UNITED STATES



NUCLEAR REGULATORY COMMISSION

REGION II SAM NUNN ATLANTA FEDERAL CENTER 61 FORSYTH STREET, SW, SUITE 23T85 ATLANTA, GEORGIA 30303-8931

July 29, 2005

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 05000261/2005003

Dear Mr. Moyer:

On June 30, 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 July 6, with you and other members of your staff, and on July 20, with Mr. Bill Noll 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.

This report documents one finding concerning appropriate acceptance criteria not being included in two procedures for restoration of cooling to the reactor coolant pump seals following a loss of all seal cooling. The finding has potential safety significance greater than very low significance; however, it does not represent an immediate safety concern. In addition, the report documents one issue of very low safety significance (Green). This issue was determined to involve a violation of NRC requirements. However, because of its very low safety significance and because it has been entered into your corrective action program, the NRC is treating this issue as a non-cited violation (NCV), in accordance with Section VI.A.1 of the NRC's Enforcement Policy. If you contest this NCV, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region II; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the H.B. Robinson facility.

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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 <u>http://www.nrc.gov/reading-rm/adams.html</u> (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 05000261/2005003 w/Attachment: Supplemental Information

cc w/encl: (see page 3)

CP&L

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U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No:	50-261
License No:	DPR-23
Report No:	005000261/2005003
Facility:	H. B. Robinson Steam Electric Plant, Unit 2
Location:	3581 West Entrance Road Hartsville, SC 29550
Dates:	April 1, 2005 - June 30, 2005
Inspectors:	 R. Hagar, Senior Resident Inspector D. Jones, Resident Inspector L. Miller, Senior Emergency Preparedness Inspector (Sections 1EP1, 1EP4, 4OA1) J. Kreh, Emergency Preparedness Inspector (Sections 1EP1 and 4OA1) N. Sanfilippo, Emergency Preparedness Specialist (Section 1EP1)
Approved by:	P. Fredrickson, Chief Reactor Projects Branch 4 Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000261/2005003, Carolina Power and Light Company; on 3/1/2005 - 6/30/2005 ; H.B. Robinson Steam Electric Plant, Unit 2; Permanent Plant Modifications, Post Maintenance Testing

The report covered a three-month period of inspection by resident inspectors and an announced inspection by regional emergency preparedness inspectors. One Green non-cited violation, and one unresolved item with potential safety significance greater than Green, were identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using IMC 0609, Significance Determination Process (SDP). Findings for which the SDP does not apply may be Green or be assigned a severity level after NRC management review. 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.

A. NRC-Identified and Self-Revealing Findings

Cornerstone: Mitigating Systems

<u>Green</u>. The inspectors identified a non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, Corrective Actions, for failure to promptly identify and correct a condition adverse to quality, in that a surveillance procedure that directed unacceptable preconditioning of the residual heat removal (RHR) pumps was not identified and corrected from 1997 to 2005.

The finding is greater than minor because it is associated with the procedure quality attribute of the Mitigating Systems Cornerstone and affects the cornerstone objective of ensuring the availability and reliability of systems that respond to events to prevent undesirable consequences. Unacceptable preconditioning of the RHR pump could mask a condition that renders the pump inoperable. The finding is of very low safety significance because it is not a design or qualification deficiency, does not represent an actual loss of safety function for a system or train, and is not risk significant due to a seismic, fire, flooding, or severe weather initiating event. (Section 1R19)

Cornerstone: Barrier Integrity

<u>TBD</u>. The inspectors identified an unresolved item involving two examples of a violation of 10 CFR 50, Appendix B, Criterion V, Procedures, for failure to include appropriate acceptance criteria in two procedures for restoration of cooling to the reactor coolant pump seals following a loss of all seal cooling. The finding has potential safety significance greater than very low significance and requires the completion of a significance determination process Phase 3 review.

Both examples of the finding are greater than minor because they are associated with the procedure quality attribute of the Barrier Integrity Cornerstone and affect the cornerstone objective of providing reasonable assurance that the reactor coolant system protects the public from radionuclide releases caused by accidents or events. The examples are also determined to potentially have greater than very low safety significance, because, since the finding affects a Barrier Integrity Cornerstone objective, the NRC Significance Determination Process Phase 1 worksheet requires a Phase 3 risk evaluation be completed. This evaluation could result in the finding having significance greater than very low safety significance.(Section 1R17)

B. Licensee-Identified Violations

None.

REPORT DETAILS

<u>Summary of Plant Status</u> The unit began the inspection period at full rated thermal power. On May 13, power was reduced to approximately 50 percent power to enable repair of a steam leak inside containment. Approximately 10 hours later, on May 14, the unit was returned to full power, and operated at full power for the remainder of the inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity

- 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, or were recently realigned following an extended system outage:

System Walked Down	SSC Out of Service	Date Inspected
B and C Charging Pump	A Charging Pump	May 2
B Emergency Diesel Generator	A Emergency Diesel Generator	May 10
Safety Injection Train A	A Safety Injection Pump	June 9

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 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 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 are listed in the Attachment.

The following areas were inspected:

Description
Unit 2 Cable Spreading Room
Auxiliary Building Hallway (Ground Floor)
Pipe Alley
Control Room
Service Water Pump Area
Diesel Generator B Room

b. Findings

No findings of significance were identified.

1R06 Flood Protection Measures

a. Inspection Scope

External Flooding

The inspectors walked down the 226-foot elevation of the auxiliary building which contains risk-significant SSCs which are susceptible to flooding from external sources to verify that the area configuration, features, and equipment functions were consistent with the descriptions and assumptions used in FSAR Section 3.4, Water Level (Flood) Design, and in the supporting basis documents listed in the Attachment. The inspectors reviewed the operator actions described in Procedure OMM-021, Operation During Adverse Weather, to verify that the desired results could be achieved.

