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ACCESSION NBR: 9304010392 DOC. DATE: 93/03/25 NOTARIZED: NO DOCKET #  
 FACIL: 50-397 WPPSS Nuclear Project, Unit 2, Washington Public Powe 05000397  
 AUTH. NAME AUTHOR AFFILIATION  
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 RECIP. NAME RECIPIENT AFFILIATION  
 Document Control Branch (Document Control Desk)

SUBJECT: Provides info pertaining to significant corrective maint  
 performed on safety-related equipment during 1992. per Reg  
 Guide 1.16.

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WASHINGTON PUBLIC POWER SUPPLY SYSTEM

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March 25, 1993  
G02-93-070

Docket No. 50-397

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, D.C. 20555

Gentlemen:

Subject: **REPORT OF SIGNIFICANT CORRECTIVE MAINTENANCE  
PERFORMED ON SAFETY-RELATED EQUIPMENT - 1992**

Reference: Regulatory Guide 1.16, Reporting of Operational Information, Appendix A

In accordance with the requirements of Regulatory Guide 1.16, the attached report provides information pertaining to significant corrective maintenance performed on safety-related equipment during 1992. In addition to safety-related equipment, components considered to be essential to power generation are also included.

Should you have any questions, please contact Mr. J. D. Arbuckle, Senior Licensing Engineer at (509) 377-4601.

Sincerely,



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Enclosure

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SIGNIFICANT CORRECTIVE MAINTENANCE  
PERFORMED ON SAFETY-RELATED EQUIPMENT

This information is provided in accordance with the requirements of Regulatory Guide 1.16, Revision 4, Section C.1.b(2)(e). In addition to safety-related equipment, components considered to be essential for power generation are also included.

<u>Component</u>	<u>Failure Date</u>	<u>Description</u>
APRM-CH-BZ32	04/08/92	Average Power Range Monitor (APRM) detector 16/49 was noted to be alarming upscale intermittently at 70 percent (the upscale alarm setpoint is 100 percent). This was due to failed amplifier card APRM-CH-BZ32. The amplifier card was replaced, voltages were re-adjusted and no further problems were identified.
APRM-E/S-32	10/12/92	Average Power Range Monitor (APRM) channel 08 drifted downscale due to the failure of power supply APRM-E/S-32. The power supply was replaced and no further problems were identified.
CAC-FCV-5B	01/28/92	During attempts by Plant Operators to start the "B" train of the Containment Atmosphere Control (CAC) System with the remote manual controller, scrubber inlet flow control valve CAC-FCV-5B power fuses blew due to out-of-adjustment jam nuts and limit switches. The jam nuts and limit switches were properly re-aligned and the surveillance was successfully completed.
CAC-FCV-2A	04/21/92	During the performance of local leak rate testing, Containment Atmosphere Control (CAC) System wetwell return outboard

isolation valve CAC-FCV-2A leaked excessively due to less than adequate seating of the valve seating surfaces. The valve seat ring was replaced and testing was successfully completed.

CAC-FCV-2B 04/21/92

During the performance of local leak rate testing, Containment Atmosphere Control (CAC) System drywell return outboard isolation valve CAC-FCV-2B leaked excessively due to less than adequate seating of the valve seating surfaces. The valve seat was cleaned and testing was successfully completed.

CAC-FCV-4A 04/21/92

During the performance of local leak rate testing, Containment Atmosphere Control (CAC) System wetwell return outboard isolation valve CAC-FCV-4A leaked excessively due to less than adequate seating of the valve seating surfaces. A new valve seat ring was installed, the plug seating surfaces were machined to remove pitting and testing was successfully completed.

CAC-FCV-4B 04/30/92

During the performance of local leak rate testing, Containment Atmosphere Control (CAC) System wetwell return outboard isolation valve CAC-FCV-4B leaked excessively due to pitting of the valve seat. The seat ring was replaced, the valve plug was machined to remove a drag mark on the seating area and testing was successfully completed.

CAC-FN-1B 02/25/92

During the performance of a special test to verify Containment Atmosphere Control (CAC) System recombiner operability, fan CAC-FN-1B was inadvertently flooded with water due to the inadequate



design of scrubber drain piping. The piping deficiencies were corrected, the fan blower assembly was replaced with a new model and testing was successfully completed.

