UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET SW SUITE 23T85
ATLANTA, GEORGIA 30303-8931

October 8, 2004

Carolina Power and Light Company
ATTN: Mr. John Moyer
Vice President - Robinson Plant
H. B. Robinson Steam Electric Plant
Unit 2
3851 West Entrance Road
Hartsville, SC 29550

SUBJECT: H.B. ROBINSON STEAM ELECTRIC PLANT - NRC INTEGRATED INSPECTION REPORT 05000261/2004004

Dear Mr. Moyer:

On September 11, 2004, the US Nuclear Regulatory Commission (NRC) completed an inspection at your H.B. Robinson reactor facility. The enclosed integrated inspection report documents the inspection findings, which were discussed on September 22, 2004, with you and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel. Based on the results of this inspection, no findings of significance were identified.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Paul E. Fredrickson, Chief
Reactor Projects Branch 4
Division of Reactor Projects

Docket No.: 50-261
License No.: DPR-23

Enclosure: Inspection Report 05000261/2004004
w/Attachment: Supplemental Information

cc w/encl: (See page 2)

cc w/encl:
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OFFICE	DRP/RII	DRP/RII					
SIGNATURE	RCH	DAJ					
NAME	RHagar	DJones					
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U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No:	50-261
License No:	DPR-23
Report No:	05000261/2004004
Facility:	H. B. Robinson Steam Electric Plant, Unit 2
Location:	3581 West Entrance Road Hartsville, SC 29550
Dates:	June 13, 2004 - September 11, 2004
Inspectors:	R. Hagar, Senior Resident Inspector D. Jones, Resident Inspector
Approved by:	P. Fredrickson, Chief Reactor Projects Branch 4 Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

IR 05000261/2004-004; 06/13/2004-09/11/2004; H.B. Robinson Steam Electric Plant, Unit 2; Routine Integrated Report.

The report covered a three month period of inspection by resident inspectors. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

No findings were identified during this inspection period.

REPORT DETAILS

Summary of Plant Status: The unit began the inspection period at full rated thermal power, and operated at full power for the entire inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity

1R01 Adverse Weather Protection

a. Inspection Scope

When a tornado watch was predicted for the site on August 12, the inspectors reviewed actions taken by the licensee in accordance with Procedure OMM-021, Operation During Adverse Weather, prior to the onset of that weather, to ensure that the adverse weather conditions would neither initiate a plant event nor prevent any system, structure, or component from performing its design function.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment

a. Inspection Scope

Partial System Walkdowns

The inspectors performed the following three partial system walkdowns, while the indicated structures, systems, and/or components (SSCs) were out-of-service for maintenance and testing:

System Walked Down	SSC Out of Service	Date Inspected
B emergency diesel generator	A emergency diesel generator	July 6
Motor-driven auxiliary feedwater train B and steam-driven auxiliary feedwater	Motor-driven auxiliary feedwater train A	July 14
Safety injection train A	Safety injection pump C	August 24

To evaluate the operability of the selected trains or systems under these conditions, the inspectors compared observed positions of valves, switches, and electrical power breakers to the procedures and drawings listed in the Attachment.

b. Findings

No findings of significance were identified.

1R05 Fire Protection

a. Inspection Scope

For the six areas identified below, the inspectors reviewed the licensee's control of transient combustible material and ignition sources, fire detection and suppression capabilities, fire barriers, and any related compensatory measures, to verify that those items were consistent with the Updated Final Safety Analysis Report (UFSAR) Section 9.5.1, Fire Protection System, and UFSAR Appendix 9.5.A, Fire Hazards Analysis. The inspectors walked down accessible portions of each area and reviewed results from related surveillance tests, to verify that conditions in these areas were consistent with descriptions of the areas in the UFSAR. Documents reviewed by the inspectors are listed in the Attachment.

The following areas were inspected:

Fire Zone	Description
22	Control room
29	Service water pump area
1	Diesel generator B room
25A and 25B	Turbine building east and west ground floor
10	Dedicated shutdown diesel generator
25E, 25F and 25G	Turbine building mezzanine and operating deck

b. Findings

No findings of significance were identified.

