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

November 19, 2004

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

SUBJECT: H. B. ROBINSON STEAM ELECTRIC PLANT UNIT 2 - NRC PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION REPORT NO. 05000261/2004007

Dear Mr. Moyer:

On October 22, 2004, the U. S. Nuclear Regulatory Commission (NRC) completed an inspection at the H. B. Robinson Steam Electric Plant Unit 2. The enclosed report documents the inspection findings, which were discussed on October 22, 2004, with you and other members of your staff during an exit meeting.

This inspection was an examination of activities conducted under your license as they relate to the identification and resolution of problems, and compliance with the Commission's rules and regulations and the conditions of your operating license. Within these areas, the inspection involved examination of selected procedures and representative records, observations of activities, and interviews with personnel.

On the basis of the sample selected for review, there were no findings of significance identified during this inspection. The inspectors concluded that problems were properly identified, evaluated, and resolved within the corrective action program. However, during the inspection, several examples of minor problems were identified, including conditions adverse to quality that were not identified for entry into the corrective action program, errors in performing cause evaluations, and corrective actions that were ineffectively tracked or had not occurred.

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 Fredrickson
Reactor Projects Branch 4
Division of Reactor Projects

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

cc w/encl: (See page 3)

cc w/encl:
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NAME	GMacDonald:as	E DiPaolo	D Jones				
DATE	11/18/2004	11/18/2004	11/18/2004				
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U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No:	50-261
License No:	DPR-23
Report No:	05000261/2004007
Licensee:	Carolina Power & Light (CP&L)
Facility:	H. B. Robinson Steam Electric Plant, Unit 2
Location:	3581 West Entrance Road Hartsville, SC 29550
Dates:	October 4 - 8, 2004 (Week 1) October 18 - 22, 2004 (Week 2)
Inspectors:	E. DiPaolo, Senior Resident Inspector, Brunswick (Lead Inspector) G. MacDonald, Senior Project Engineer D. Jones, Resident Inspector
Approved by:	Paul Fredrickson, Chief Reactor Projects Branch 4 Division of Reactor Projects

Enclosure

SUMMARY OF ISSUES

IR 05000261/2004007; Carolina Power & Light Company; on 10/4/2004 - 10/22/2004; H. B. Robinson Steam Electric Plant Unit 2; Biennial baseline inspection of the identification and resolution of problems.

The inspection was conducted by a senior resident inspector, a resident inspector, and a senior project engineer. No findings of significance were identified. 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.

Identification and Resolution of Problems

The licensee was effective at identifying problems at a low threshold and entering them into the Corrective Action Program (CAP). Management's involvement in the review of issues documented in the program was timely and appropriate. Self-assessments and audits of the CAP, and trend reviews were critical, thorough, and effective in identifying program deficiencies. Although not reflective of the general assessment into licensee problem identification, the inspectors identified a case where equipment deficiencies in a plant area were not being appropriately identified.

Prioritization and evaluation of problems in the CAP were effective. The technical adequacy and depth of evaluations, proposed corrective actions and timeliness were in a manner commensurate with the safety significance of the issue. The inspectors identified noteworthy deficiencies associated with five cause determinations. Although the inspector-identified discrepancies indicated some problems in the evaluation of issues, overall, this area of the program was considered effective. The licensee had identified the site's evaluation of issues as an area of program focus.

The CAP was effective in correcting problems consistent with the importance to safety of the issues. Effective management involvement in the process was evident. Outstanding corrective actions were tracked and delays in the implementation of corrective actions received the appropriate level of management attention. During the course of the inspection, the inspectors identified isolated problems with the implementation of corrective actions. However, these issues did not affect the overall assessment of corrective action implementation.

Individuals actively utilized the CAP and employee concerns program (ECP). Issues entered into the ECP received the appropriate level of management involvement. Management demonstrated sensitivity to organizational attitude toward the CAP and a safety conscious work environment. Based on discussions conducted with licensee employees and a review of station activities, site personnel felt free to report safety concerns.

REPORT DETAILS

4. OTHER ACTIVITIES (OA)

4OA2 Problem Identification and Resolution

a. Effectiveness of Problem Identification

(1) Inspection Scope

The inspectors reviewed action requests (ARs) selected across the seven cornerstones of safety listed in the Attachment to verify that problems being properly identified, appropriately characterized, and entered into the Corrective Action Program (CAP). The inspectors reviewed program documents which described the administrative process for documenting and resolving issues. For the assessment of the CAP, the inspectors focused on several risk significant systems which included the emergency diesel generators, component cooling water system, safety injection system, residual heat removal system, and nuclear service water system. The inspectors reviewed a sampling of ARs that had been generated since the last problem identification and resolution inspection (August 2002).