CAC-MO-13 03/09/92

During the performance of a special test to verify Containment Atmosphere Control (CAC) System operability, the motor-operator thermal overloads for valve CAC-V-13 would not reset due to a failed overload relay. The overload relay and heaters were replaced and no further problems were identified.

CAC-RC-1B 02/25/92

During the performance of a special test to verify Containment Atmosphere Control (CAC) System recycle flow characteristics, recombiner CAC-RC-1B was partially flooded following initiation of scrubber water flow. The flooding was due the inadequate design of scrubber drain piping. The piping deficiencies were corrected, the blower was replaced, the motor was repaired and testing was successfully completed.

COND-DM-1B 02/27/92

During a normal plant tour, Operations personnel noted water to be leaking from the flange on Condensate (COND) System filter demineralizer COND-DM-1B. The leakage was due to normal wear of the flange gasket. A new gasket was installed.

COND-DM-1B 07/08/92

During a walkdown of the Condensate (COND) System, the system engineer noted water to be leaking from the flange on filter demineralizer COND-DM-1B. The leakage was due to loose flange bolts. The flange bolts were re-torqued and no



COND-DM-1D 02/27/92

further leakage was noted.

During a routine plant tour, Operations personnel noted water to be leaking from the flange on Condensate (COND) System filter demineralizer COND-DM-1D. Although the reason for the leakage was indeterminate, the flange bolts were re-torqued and no further leakage was noted.

COND-MO-141A 07/07/92

During motor-operated valve testing efforts, it was noted that Condensate (COND) System valve COND-V-141A would only open 85 percent due to improper setting of the limit switches following refurbishment. The switches were cleaned and adjusted and the testing was successfully completed.

COND-MO-187 04/30/92

During the performance of preventive maintenance activities on the Condensate (COND) System supply to a seal steam evaporator, it was noted that the motor-operator for valve COND-V-187 meggered grounded. Because T-Drains had not been installed in the COND-MO-187 motor operator housing, a steam leak allowed condensation to settle inside the operator housing and migrate into the motor (filling it with water). The motor operator was refurbished and no further problems were identified.

COND-V-142B 07/08/92

During a walkdown of the Condensate (COND) System, the system engineer noted water to be leaking from around the packing of valve COND-V-142B. The valve packing had been damaged during valve stroking which caused scoring on the stem. The valve stem and packing were replaced and no further problems were identified.

COND-V-159      01/31/92

During a routine plant tour, Operations personnel observed leakage from Condensate (COND) System valve COND-V-159. The failure was attributed to normal wear. The valve body-to-bonnet gasket was replaced and the valve was repacked. Following repair, no further leakage was noted.

COND-V-159      08/13/92

During a steam-leak walkdown of the Condensate (COND) System, a body-to-bonnet leak was observed on valve COND-V-159. The failure was attributed to normal wear. The valve packing was replaced and a sealant was installed on the bonnet gasket.

COND-V-161A      08/13/92

During a steam-leak walkdown of the Condensate (COND) System, a body-to-bonnet leak was observed on valve COND-V-161A. The leakage was due to worn valve packing. The packing was replaced and a sealant was installed on the bonnet gasket.

CRA-M-FN/3A      03/15/92

During a plant shutdown, a Plant Control Room Operator noted that Containment Return Air (CRA) System drywell recirculation fan motor CRA-M-FN/3A tripped off repeatedly on overload. The failure was attributed to normal wear. The overload heaters and relays in the motor controller were replaced.

CRA-42-8B3B      05/23/92

During the annual maintenance and refueling outage, the Containment Return Air (CRA) System drywell upper level recirculation fan tripped its overloads and could not be reset. The condition was due to a failed phase overload relay (CRA-42-8B3B) and heater element, and a loose connection on the upper relay connecting screw. The phase overload relay and heater element were

replaced, and all connections were tightened.

CRD-DRVE-4259 02/22/92

During the performance of a special under-vessel inspection, excessive steam/water was observed by plant operators. This situation was due to four loose Control Rod Drive (CRD) flange bolts on drive CRD-DRVE-4259. The flange bolts were re-torqued and no further problems were identified.

CRD-HCU-3811 05/22/92

Following maintenance on the Control Rod Drive (CRD) System during the annual maintenance and refueling outage, the system would not restart. This condition was due to a failed transponder card in the Hydraulic Control Unit (HCU) control circuitry for control rod 38-11. The transponder card was replaced and followup testing was successfully completed.