1R07 Heat Sink Performance

a. Inspection Scope

The inspectors observed the inspection of the C safety injection pump bearing cooler, to verify that inspection results were appropriately categorized against the pre-established acceptance criteria described in Procedure CM-201, Safety Related and Non-Safety Related Heat Exchanger Maintenance. The inspectors also verified that the frequency of inspection was sufficient to detect degradation prior to loss of heat removal capability below design basis values. Documents reviewed by the inspectors are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification

a. Inspection Scope

The inspectors observed licensed operator performance during simulator training for operating crew 5, to verify that operator performance was consistent with expected operator performance, as described in Full Scope Scenario, FSS-LOCT-SEG-Eval-1, Rev. 0. This evaluation tested the operators' ability to respond to, in part, the loss of a heater drain pump, unwarranted rod motion, an electro-hydraulic turbine control failure and the failure of a steam generator power-operated relief valve. The inspectors focused on clarity and formality of communication, the use of procedures, alarm response, control board manipulations, group dynamics and supervisory oversight. Documents reviewed by the inspectors are listed in the Attachment.

The inspectors also observed the post-exercise critique, to verify that the licensee had identified deficiencies and discrepancies that occurred during the simulator training.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness

a. Inspection Scope

The inspectors reviewed the five degraded SSC/function performance problems or conditions listed below, to verify the licensee's appropriate handling of these performance problems or conditions in accordance with 10 CFR 50, Appendix B, Criterion XVI, Corrective Action, and 10 CFR 50.65, Maintenance Rule. Documents reviewed by the inspectors are listed in the Attachment.

The problems/conditions and their corresponding action requests (ARs) were:

Performance Problem/Condition	AR
SV1-2B [a safety valve on steam generator B] setpoint failure	124647
C charging pump overload trip due to motor ground	107251
CC-749A [the valve that isolates component cooling water to the residual heat removal heat exchanger] failed to close	133282

B service water booster pump motor failure	57917
RC-550 [a containment isolation valve on the line from the nitrogen supply to the pressurizer relief tank] failed [local leak rate test] with excessive leakage	126069

During the reviews, the inspectors focused on the following:

- Appropriate work practices,
- Identifying and addressing common cause failures,
- Scoping in accordance with 10 CFR 50.65(b),
- Characterizing reliability issues (performance),
- Charging unavailability (performance),
- Trending key parameters (condition monitoring),
- 10 CFR 50.65(a)(1) or (a)(2) classification and reclassification, and
- Appropriateness of performance criteria for SSCs/functions classified (a)(2) and/or appropriateness and adequacy of goals and corrective actions for SSCs/functions classified (a)(1).

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Evaluation

a. Inspection Scope

For the four time periods and/or emergent activities listed below, the inspectors reviewed the licensee's risk assessments and the risk-management actions used by the licensee to manage risk. The inspectors verified that the licensee performed adequate risk assessments and implemented appropriate risk-management actions when required by 10CFR50.65(a)(4). For emergent work, the inspectors also verified that any increase in risk was promptly assessed, and that appropriate risk-management actions were promptly implemented. Documents reviewed by the inspectors are listed in the Attachment. Those periods included the following:

- The work week of June 19 - June 25, which included emergent work associated with removing a safety injection pump from service and re-aligning another safety injection pump from one electrical supply to another in order to conduct post maintenance testing

- The work week of June 28 - July 2, which included troubleshooting of a risk-significant circuit in the reactor protection system and schedule changes associated with risk-significant maintenance work in the switchyard

- The work week of July 5 - July 9, which included planned work on A safety injection pump and construction activities in the transformer yard

- The work week of August 9 - August 13, which included emergent work associated with the replacement of the B service water booster pump motor and the replacement of the flow control valve for the steam driven auxiliary feed-water pump

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations

a. Inspection Scope

For the two operability evaluations listed below, the inspectors assessed the accuracy of the evaluations, the use and control of any necessary compensatory measures, and compliance with the Technical Specifications (TS). The inspectors also verified that the operability determinations were made as specified by Procedure PLP-102, "Operability Determinations." The inspectors compared the justifications provided in the determination to the requirements from the TS, the UFSAR, associated design-basis documents, and other applicable documents, to verify that operability was properly justified and the subject component or system remained available, such that no unrecognized increase in risk occurred.

