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

April 28, 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 05000261/2005002

Dear Mr. Moyer:

On March 31, 2005, 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 April 13 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. On the basis of the results of this inspection, no findings of significance were identified.

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

Sincerely,

/RA/

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

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

Enclosure: Inspection Report 05000261/2005002
w/Attachment: Supplemental Information

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U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No:	50-261
License No:	DPR-23
Report No:	05000261/2005002
Licensee:	Carolina Power & Light (CP&L)
Facility:	H. B. Robinson Steam Electric Plant, Unit 2
Location:	3581 West Entrance Road Hartsville, SC 29550
Dates:	January 1, 2005 - March 31, 2005
Inspectors:	R. Hagar, Senior Resident Inspector D. Jones, Resident Inspector G. Laska, Senior Operations Engineer (Section 1R11) M. Bates, Operations Engineer (Section 1R11) F. Wright, Senior Health Physicist (Section 2PS3) R. Hamilton, Health Physicist (Sections 2OS3, 2PS1 and 4OA1)
Approved by:	P. Fredrickson, Chief Reactor Projects Branch 4 Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

IR 05000261/2005-002; 01/01/2005-03/31/2005; H.B. Robinson Steam Electric Plant, Unit 2; Routine Integrated Report.

The report covered a three month period of inspection by resident inspectors and announced inspections by regional operations engineers and health physicists. 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

None

B. Licensee-identified Violations

None

Enclosure

REPORT DETAILS

Summary of Plant Status The unit began the inspection period at full rated thermal power. On March 5, power was reduced to approximately 52 percent of full power to enable turbine valve testing and corrective maintenance on several components in secondary plant systems and the plant switchyard. The plant was returned to full power on March 6 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:

System Walked Down	SSC Out of Service	Date Inspected
Residual heat removal train B	Residual heat removal train A	January 27
Motor-driven auxiliary feedwater train A	Motor-driven auxiliary feedwater train B	January 31
Emergency diesel generator A	Emergency diesel generator B	March 2

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.

Complete System Walkdown:

The inspectors conducted a detailed review of the alignment and condition of the B emergency diesel generator to verify that the existing alignment of the system was consistent with the correct alignment. To determine the correct system alignment, the inspectors reviewed the procedures, drawings, and the Updated Final Analysis Report (UFSAR) section listed in the Attachment. The inspectors also walked down the system. During the walkdown, the inspectors reviewed the following:

- Valves were correctly positioned and did not exhibit leakage that would impact the functions of any given valve.
- Electrical power was available as required.
- Major system components were correctly labeled, lubricated, cooled, ventilated, etc.
- Hangers and supports were correctly installed and functional.

- Essential support systems were operational.
- Ancillary equipment or debris did not interfere with system performance.
- Tagging clearances were appropriate.
- Valves were locked as required by the licensee's locked valve program.
- Breakers were correctly positioned.
- Cabinets, cable trays, and conduits were correctly installed and functional.
- Visible cabling appeared to be in good material condition.

The inspectors reviewed the documents listed in the Attachment to verify that the ability of the system to perform its functions could not be affected by outstanding design issues, temporary modifications, operator workarounds, adverse conditions, and other system-related issues tracked by the Engineering Department.

The inspectors reviewed the following action requests (ARs) associated with this area, to verify that the licensee identified and implemented appropriate corrective actions:

- AR 149258, DG-38B Found Out of Position During Rounds
- AR 108767, Breaker 52/33D Found Not in the Position Specified in OP-602
- AR 96751, D [Instrument Air Compressor] Found Open Before Swapping [Instrument Air Compressor]

b. Findings

No findings of significance were identified.