Internal Flooding

Because the emergency diesel generator (EDG) rooms contain risk-significant SSCs which are susceptible to flooding from postulated pipe breaks, the inspectors walked down the EDG rooms to verify that the area configuration, features, and equipment functions were consistent with the descriptions and assumptions used in Calculation RNP-F/PSA-0009, Assessment of Internally Initiated Flooding Events, and in the supporting basis documents listed in the Attachment. The inspectors reviewed the operator actions credited in the analysis to verify that the desired results could be achieved using the plant procedures listed in the Attachment.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Regualification

a. <u>Inspection Scope</u>

The inspectors observed licensed-operator performance during requalification simulator training for crew 1 to verify that operator performance was consistent with expected operator performance, as described in the Continuing Training Simulator Option Form dated 5-9-05. This training tested the operators' ability to respond to a security event which disabled important safety-related equipment, and to respond to a loss of the plant's ultimate heat sink. 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 are listed in the Attachment.

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

b. Findings

No findings of significance were identified.

1R12 <u>Maintenance Effectiveness</u>

a. Inspection Scope

The inspectors reviewed the two degraded SSC/function performance problems or conditions listed below to verify the 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 are listed in the Attachment.

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

Performance Problem/Condition	<u>AR</u>
[Level indicator]-496, C steam generator narrow-range level, was indicating 12 percent while the recorder and the redundant channels were indicating the program level of approximately 53 percent	121479
[Containment cooling fan] HVH-1 inboard bearing showed an increasing trend in vibration levels	113595

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 listed below, the inspectors reviewed risk assessments and related activities to verify that the licensee performed adequate risk assessments and implemented appropriate risk-management actions when required by 10 CFR 50.65(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 are listed in the Attachment. Those periods included the following:

- April 22 April 28, including scheduled maintenance on the B motor-driven auxiliary feedwater pump
- May 16 May 20, including scheduled maintenance on the steam-driven auxiliary feedwater pump and the startup transformer
- May 30 June 3, including scheduled maintenance on the B residual heat removal train and component cooling water pumps
- June 27 June 30, including emergent maintenance on the C charging pump and D instrument air compressor

b. Findings

No findings of significance were identified.

1R14 Personnel Performance During Nonroutine Plant Evolutions

a. Inspection Scope

During the two non-routine plant evolutions described below, the inspectors observed plant instruments and operator performance to verify that the operators performed in accordance with the associated procedures and training.

- The downpower from 100 percent to approximately 50 percent power on May 13
- The subsequent return to full power on May 14

Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

- 1R15 Operability Evaluations
- a. Inspection Scope

The inspectors reviewed two operability determinations as described below.

- The inspectors reviewed the operability determination associated with AR 157455. This AR addressed the effects of a small steam leak on the operability of a containment penetration. The inspectors assessed the accuracy of the evaluation, the need for any associated compensatory measures, and compliance with the technical specifications (TS). The inspectors also verified that the operability determination was completed as specified by Procedure PLP-102, Operability Determinations.
- The inspectors reviewed Engineering Change 52332, [Steam Generator A Steam Flow Transmitter]-475 Replacement, a deferred modification, to verify that this modification did not involve a degraded component for which an operability evaluation was warranted.

Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R16 Operator Work-Arounds

a. Inspection Scope

The inspectors reviewed Work-Around 05-03, Ground on 480 Volt Bus 5 Will Not Alarm, to verify that this work-around 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 inspectors reviewed the cumulative effects of the operator work-arounds that were in place on March 31 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. The work-arounds included in this review included the following:

- 04-06, [Flow element]-660 reads zero flow
- 04-11, Additional time is needed to start or stop Deepwell Pump B
- 04-12, Caustic dilution flow is reduced to the makeup water treatment primary mixed bed demineralizers
- 04-13, [Pressure control valve]-1380, main steam from left main steam stop valves to high-pressure turbine, leaks by its seat
- 04-14, Spurious alarm on reactor coolant pump thermal barrier low flow
- 04-15, Flow switches for air handlers HVE-6A & HVE-6B are defeated
- 04-18, Postulated fire in zone 19 or 20 may cause spurious closing of [level control valve]-115C and loss of [level control valve]-115B function

Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R17 Permanent Plant Modifications

- .1 Restoration of RCP Seal Cooling
- a. Inspection Scope

After noting that a previously-inspected modification had included a design requirement to restore cooling to the RCP seals within 13 minutes following a loss of all seal cooling caused by a particular event, the inspectors reviewed other licensee procedures which restore seal cooling following a loss of all seal cooling caused by other events, to verify that those procedures were consistent with that design requirement. (The previously-inspected modification was Engineering Change 59037, described in NRC Inspection Report 05000261/2005002.)

Enclosure

b. Findings

Introduction The inspectors identified an unresolved item involving two examples of a violation of 10 CFR 50, Appendix B, Criterion V, Procedures, for failure to include appropriate acceptance criteria in two procedures for restoration of cooling to the reactor coolant pump (RCP) seals following a loss of all seal cooling. The finding has potential safety significance greater than very low significance and requires the completion of a significance determination process Phase 3 review.

<u>Description</u> Several industry documents indicate that restoration of RCP seal cooling is time-sensitive, in that restoration of seal coolant after RCP temperature becomes elevated could cause additional pump damage, such as seal degradation and increased seal leakage. Additionally, the Westinghouse Owners' Group recommended that RCP seal cooling not be restored following a prolonged loss of seal cooling in which the RCP seal temperature becomes elevated. Thus, restoration of seal cooling would be the proper action to take, only if seal cooling is restored before hot RCS fluid reaches the RCS seals and causes the seal temperature to increase high enough to create seal degradation and subsequent leakage.

Procedure EPP-22, Revision 20, Energizing Plant Equipment Using Dedicated Shutdown Diesel Generator, provides instructions for restoring RCP seal cooling and other evolutions following a loss of all alternating-current power, but does not include any requirement or precaution regarding the time at which RCP seal cooling is restored. Therefore, EPP-22 does not include an appropriate criterion to ensure that restoration of seal cooling is accomplished before hot RCS fluid reaches the RCP seals.