CRD-HCU-3843 03/03/92

During the performance of a surveillance test to verify scram accumulator operability, Control Rod Drive (CRD) System accumulator CRD-HCU-38-43 failed. The cause of the failure was attributed to normal wear. The piston skirt seal, teflon seal rings and several O-rings were replaced. Followup testing was successfully completed.

CVB-V-1CD 03/13/92

During surveillance testing of the Containment Vacuum Breaker (CVB) System, the front disc for suppression pool-to-drywell vacuum breaker CVB-V-1CD would not open upon demand. The condition was attributed to normal wear. The solenoid pilot valve coil was replaced and no further problems were identified.

DSA-PS-34      05\14\92

During calibration efforts pertaining to High Pressure Core Spray (HPCS) System diesel engine control switch DSA-PS-34, inconsistencies in switch operation were noted when attempts were made to trip and reset the switch. This condition was attributed to normal wear due to aging. The switch was replaced and no further problems were identified.

E-B1-1              05/10/92

During the performance of the annual discharge test for 125VDC (Division 1) Station Battery E-B1-1, it was noted that Cell 7 showed signs of possible copper contamination. This condition was attributed to normal wear/aging. The cell was replaced and followup testing was successful.

E-B1-1              07/07/92

During the performance of a quarterly surveillance to verify operability of 125VDC (Division 1) Station Battery E-B1-1, it was noted that cell voltage for Cells 15/16 and 45/46 was below the Technical Specification limit. This condition was attributed to normal wear. The cells were replaced and no further problems were identified.

E-CB-31/21          03/03/92

A Plant Electrical Maintenance engineer noted that the charging motor for 480-Volt tie breaker E-CB-31/21 continued to run after the breaker opened. This situation was due to improper maintenance (grease hardening on the ratchet wheel and spring charging assembly). The grease was removed from the ratchet wheel and spring charging assembly and new lubricant was applied.

HPCS-M-P/1          05/22/92

During a routine inspection of ring support brackets and

fasteners for High Pressure Core Spray (HPCS) System pump motor HPCS-M-P/1, a small piece of the aluminum upper air deflector was found to be lodged inside of the motor stator. This condition was due to fatigue failure from maintenance damage traceable to the 1983 time-frame. The failed air deflector was replaced and an inspection of the motor was performed which verified that the motor stator windings were not damaged.

HPCS-MO-23      05/29/92

During refurbishment and testing of High Pressure Core Spray (HPCS) System test return valve HPCS-V-23, a broken tooth was found on motor-operator torque switch drive gear for HPCS-MO-23. The motor operator was refurbished and no further problems were identified.

HPCS-MO-4      03/12/92

During the performance of motor-operated valve baseline testing, the 12-inch motor for High Pressure Core Spray (HPCS) System core spray injection valve HPCS-V-4 was found to be in an over-thrust condition. This was possibly due to inappropriate adjustments that may have been made during previous troubleshooting efforts. The locknut, thrust washer and torque limit sleeve were replaced. Inspections of the spring pack and bonnet-to-yoke studs were also performed and no additional problems were identified.

HPCS-MO-4      02/27/92

During the performance of a procedure to verify operability of the High Pressure Core Spray (HPCS) System, core spray injection valve HPCS-V-4 failed to close against pump discharge pressure. The thermal overloads in the breaker for the valve operator were found

to be in the tripped condition and the pre-trip alarm overload was found to be oversized. The alarm overload was replaced and all overloads were reset and the valve stroked closed with the pump shut off.

HPCS-PT-4            04/01/92

A Plant Control Room Operator noted that the signal from High Pressure Core Spray (HPCS) System pump discharge pressure transmitter HPCS-PT-4 was fluctuating and reading 225 psig when it should have been reading 125 psig with system pressure steady. This condition was attributed to normal wear. The transmitter was replaced and followup testing was successful.

IRM-DET-2B           05/02/92

A Plant Control Room Operator noted that Intermediate Range Monitor (IRM) System detector IRM-DET-2B was spiking and causing periodic half-scrams. This situation was due to damaged hard-to-soft cable connector assembly. The cable connector assembly was replaced and no further problems were identified.