The inspectors reviewed plant equipment issues associated with Maintenance Rule (a)(1) items, functional failures, maintenance preventable functional failures (MPFF), repetitive MPFFs, and system health reports associated with the focus systems to verify that problems were being identified. Plant walkdowns of the focus systems were performed to verify that no evident material condition problems existed that were not already identified.

During the inspection, the inspectors reviewed operator logs, operator turnover sheets, control room deficiency lists, temporary modification lists, and performed control room walkdowns to verify that equipment issues were entered into the CAP at an appropriate level. Issues identified in lower tier corrective action programs (e.g., plant observation program) were reviewed to verify that they were appropriately addressed. Industry operating experience (10CFR21 notices and NRC information notices) items were reviewed to verify that applicable issues were appropriately evaluated and addressed.

The inspectors audited several of the licensee's Management Review Team Meetings, CAP Unit Evaluator Meetings, Plan-of-the-Day Meetings, and an Engineering CAP Rollup Meeting to determine the level of management involvement into issues and problems. This was also performed to gauge the effectiveness of the screening process in ensuring that problems were properly entered into the CAP.

The inspectors reviewed several self-assessments and audits of the CAP to verify that findings were being entered into the CAP and that appropriate corrective action was taken to resolve program deficiencies. Program trend reports and statistics were reviewed to verify that indicated trends were entered into the CAP at the appropriate level.

(2) Assessment

No findings of significance were identified. Based on the sample selected, the inspectors determined that the licensee was identifying problems and entering them into the CAP at a very low threshold. Problems identified through industry experiences were properly addressed. The inspectors observed appropriate and timely management involvement in the review of the issues documented in the program.

Self-assessments, audits of the CAP, and trend reviews were critical, thorough, and effective in identifying deficiencies in the CAP. These deficiencies were routinely entered into the CAP and corrective actions were implemented.

Although not reflective of the general assessment of licensee problem identification, the inspectors identified a case where equipment deficiencies were not being appropriately identified. During walkdowns of nuclear service water structure underground power cable manholes, the inspectors identified conditions (e.g., accumulation of silt that clogged a drainage pipe, sump pump deficiencies, etc.) that affected proper drainage of water from the manholes. These conditions indicated improper preventive maintenance activities of these areas. Additionally, the condition of silt that resulted in a clogged drainage pipe had been previously identified during an NRC inspection for license renewal in May 2003. AR 94315 was generated at that time as a result of the observation. However, actions identified by the AR did not correct the condition. The licensee determined that inspection of nuclear service water structure power cable manholes were not contained in the preventive maintenance program and entered this issue into the CAP (AR 140998). Additionally, the licensee generated AR 141982 to address the lack of organizational ownership of the area or a program to inspect and maintain the manholes.

b. Prioritization and Evaluation of Issues

(1) Inspection Scope

The inspectors reviewed ARs listed in the Attachment to verify that the issues were properly prioritized and the cause evaluated in accordance with the procedural requirements of the CAP. The review included issues associated with previously identified violations of NRC requirements. The inspectors reviewed cause evaluations to verify that the evaluation was commensurate with the safety significance of the issue, and that the evaluation addressed operability, reportability, common cause, generic concerns, and extent of condition, where appropriate. For significant conditions adverse to quality, the inspectors checked that the licensee adequately identified the causes and corrective actions to prevent recurrence. Documents reviewed are listed in the Attachment.

(2) Assessment

No findings of significance were identified. In general, the licensee's prioritization and evaluation of problems in the CAP were considered effective. The technical adequacy and depth of evaluations, as documented in individual ARs, were acceptable. The inspectors found that the licensee properly prioritized proposed corrective actions in a manner commensurate with the safety significance of the issue. Based on the total number of ARs reviewed during the inspection, the inspectors concluded that the licensee's CAP was generally being effectively implemented with respect to evaluation of problems. However, the inspectors identified several deficiencies associated with individual cause determinations as shown below:

- Priority 2 ARs 75691 and 75489 were written for a test failure of safety injection (SI) system relief valve SI-871. The valve lifted with pressure marginally higher than allowable but had a significantly lower reseat pressure than design. The evaluation of the affect on system operability of the valve's test failure did not address the affect of the low reseat pressure on past operability of the SI system. The relief valve protects the common SI and containment spray (CS) suction piping from overpressure. Highest system pressure would most likely occur during piggyback operation when the residual heat removal (RHR) pump provides flow to the CS/SI suction header. The valve relieves to the CS discharge header. The inspectors concluded that the affect on the SI system would be a potential loss of SI suction inventory to containment which would not be significant in piggyback mode when the sump was the suction supply.