Procedure DSP-002, Revision 30, Hot Shutdown Using the Dedicated/Alternate Shutdown System, provides instructions for establishing and maintaining hot-shutdown conditions following a fire that precludes the use of emergency operating procedures from the main control room. Among the evolutions directed by DSP-002 is the restoration of RCP seal cooling. However, DSP-002 also does not include any requirement or precaution regarding the time at which RCP seal cooling is restored. Therefore, DSP-002 does not include an appropriate criterion to ensure that restoration of seal cooling is accomplished before hot RCS fluid reaches the RCP seals.

<u>Analysis</u> Both examples of the finding are greater than minor because they are associated with the procedure quality attribute of the Barrier Integrity Cornerstone and affect the cornerstone objective of providing reasonable assurance that the reactor coolant system protects the public from radionuclide releases caused by accidents or events. The examples are also determined to potentially have greater than very low safety significance, because, since the finding affects a Barrier Integrity Cornerstone objective, the NRC Significance Determination Process Phase 1 worksheet requires a Phase 3 risk evaluation be completed. This evaluation could result in the finding having significance greater than very low safety significance.

<u>Enforcement</u> 10 CFR 50, Appendix B, Criterion V, Procedures, requires, in part, that activities affecting quality shall be prescribed by documented procedures of a type appropriate to the circumstances. It further requires that these procedures include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished. Contrary to the above, Procedures EPP-22, Rev. 20 and DSP-002, Rev. 30, do not include appropriate acceptance criteria for restoration of cooling to the RCP seals following a loss of all seal cooling. Pending determination of safety significance, this finding, with two examples, is identified as URI 05000261/2005003-01, Failure of Two Procedures to Have Appropriate Acceptance Criteria for Restoration of RCP Seal Cooling. This finding is in the corrective action program (CAP) as AR 160309.

- .2 Modification Review
- a. <u>Inspection Scope</u>

The inspectors reviewed the following two modifications:

- Engineering Change 47253, Removal of Emergency Diesel Generator Field Flash Batteries
- Engineering Change 55571, Condensate Storage Tank Technical Specification Limit Alarm

The inspectors reviewed these modifications to verify that:

- the modifications did not degrade the design bases, licensing bases, and performance capabilities of risk significant SSCs,
- implementing these modifications did not place the plant in an unsafe condition, and
- the design, implementation, and testing of these modifications satisfied the requirements of 10 CFR 50, Appendix B.

Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R19 Post Maintenance Testing

a. <u>Inspection Scope</u>

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 are listed in the Attachment.

The following tests were witnessed/reviewed:

Test Procedure	<u>Title</u>	<u>Related</u> Maintenance Activity	Date Inspected
OST-101-7	Comprehensive Flow Test for Charging Pump B	Replace valves and speed controller on the B charging pump	April 13
OST-202	Steam Driven Auxiliary Feedwater System Component Test	Inspect the impeller on the steam driven auxiliary feedwater pump	May 17
OST-252-2	[Residual Heat Removal] System Valve Test - Train B	Routine maintenance on residual heat removal train B	June 1
OST-151-1	Safety Injection System Components Test - Pump "A"	Replace the motor for safety injection pump A	June 8
OST-201-1	[Motor-Driven Auxiliary Feedwater] System Component Test - Train A	Calibrate pressure gauges and repair a packing leak	June 13

b. Findings

Introduction The inspectors identified a Green NCV of 10 CFR 50, Appendix B, Criterion XVI, Corrective Actions, for failure to promptly identify and correct a condition adverse to quality, in that a surveillance procedure that directed unacceptable preconditioning of the residual heat removal (RHR) pumps was not identified and corrected from 1997 to 2005.

<u>Description</u> In 1997, the licensee entered NRC Information Notice (IN) 97-16 into the Operating Experience Assessment program as OEA 6293. That IN discussed preconditioning issues, and specifically identified venting an RHR pump without adequate controls immediately before testing the pump, as an example of unacceptable preconditioning. NUREG 1482, Guidelines for Inservice Testing at Nuclear Plants; and

Enclosure

NRC Inspection Manual, Part 9900: Technical Guidance, Maintenance - Preconditioning of Structures, Systems, and Components Before Determining Operability also state that routine uncontrolled pump venting directly preceding surveillance testing without proper controls is unacceptable preconditioning, because this practice could mask a condition that could have rendered the pump inoperable.

In April, 1997 the licensee initiated AR 97-00847 to address instances of preconditioning valves prior to performing surveillance testing. Through the associated investigation, the licensee developed corrective actions to evaluate all surveillance tests for preconditioning concerns. In September, 1997, the licensee closed OEA 6293 stating that although preconditioning was applicable to Robinson, no evaluation was required because AR 97-00847 addressed the issue. The licensee subsequently closed AR 97-00847. However, the corrective actions for AR 97-00847 failed to identify and correct surveillance test Procedure OST- 251-2, Residual Heat Removal Pump B and Components Test, which directed the operators to vent the pump immediately prior to testing but did not impose any controls on the venting. As a result, the licensee continued the practice of unacceptably preconditioning the RHR pumps from 1997 through 2005.

<u>Analysis</u> The finding is greater than minor because it is associated with the procedure quality attribute of the Mitigating Systems Cornerstone and affects the cornerstone objective of ensuring the availability and reliability of systems that respond to events to prevent undesirable consequences. Unacceptable preconditioning of the RHR pump could mask a condition that renders the pump inoperable. The inspectors determined that the finding is of very low safety significance because it is not a design or qualification deficiency, does not represent an actual loss of safety function for a system or train, and is not risk significant due to a seismic, fire, flooding, or severe weather initiating event.

Enforcement 10CFR50, Appendix B, Criterion XVI, Corrective Action, requires, in part, that conditions adverse to quality shall be promptly identified and corrected. Contrary to the above, corrective actions in response to IN 97-16 and AR 97-00847 failed to identify and correct Procedure OST- 251-2, thus allowing unacceptable preconditioning of the RHR pumps to continue from 1997 to 2005. Because this failure to promptly identify and correct this inadequate procedure is of very low safety significance, and was entered into the CAP as AR 160962, it is being treated as an NCV, consistent with Section VI.A.1 of the NRC Enforcement Policy: NCV 05000261/2005-02

1R22 Surveillance Testing

a. Inspection Scope

For the five surveillance tests listed 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 are listed in the Attachment.