IRM-DET-2B           07/04/92

During reactor startup following the annual maintenance and refueling outage, a Plant Control Room Operator noted that Intermediate Range Monitor (IRM) System detector IRM-DET-2B failed to provide indication of the neutron flux. The failed detector was replaced and followup testing was successfully performed.

IRM-DET-2C           07/04/92

During reactor startup following the annual maintenance and refueling outage, a Plant Control Room Operator noted that Intermediate Range Monitor (IRM) System detector IRM-DET-

2C failed to provide indication of the neutron flux. The failed detector was replaced and followup testing was successfully performed.

IRM-DET-2C 08/27/92

During a reactor startup, Plant Control Room Operators noted spurious upscale trips/spikes from Intermediate Range Monitor (IRM) System detector IRM-DET-2C which caused a half-scam. This situation was due to dirty cable connections on the detector. The cable connections were cleaned and no further problems were identified.

IRM-DET-2C 04/20/92

During a controlled shutdown in preparation for the annual maintenance and refueling outage, Plant Control Room Operators reported that Intermediate Range Monitor (IRM) System detector IRM-DET-2C failed to insert. The cause was believed to be a dampening screw that was out of adjustment. The drive was lubricated, the dampening screw was re-adjusted and the unit functionally tested.

IRM-DET-2C 08/15/92

During a controlled manual reactor scram, Plant Control Room Operators did not receive a full-in indication for Intermediate Range Monitor (IRM) System detector IRM-DET-2C. Following further evaluation, metal filings from gearbox teeth were found to be lodged in the drive tube holes. The cause of the gearbox tooth damage was indeterminate. The drive tube was cleaned and lubricated, the gearbox was replaced and proper function of the drive was verified.

IRM-DET-2F 08/15/92

During a controlled manual reactor scram, Plant Control Room Operators did not receive

a full-in indication for Intermediate Range Monitor (IRM) System detector IRM-DET-2F. Following further evaluation, metal filings from gearbox teeth were found to be lodged in the drive tube holes. The cause of the gearbox tooth damage was indeterminate. The drive tube was cleaned and lubricated, the gearbox was replaced and proper function of the drive was verified.

IRM-DET-2H 05/06/92

During under-vessel work in support of the annual maintenance and refueling outage, Plant Maintenance personnel reported that the hard-to-soft cable connector for Intermediate Range Monitor (IRM) System detector IRM-DET-2H was broken. The cable connector was repaired and proper function of the drive was verified.

IRM-EMSQ-601B 08/06/92

During a reactor startup, Plant Control Room Operators reported that the "B" channel of Intermediate Range Monitor (IRM) System monitor IRM-EMSQ-601B failed upscale. The failure was due to shorting of the signal amplifier module. The signal amplifier module was replaced and a channel functional test was performed which confirmed component operability.

IRM-TA-2A 06/11/92

Plant Control Room Operators reported that Intermediate Range Monitor (IRM) System auxiliary trip unit IRM-TA-2A caused a rod block. The cause was due to a relay in the trip unit that had sealed-in and would not clear. The relay was replaced and no further problems were identified.

LPCS-MO-5 05/29/92

During performance of motor-operated valve differential





pressure testing, Low Pressure Core Spray (LPCS) System valve LPCS-V-5 failed to fully close. The cause was due to an incorrect motor-operator torque switch setting. The torque switch setting was adjusted and the valve was successfully re-tested.

LPRM-CH-BPS14 07/31/92

Plant Control Room Operators reported that Local Power Range Monitor (LPRM) System detector 40/49 displayed erratic output and, as a result, it was placed in the bypass mode to prevent errors in the POWERPLEX computer program used for calculating rod patterns and core power. Following further review, it was determined that the problem was due to normal wear of ion chamber power supply LPRM-CH-BPS14. The ion chamber power supply was replaced and no further problems were identified.

LPRM-DET-08/25 05/12/92

During under-vessel work, Plant Maintenance personnel reported that the connector on Local Power Range Monitor (LPRM) System detector LPRM-DET-08/25 had been pulled loose and was damaged. The failure was attributed to improper action and maintenance practices during activities associated with Control Rod Drive (CRD) overhaul efforts. The hard-to-soft cable connector was repaired and followup testing was successfully performed.

LPRM-DET-08/41 03/27/92

Plant Control Room Operators reported that Local Power Range Monitor (LPRM) System detector 08/41 failed downscale and had to be bypassed. The cause of the failure was attributed to a damaged hard-to-soft cable connector. The hard-to-soft cable connector was replaced and no further problems were

identified.