- The licensee identified an increase in relief valve test failures before and during refueling outage (RO) 21. ARs were written to evaluate and fix the valve test failures. AR 74421 was written to investigate the trend of relief valve test failures, but this AR did not identify any corrective action other than to repair and retest the individual valves and expand the test scope as necessary. There were additional activities identified which could impact relief valve performance, however they were all identified as enhancements not as corrective actions.

- A root cause evaluation associated with an inattentive employee documented in AR 61013 was not of sufficient depth to determine the actual root cause. However, effective corrective actions were implemented to address the actual cause. The licensee indicated that root cause evaluations performed by the site organization which performed the evaluation had previously been identified as an area of weakness. The licensee had focused on improvements in the quality of root cause evaluation by the organization.

- A self-assessment of the motor monitoring program in 2000 identified a weakness that a minimum acceptance criterion for degraded direct-burial cables was not well established. This weakness in the program required motor cable determination to discern if the motor or the cable was degraded. The

corrective actions of AR 26298, written as a result of the self-assessment, only addressed improvements in the motor monitoring program. No corrective actions were established to address the weakness of the degraded condition of the site direct-burial power cables or power cable acceptance criteria not being well established. The licensee determined that the corrective actions of AR 26298 were insufficient and generated AR 141988 to evaluate the condition of the cables for acceptability.

- The root cause evaluation, as documented in AR 133713, associated with a failure of a Westinghouse Type BF66 Relay identified a manufacturing defect as the cause. This type relay is used throughout the reactor protection system. The corrective action to prevent recurrence was limited to the replacement of 10 relays obtained within the same purchase order. The evaluation did not address approximately 300 installed relays which were constructed utilizing the same manufacturing techniques as the failed relay and, therefore, subject to the same type of manufacturing defect. Subsequently, information was provided by Westinghouse indicating that the relay failure may be isolated and not caused by a manufacturing defect. At the end of the inspection, the licensee was continuing to evaluate this issue.

Although the inspector-identified discrepancies indicated some problems in the evaluation of issues, overall, this area of the program was considered effective based on the number of ARs reviewed. The inspectors noted that the licensee had identified the site's evaluation of issues as an area of program focus.

c. Effectiveness of Corrective Actions

(1) Inspection Scope

The inspectors reviewed corrective actions to verify that the licensee had identified and implemented corrective actions associated with identified causes for the ARs listed in the Attachment. The timeliness of the corrective actions were reviewed to assess whether they were implemented or planned consistent with the importance to safety of the issues. The inspectors reviewed maintenance rework items, Maintenance Rule functional failures for focus systems, select canceled modifications, and select items from the operator workarounds list to verify that no inconsistencies existed with prior established corrective actions for issues. The inspectors verified that common causes and generic concerns were addressed where appropriate. The review included a sample of the oldest open ARs in the licensee's database to verify that the planned dates for implementing corrective actions were justified and reasonable. Licensee followup of corrective action effectiveness associated with Priority 1 (significant condition adverse to quality) ARs was reviewed to verify appropriateness of the reviews. The inspectors also reviewed and assessed the adequacy of corrective actions associated with non-cited violations (NCVs) of regulatory requirements identified since the last problem identification and resolution inspection (August 2002).

(2) Assessment

No findings of significance were identified. The inspectors determined that the licensee's CAP was effective in correcting problems. Management involvement in the process was effective. The inspectors found that the age of outstanding corrective actions were tracked, the bases for delays in the implementation of corrective actions received the appropriate level of management attention, and that the delays were reasonable. Corrective actions for NCVs were determined to be adequate. During the course of the inspection, the inspectors identified some problems with the implementation of corrective actions as discussed below:

- AR 127517 documented that a manufacturer-installed cylinder plug, which is a component of the indicator valve adapter, was left loose when installed on the B EDG. During the performance of a surveillance test, the plug was discharged while the engine was running. The inspectors identified that corrective actions to verify tightness of the manufacturer installed plugs following indicator valve adapter replacements were not implemented. AR 139413 was written to revise the preventive maintenance procedure.

- AR 92949 evaluated two cases where relief valves lifted and failed to reseat as designed. One corrective action item was to revise relief valve nozzle and guide ring setting procedures to incorporate independent verification into the relief valve settings. Procedure CM-102 was revised to incorporate independent verification of the correct direction of rotation while setting the relief valve, but the revision did not incorporate independent verification of the final notch settings.