Test Procedure	Title	Date Inspected
OST-256	[Residual Heat Removal] Pump Pit Instrumentation's Check Valve Back Flow Testing (Annual)	April 19
OST-401-2	[Emergency Diesel Generator] B Slow Speed Start	April 25
OST-701-8*	V12-10 and V12-11 Inservice Valve Test	May 11
OST-901**	[Heating Ventilation Recirculation] Condensate Measuring System (Weekly)	May 15
OST-352-2	Containment Spray Component Test - Train B	June 23

*This procedure included inservice testing requirements. **This procedure was a Reactor Coolant System leakage detection surveillance.

b. Findings

No findings of significance were identified.

1R23 <u>Temporary Plant Modifications</u>

a. <u>Inspection Scope</u>

The inspectors reviewed the temporary modification described in Engineering Change 61452, Inhibit [Radiation Monitor]-19C [Steam Generator] Blowdown Isolation Function to verify that the modification did not affect the safety functions of important safety systems, and to verify that the modification satisfied the requirements of Procedure EGR-NGGC-005, Engineering Change, and 10 CFR 50, Appendix B, Criterion III, Design Control.

Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

Cornerstone: Emergency Preparedness

1EP1 Exercise Evaluation

a. Inspection Scope

Prior to the onsite inspection, an in-office review was conducted of the exercise objectives and scenario submitted to the NRC to verify that the exercise would test major elements of the Emergency Plan as required by 10 CFR 50.47(b)(14).

The onsite inspection consisted of reviewing and assessing the following items:

- The adequacy of the licensee's performance in the biennial exercise was reviewed and assessed regarding the implementation of the risk-significant planning standards in 10 CFR 50.47 (b) (4), (5), (9), and (10), which are emergency classification, offsite notification, radiological assessment, and protective action recommendations, respectively.
- The overall adequacy of the licensee's emergency response facilities with regard to NUREG-0696, Functional Criteria for Emergency Response Facilities, and Emergency Plan commitments. The facilities assessed were the control room simulator, technical support center, and emergency operations facility.
- Other performance areas besides the risk significant planning standards, such as the emergency response organization's (ERO) recognition of abnormal plant conditions, command and control, intra- and inter-facility communications, prioritization of mitigation activities, utilization of repair and field monitoring teams, interface with offsite agencies, and the overall implementation of the emergency plan and its implementing procedures.
- Past performance issues from NRC inspection reports and Federal Emergency Management Agency exercise reports to determine effectiveness of corrective actions as demonstrated during this exercise to ensure compliance with 10 CFR 50.47(b)(14).
- The post-exercise critique to evaluate the licensee's self-assessment of its ERO performance during the exercise and to ensure compliance with Section IV.F.2.g of Appendix E to 10 CFR Part 50.

Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

1EP4 Emergency Action Level and Emergency Plan Changes

a. Inspection Scope

The inspectors' review of revisions to the Emergency Plan, implementing procedures and emergency action level changes was performed to determine whether changes had decreased the effectiveness of the plan. The inspectors also evaluated the associated 10 CFR 50.54(q) reviews associated with non-administrative emergency plan, implementing procedure and emergency action level changes. The revisions 57 and 58 covered the period from December 6, 2004 to May 6, 2005. The inspection results were evaluated against criteria in 10 CFR 50.47(b)(4) and its related 10 CFR Part 50, Appendix E requirements; NUREG-0654, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, Revision 1, and Regulatory Guide 1.101, Emergency Planning and Preparedness for Nuclear Power Reactors, Revision 4.

Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

1EP6 Drill Evaluation

a. Inspection Scope

On April 5, the inspectors observed an emergency preparedness drill to verify licensee self-assessment of classification, notification, and protective action recommendation development in accordance with 10 CFR 50, 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.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator (PI) Verification

a. Inspection Scope

To verify the accuracy of the PI data for the PIs evaluated below, PI definitions and guidance contained in NEI 99-02, Regulatory Assessment Indicator Guideline, Revision 2, were used to verify the basis in reporting for each data element.

Cornerstone: Emergency Preparedness

The inspectors reviewed the procedure for developing data for the Emergency Plan performance indicators, which are: (1) Drill and Exercise Performance; (2) Emergency Response Organization Drill Participation; and (3) Alert and Notification System Reliability. The inspectors examined data reported to the NRC for the period October 2004 to March 2005. Procedural guidance for reporting PI information and records used by the licensee to identify potential PI occurrences were also reviewed.

• Drill and Exercise Performance

The inspectors verified the accuracy of the PI for Drill and Exercise Performance through review of a sample of drill and event records.

• Emergency Response Organization Drill Participation

The inspectors reviewed selected training records to verify the accuracy of the PI for ERO drill participation for personnel assigned to key positions in the ERO.

Alert and Notification System Reliability

The inspectors verified the accuracy of the PI for alert and notification system reliability through review of a sample of the records of periodic system tests.

Documents reviewed are listed in the Attachment.

b. <u>Findings</u>

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 CAP. The review was accomplished by reviewing daily ARs.

.2 <u>Annual Sample Review</u>

a. Inspection Scope

The inspectors selected AR 153584, [Emergency Diesel Generator] A Clearance Near Miss for detailed review. The inspectors selected this AR because it relates specifically to the Mitigating Systems 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 CAP as delineated in Procedure CAP-NGGC-0200, Corrective Action Program, and 10 CFR 50, Appendix B.

Documents reviewed are listed in the Attachment.

b. Observations and Findings

No findings of significance were identified.