LPRM-DET-16/09 04/08/92

Plant Control Room Operators reported that Local Power Range Monitor (LPRM) System detector channel 16/09 (Level B) had displayed erratic output. The cause was unknown and, during subsequent troubleshooting efforts, the problem could not be repeated.

LPRM-DET-24/17 05/12/92

During under-vessel work, Plant Maintenance personnel reported that the connector on Local Power Range Monitor (LPRM) System detector LPRM-DET-24/17 had been pulled loose and was damaged. The failure was attributed to improper action and maintenance practices during activities associated with Control Rod Drive (CRD) overhaul efforts. The hard-to-soft cable connector was repaired and followup testing was successfully performed.

LPRM-DET-24/25 05/12/92

During under-vessel work, Plant Maintenance personnel reported that the connector on Local Power Range Monitor (LPRM) System detector LPRM-DET-24/25 had been pulled loose and was damaged. The failure was attributed to improper action and maintenance practices during activities associated with Control Rod Drive (CRD) overhaul efforts. The hard-to-soft cable connector was repaired and followup testing was successfully performed.

LPRM-DET-24/29 05/12/92

During under-vessel work Plant Maintenance personnel reported that the connector on Local Power Range Monitor (LPRM) System detector LPRM-DET-24/29 had been pulled loose and was damaged. The failure was attributed to improper action and maintenance practices during activities associated

with Control Rod Drive (CRD) overhaul efforts. The hard-to-soft cable connector was repaired and followup testing was successfully performed.

LPRM-DET-32/17 07/22/92

Plant Control Room Operators reported that Local Power Range Monitor (LPRM) System detector LPRM-DET-32/17 was reading downscale. The failure was attributed to a broken connector. The connector was repaired and no further problems were identified.

LPRM-DET-40/17 05/12/92

During under-vessel work, Plant Maintenance personnel reported that the connector on Local Power Range Monitor (LPRM) System detector LPRM-DET-40/17 had been pulled loose and was damaged. The failure was attributed to improper action and maintenance practices associated with Control Rod Drive (CRD) overhaul efforts. The hard-to-soft cable connector was repaired and followup testing was successfully performed.

LPRM-DET-40/25 05/12/92

During under-vessel work, Plant Maintenance personnel reported that the connector on Local Power Range Monitor (LPRM) System detector LPRM-DET-40/25 had been pulled loose and was damaged. The failure was attributed to improper action and maintenance practices associated with Control Rod Drive (CRD) overhaul efforts. The hard-to-soft cable connector was repaired and followup testing was successfully performed.

LPRM-DET-40/41 05/12/92

During under-vessel work, Plant Maintenance personnel reported that the connector on Local Power Range Monitor (LPRM) System detector LPRM-DET-40/41



had been pulled loose and was damaged. The failure was attributed to improper action and maintenance practices associated with Control Rod Drive (CRD) overhaul efforts. The hard-to-soft cable connector was repaired and followup testing was successfully performed.

LPRM-DET-40/57 05/12/92

During under-vessel work, Plant Maintenance personnel reported that the connector on Local Power Range Monitor (LPRM) System detector LPRM-DET-40/57 had been pulled loose and was damaged. The failure was attributed to improper action and maintenance practices associated with Control Rod Drive (CRD) overhaul efforts. The hard-to-soft cable connector was repaired and followup testing was successfully performed.

LPRM-DET-48/17 09/21/92

During the performance of a Technical Specification surveillance, Plant Instrument and Control Technicians were unable to obtain the required voltage readings for Local Power Range Monitor (LPRM) System detector LPRM-DET-48/47. The problem was attributed to normal wear of the unit. The detector was replaced and no further problems were identified.

LPRM-DET-56/33 05/12/92

During under-vessel work, Plant Maintenance personnel reported that the connector on Local Power Range Monitor (LPRM) System detector LPRM-DET-56/33 had been pulled loose and was damaged. The failure was attributed to improper action and maintenance practices during activities associated with Control Rod Drive (CRD) overhaul efforts. The hard-to-soft cable connector was

replaced and followup testing was successfully performed.