- AR 30516 was written to address conduit damage caused by gaps in pressurizer insulation. The effectiveness review of corrective actions associated with this AR was completed without corrective action to prevent recurrence being complete. The temporary insulation was still in place on the pressurizer, the mirror insulation had not yet been replaced with the Nukon blanket insulation. AR 140654 was generated for resolution.

- AR 124697 was written for incorrect piping utilized when implementing the CS/SI full flow test line modification. The incorrect pipe was replaced with the correct material. The AR identified two inappropriate acts which led to the use of the incorrect material. These were incorrect material reserved by the planner and failure by the craft to verify the material against the work package prior to installation. Corrective action only addressed the craft aspect through counseling and a stand-down to reestablish material verification standards. No corrective action was included to address the planning aspect of the failure.

- During maintenance of a nuclear service water valve motor-operator in 2002, megger readings as measured from the breaker, were less than established acceptance criteria. Subsequently, acceptable motor resistance readings were taken locally with the power cables determinated with satisfactory results. The

investigation determined that the cause of the failure was due to buried cable moisture intrusion due to cable aging. Established criteria specified that the cables should have been replaced. However, the inspectors identified that no corrective action was pursued to correct or evaluate the degradation of the cable. Although direct buried cable insulation degradation is a known site problem, the issue has not been entered into the CAP. The site recognized that replacement of the cables will be a necessity to the long term continued operation of the plant. At the completion of the inspection, the site budget plan included replacement of the cables which was planned to commence in 2006. Based on the plan to replace the cables, no violation of regulatory requirements was identified. AR 140969 was initiated to develop a preventative maintenance process to ensure that cables are properly evaluated when disconnected from motors. The licensee also initiated AR 141988 due to the failure of a previous evaluation (AR 26298) to establish acceptance criteria for cables when megger readings are less than the established acceptance criteria.

Although there were problems in implementing corrective actions as noted above, the inspectors determined that, overall, corrective actions were timely and effective consistent with the importance to safety of the issues based on the sample reviewed.

d. Assessment of Safety-Conscious Work Environment

(1) Inspection Scope

The inspectors questioned licensee personnel during interviews concerning their experience with the CAP to assess whether there were impediments to the establishment of a safety conscious work environment. Specifically, personnel were asked questions regarding any reluctance to initiate ARs and the adequacy of corrective action for identified issues. The inspectors interviewed the licensee's Employee Concerns Program (ECP) representative to assess the adequacy of procedural control, tracking of concerns, and trending of issues. Several ECP issues and evaluations were reviewed with respect to maintaining and promoting a safety conscious work environment and to verify that issues affecting nuclear safety were being appropriately addressed. The inspectors assessed licensee management sensitivity to a safety-conscious work environment through inspection activities, discussions with management and licensee personnel, and attendance at various meetings. The inspectors interviewed several managers, attended several meetings, and reviewed several applicable corrective action documents to assess licensee management sensitivity to a safety conscious work environment. Documents reviewed are listed in the Attachment.

(2) Assessment

No findings of significance were identified. Individuals actively utilized the CAP and ECP as evidenced by the low threshold of issues entered into the programs. Issues entered into the ECP received the appropriate level of management involvement. When issues became evident through either the ECP or CAP assessments, site management demonstrated sensitivity to organizational attitudes toward the CAP and a safety conscious work environment. In particular, CAP Assessment 76934 identified an assessment weakness that workers' attitude toward the CAP had declined. The associated investigation, documented in AR 90592, was thorough and identified corrective actions to raise site personnel sensitivity in this area. Additionally, an employee concern related to group dynamics and site culture was appropriately raised to senior management and properly investigated. The inspectors determined that a safety conscious work environment was evident at the site.

40A6 Meetings, Including Exit

On October 22, 2004, the 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. Baucom, Supervisor Licensing/Regulatory Programs
A. Cheatham, Radiation Protection Superintendent
C. Church, Engineering Manager
B. Clark, Manager - Nuclear Assessment Section
J. Huegel, Maintenance Manager
R. Ivey, Operations Manager
J. Lucas, Manager, Nuclear Site Support
G Ludlam, Training Manager
D. Martrano, Performance Evaluation Section
J. Moyer, Vice President Robinson Nuclear Plant
W. Noll, Director of Site Operations
D. Stoddard, Plant General Manager
S. Wheeler, Lead Self Evaluation Specialist
D. Winters, Supervisor Plant Support Group
T. Lee, Employee Concerns

NRC personnel

P. Fredrickson, Chief, Reactor Projects Branch 4
L. Wert, Deputy Director, Division of Reactor Projects

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

None.