The operability evaluations and their corresponding action requests were:

- Containment vessel pressure spurious bistable actuation, AR 129378
- Safety injection pump A casing leakage, AR 121862

Documents reviewed by the inspectors are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R16 Operator Work-Arounds

a. Inspection Scope

On the basis of risk insights, the inspectors selected and reviewed two licensee-developed operator workarounds, to verify that the workarounds did not affect either the functional capability of the related system in responding to an initiating event, or the operators' ability to implement abnormal or emergency operating procedures. The selected workarounds are listed below.

Number	Description
04-07	Electro-Hydraulic controls will not operate the turbine in auto
04-09	Dedicated shutdown equipment PI-607E-1 [pressurizer pressure indicator] is out of tolerance

The inspectors also reviewed the cumulative effects of the operator workarounds listed on the RNP Unit 2 Workaround Log dated June 15, 2004, to verify that those effects could not increase an initiating event frequency, affect multiple mitigating systems, or affect the ability of operators to respond in a correct and timely manner to plant transients and accidents. Documents and operator workarounds reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing

a. Inspection Scope

For the five post-maintenance tests listed below, the inspectors witnessed the test and/or reviewed the test data, to verify that test results adequately demonstrated restoration of the affected safety functions described in the UFSAR and TS. Documents reviewed by the inspectors are listed in the Attachment.

The tests included the following:

Test Procedure	Title	Related Maintenance Activity	Date Inspected
OST-151-3	Safety Injection System Components Test - Pump C	Removal, disassembly, repair, and reinstallation of the C safety injection pump	June 25
LP-030	Steam Generator #1 Narrow Range Level Channel 474	Replacement of level indicator	July 10
OST-101-2	[Chemical and Volume Control System] Component Test Charging Pump B	Replacement of valves on B charging pump	July 21

OST-409-1	[Emergency Diesel Generator] "A" Fast Speed Start	Extensive preventive maintenance on the "A" emergency diesel generator	August 5
OST-303-2	Service Water Booster Pump B Test	Motor replacement on the B Service Water Booster Pump	August 10

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing

a. Inspection Scope

For the six surveillance tests identified below, the inspectors witnessed testing and/or reviewed the test data, to verify that the systems, structures, and components involved in these tests satisfied the requirements described in the TS, the UFSAR, and applicable licensee procedures, and that the tests demonstrated that the SSCs were capable of performing their intended safety functions. Documents reviewed by the inspectors are listed in the Attachment.

Test Procedure	Title	Date Inspected
OST-401-2	[Emergency Diesel Generator] B Slow Speed Start	June 23
OST-303-2	Service Water Booster Pump B Test	June 30
OST-251-2	[Residual Heat Removal] Pump B and Components Test	June 30
OST-352-2	Containment Spray Component Test - Train B	July 21
OST-701-5*	Reactor Coolant System Inservice Valve Test	August 16
OST-901**	[Heating Ventilation Recirculation] Condensate Measuring System (Weekly)	September 5

*This procedure included inservice testing requirements.
**This procedure was a reactor coolant system leakage detection surveillance.

b. Findings

No findings of significance were identified.

Cornerstone: Emergency Preparedness

1EP6 Drill Evaluation

a. Inspection Scope

On August 24, the inspectors observed an emergency preparedness drill to verify licensee self-assessment of classification, notification, and protective action recommendation development in accordance with 10CFR50, Appendix E. The inspectors also attended the post-drill critique, to verify that the licensee properly identified failures in classification, notification and protective action recommendation development activities. Documents reviewed are listed in the attachment.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator (PI) Verification

a. Inspection Scope

For the six PIs identified below, the inspectors verified the accuracy of the PI data that had been previously reported to the NRC by comparing those data to the actual data, as described below. The inspectors also compared the licensee's basis in reporting each data element to the PI definitions and guidance contained in NEI 99-02, "Regulatory Assessment Indicator Guideline," Rev. 2. In addition, the inspectors interviewed licensee personnel associated with collecting, evaluating, and distributing these data. Documents reviewed by the inspectors are listed in the Attachment.

Initiating Events Cornerstone

- Unplanned Scrams
- Scrams with Loss of Heat Removal
- Unplanned Power Changes

For the period from April, 2003 through March, 2004, the inspectors reviewed a selection of licensee event reports, operator log entries, daily reports (including the daily CR descriptions), monthly operating reports, and PI data sheets to verify that the licensee had accurately identified the number of scrams and unplanned power changes greater than 20 percent that occurred during the subject period. The inspectors compared those numbers to the numbers reported by the licensee for the PI.