1R05 Fire Protection

a. Inspection Scope

For the seven areas identified below, the inspectors reviewed the licensee's control of transient combustible material and ignition sources, fire detection and suppression capabilities, fire barriers, and any related compensatory measures, to verify that those items were consistent with 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:

Fire Zone	Description
25F & 25G	Turbine Building East/West Mezzanine and Operating Deck
25D	Dedicated Shutdown Diesel Generator
9 & 10	North and South Cable Vault
11	Station Battery Room

2	Diesel Generator A Room
26	Yard Transformers
20	E-1/E-2 Electrical Switchgear Room

Also, to evaluate the readiness of the licensee's personnel to prevent and fight fires, the inspectors observed fire brigade performance during the announced fire drill in the turbine building on February 7. The drill simulated an oil fire near the main turbine seal oil equipment.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification

Biennial Review

a. Inspection Scope

During the week of February 14-18, 2005, the inspectors reviewed documentation, interviewed licensee personnel, and observed the administration of simulator operating tests and job performance measures (JPMs) associated with the licensee's operator requalification program. Each of the activities performed by the inspectors was done to assess the effectiveness of the licensee in implementing requalification requirements identified in 10 CFR 55, "Operators' Licenses." Evaluations were also performed to verify that the licensee effectively implemented operator requalification guidelines established in NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," and Inspection Procedure 71111.11, "Licensed Operator Requalification Program." The inspectors also reviewed and evaluated the adequacy of the licensee's simulation facility for use in operator licensing examinations. The inspectors observed two crews during the performance of the operating tests. Documentation reviewed included written examinations, JPMs, simulator scenarios, licensee procedures, on-shift records, licensed operator qualification records, watchstanding and medical records, simulator modification request records, performance test records, the feedback process, and remediation plans. The records were inspected against the criteria listed in Inspection Procedure 71111.11. Documents reviewed during the inspection are listed in the Attachment.

b. Findings

No findings of significance were identified.

Annual Review

a. Inspection Scope

On February 24, 2005, the licensee completed the comprehensive requalification biennial written examinations and annual operating tests, required to be given to all licensed operators by 10 CFR 55.59(a)(2). The inspectors performed an in-office review of the overall pass/fail results of the written examinations, individual operating tests, and the crew simulator operating tests. These results were compared to the thresholds established in NRC Inspection Manual Chapter 0609, Appendix I, Operator Requalification Human Performance Significance Determination Process.

b. Findings

No findings of significance were identified.

Quarterly Review

a. Inspection Scope

The inspectors observed licensed-operator performance during requalification simulator training for crew 5 to verify that operator performance was consistent with expected performance, as described in Dynamic Simulator Scenario Examination, DSS-016, Rev. 8. This training tested the operators' ability to respond, in part, to the loss of the start-up transformer, a reactor trip due to low frequency on the grid, and loss of all alternating current power. 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 Maintenance Effectiveness

a. Inspection Scope

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

The problems/conditions and their corresponding ARs were:

Performance Problem/Condition	AR
Auxiliary feedwater system relief valve AFW-13 failed to lift within the set pressure range	144512
The on/off indication for charging pump A was lost	139668
Steam driven auxiliary feedwater pump valve MS-V1-8C failed to fully open after breaker maintenance	137028

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

- the work week from January 29 - February 4, including emergent maintenance on switchyard breakers and troubleshooting on control rod control components

- the routine work week from February 19 - February 25

- the work week from February 26 - March 4, which included an extended outage of the B emergency diesel generator

- the work week from March 5 - March 11, which included a planned downpower to enable turbine valve testing and maintenance on switchyard transformers and a main circulating pump

- the work week from March 21 - March 25, which included emergent testing of a recently-installed deepwell pump

b. Findings

No findings of significance were identified.

1R14 Personnel Performance During Nonroutine Plant Evolutions

a. Inspection Scope

During the two non-routine evolutions identified 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% to 52% on March 5, to enable turbine valve testing and corrective maintenance on several components in secondary plant systems and the plant switchyard.

- The return to 100% power on March 6, following completion of the scheduled work.

Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations

a. Inspection Scope

The inspectors reviewed Inservice Testing Performance Evaluation 05-06, Evaluate Stroke-time Deviations in a Containment Isolation Valve. The inspectors assessed the accuracy of this evaluation, the use and control of any necessary compensatory measures, and compliance with the Technical Specifications (TS). The inspectors reviewed this evaluation to verify that it was completed in accordance with Procedure TMM-004, Inservice Testing Program. The inspectors compared the justifications provided in this evaluation to the requirements in the TS, the UFSAR, and associated design-basis documents, to verify that operability was properly justified and the subject component or system remained available, such that no unrecognized increase in risk occurred.

b. Findings

No findings of significance were identified.