- .3 <u>Semi-Annual Trend Review</u>
 - a. Inspection Scope

The inspectors performed a review of the CAP and associated documents to identify trends that could indicate the existence of a more significant safety issue. The inspector's review focused on repetitive equipment issues, but also considered the results of daily inspector CAP item screening discussed in Section 4OA2.1, licensee trending efforts, and licensee human performance results. The inspector's review nominally considered the six month period of January 2005, through June 2005,

although some examples expanded beyond those dates when the scope of the trend warranted. The review included issues documented outside the normal CAP in major equipment problem lists, repetitive and/or rework maintenance lists, departmental problem/challenges lists, system health reports, quality assurance audit/surveillance reports, self assessment reports, and Maintenance Rule assessments. The inspectors compared and contrasted their results with the results contained in the latest monthly and quarterly trend reports. Corrective actions associated with a sample of the issues identified in the trend reports were reviewed for adequacy. The specific documents reviewed are listed in the Attachment.

The inspectors also evaluated the trend reports against the requirements of the CAP as specified in 10 CFR 50, Appendix B, Criterion XVI, and in Procedures CAP-NGGC-0200, Corrective Action Program, and CAP-NGGC-0206, Corrective Action Program Trending and Analysis.

b. Assessment and Observations

No findings of significance were identified. The inspectors observed that through their trending methodology, the licensee had performed a detailed review. The licensee routinely reviewed cause codes, involved organizations, key words, and system links to identify potential trends in the CAP data. The inspectors compared the licensee's process results with the results of the inspectors' daily screening, and did not identify any discrepancies or potential trends in the CAP data that the licensee had failed to identify. However, the inspectors noted that Procedure CAP-NGGC-0206 states, in part, that the unit/section roll-up meetings are opportunities for line organizations to conduct cognitive trending, which the procedure defines as the process of maintaining a mental awareness of recent events and identifying trends via association of like items. While reviewing the monthly trend reports, the inspectors noted that some personnel who attended unit/section roll-up meetings did not attend consistently. The inspectors considered that meeting participants would be able to perform cognitive trending in the unit/section roll-up meetings only if they attended those meetings, and that such trending would be most effective if meeting participants missed no meetings. Because some meeting participants had not consistently attended unit/section roll-up meetings, the inspectors concluded that the licensee had not been able to derive the full benefits of cognitive trending. To address this conclusion, the licensee initiated AR 161018.

4OA5 Other Activities

.1 Operational Readiness of Offsite Power (Temporary Instruction 2515/163)

The inspectors collected data from licensee maintenance records, corrective action documents and procedures, and through interviews of station engineering, maintenance, and operations staff, as required by TI 2515/163. Appropriate documentation of the inspection results was provided to headquarters staff for further analysis, as required by the TI. This completes the Region II inspection requirements for this TI for the Robinson site.

4OA6 Meetings, Including Exit

On July 6, 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. On July 20, the inspectors further discussed inspection results with Mr. Bill Noll and other members of his staff.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee personnel

- R. Ivey , Operations Manager
- C. Church, Engineering Manager
- E. Caba, Engineering Superintendent
- B. Clark, Nuclear Assurance Manager
- J. Huegel, Maintenance Manager
- W. Noll, Director of Site Operations
- E. Kapopoulos, Outage Management Manager
- D. Stoddard, Plant General Manager
- W. Farmer, Engineering Superintendent
- J. Lucas, Manager, Support Services Nuclear
- J. Moyer, Vice President, Robinson Nuclear Plant
- A. Cheatham, Radiation Protection Superintendent
- S. Wheeler, Supervisor, Regulatory Support
- G. Ludlum, Training Manager

NRC personnel

P. Fredrickson, Chief, Reactor Projects Branch 4

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

<u>Opened</u>		
05000261/2005003-01	URI	Failure of Two Procedures to Have Appropriate Acceptance Criteria for Restoration of RCP Seal Cooling (Section 1R17)
Opened and Closed		
05000261/2005003-02	NCV	Failure to Identify and Correct a Surveillance Procedure That Unacceptably Preconditions the Residual Heat Removal Pumps (Section 1R19)
Closed		
None		
Discussed		
None		

LIST OF DOCUMENTS REVIEWED

Section 1R04: Equipment Alignment

Partial System Walkdown

Chemical and Volume Control:

OP-301, Chemical and Volume Control System, Rev. 82

Drawing 5379-685, Chemical and Volume Control System Purification and Make-Up Flow Diagram, Sheet 2 of 3, Rev. 57

Drawing 5379-685, Chemical and Volume Control System Purification and Make-Up Flow Diagram, Sheet 1 of 3, Rev. 50

<u>B Emergency Diesel Generator</u>: Procedure OP-604, Diesel Generators A and B, Revision 64 Drawing G-190-204-A, Emergency Diesel Generator System, Revision 29

<u>A Safety Injection Train</u>: Drawing 5379-1082, Safety Injection System Flow Diagram, Sheet 1 of 5, Rev. 42 Drawing 5379-1082, Safety Injection System Flow Diagram, Sheet 2 of 5, Rev. 45

Section 1R05: Fire Protection

Sections in UFSAR Appendix 9.5.1A, Fire Hazards Analysis 3.1.5.4, Fire Zone 19 - Unit 2 Cable Spreading Room 3.1.3.1, Fire Zone 7 - Auxiliary Building Hallway (Ground Floor) 3.1.8.2, Fire Zone 11 - Pipe Alley 3.1.5.7, 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

<u>Procedures</u>: OP-804, Halon Suppression System, Rev. 15 OST-630, Halon 1301 Suppression system Weight Test, (Semi-Annual), Rev. 26

Completed Procedures:

results from OST-611-6, Low Voltage Fire Protection and Actuation System Zones 11 and 13 (Semi-Annual), Rev. 3

results from OST-611-10, Low Voltage Fire Protection and Actuation System Zones 16, 17, 18, 29 and 30 (Semi-Annual), Rev. 6

results from OST-611-11, Low Voltage Fire Protection and Actuation System Zones 19 and 20 (Semi-Annual), Rev. 4

results from OST-611-12, Low Voltage Fire Protection and Actuation System Zones 22 and 23 (Semi-Annual), Rev. 3

results from OST-611-4, Low Voltage Fire Protection and Actuation System Zones 8 and 28 (Semi-Annual), Rev. 2