The inspectors also reviewed the accuracy of the number of critical hours reported, and the licensee's basis for crediting normal heat removal capability for each of the reported reactor scrams.

Mitigating Systems Cornerstone

- Safety System Unavailability, Emergency AC Power System
- Safety System Unavailability, Auxiliary Feedwater System
- Safety System Unavailability, Residual Heat Removal System

For the period from the second quarter of 2003 through the first quarter of 2004, the inspectors reviewed licensee event reports (LERs), records of inoperable equipment, and Maintenance Rule records, to verify that the licensee had accurately accounted for unavailability hours that the subject systems had experienced during the subject period. The inspectors also reviewed the number of hours those systems were required to be available and the licensee's basis for identifying unavailability hours.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems

.1 Routine Review of ARs

To aid in the identification of repetitive equipment failures or specific human performance issues for followup, the inspectors performed frequent screenings of items entered into the licensee's CAP. The review was accomplished by reviewing daily AR reports.

.2 Annual Sample Review

a. Inspection Scope

The inspectors selected AR 128419, Operational Impact of Troubleshooting, for detailed review. The inspectors selected this AR because it relates generally to the Initiating Events cornerstone. The inspectors reviewed this report to verify:

- complete and accurate identification of the problem in a timely manner;
- evaluation and disposition of performance issues;
- evaluation and disposition of operability and reportability issues;
- consideration of extent of condition, generic implications, common cause, and previous occurrences;
- appropriate classification and prioritization of the problem;
- identification of root and contributing causes of the problem;

- identification of corrective actions which were appropriately focused to correct the problem; and
- completion of corrective actions in a timely manner.

The inspectors also reviewed this AR to verify licensee compliance with the requirements of the licensee's corrective action program as delineated in Corporate Procedure CAP-NGGC-0200, Corrective Action Program, and 10 CFR 50, Appendix B. Documents reviewed by the inspectors are listed in the Attachment.

b. Observations and Findings

No findings of significance were identified.

4OA3 Event Follow-up

(Closed) LER 05000261/2004-001-00, Both Trains of High Pressure Safety Injection Inoperable for Approximately 25 Minutes. This LER reported that on March 27, while realigning two safety-related power supplies among three high-pressure safety injection (HPSI) pumps, the licensee placed the plant in a configuration not allowed by the plant's TS for approximately 25 minutes. The inspectors reviewed the circumstances associated with this event, and noted that the licensee restored full compliance with the TS in accordance with the required action statements for that configuration. This event did not constitute a violation of NRC requirements.

4OA6 Meetings, Including Exit

On September 22, 2004, the resident inspectors presented the inspection results to Mr. John Moyer and other members of his staff. The inspectors confirmed that proprietary information was not provided or examined during the inspection.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee personnel

C. Burton, Director of Site Operations,
then Manager, Performance Evaluation Section & Regulatory Affairs (Corporate Office)
A. Cheatham, Radiation Protection Superintendent
C. Church, Engineering Manager
B. Clark, Nuclear Assurance Manager
T. Cleary, Plant General Manager, then Director of Site Operations (Brunswick)
W. Farmer, Engineering Superintendent
R. Howell, Supervisor, Regulatory Support
R. Ivey, Operations Manager
E. Kapopoulos, Outage Management Manager
J. Lucas, Manager, Support Services - Nuclear
G. Ludlum, Training Manager
J. Moyer, Vice President
B. Noll, Director of Site Operations
D. Stoddard, Maintenance Manager, then Plant General Manager

NRC personnel

P. Fredrickson, Chief, Reactor Projects Branch 4

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Closed

05000261/2004-001-00	LER	Both Trains of High Pressure Safety Injection Inoperable for Approximately 25 Minutes (Section 4OA3)

Discussed

None

Attachment

LIST OF DOCUMENTS REVIEWED

1R04 Equipment Alignment

Partial System Walkdown

Emergency Diesel Generator system:
- Drawing G-190204-A, Emergency Diesel Generator System Flow Diagram, Sheet 1 of 3, Rev. 28
- Drawing G-190204-A, Emergency Diesel Generator System Flow Diagram, Sheet 3 of 3, Rev. 18