Attachment

LIST OF DOCUMENTS REVIEWED

Significant Action Requests (AR), Priority 1

133713 MR Performance Criteria Exceeded for System 1080 Protection Relays
132944 Inattentive Employee
123399 Trend in Employee Inattentiveness
61013 Inattentive Employee
76766 Seal Leak from RHR Pump "A"; Unplanned
108878 Simultaneous Failure of RHR Pump Rooms Sump Level Indicators
82945 TS allowable surveillance interval exceeded for A EDG
79818 Potential station blackout EDG common cause failures
30920 Fault pressure relay failure for C phase main transformer
77439 Unexpected power increase while flushing the cation bed - adverse trend per RES cap roll-up
21953 SSFI concern with plant calculations
22494 Replacement of the B EDG fuel oil transfer pump and motor
122720 NAS Assessment R-EP-04-01, Issue 1 on 10 CFR 50.54Q
112813 Proposed NCV Pursuant to 50.47(B)2
100571 Acceptance Criteria Exceeded on a RAM Package
104566 N42 Upper Detector Spiking Down
124140 Feedwater Transient
115704 Potential Primary to Secondary Leakage Based on R-24B
76524 EDG B Failed Fast Start During OST-163
103661 A EDG Lube Tubing Not Connected After Maintenance
82945 TS Allowable Surveillance Interval Exceeded for A EDG
24488 Unavailability Hours Exceeded for Deepwell Pump B
126009 Plastic Piece Found Downstream of SI-Pmp-B Discharge Check Valve
77042 EST-083 Was Listed As Closed But Was Not Fully Completed
030516 Damaged Conduit For PCV-456 Solenoid and Limit Switches

Adverse Action Requests (AR), Priority 2

121511 ECCS Sump Monitoring
126196 Possible Corrosion on "B" RHR Pump Stuffing Box Extension
73692 "A" RHR Pump Motor Oil Level Too High
82889 UFSAR Design Flow Rate for RHR Heat Exchanger Shell Side Flow Incorrect
98476 PMTR for Alternate Power Breakers for MCC-5 and RHR pump A Not Identified
67826 Inattentive Employee
105553 Inattentive Employee
117418 Inattentive Employee
112008 Inattentive Employee
125357 Site gate issue
131205 LC-475B1-X(B) Failed to Deenergize during MSF-021
83209 10 CFR 21 Notification on Whiting Crane #25 Gearcases
130440 Whiting Crane Part 21 Notice 2004-015-00, Overstress of Welds on Slack Link Load Sensing Structural Frames of Cranes
73823 AFW-39 Left Tagged
74341 Boundary Value Leak-by Leads to AOP-14 Entry
84308 CC-702 Hinge Bracket Fasteners
94309 Revise Inspection Due Date for CC-738
94318 Revise Due Date for Check Value Inspection of CC-931
97157 CCW Tritium Analysis Concern
98216 Failure of CCW Pump to Start

111506	Closed System Inside Containment
125379	Relief Valve CC-729 Nozzle Ring Set Incorrectly
74421	Relief Valve Failures
76171	Diesel Fuel Oil Transfer Pump Motor Fault
90592	CAP Assessment Weakness #2 - Workers' Attitude Toward CAP
114067	Boric Acid on Containment Floor
11379	Clearance on C Service Water Pump Motor Heater
20521	Intermediate Range Allowed values non-conservative
24407	EDG fuel oil day tank minimum level
82549	Maintenance Rule functional failure 52/36B
82800	Elevated CCW Temperatures Greater Than 105 Degrees
106891	B [Emergency Diesel Generator] Standby Circulating Pump Rework on [Work Request Number] 469914-01
126604	Unanticipated Service Water Auto Isolation to Turbine Building When Restoring Service Water
125683	B EDG Governor Operating Improperly
127517	EDG B Cylinder Test Valve Plugs
133839	A EDG Signs of High Temperature on the Generator Output Bus Bar
89466	B EDG Shutdown OST-401-2 Due to Oil Leak
81574	10CFR21 Report for a Defective Fuel Injector Pump
103726	EDG A Generator Outboard Bearing Debris in Oil
89819	Concrete Chips Found in the B CCW Heat Exchanger
126003	AOP-022 Entered for Service Water Leak
90195	SI Valve SI-924 Found Out of Position
89711	20 MW Load Reduction Due To Spurious Turbine Runback
84732	Unanticipated LCO Entry (EDG B Out of Service)
133879	Check Valve DA-20A Lower Guide was Detached from Disc
88722	SW-338 Found Out of Position
94315	Poor Material Condition of Cables in Electrical Manholes
11379	Clearance 9801136
70285	V6-12D-MO Failed PM-409 Required Causing Extended LCO Time
95322	SW Pump D Maintenace/LCO Significantly Extended
24363	Functional Failure of Deepwell Pump B
137710	B Deepwell Pump Tripped - Maintenance Rule High Safety Significance
26298	Motor Program Self-Assessment
136050	SI-879A Check Valve Bonnet Gasket Not Installed
128816	SI-879A Has Active Leakage
125435	Insufficient Insulation Removal for ISI Caused Rework
123963	Fabrication Error Identified on Struts
83214	Part 21 Rockbestos Firewall III Cable KXL Insulation
89053	Rockbestos-Suprenant Firewall III Cable 10CFR21 Notification
126178	IN 04-009 Corrosion of Steel Containment and Liners
127512	CCW Pmp C Indication Dual When Attempted to Start
129531	SI-Pmp-C PMT Failed Due To Flow and Pressure Above Curve
118549	B SI Pump Motor Bearing Degradation
124697	CS/SI Full Flow Test Piping Installation Errors
124548	Incorrect Schedule Pipe Issued
129650	Venting the BIT Header
121862	SI-Pmp-A Has A Possible Through Casing Leak