1R16 Operator Work-Arounds

a. Inspection Scope

The inspectors reviewed the two operator workarounds identified below, to verify that they 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.

- Workaround 04-18, Postulated Fire in Zone 19 or 20
- Workaround 04-14, Spurious [Reactor Coolant Pump] Thermal Barrier Low Flow Alarm

Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R17 Permanent Plant Modifications

a. Inspection Scope

The inspectors reviewed the modification described in Engineering Change 59037, Install Deepwell Pump D, to verify that:

- this modification did not degrade the design bases, licensing bases, and performance capabilities of risk significant SSCs,

- implementing this modification did not place the plant in an unsafe condition, and

- the design, implementation, and testing of this modification satisfied the requirements of Procedure EGR-NGGC-005, Engineering Change, and 10CFR50. Appendix B, Criterion III, Design Control.

Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R19 Post Maintenance Testing

a. Inspection Scope

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

The following tests were inspected:

Test Procedure	Title	Related Maintenance Activity	Date Inspected
OST-302-1	Service Water Pumps A and B Inservice Test	Service water pump A motor replacement	January 26
OST-202	Steam Drive Auxiliary Feedwater System Component Test	Calibrate pressure gauge and troubleshoot steam leak	February 21
OP-604	Diesel Generators “A” and “B”	On emergency diesel generator B, connect piping to the jacket water cooler, calibrate pressure gauges, and replace a generator bearing insulation ring	March 2
OST-252-1	Residual Heat Removal Pump B and Components Test	Repair a service-water leak in the room cooler associated with residual heat removal pump B	March 9
OST-401-1	[Emergency Diesel Generator] A Slow Speed Start	On emergency diesel generator A, connect piping to the jacket water cooler and perform other maintenance	March 16

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing

a. Inspection Scope

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

Test Procedure	Title	Date Inspected
OST-201-1**	[Motor Driven Auxiliary Feedwater] System Component Test - Train A	January 3
OST-401-2	[Emergency Diesel Generator] B Slow Speed Start	January 4
SP-1516	Adjustment of [safety injection pump full flow test flow control] Valve SI-958	January 12
OST-701-5*	Reactor Coolant System Inservice Valve Test	January 31
OST-101-1	[Chemical & Volume Control System] Component Test Charging Pump A	February 7

* This procedure included testing of a containment isolation valve.
** This procedure included inservice testing requirements.

The inspectors also reviewed AR 120414, Equipment Unavailability Associated with Surveillance Testing, to verify that the licensee identified and implemented appropriate corrective actions.

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications

a. Inspection Scope

The inspectors reviewed the two temporary modifications described in the Engineering Changes (ECs) listed below to verify that the modifications did not affect the safety functions of important safety systems, and to verify that the modifications satisfied the requirements of 10CFR50, Appendix B, Criterion III, Design Control.

- EC 58495, HVH-7B Room Cooler Temporary Repair

- EC 60066, Disable APP-001-D1 [Reactor Coolant Pump] Thermal Barrier Low Flow Alarm

Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

Cornerstone: Emergency Preparedness

1EP6 Drill Evaluation

a. Inspection Scope

On March 22, the inspectors observed an emergency preparedness drill to verify licensee self-assessment of classification, notification, and protective action recommendation development in accordance with 10CFR50, Appendix E. The inspectors also attended the post-drill critique to verify that the licensee properly identified failures in classification, notification and protective action recommendation development activities. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstones: Occupational Radiation Safety and Public Radiation Safety

2OS3 Radiation Monitoring Instrumentation and Protective Equipment

a. Inspection Scope

Area Radiation Monitoring and Post-Accident Sampling Systems The operability, availability, and reliability of selected direct area radiation monitors (ARM) and continuous air monitoring equipment used for routine and accident monitoring activities were reviewed and evaluated. The inspectors directly observed ARM equipment material condition, installed configurations (where accessible), and reviewed results of performance checks for selected monitors. Procedurally established alarm set-points were corroborated and performance check details were reviewed for selected ARM equipment. Current calibration data for selected radiation monitoring equipment listed in the Attachment were reviewed and discussed with responsible staff.