Auxiliary Feedwater system: :
- Drawing G-190197, Feedwater, Condensate and Air Evacuation System Flow Diagram, Sheet 4 of 4, Rev. 53
- Clearance Order Checklist 74511-01, Auxiliary Feedwater Pump A

Safety Injection system:
- Drawing 5379-1082, Safety Injection System Flow Diagram, Sheet 1 of 5, Rev. 41
- Drawing 5379-1082, Safety Injection System Flow Diagram, Sheet 2 of 5, Rev. 43
- Drawing 5379-1082, Safety Injection System Flow Diagram, Sheet 4 of 5, Rev. 27

1R05 Fire Protection

UFSAR Fire Hazards Analysis (Appendix 9.5.1A) Sections:
- 3.1.5.8, Fire Zone 22 - Control Room
- 3.9.1, Fire Zone 29 - Service Water Pump Area
- 3.1.1, Fire Zone 1 - Diesel Generator B Room
- 3.7.1, Fire Zone 25A - Turbine Building East Ground Floor
- 3.7.2, Fire Zone 25B - Turbine Building West Ground Floor
- 3.7.5, Fire Zone 25E - Turbine Building East Mezzanine
- 3.7.6, Fire Zone 25F - Turbine Building West Mezzanine
- 3.7.7, Fire Zone 25G - Turbine Building Operating Deck

Procedures:
- OMM-003, Fire Protection Pre-Plans/Unit No. 2, Rev. 40
- OST-610, Unit 2 Portable Fire Extinguishers, Fire Hose Stations and Hoses (Monthly), Rev. 41

Completed procedures:
- results from OST-611-12, Low Voltage Fire Detection and Actuation System Zones 22 and 23 (Semi-Annual)
- results from OST-633, Interior Fire Hose Hydrostatic Test (Three Years)
- results from OST-609, Inspection and Flushing of the Interior Fire Hose Stations (Annually)
- results from OST-027, Functional Test of the Emergency Diesel Generators [Carbon Dioxide] Cardox Suppression System (Annual)

- results from OST-644, Hydrogen Seal Oil Deluge System Flow Test (Annually)
- results from OST-645, Turbine Lube Oil Deluge System Flow Test (Annually)

Other documents:

- Action Request 96074, Selection of Fire Hose Nozzles

1R07 Heat Sink Performance

Procedures:
- CM-201, Safety Related and Non-Safety Related Heat Exchanger Maintenance, Rev. 35
- PM-030, [Safety Injection] Pump Bearing Cooler Cleaning, Rev. 8

1R11 Licensed Operator Requalification

- Full Scope Scenario, FSS-LOCT-SEG-Eval-1, Rev. 0
- Completed Simulator Crew Evaluation Form, February 3, 2004
- Procedure TAP-409, Conduct of Simulator Training and Evaluation, Rev. 13
- Simulator Differences and Changes, Cycle 04-03, Rev. 0

1R12 Maintenance Effectiveness

Action Requests
- 124647, Valve SV1-2B Setpoint Failure While Performing EST-018
- 107251, C Charging Pump Overload Trip Due to Motor Ground
- 31970, [Service Water Booster Pump] A Motor Failure
- 57917, Unplanned [Technical Specification] Entry Due to [Service Water] Booster Pump B Trip
- 107251, C Charging Pump Overload Trip Due to Motor Ground
- 31970, [Service Water Booster Pump] A Motor Failed
- 26298, Motor Program Self Assessment Weakness
- 15262, Conduct a Self Assessment of [Electrical] Predictive Maintenance
- 126069, RC-550 Failed LLRT (EST-60) with Excessive Leakage
- 125608, WD-1786 Failed OST-933 Leakage Test
- 133282, Potential Missed Maintenance Rule Functional Failure

Procedures
- CM-106, Main Steam Safety Valve Maintenance, Rev. 19
- AOP-014, Component Cooling Water System Malfunction, Rev. 20
- OST-933, Containment Isolation Valves Leakage Test (As Required and Every 18 Months), Rev. 26
- TMM-043, Air Operated Valve Program, Rev. 8
- EGR-NGGC-0205, Air Operated Valve Reliability Program, Rev. 5