74796 SI Pmp C Casing Torqued To Incorrect Value For 1st Pass
117303 High Trace Metals in Oil Sample
74421 Evaluate Recent Trend In Relief Valve Test Failures
92949 Review NCR 31337 Loss Of CCW Durig OST-946 on 5/4/01
75489 SI-871 Lifted Above The Allowable Band When Tested IAW EST-112
75691 Re-Seat Pressure For SI-871 Is 50 PSI Valve to Be Retested

Improvement Action Requests (AR), Priority 5

100868 Informal Self-Assessment - Post Maintenance Testing Process Review
116765 NRC Information Notice 04-01, Auxiliary Feedwater Pump Recirculation Line Orifice Fouling
97608 Improvement Item-RHR Pump Venting Sequence
77575 [Local Clearance and Test Request Request] Number 40761 in Place Greater Than 90 Days
76279 Track Resolution of CSI-PMP-C Discolored Oil

Procedure Modification Requests (PMR)

87177 EDG B Governor Friction Clutch Torque Check
78956 Add PM for Main Bearing Oil Booster
96255 Change Frequency of PS-4500A Calibration to line Up with EDG Maintenance Outage
72570 Service Water Header Strainer PM
86665 Establish PM with Two Models: Install/Remove Temporary Cooling at HVH-1, 2 ,3, and 4

Canceled Action Requests (AR)

69943 Resource challenges for total exposure
70416 Repeat failures of PI-1619A
65357 PI-1619A is breaking approximately every two months
70666 SPDS communication was called in and should not have been
73926 Weakness from EP Drill on 9/3/02
74444 DS bus feeder breaker 52/32A failed to reclose
74795 Rework on HDV-224B
31924 Potential adverse trend in rework

Operating Experience Items

Part 21 Notice 2004-015-00, Overstress of Welds on Slack Link Load Sensing Structural Frame of Cranes
Part 21 Notice 2004-007-00/01/02, Potential Safety Hazard with Woodward Digital Reference Unit
Part 21 Notice 2004-005-00, Potential Slippage of Aluminum Roots Blowers on Opposed Piston EDGs
Part 21 Notice Event #39512, Firewall III Cables May Include an Alternate Resin
Information Notice 2002-12, Submerged Safety-Related Electrical Cables
Information Notice 2003-20, Derating of Whiting Cranes

Information Notice 2004-01, Auxiliary Feedwater Pump Recirculation Line Orifice Fouling
Information Notice 2004-08, RCS Pressure Boundary Leakage
Information Notice 2004-09, Corrosion of Steel Containment and Liners (Evaluated)
Information Notice 2004-10, Loose Parts in Steam Generators
Information Notice 2004-12, Submerged Safety-Related Electrical Cables
Actions taken for relief valves in response to NRC IR 05000400/2003008
Letter from Engine Systems, Inc., INPO OE Item 11848 for Woodward Governor, Dated 6/5/01
Part 21 Notice 2002-25-1, Fuel Injector Pump Found to be Leaking Excessively Through Nameplate Rivet Hole
Operating Experience 15204, Failure of the Essential Service Water Strainer Due to a Lack of appropriate Preventative Maintenance
Action Request 64419 IN 2002-12 Submerged Safety Related Cables

Work Orders (WO)