The inspectors evaluated Post Accident Sampling System (PASS) program activities. The evaluation included observation of the material condition of PASS equipment/instrumentation, and discussions with licensee staff concerning current PASS sampling procedures.

Program guidance, performance activities, and equipment material condition for the direct radiation detection instrumentation and continuous air sampling equipment were reviewed against 10 CFR Part 20; 10 CFR 50, Appendix A, Criterion 60 and 64; UFSAR Section 12; and associated procedures. Radiation detection and sampling equipment required for use in accident monitoring also was reviewed against applicable sections of NUREG 0737, Clarification of TMI Action Plan Requirements, and RG 1.97, Instrumentation for Light-Water-Cooled Nuclear Power Plants to Assess Plant and Environs Conditions During and Following an Accident, Revision (Rev.) 3. Licensee guidance documents, records, and data reviewed within this inspection area are listed in the Attachment.

Personnel Survey Instrumentation Current program guidance, including calibration and operation procedures, and its implementation to maintain operability and accuracy of selected portable survey instruments, was reviewed and evaluated. Responsible staff's knowledge and proficiency regarding on-site instrumentation calibration activities were evaluated through observations, interviews, and record reviews. The inspectors interviewed a health physics (HP) supervisor regarding the licensee's program for the use of electronic dosimeter (ED) equipment. The inspectors reviewed current calibration data for selected personnel survey instruments and assessed operability of various portable survey instruments staged or in use by the HP staff. The inspectors reviewed the calibrations for an Eberline teletector serial number (S/N) 37376 and an SAIC portable air sampler S/N 777037 that were used by health physics technicians (HPTs) providing job coverage of the spent fuel pool skimmer system filter change out.

The operability and sensitivity of the licensee's small article monitor (SAM), personnel contamination monitor (PCM), and portal monitor (PM) equipment were reviewed and evaluated. The SAM, PCM and PM detectors that were reviewed included equipment staged at the RCA exit point. For selected SAM, PCM, and PM equipment, current calibration and recent operational/performance test surveillance data, as applicable, were evaluated. Inspectors also observed licensee staff performing monthly radiation response checks on selected equipment, and reviewed these checks against applicable procedures.

Licensee activities associated with personnel radiation monitoring instrumentation were reviewed against UFSAR Section 12, 10 CFR 20.1204 and 20.1501, and applicable licensee procedures listed in the Attachment.

Respiratory Protection - Self-Contained Breathing Apparatus (SCBA) The licensee's respiratory protection program guidance and its implementation for SCBA equipment were evaluated. The number of staged SCBA units, including spare bottles, and their general material and operating condition were observed during tours of the control room, the operations support center, and the turbine building. The inspectors reviewed and evaluated current records associated with supplied air quality and maintenance of staged SCBA equipment. Proficiency and knowledge of staff responsible for maintaining SCBA equipment were evaluated through discussions and demonstration of an SCBA monthly functional test on selected units. The inspectors reviewed records of the training status for SCBA qualified individuals and observed storage and availability of prescription lens inserts for control room staff. The licensee's capability for refilling

and transporting air bottles to and from the control room during emergency situations was also discussed with cognizant licensee personnel.

Licensee activities associated with maintenance and use of SCBA equipment were reviewed against 10 CFR Part 20.1703; UFSAR Section 12; RG 8.15, Acceptable Programs for Respiratory Protection, Rev. 1; ANSI-Z88.2-1992, American National Standard Practices for Respiratory Protection; and applicable procedures as listed in the Attachment.

Problem Identification and Resolution The inspectors reviewed internal assessments of Radiation Protection (RP) activities, focusing on findings related to area radiation monitoring equipment, portable radiation detection instrumentation, and respiratory protection program activities. The inspectors evaluated the licensee's ability to identify, characterize, prioritize, and resolve the identified issues. Specific corrective action program documents reviewed and evaluated are listed in the Attachment. Reviews of internal exposures exceeding 50 millirem (mrem) were also discussed with cognizant licensee personnel.

b. Findings

No findings of significance were identified.