Other Documents
- Technical Manual 727-971-37, Crosby Valve and Gage Company, Main Steam Valves - Safety Style HA-FN Steam Safety Valve Set Above 800 PSIG
- Environmental Qualification Documentation Package No. 8.1, Westinghouse Motors

- Motor Program Health Report, Fourth Quarter 2003
- Calculation Number RNP-F/PSA-0015, [Probabilistic Safety Assessment] Evaluation of Maintenance Rule Performance Criteria, 2001 Update, Rev. 0
- Engineering Disposition 58005, Documentation of CC-749A Troubleshooting, Rev. 0
- Drawing 5379-376, Component Cooling Water System Flow Diagram, Sheet 2 of 4, Rev. 31
- Engineering Service Request 95-00371, [Service Water Booster Pump] Motor Replacement
- [National Electrical Manufactures Association] Standards Publication, Information Guide for General Purpose Industrial AC Small and Medium Squirrel-Cage Induction Motor Standards, 2002
- Modification and Setpoint Revision Approval Form Number 76, Service Water Booster Pumps
- Work Order 339269-01, Contingency - Disassemble and Repair WD-1786
- Drawing 5379-920, Liquid Waste Disposal System Flow Diagram, Sheet 3 of 8, Rev. 44

Maintenance Rule Records for the Main Steam System (System 3020)

- Scoping and Performance Criteria
- Event Log, 6/19/2001 - 6/4/2004
- Expert Panel Meeting Minutes, July,1995 - June, 2004

Maintenance Rule Records for the Chemical and Volume Control System (System 2060)

- Scoping and Performance Criteria
- Event Log, 7/21/2001 - 5/24/2004
- Performance Summary
- Unavailability Trend
- Expert Panel Meeting Minutes, July,1995 - November, 2003

Maintenance Rule Records for the Component/Cooling Water System (System 4080)

- Scoping and Performance Criteria
- Event Log, 1/4/2003 - 6/28/2004
- Performance Summary
- Unavailability Trend
- Expert Panel Meeting Minutes, September,1997 - July, 2001

Maintenance Rule Records for the Containment Isolation Valve - Pseudo System (System 1000)

- Scoping and Performance Criteria
- Event Log, 2/27/2003 - 7/6/2004
- Performance Summary
- Expert Panel Meeting Minutes, December,1996 - July, 2000

1R13 Maintenance Risk Assessments and Emergent Work Evaluation

- Procedure OMM-048, Work Coordination and Risk Assessment, Rev. 20
- Procedure ADM-NGGC-0006, Online EOOS Models for Risk Assessment, Rev. 3

1R15 Operability Evaluations

- Procedure PLP-128, Degraded Operable [Structures, Systems and Components], Rev. 1
- Drawing 5379-3505, Hagan Wiring Diagram, Rev. 18
- Procedure SD-006, Engineered Safety Features, Rev. 8
- Action Request 96293-02, PC-951B Alarm and Bistable Actuated in Control Room
- Action Request 129378, [Containment Vessel] Pressure Bistable Received Unexpectedly
- Action Request 121862, [Safety Injection Pump] A has a Possible Through Casing Leak
- Procedure PLP-111, Leakage Reduction Program, Rev. 6

1R16 Operator Work-Arounds

Workarounds Reviewed for the Cumulative Assessment

- 04-04, Loss of reference leg level due to leg heat tracing heating and evaporating leg contents on cold days
- 04-06, Monitor charging pump oil cooler TCV positions and hands-on temperature checks of oil coolers shiftly
- 04-07, [Electro-Hydraulic] turbine controls will not operate the turbine in auto
- 04-09, Dedicated Shutdown Equipment [Pressure Indicator]-607E1 is Out of Tolerance

Procedures

- OMM-001-1, Operations Unit Organization and Administration, Rev. 23
- OMM-001-8, Control of Equipment and System Status, Rev. 26
- AOP-014, Control Room Inaccessibility, Rev. 14

Other Documents

- Procedure OMM-001-8 Attachment 10.2, Operator Work-Around Monthly Aggregate Impact Assessment, dated 6/22/04.
- Caution Tag List, dated 6/30/04.
- Operator compensatory Actions, dated 7/6/04.
- Online Work Order Tasks with Control Board Annunciators, dated 7/7/04.
- Outage Work Order Tasks with Control Board Annunciators, dated 7/7/04.
- Caution Tag 04-377, PI-607E-1 is Out of Tolerance

