.2.3 - Feed Line Break in DW
   - 14.4.9.25.14 - SRV's - Fail Closed
   - 14.4.9.8.3 - 4160 Vac Bus Sm-7 Overcurrent
   - 14.4.9.8.5 - 6900 Vac Bus SH-6 OL-GND
   - 14.4.9.24.18 - RPS B MG Set Trip
   - 14.4.10.6 - Trip of all Recirculation Pumps
   - 14.4.9.25.15 - RCC-P-1A - Trip
   - 14.4.9.24.73 - SW-V-2B Fails Closed
   - 14.4.9.24.2 - COND-P-2A Shaft Break
   - 14.4.9.16.4 - HPCS Logic Failure
   - 14.4.9.3.4 - Single Rod SCRAM
   - 14.4.9.7.2 - Gross Clad Fail
   - 14.4.9.23.3A - DEH Press Reg. Output Fails Low
   - 14.4.9.21.4A - MS Rupture In DW
   - 14.4.9.14.2 - APRM Failure
   - 14.04.09.24.67B - RFW-L1-606B - Fails Low