4

results from OST-624, Fire Damper Inspection (18 Month), Rev. 19 results from OST-627, Functional Test of the Emergency Diesel Generators [Carbon Dioxide]

Cardox Suppression System (Annual) , Rev. 25

<u>Other documents</u>: Drawing HBR2-9716, Fire Barrier Penetrations, Sheet 324, Rev. 5 Drawing HBR2-9716, Fire Barrier Penetrations, Sheet 332, Rev. 2

Section 1R06: Flood Protection Measures

UFSAR Sections:

3.6.2, Postulated Piping Failures in Fluid Systems Outside of Containment
2.4.2, Floods
3.4 Water level (Flood) Design
Figure 1.2.2-5, General Arrangement Reactor Auxiliary Building Plans, Rev. 14

Other:

Calculation, RNP-F/PSA-0009, Assessment of Internally Initiated Flooding Events Abnormal Operating Procedure, AOP-022, Loss of Service Water Design Basis Document DBD/R87038/SD04, Service Water System Design Basis Document DBD/R87038/SD05, Emergency Diesel Generator System Genic Issues Document GID/R87038/0007, Hazards Analysis, Rev. 1 H. B. Robinson Steam Electric Plant Unit No. 2, Individual Plant Examination for External Events Submittal, June 1995

Procedure, OMM-021, Operations During Adverse Weather Conditions, Rev. 26 Procedure, OMM-048, Work Coordination and Risk Assessment, Rev. 24

Section 1R11: Licensed Operator Requalification

Procedure AOP-034, Security Events, Rev. 6 Procedure EPP-28, Loss of Ultimate Heat Sink, Rev. 4

Section 1R12: Maintenance Effectiveness

Action Requests

- 121479, [Level indicator]-496, C steam generator narrow-range level, was indicating 12 percent while the recorder and the redundant channels were indicating the program level of approximately 53 percent
- 113595, HVH-1, HVH-A1, and HVH-1B vibration trend
- 123426, Unplanned [Limiting Condition for Operation] Entry, Low Flow to HVH-1 During OST-302-2
- 137004, Clearance Order on HVH Cooling for Over 3 Months
- 121560, Evaluate Aggregate Effects of Multiple Equipment on [Technical Services Open Concerns] List

Maintenance Rule Records

For system 3005, Steam Generator:

- Event Log Report for 1/1/03 4/1/05
- Scoping and Performance Criteria
- Expert Panel Meeting Minutes
- Performance Summary

For pseudo-system 1001, Regulatory Guide 1.97 Instrumentation:

- Event Log Report for 1/1/03 4/1/05
- Scoping and Performance Criteria
- Expert Panel Meeting Minutes
- Performance Summary

For System 8150, HVAC Containment Building System:

- Scoping and Performance Criteria
- Event Log Report for 5/2003 5/2005
- Expert Panel Meeting Minutes
- Performance Summary

Other Documents Control-room operator logs for 3/15/04 Procedure SPP-038, Installation and Removal of Supplemental Cooling for HVH-1, 2, 3, & 4, Rev. 2

Section 1R13: Maintenance Risk Assessments and Emergent Work Evaluation

Procedure OMM-048, Work Coordination and Risk Assessment, Rev. 24

Section 1R14: Personnel Performance During Nonroutine Plant Evolutions

Procedure OP-105, Maneuvering the Plant When Greater Than 25 percent Power, Rev. 32

Section 1R15: Operability Evaluations

Engineering Change 52332, [Steam Generator A Steam Flow Transmitter]-475 Replacement AR 90488, [Abnormal Operating Procedure]-025 Entry on Failure of [Steam Generator A Steam Flow Transmitter]-475

AR 157455, A Steam Generator Secondary Side Manway Leak Procedure PLP-102, Operability Determinations, Rev. 10

Section 1R16: Operator Work-Arounds

RNP UNIT 2 WORKAROUNDS, revised 4/18/05 RNP OPERATOR WORKAROUND LOG, updated 3/24/05 Work-Around 05-03, A Ground on 480 Volt Bus V Will Not Alarm APP-009-E7 Procedure, APP-009, Main Generator and Electrical, Rev. 32 Procedure, OMM-035, Ground Isolation, Rev. 8 Procedure EDP-003, [Motor Control Center Buses], Rev. 35 System Description, SD-016, 480/120VAC Electrical Systems, Rev. 10

Section 1R17: Permanent Plant Modifications

Action Requests

43957, No Procedure for Using [Emergency Diesel Generator] Field Flash Battery

144489, Westinghouse Technical Bulletin 4-22

120436, RCP Seal Leakage Resolution Improvement

109283, NRC WCAP 15603 R1 SER Accept PRA Guidance for RCP Seal LOCA

160357, Loss of All RCP Seal Cooling technical requirements analysis

64030, RNP PSA Peer Review Analytical Basis/Methodology Findings & Observations B-Level 159795, Loss of Supporting Documentation Supporting EPP-3 Changes

159249, OMM-044, Rev 5 (add material that describes how WOG maintenance items are to be processed and the manner in which potentially safety significant deviations from the ERG are to be evaluated.)

Calculations

RNP-E-8.050, Appendix R Transient and Timeline, Rev. 0 RNP-I/INST-1015, Condensate Storage Tank Level Uncertainty RNP-F-PSA-0043, PSA Model Section 4.0 - Event Tree and Accident Sequence Development RNP-M-MECH-1712, Appendix R Mechanical Basis

Engineering Changes

47253, Removal of Field Flash Batteries, Rev. 3 55571, Condensate Storage Tank - Technical Specification Limit Alarm, Rev. 4 59037, Install Deepwell Pump D, Rev. 3

Procedures

DSP-2, Hot Shutdown Using the Dedicated/Alternate Shutdown System, Rev. 30 DSP-2-BD, DSP-2 Basis Document, Rev. 30 EPP-1, Loss of All AC Power, Rev. 33 EPP-1-BD, EPP-1 Basis Document, Rev. 33 EPP-22, Energizing Plant Equipment Using Dedicated Shutdown Diesel Generator, Rev. 20 EPP-22-BD, EPP-22 Basis Document EPP-28, Loss of Ultimate Heat Sink, Rev. 3 EPP-28-BD, EPP-28 Basis Document, Rev. 3 OMM-001-12, Minimum Equipment List and Shift Relief, Rev. 40 OP-402, Auxiliary Feedwater System, Rev. 62 Other Documents