2PS1 Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems

a. Inspection Scope

Effluent Processing Equipment The inspectors walked down accessible portions of the gaseous and liquid radioactive effluent processing systems including abandoned equipment. The abandoned liquid waste processing systems were evaluated for evidence of past or present leakage. The active liquid and gaseous processing equipment was evaluated for material condition. This evaluation included reviews of condition reports that had been generated in response to system problems and the system engineers' system health reports for gaseous radioactive waste and liquid radioactive waste processing systems.

The inspectors walked down radiological effluent process monitors to evaluate their material condition. The reviewed documentation associated with these monitors included: out-of-service logs; condition reports and calibration records. The inspectors reviewed the system engineers' system health reports associated with radiological monitoring systems.

The inspectors reviewed the calibration surveillance records for the following effluent monitors: R-11/12 containment vent air or plant stack, R-14 A-E plant stack, R-16 containment cooling water liquid, R-18 liquid waste disposal effluent, and R-19 A-C steam generator blowdown. The inspectors also reviewed the calibration records for the flow rate instrumentation for the plant vent, liquid rad waste and blowdown pathways.

Installed configuration, material condition, operability, and reliability for selected effluent sampling and monitoring equipment were reviewed against details documented in 10 CFR Part 20, the UFSAR, the ODCM, and RG 1.21, "Measuring, Evaluating, and Reporting Radioactivity in Solid Wastes and Releases of Radioactive Materials in Liquid and Gaseous Effluents from Light-Water-Cooled Nuclear Power Plants." Procedures and records reviewed during the inspection are listed in the Attachment.

Effluent Release Processing and Radiological Effluent Quality Control (QC) Activities
The inspectors directly observed and evaluated licensee proficiency in effluent release processing. The evaluation included a review of effluent release procedural guidance. The inspectors reviewed five release permits, including two batch liquid releases, a continuous liquid release, a batch gas release and a continuous gas release. This review included a comparison of pre-release to post-release dose calculation results and reconciliation of differences for each permit. The inspectors observed the preparation of one of the batch liquid release permits.

Gamma spectroscopy, liquid scintillation counting and low background alpha/ beta counting instrumentation QC activities were discussed with count room technicians and chemistry supervision. The inspectors reviewed records of daily QC checks, instrument statistical control charts and trending data for selected gamma spectroscopy detectors, liquid scintillation detectors and low background alpha/beta monitors. In addition, quarterly results of the radiochemistry cross-check program were discussed for calendar year (CY) 2002 through 2004. The inspectors also reviewed the 2002 and 2003 Annual Effluent Report to identify any anomalous releases. Reviewed documents are listed in the Attachment.

Observed task evolutions, offsite dose results, and count room activities were evaluated against RG 1.21 guidance, 10 CFR Part 20 requirements, Appendix I to 10 CFR Part 50 design criteria, UFSAR details, and ODCM requirements.

Problem Identification and Resolution Licensee corrective action program documents associated with effluent release activities were reviewed and assessed. The inspectors reviewed licensee self assessments for radiation monitoring systems, post maintenance testing of radiation monitoring systems, and gamma spectroscopy. The inspectors evaluated the licensee's ability to identify, characterize, prioritize, and resolve the identified issues. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

2PS3 Radiological Environmental Monitoring Program (REMP) and Radioactive Material Control Program

a. Inspection Scope

REMP Implementation The licensee's Annual Radiological Environmental Operating Report for calendar year 2003 and REMP activities for 2004 were reviewed and

discussed with cognizant licensee representatives. The inspectors discussed and evaluated the reported data for trends in radionuclide concentrations, anomalous/missing data, and land-use census information. QC activities and data for selected sample types listed in the report were reviewed and evaluated. Air sample pump air flow calibration data was also reviewed.