65481	Inspect BFD Relays (CCW Pump B & C Alarm Relays)
131678	Inspect BFD Relays (CCW Pumps B & C Alarm Relays)
163431	B CCW Pump Seals Leaks - Inboard Seal has a slight spray
177461	Outboard Pump Seal of C CCW Pump has numerous leaks
192364	FT 613 Needs to be vented
192459	C CCW Pump has inboard seal leak
195584	FT 613 Needs to be vented
232418	C CCW Pump outboard bearing has slight seal leakage
298782	Inspect BFD Relays (CCW Pump B & C Alarm Relays)
334312	App 002E1 Alarms Too Late
334513	Lo Flow Alarm for RHR Pump A
335741	App 001D1 alarms Too Early
355972	A CCW Pump Control Switch Clearing
431084	A CCW Pump Failed to Start
431604	Replace Secondary Contact on 52/33C
554999	CC-749A would not stroke from RTGB
611353	Seal Leakage from RHR Pump B
108913	SI Pump A, EC 52753, Pipe Struts Fabrication Error
376024	Insufficient insulation removed for ISI inspection of A cold leg weld
568118	SI Pump A discharge check valve SI-879A bonnet leaking
383935	Exhaust Leaks on EDG B
98556	B EDG Standby Circulating Water Pump Has a Seal Leak. Rework is Suspected.
420204	Civil/Mechanical Detailed Inspection
411837	Assist [Robinson Engineering Section] in Detailed Inspection of Electrical Manhole
417108	During PM on 52/25B Found Low Megger Readings on SW Pump D
559609	SI-879A Leakage
561687	SI Pump A Discharge Check Valve Leakage
292136	OST-151-3 (QL) Safety Injection System Component Test
26312	OST-151-2 (QL) Safety Injection System Component Test
342963	OST-151-2 (QL) Safety Injection System Component Test
292135	OST-151-2 (QL) Safety Injection System Component Test

Employee Concerns Reports (ECR)

ECR 44745
ECR 44548
ECR 41926
ECR 41951
ECR 41813

Procedures

Nuclear Generation Group Standard Procedure, ADM-NGGC-0104, Work Management Process, Revision 27
Nuclear Generation Group Standard Procedure, ADM-NGGC-0203, Preventive Maintenance and Surveillance Testing Administration, Revision 5
Nuclear Generation Group Standard Procedure, ADM-NGGC-0204, Work Management (WO Scheduling), Revision 0
Nuclear Generation Group Standard Procedure, CAP-NGGC-0205, Significant Adverse Condition Investigation, Revision 1
Nuclear Generation Group Standard Procedure, CAP-NCCG-0200, Corrective Action Program, Revision 11
Plant Operation Manual (POM), Vol. 1, Part 1, PLP-128, Degraded Operable SSCs, Revision 1
POM, Vol. 3, Part 9, OST-943, Service Water to Safety Related Equipment Valve Position Verification, Revision 11
General Plant Procedure, GP-002, Cold Shutdown to Hot Subcritical at No Load Temperature-Average, Rev. 93
General Plant Procedure, GP-007, Plant Cooldown from Hot Shutdown to Cold Shutdown, Rev. 64
CM-611, Governor for the Emergency Diesel Generators A & B, Rev. 13
CM-628, Emergency Diesel Generator Cylinder Liner Adapters Maintenance, Rev. 10
Engineering Surveillance Test (EST), EST-140, Leak Test for ECCs Boundary Valves(Refueling)
PM-409, Bridge and Insulation Resistance Testing of Electrical Equipment, Rev. 9
PM-479, Motor Testing, Rev. 4
SFS-001, IF-300 Shipping Cask Operations, Rev. 38
HPP-318, Decon of the IF-300 Cask, Rev. 6
HPP-25, Shipping and Receiving the IF-300 Cask, Rev. 24
MMM-001, Maintenance Administration Program, Rev. 63
OMM-001-12, Minimum Equipment List and Shift Relief, Rev. 38
CM-102, Nozzle Relief Valve Maintenance , Rev. 31
EST-112, Pressure, Safety , and Relief Valve Bench Testing, Rev. 20

Drawings

G-190678, Yard Duct Runs, Dated March 29, 1967
G-190199, Service and Cooling Water System Flow Diagram, Sheet 2 of 13, Rev. 63
G-190199, Service and Cooling Water System Flow Diagram, Sheet 6 of 13, Rev. 40
G-190204-A, Emergency Diesel Generator System Flow Diagram, Sheet 3 of 3, Rev. 18
5379-376 Sheet 1 Component Cooling Water System Flow Diagram, Rev. 36
5379-376 Sheet 2 Component Cooling Water System Flow Diagram, Rev. 31