Amendment No. 133 to the Facility Operating License including the safety evaluation report, issued March 4, 1991, for the removal of the turbine redundant overspeed trip system

Annunciator Panel Procedure, APP-006, [Steam Generator Systems, Rev. 28

Design Basis Document DBD/R87038/SD16, Electrical Power Distribution System, Revision 0 Design Basis Document DBD/R87038/SD05, Emergency Diesel Generator System, Revision 0 Engineering Service Request 00-0042, action item 6, Appendix R Analysis for Fire Area A and HVAC

Final Safety Analysis Report Section 8.3.1.1.5, Emergency Power Systems

Final Safety Analysis Report Section 9.2.5, Condensate Storage Facilities

Final Safety Analysis Report Section 3.5, Missile Protection

Generic Issues Document GID/R87038/0007, Hazards Analysis, Rev.1

Letter NRC-92-310 Final Safety Evaluation Report of the Response to the Station Blackout Rule - H.B. Robinson Steam Electric Plant, Unit No. 2

Letter NRC-91-050, Station Blackout Rule - H.B. Robinson Steam Electric Plant, Unit No. 2

Letter NRC-91-547 Supplemental Safety Evaluation Report of the Response to the Station Blackout Rule - H.B. Robinson Steam Electric Plant, Unit No. 2

Letter NLS-91-273, Response to NRC Supplemental Safety Evaluation of the Response to the Station Blackout Rule

NRC Information Notice 2005-14: Fire Protection Findings Concerning Loss of Seal Cooling to Westinghouse Reactor Coolant Pumps

OMM-43 records for EPP-22, Rev. 9

OMM-43 records for EPP-22, Rev. 8

OMM-43 records for DSP-002, Rev. 23

PLP-032 screen for EPP-3 (DCF 97-P-1696 LOG: 97-0164)

RIS 2000-002, Closure of GSI 23, Reactor Coolant Pump Seal Failure

RNP Program Health Report: Station Blackout, 1/28/05

RNP-RA/00-0058, H.B. Robinson ... Review of Commitments Regarding Reactor Coolant Pump Seals

Safety Evaluation of Topical Report WCAP-15603, Rev. 1, WOG 2000 Reactor Coolant Pump Seal Leakage Model for Westinghouse PWRs

Station Blackout Coping Analysis Report, 5/20/2003

System Description, SD-042, Auxiliary Feedwater System, Rev. 9

Technical Specification 3.7.5, Condensate Storage Tank

WCAP 10541, Reactor Coolant Pump Seal Performance Following a Loss of all AC Power

WCAP-15603, WOG 2000 Reactor Coolant Pump Seal Leakage Model for Westinghouse PWRs, Rev. 1

Westinghouse Technical Bulletin 4-22, Reactor Coolant Pump Seal Performance and Appendix R Compliance

WOG 97-034, Transmittal of 1996 [Emergency Response Guideline] Maintenance Program Update

WOG [Emergency Response Guideline] Maintenance Item DW 94-011

WOG-04-365, Request for Enforcement Discretion ... in Triennial FP Inspections

Section 1R19: Post Maintenance Testing

Procedures:

GP-007, Plant Cooldown from Hot Shutdown to Cold Shutdown, Rev. 64 OST-101-7, Comprehensive Flow Test for Charging Pump B, Rev. 8 OST-201-1, [Motor-Driven Auxiliary Feedwater] System Component Test - Train A, Rev. 24 OST-202, Steam Driven Auxiliary Feedwater System Component Test, Rev. 62 OST-251-2, [Residual Heat Removal] Pump B and Components Test OST-252-2, [Residual Heat Removal] System Valve Test - Train B, Rev. 14 OST-258-2, [Residual Heat Removal] Valve Position Indicator Verification - Train B, Rev. 4 OST-151-1, Safety Injection System Components Test - Pump A, Rev. 23 OWP-005, Chemical and Volume Control System (CVCS), Rev. 55 PIC-402, Charging Pump Governor Positioner, Rev. 6

SP-1516, Adjustment of Valve SI-958, Rev. 3

Drawings:

5379-685, Chemical and Volume Control System Purification and Make-Up Flow Diagram, Sheet, 2 of 3, Rev. 57

G-190197, Feedwater Condensate and Air Evacuation System Flow Diagram, Sheet 4 of 4, Rev. 54

Work Orders:

697255-02, Charging Pump B Speed Controller Positioner

616031-01, Perform checks and Scoop Tube Adjustment

382029-03, Inspect the [Steam Driven Auxiliary Feedwater Pump] Impeller for Signs of Cavitation

633868-01, Packing Adjustment Needed on Inboard and Outboard Gland of FCV-605

593826-01, Limitorque Grease Inspection of Valve CC-749B-MO

488857-01, Inspect MCC-6(10F) - Valve CC-749B-MO

676423-01, RHR 781B ([Residual Heat Removal] Pump B Casing Vent) Has a Small Leak

Other:

Design Basis Document DBD/R87038/SD21, Chemical and Volume Control System, Rev. 3 Design Basis Document DBD/R87038/SD32, Auxiliary Feedwater System, Rev. 9 Engineering Change 52753, [Containment Spray]/[Safety Injection] Pump Test Line, Rev. 14 Engineering Change 59629, [Containment Spray]/[Safety Injection] Pump Test Line Closeout of

[Safety Injection] Pump Testing, Rev. 0

FSAR Section 9.3.4, Chemical and Volume Control System

System Description SD-021, Chemical and Volume Control System, Rev. 9

Section 1R22: Surveillance Testing

Procedures

OST-256, [Residual Heat Removal] Pump Pit Instrumentation's Check Valve Back Flow Testing (Annual)