MD-V-70D

04/17/92

During a controlled shutdown in preparation for the annual maintenance and refueling outage, a severe packing leak was observed on Miscellaneous Drain (MD) System main steam line gate valve MD-V-70B. The failure was attributed to normal wear/aging. The valve packing was replaced.

MS-HX-1B

02/21/92

During a routine inspection following a plant shutdown, plant Operations personnel noted that the second stage moisture separator for Main Steam (MS) System heat exchanger MS-HX-1B was leaking from the tube-side manway. The failure was attributed to pitting on the manway flange face. The manway flange face was repaired and gaskets were replaced.

MS-RIS-610B

04/13/92

During the performance of channel functional test of Main Steam Line Radiation Monitor MS-RIS-610B, the monitor high-high trip setting drifted and meter indication decreased. This situation had the potential of causing a half-scrum and a "B" trip system Main Steam Isolation Valve (MSIV) isolation. Although the cause of the failure was indeterminate, normal wear was suspected. The monitor was replaced and no further problems were identified.

MS-RV-3B

07/06/92

During the performance of acoustic monitoring testing in preparation for a plant startup, Main Steam (MS) System relief valve MS-RV-3B failed to open from the main control room. Control was then transferred to the remote shutdown panel and the valve

opened; however, it stuck in the open position for greater than the two-minute Technical Specification limit. The failure was attributed to a bellows and disc assembly that was too large to allow for proper opening. The valve and the air-operator were replaced and successfully tested.

MS-V-5                      08/30/92

During a 920 psig containment inspection, Plant Operators reported that Main Steam (MS) System vent valve MS-V-5 was leaking. Although the cause was indeterminate, the valve was backseated and the packing ring was tightened to prevent the leakage.

MSLC-MO-2D                06/04/92

During motor-operated valve testing in the Main Steam Leakage Control (MSLC) System, a grinding or clicking noise was reported to be coming from the operator on valve MSLC-MO-2D. Excessive leakage was also observed in the limit switch housing. The motor operator was refurbished and followup testing was successfully completed.

RCC-V-23B                02/24/92

During an attempt to swap Reactor Closed Cooling (RCC) System pumps during normal operation, check valve RCC-V-23B would not close/seat after the "B" RCC pump was secured. Following further evaluation, the valve seat ring was found to be out of position from its original location in the valve body and the valve seat needed replacing. The valve seat was replaced, the seat ring was repaired and the valve was successfully tested.

RCC-V-5                    06/12/92

During the performance of local leak rate testing, Reactor Closed Cooling (RCC) System outboard isolation valve RCC-V-





5 leaked excessively across the seat. The seat was lapped and the valve was repacked and returned to service.

RFW-DT-1A            03/25/92

During an inspection, a steam leak was discovered on the Reactor Feedwater (RFW) System inlet valve seat drain flange connection for the RFW pump drive turbine. Although the cause was indeterminate, a leak repair was performed using Furmanite.

RFW-DT-1A            02/12/92

During an inspection, a steam leak was discovered on the Reactor Feedwater (RFW) System inlet valve seat drain flange connection for feedwater pump drive turbine RFW-DT-1A. Following further evaluation, it was discovered that the downstream flange was broken off from the piping. The flange, orifice and piping were repaired.

RFW-DT-1A            08/30/92

During testing efforts, difficulties in turbine speed control were experienced due to fluctuations in the Reactor Feedwater (RFW) System drive turbine RFW-DT-1A governor response. Subsequent troubleshooting efforts failed to determine the cause and the problem could not be repeated.

RFW-FS-608           04/18/92

During a controlled shutdown in preparation for the annual maintenance and refueling outage, the Reactor Feedwater (RFW) system engineer noted that low steam flow rod block monitoring flow switch RFW-FS-608 did not provide input at the correct power level in the rod worth minimizer. Following further evaluation, it was discovered that relays internal to the flow switch were found to be out of calibration low. The flow switch was

recalibrated and verified to be properly indicating.

RHR-FCV-64B      06/06/92

During the performance of local leak rate testing, Residual Heat Removal (RHR) System pump minimum flow valve RHR-FCV-64B exhibited excessive seat leakage. Following further evaluation, it was discovered that the valve plug and seat showed signs of steam cuts. The plug was machined to remove the steam cut damage, the seat was replaced and the valve was repacked.