Equipment operational status and staff proficiency for implementing REMP activities were assessed through a review of records, observations of equipment material condition and operating characteristics, assessment of selected sample collection activities, and discussion of collection techniques for sample matrices not directly observed. Collection of weekly air particulate filters/charcoal cartridges and air flow rate determinations were observed at all sampling station locations. During observations of air sample collection, the inspectors evaluated the proficiency of collection staff and assessed the adequacy and implementation of selected collection techniques.

The inspectors also reviewed personnel qualifications to verify that the persons collecting environmental samples were qualified as required by licensee procedures.

REMP guidance, implementation, and results were reviewed against ODCM details and applicable procedures listed in the Attachment. Environmental laboratory activities including processing and analysis are performed at the Harris Environmental Monitoring Laboratory and were not reviewed during this inspection.

Meteorological Monitoring Program The inspectors toured the meteorological tower and its supporting instrumentation and observed the physical condition of the equipment. The inspectors compared system generated data with data from the control room instrumentation. The data was also compared with the inspectors' observations of wind direction and speed measured at the tower. The inspectors also assessed system reliability and data recovery. Meteorological tower siting was evaluated based on near-field obstructions, ground cover, proximity to the plant, and distance from terrain that could affect measurement accuracy. The meteorological tower data recovery for CY 2004 was greater than 90 percent as described in Section 2.3.3. of the UFSAR.

Licensee procedures and activities related to meteorological monitoring were evaluated for consistency with TSs, ODCM, UFSAR Section 2.3, Meteorology, and ANS/ANSI 3.11-2000, "Determining Meteorological Information at Nuclear Facilities." Licensee's meteorological monitoring related procedures, reports and records reviewed during the inspection are listed in the Attachment.

Unrestricted Release of Materials from the Radiologically Controlled Area (RCA)
RP program activities associated with the unconditional release of potentially contaminated materials from RCA egress points were evaluated. The evaluation included a review of calibration records associated with the SAM equipment located at the RCA exit portal. The inspectors observed source checking of SAM equipment. Source activity and radionuclides used for checks and equipment minimum detectable activities were discussed with an instrument technician. Provisions for monitoring hard-to-detect nuclides were also discussed. Section 2OS3 describes additional checks on the instrumentation used to control the release of radioactive material.

The inspectors reviewed radiation detection sensitivities to verify that they were consistent with NRC guidance in IE Circular 81-07, Control of Radioactively Contaminated Material, May 14, 1981, IE Information Notice 85-92, and the ODCM. Documents reviewed are listed in the Attachment.

Problem Identification and Resolution Audits, self-assessments and selected licensee corrective actions associated with REMP, meteorological monitoring activities and unrestricted release of materials from the RCA were reviewed and discussed with responsible licensee representatives. The inspectors assessed the licensee's ability to identify, characterize, prioritize, and resolve the identified issues. Corrective action program documents were reviewed and evaluated for effective corrective actions. These documents are identified in the Attachment.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator (PI) Verification

a. Inspection Scope

The inspectors sampled licensee submittals for the PI indicated below for the period of June 2003 through December 2004. To verify the accuracy of the PI data reported during that period, PI definitions and guidance contained in NEI 99-02, Regulatory Assessment Performance Indicator Guideline, Rev. 2, were used to verify the basis in reporting for each data element.

Public Radiation Safety Cornerstone

RETS/ODCM Radiological Effluents Occurrence PI

The inspectors reviewed records used by the licensee to identify occurrences of quarterly doses from liquid and gaseous effluents in excess of the values specified in NEI 99-02 guidance. The records included the Annual Radiological Effluent Reports for CY 2003 and 2004, and release permits generated in 2005. The inspectors also interviewed licensee personnel that were responsible for collecting and reporting the PI data. In addition, licensee procedural guidance for classifying and reporting PI events was evaluated. Reviewed documents are listed in the Attachment.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems

Routine Review of Action Requests

.1 Routine Review of ARs

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

.2 Annual Sample Review

a. Inspection Scope

The inspectors selected AR 140240, Unanticipated [Technical Specification] Entry for HVE-19B, for detailed review. The inspectors selected this AR because it relates generally to the Barrier Integrity Cornerstone. The inspectors reviewed this report to verify:

- complete and accurate identification of the problem in a timely manner;
- evaluation and disposition of performance issues;
- evaluation and disposition of operability and reportability issues;
- consideration of extent of condition, generic implications, common cause, and previous occurrences;
- appropriate classification and prioritization of the problem;
- identification of root and contributing causes of the problem;
- identification of corrective actions which were appropriately focused to correct the problem; and
- completion of corrective actions in a timely manner.