5379-376 Sheet 3 Component Cooling Water System Flow Diagram, Rev. 23
5379-376 Sheet 4 Component Cooling Water System Flow Diagram, Rev. 31
5370-1082 Sheet 1 Safety Injection System Flow Diagram, Rev. 41
5370-1082 Sheet 2 Safety Injection System Flow Diagram, Rev. 43
5370-1082 Sheet 3 Safety Injection System Flow Diagram, Rev. 25
5370-1082 Sheet 4 Safety Injection System Flow Diagram, Rev. 27
5370-1082 Sheet 5 Safety Injection System Flow Diagram, Rev. 38

New Work Tickets From SI System Walkdown

00165967 Boric Acid on FI-11096 High Side Vent
00165971 Boric Acid on SI-Pmp-A Discharge Drain
00165974 Boric Acid on SI-Pmp-C Inboard Seal
00165975 Boric Acid on Drain for PI-492
00165978 Boric Acid on SI-870B Stem

Cancelled Engineering Changes (E/Cs)

48984 Evaluation of Cable Splice Requirements for RHR Pump Motors
51861 Replace CC-731, 717, 738 Due to Unavailable Spare Parts
47258 Standby Jacket Cooling Pumps
47072 SI Pipe Upgrade and SI-857B Removal
54781 Increased Thinning and Two-Phase Coat Application
58306 Install Guard Over Limit Switch on ES-10 Per CA for Significant AR 124140
56487 Replacement Valve Evaluation for CC-738
51930 Review Technical Manual 728-144-37
51925 Review Technical Manual 762-209-38
51929 Review Technical Manual 755-655-31
51924 Review Technical Manual 728-011-52
52050 Review Technical Manual 727-922-94
47090 Namco EQ Test Report Review
47242 Review of Rosemount Qualification Documents

Other

Refueling Outage 22 Report, Report Number 123746-14, Dated 8/4/04
Engineering Service Request (ESR) Number 9700431, Service Water D Motor/Cable Megger Reading Evaluation
Operator Work-Around 04-11, Deepwell Pump B
Degraded Operable SSC Disposition 04-010, Deepwell Pump B Motor
IEEE Standard 141-1976, Cable Systems
IEEE Standard 43-2000, IEEE Recommended Practice for Testing Insulation Resistance of Rotating Machinery
Self-Assessment Report Number 15262, Engineering Motor Program
Service Water System Health Report, Dated 7/26/2004
R-SE-04-01, Robinson Nuclear Plant Self Evaluation Assessment Report, dated September 22, 2004
Assessment Number 76934, Corrective Action Program Cross-functional Self Assessment, April 7-11, 2003

Assessment Number 54779, Corrective Action Program, July 8-August 8, 2002
Nuclear Assessment Section Report RR-CA-02-01, Round Robin Assessment of Corrective Action Program for Robinson and Harris Nuclear Plants, dated August 8, 2002
Site-Wide Analysis of Condition Reports for Performance Trends, dated September 1 through December 31, 2003
Site Wide Analysis of Condition Reports for Performance Trends, dated January 1 through March 31, 2004
Maintenance Rule Performance Summary for system 4080 Component Cooling Water system 31-August-04
Maintenance Rule Event Log Report for System 4080 Component Cooling Water System 31-August-04
Completed Work Orders for System 4080 CCW for 8/31/2004
NRC Inspection Manual Part 9900 Technical Guidance Section 6.13
ASME Code Section III Appendix F Section F-1310C
System Health Report For System 4080 Component Cooling Water dated 7-26-04
CCW Sampling Results Tritium Analyses for 2002-2004
System Health Report For System 2080 and 2080C Safety Injection and Containment Spray
CP&L Laboratory Lube Oil Report Unit 2C SI Pump Outboard Bearings
SI System Walkdown Report September 2004
SI System Work Orders dated 8/31/2004
Material Evaluation 06517R00 Velan Swing Check Valve
Vendor Manual 728-144-37 Westinghouse Air Circuit Breaker DB-50, DB-75, and DB-100
Westinghouse Technical Bulletin W-TB-99-05, DB-50 Breaker Minimum Trip Force and Seismic Enhancements
HB Robinson Plant Valve Test Data for CC-729
Robinson Technical Training Relief/Safety Relief/Safety Valve Maintenance MEL0013R Rev. 1
Engineering Change (E/C) 47104 Rev.0
H. B. Robinson Plant Valve Test Data For SI-871