RHR-MO-134A      05/29/92

During motor-operated valve testing of the cross tie isolation valve between the Residual Heat Removal (RHR)/Suppression Pool Cooling and Containment Atmosphere Control (CAC) Systems, motor operator RHR-MO-134A failed to torque in the open direction. The cause of the problem was attributed to a failed torque switch. The motor operator torque switch and worm shaft assembly were replaced and the valve was returned to service.

RHR-MO-68A      05/21/92

During motor-operated valve testing of the Standby Service Water (SSW) System isolation to the Residual Heat Removal (RHR) System "A" heat exchanger, valve RHR-V-68A failed to fully close under degraded voltage and dynamic conditions. The cause of the failure was believed have been an inadequate setting of the "close" torque switch which allowed motor operator RHR-MO-68A to torque-out prematurely. The torque switch was re-adjusted to a higher setting and followup testing was successfully performed.

RHR-MO-8      05/27/92

During motor-operated valve testing of the Residual Heat



Removal (RHR) System, outboard suppression pool isolation valve RHR-V-8 cleared the fuses and isolated during attempts to stroke the valve. Following further evaluation, a shorted coil was found in the contactor for motor operator RHR-MO-8. The shorted coil was replaced and no further problems were identified.

RPS-POS-33T/3A 07/20/92  
RPS-POS-33T/4A

During plant startup following the annual maintenance and refueling outage, the turbine stop valve closure relay did not pick up due to failure of throttle valve position switches RPS-POS-33T/3A and RPS-POS-33T/4A to indicate the correct position. Following further evaluation, it was determined that the position switches on the turbine throttle valves had not been properly set following reassembly after the turbine rotors were replaced during the outage. The switches were properly adjusted and followup testing was successfully performed.

SGT-CF-1B1 04/15/92

During the performance of a surveillance test to verify operability of the "B" train of the Standby Gas Treatment (SGT) System, it was noted that the line current on the first stage heater for charcoal filter SGT-CF-1B1 was greater than the allowable five percent differential across phases. Although the cause was indeterminate, the strip heaters were replaced and no further problems were identified.

SGT-EHO-1A1 03/10/92

During a walkdown of the Standby Gas Treatment (SGT) System, the system engineer noted that the damper actuator linkage rod for electro-



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hydraulic operator SGT-EHO-1A1 was bent and preventing proper operation of fan SGT-FN-1A1. Although the cause for the bent shaft was indeterminate, a new linkage rod was installed and no further problems were identified.

SLC-P-1B 07/09/92

During performance of the Standby Liquid Control (SLC) System operability procedure, the stuffing box for pump SLC-P-1B blew out which resulted in a loss of oil. Although the cause was indeterminate, the pump was repacked and returned to service.

SLC-V-7 05/11/92

During the performance of local leak rate testing, Standby Liquid Control (SLC) System injection valve SLC-V-7 exceeded the allowable leak rate. Following further evaluation, it was discovered that the valve seating surfaces were pitted due to wear. The disc seating area was repaired by machining and the internals were torqued and seal welded body-to-bonnet.

SW-MO-12A 06/21/92

During efforts to close Standby Service Water (SSW) System valve SW-V-12A in an attempt to stop the system "A" pump, the valve did not complete the closing cycle and the pump had to be manually tripped. Following further evaluation, it was discovered that the failure of the valve to fully close was due to dirty contacts on the pump shutoff limit switch in motor operator SW-MO-12A. The limit switches were cleaned and adjusted and followup testing was successfully performed.

SW-MO-12A 03/19/92

During the performance of a Standby Service Water (SSW) System operability test, valve





SW-V-12A stroked closed and flow decreased but the system "A" pump did not automatically trip as designed. Following further evaluation, it was determined that the failure was due to a loose torque switch balancing screw which allowed the torque switch setting to drift and, as a result, the valve torqued out earlier than required. This resulted in the valve not fully closing. The torque switch balancing screws were locked into place, the torque switch was set to the proper torque setting, and no further problems were identified.

SW-MO-12B

10/09/92

During efforts to close Standby Service Water (SSW) System valve SW-V-12B in an attempt to stop the system "B" pump, the valve did not completely close and the pump had to be manually tripped. Following further evaluation, it was discovered that the failure of the valve to fully close was due to a misadjustment of the pump shutoff limit switch in motor operator SW-MO-12B. The limit switch was properly adjusted and no further problems were identified.