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

b. Observations and Findings

No findings of significance were identified.

4OA5 Other Activities

Reactor Pressure Vessel Lower Head Penetration Nozzles

a. Inspection Scope

To verify that the licensee had visually inspected the entire circumference of every penetration of the reactor vessel lower head in accordance with NRC Bulletin 2003-02,

Leakage from Reactor Pressure Vessel Lower Head Penetrations and Reactor Coolant Pressure Boundary Integrity, the inspectors reviewed the licensee's docketed replies to that bulletin, interviewed the engineer who was responsible for the bottom-head inspection and the engineer who prepared the subject submittal, and reviewed the records developed by the licensee while completing that inspection. Documents reviewed are listed in the Attachment.

b. Findings and Observations

No findings of significance were identified. The inspectors confirmed that the licensee had visually inspected the entire circumference of every penetration of the reactor vessel lower head during the previous refueling outage.

4OA6 Meetings, Including Exit

.1 Exit Meeting

On April 13, 2005, the resident inspectors presented the inspection results to Mr. Bill Noll and other members of his staff. The inspectors confirmed that proprietary information was not provided or examined during the inspection.

.2 Annual Assessment Meeting Summary

On March 24, 2005, the NRC's Chief of Reactor Projects Branch 4, and Resident staff assigned to the H. B. Robinson Nuclear Plant met with Progress Energy - Carolina Power & Light (CP&L) to discuss the NRC's Reactor Oversight Process (ROP) and the Robinson annual assessment of safety performance for the period of January 1, 2004 - December 31, 2004. Attendees included CP&L management, CP&L site staff, one member of the Hartsville, SC, City Council, and two reporters.

This meeting was open to the public. The NRC's presentation material used for the discussion is available from the NRC's document system (ADAMS) as accession number ML051100436. ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Quarterly Integrated Inspection

Licensee personnel

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

NRC personnel

P. Fredrickson, Chief, Reactor Projects Branch 4

Annual Assessment Meeting Attendees

Licensee personnel

J. Moyer, Vice President, Robinson Nuclear Plant
W. Noll, Director of Site Operations
D. Stoddard, Plant General Manager
C. Baucom, Licensing Supervisor
M. Taylor, Manager, Progress Energy
D. McNeill, Robinson Communications

NRC Personnel

P. Fredrickson, Chief, Reactor Projects, Branch 4
R. Hagar, Robinson Senior Resident Inspector
D. Jones, Robinson Resident Inspector

Other Personnel

D. MacFarland, Hartsville S.C., City Council Member
W. Jeffcoat, Staff Writer, Hartsville Manager
T. Ward, Reporter, Florence Morning News

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Closed

None

Previous Items Closed

None

Discussed

None

Enclosure

LIST OF DOCUMENTS REVIEWED

Section 1R04: Equipment Alignment

Partial System Walkdown

RHR system:
Procedure GP-002, Cold Shutdown to Hot Subcritical at No Load [Temperature Average], Rev. 93
Procedure OP-201, Residual Heat Removal System, Rev. 48
Drawing 5379-1484, Residual Heat Removal System Flow Diagram, Sheet 1 of 1, Rev. 40

MDAFW system:
Procedure OMM-048, Work Coordination and Risk Assessment
Procedure OMM-009, Locked Valve List, Rev. 75
Drawing G-190197, Feedwater, Condensate and Air Evacuation system Flow, Sheet 1 of 4, Rev. 74
Drawing G-190197, Feedwater, Condensate and Air Evacuation system Flow, Sheet 4 of 4, Rev. 54