1R19 Post Maintenance Testing

Procedures

- OST-151-3, Safety Injection System, Components Teat - Pump C, Rev. 23
- LP-030, Steam Generator #1 Narrow Range Level Channel 474, Rev. 11
- OWP-027, Steam Generator Level, Rev. 9
- MMM-056, Documentation of Hagan Rack Potentiometer Settings, Rev. 1

- PRO-NGGC-0200, Procedure Use and Adherence, Rev. 6
- OST-101-2, [Chemical and Volume Control System] Component Test Charging Pump B, Rev. 29
- OST-303-2, Service Water Booster Pump B Test, Rev. 2

Other Documents

- Work Order 564001-01, [Channel] 1 [Steam Generator] 1 Narrow Range Level Indicator
- Engineering Disposition 58279, [Safety Injection Pump] C, Summary of Pump Operational Characteristics, June 29, 2004
- Work Order 590210, Perform Valve Maintenance on B Charging Pump
- Inservice Testing Performance Evaluation 04-15, Charging Pump B
- Engineering Change 58450, Supporting Analysis for New Charging Pump B Reference Values
- Engineering Change 47695, Safety Related Pump Minimum Performance Requirements
- Work Order 599601, Grounded Motor on B Service Water Booster Pump

1R22 Surveillance Testing

Procedures

- OST-401-2, EDG B Slow Speed Start, Rev. 26
- OST-303-2, Service Water Booster Pump B Test, Rev. 2
- OST-352-2, Containment Spray Component Test - Train B, Rev. 22
- OST-701-5, Reactor Coolant System Inservice Valve Test, Rev. 13

Drawings

- G-190199, Service and Cooling Water System Flow Diagram, Sheet 4 of 13, Rev. 50
- G-190199, Service and Cooling Water System Flow Diagram, Sheet 7 of 13, Rev. 38
- 5379-1971, Reactor Coolant System Flow Diagram, Sheet 2 of 2, Rev. 49

1EP6 Drill Evaluation

- Participants' manual for the 2004 Emergency Preparedness Drill, August 24, 2004
- NEI 99-02, Regulator Assessment Performance Indicator Guideline, November 2001, Rev. 2
- PLP-007, Robinson Emergency Plan, Rev. 54

4OA1 Performance Indicator Verification

- LER-2003-001-00, Failure to Complete Technical Specifications Required Actions within the Allowed Completion Time
- LER-2003-002-00, Failure of Automatic Containment Ventilation Isolation During Containment Pressure Relief

- LER-2003-003-00, Discovery of Two New Appendix R Safe Shutdown Vulnerabilities
- LER-2004-001-00, Both Trains of High Pressure Safety Injection Inoperable for Approximately 25 Minutes.
- LER-2004-002-00, Entry into Mode 3 with the Steam Driven Auxiliary Feedwater Pump Flow Path Inoperable.
- Unit #2 Shift Logs, April 2003 - March 2004
- Procedure REG-NGGC-0009, NRC Performance Indicators, Rev. 3
- Action Request 91334, Unanticipated LCO Entry Into ITS 3.3.3.H for FT-1426B
- Action Request 90391, ITS 3.7.4 Entry Due to V2-14B Oil Leak
- Action Request 89273, B MDAFW [Pump] [Out of Service] Time Extended Due to FCV-1425 Problem
- Action Request 122322, FCV-6416 Dual Indication
- Action Request 119920, MDAFW Pump B LCO Time Extended Due to Leak of FT-1425
- Action Request 112042, Safety System Unavailability Report - AFW for October, 2003
- Auxiliary Feedwater System Maintenance Rule Event Log, 4/3/2003 - 03/22/2004
- Residual Heat Removal System Maintenance Rule Event Log, 7/22/2003 - 04/18/2004

4OA2 Identification and Resolution of Problems

- Action Request 128419, Operational Impact of Troubleshooting
- Procedure PLP-121, Troubleshooting Guidelines, Rev. 3

4OA3 Event Follow-up

- Licensee Event Report Number 2004-001-00, Both Trains of High Pressure Safety Injection Inoperable for Approximately 25 Minutes