OST-401-2, [Emergency Diesel Generator] B Slow Speed Start, Rev. 28

OST-701-8, V12-10 and V12-11 Inservice Valve Test, Rev. 9

OST-901, [Heating Ventilation Recirculation] Condensate Measuring System (Weekly), Rev. 11 OST-352-2, Containment Spray Component Test - Train B, Rev. 25

Drawings

5379-1484, Residual Heat Removal System Flow Diagram, Sheet 1 of 1, Rev. 40 G-190200, Instrument and Station Air System Flow Diagram, Sheet 2 of 10, Rev. 31 HBR2-6933, Post Accident Containment Venting and [Hydrogen] Recombiner System, Rev. 19

Section 1R23: Temporary Plant Modifications

<u>Drawings</u>

B-190628, Control Wiring Diagram Radiation Monitors RM-19A, B and C, Sheet 1724, Rev. 2

- B-190628, Control Wiring Diagram Steam Generator C Blowdown Radiation Monitor RM19C, Sheet 1695, Rev. 6
- B-190628, Control Wiring Diagram [Steam Generator] Blowdown and Wet Lay-Up System, Sheet 672, Rev. 3

B-190628, Control Wiring Diagram, Sheet 628A, Rev. 6

B-190628, Control Wiring Diagram, Sheet 630C, Rev. 22

Other

Night Order 05-07, [Engineering Change] 61452_Inhibit R-19C Blowdown Isolation Function Engineering Change 61452, Inhibit R-19C Blowdown Isolation Function Off-Site Dose Calculation Manual, Rev. 26

Section 1EP1: Exercise Evaluation

Plans and Procedures

EPRAD-03, Dose Projections, Rev. 16

EPNOT-00, Notification and Emergency Communications, Rev. 2

EPNOT-01, CR/EOF Emergency Communicator, Rev. 19

EPCLA-00, Emergency Classification and Protective Action Recommendations, Rev. 2

EPCLA-01, Emergency Control, Rev. 17

EPCLA-02, Emergency Action Level User's Guide, Rev. 12

EPCLA-03, Generic Instructions, Rev. 4

EPRAD-00, Radiological Assessments and Consequences, Rev. 2

Section 1EP4: Emergency Action Level (EAL) and Emergency Plan Changes

50.54(q) Emergency Preparedness Program Evaluation of CRTN98043, RASCAL 3.0.3 Dose Assessment Software Implementation, revision 0

50.54(q) Emergency Preparedness Program Evaluation of PLP-007, Robinson Emergency Plan Revision 57

50.54(q) Emergency Preparedness Program Evaluation of PLP-007, Robinson Emergency Plan Revision 58

50.54(q) Emergency Preparedness Program Evaluation of EAL-1, Rev. 12

50.54(q) Emergency Preparedness Program Evaluation of EAL-1, Rev. 13

50.54(q) Emergency Preparedness Program Evaluation of EAL-2, Rev. 18

50.54(q) Emergency Preparedness Program Evaluation of EAL-2, Rev. 19

Section 4OA1: Performance Indicator (PI) Verification

<u>Procedures</u> EPPRO-04, EP Performance Indicators, Rev. 6

Records and Data

Documentation (shift log/event notification forms) of Notification of Unusual Event declaration on 12/27/2004

Documentation (scenario/time line/event notification forms) of ERO drill on 03/22/2005

Documentation of DEP opportunities from Operations Simulator evaluations on 01/26/2005, 02/15/2005

Selected training records of drill/exercise participation by ERO personnel during 2004-2005 Alert and Notification System Reliability data sheets for 4th Quarter 2004 and 1st Quarter 2005

Section 4OA2: Identification and Resolution of Problems

Procedures

CAP-NGGC-0205, Significant Adverse Condition Investigations, Rev.3 CAP-NGGC-0206, Corrective Action Program Trending and Analysis, Rev. 0 OMM-001-5, Training and Qualification, Rev. 30 OMM-001-9, Equipment Tagging, Rev. 15 OPS-NGGC-1301, Equipment Clearance, Rev. 15

Site-Wide Analysis of Condition Reports for Performance Trends

July 1 - September 30, 2004 October 1 - December 31, 2004 January 1 - March 30, 2004 April 1 - June 30, 2004

Environmental & Chemistry and Radiation Control CAP Rollup and Trend Analysis reports September, 2004 November, 2004 December, 2004 February, 2005

Engineering Monthly Performance Reports October, 2004 November, 2004 February, 2005 April, 2005

Maintenance CAP Rollup and Trend Analysis reports September, 2004 October, 2004 January, 2005 February, 2005 Operations CAP Rollup and Trend Analysis reports November, 2004 January, 2005 March, 2005

Other Documents

AR 153584, [Emergency Diesel Generator] A Clearance Near Miss Lesson Number OPI1301N, Clearance Training Lesson Number POI0005N, Independent Verification and Component Manipulation

Section 40A5: Other

Procedures

NGGM-IA-0003, Transmission Interface Agreement for Operation, Maintenance, and Engineering Activities at Nuclear Plants, Rev. 4

SORMC-GD-22, Robinson Plant Voltage Support & Coordination, Rev. 12

OP-604, Diesel Generators A & B, Rev. 61

OST-022, Weekly Surveillances, Rev. 9

OMM-048, Work Coordination and Risk Assessment, Rev. 24EPP-1, Loss of All AC Power, Rev. 33

AOP-26, Low Frequency Operation, Rev. 7

AOP-026-BD, Basis Document, Low Frequency Operation, Rev. 7

EPP-22, Energizing Plant Equipment Using Dedicated Shutdown Diesel Generator, Rev. 20 PLP-102, Operability Determinations, Rev. 10

Offsite Power System Operational Readiness NRC TI 2515/163 Response Guidelines; gs reports was distributed by Chris Georgeson

OMM-001-2, Shift Routines and Operating Practices, Rev. 44

Other Documents

Calculation RNP-E-8.002, Attachment O, Degraded Grid Voltage Relay Setpoint Basis Calculation

Technical Specification 3.8.1, AC Sources - Operating