Complete System Walkdown

A list of open work orders on the B Emergency Diesel Generator
A list of ARs that involved Emergency Diesel Generator components during 2003 and 2004
Drawing G-190204-A, Emergency System Flow Diagram, Sheet 3 of 3, Rev. 18
Operating Procedure, OP-604, Diesel Generators A and B, Rev. 61
Corrective Action Program Procedure, CAP-NGGC-0206, Trending and Analysis, Rev. 0
Modification 59017, Alternate Cooling Water Supply and Discharge Piping for Emergency Diesel Generator B Heat Exchangers
The system health report for Emergency Diesel Generator, dated January 26, 2005
FSAR section, 8.3.1.1.5, Emergency Power Sources

Section 1R05: Fire Protection

Sections in UFSAR Appendix 9.5.1A, Fire Hazards Analysis
3.1.2, Appendix R Fire Area A2 (Fire Zone 2) - Diesel Generator A Room
3.1.5.2, Fire Zone 15 - Battery Room
3.1.5.6, Fire Zone 20 - Emergency Switchgear Room & Electrical Equipment Area
3.4, Appendix R Fire Area D (Fire Zone 9) - North Cable Vault
3.5, Appendix R Fire Area D (Fire Zone 10) - South Cable Vault 3.7.8, Fire Zone 26, - Yard Transformers
3.7.4, Fire Zone 25D - Dedicated Shutdown Diesel Generator
3.7.5, Fire Zone 25F - Turbine Building East Mezzanine
3.7.6, Fire Zone 25F - Turbine Building West Mezzanine
3.7.7, Fire Zone 25G - Turbine Building Operating Deck

Completed Procedures
OST-611-1, Low Voltage Fire Detection and Actuation System Zones 1 and 2 (Semi-Annual), Rev. 4, 2/14/05
OST-611-10, Low Voltage Fire Detection and Actuation System Zones 16, 17, 18, 29, & 30 (Semi-Annual), 12/7/04
OST-611-11, Low Voltage Fire Detection and Actuation System Zones 19 & 20 (Semi-Annual), 11/27/04
OST-620, Carbon Dioxide Suppression System Weight Test (Semi-Annual), 11/3/04
OST-624, Fire Damper Inspection (18-Month), 9/23/04
OST-626, Functional Test of the Cable Vault [Carbon Dioxide] Suppression System (Annual), Rev. 20. 3/2/05
OST-628, Function Test of the Halon 1301 System (Annual), Rev. 19, 10/7/04
OST-632, Unit [Number] 2 Fire Suppression Water System Flow Test (Three Year), Rev. 13, 8/27/02
OST-643, Startup/Auxiliary Transformer Deluge System Flow Test (Annually), Rev. 19, 6/13/04

Section 1R11: Licensed Operator Requalification

Quarterly Review
Dynamic Simulator Scenario Examination, DSS-016, Rev. 8
Procedure TAP-409, Conduct of Simulator Training and Evaluation, Rev. 14
Simulator Differences and Changes, Cycle 05-1, Rev. 0

Biennial Review
Robinson Nuclear Training Simulator Performance Tests:
Test # 4.1 “Manual Reactor Trip Transient Test” Revision 10 - 2004
Test # 4.2 “Simultaneous Trip of all MFW Pumps Transient Test” Revision 11 - 2004
Test # 4.5 “Single RCP Trip” Revision 10 - 2004
Test # 4.11 “Maximum Design Load Rejection Test” Revision 1 - 2004
Test # 4.9 “DBA Main Steam Line Break Transient Test” Revision 14 -2004

Open Simulator Service Requests (SSR)
SSR-04-5376
SSR-05-5922
SSR-05-5923

Dynamic Simulator Scenario Examinations
DSS-029 Revision 5
DSS-025 Revision 5

Job Performance Measures
JPM CR - 056 “Restore PRT to Normal Operating Conditions” Revision 1
JPM CR - 046 “Startup, Parallel and Load the Main Generator” Revision 14
JPM CR - 050 “Verify Natural Circulation” Revision 2
JPM ADM-002 “Classify An Event” Revision 4
JPM IP - 016 “Perform Local Actions Required for Loss of CCW AOP - 014" Revision 8
JPM IP - 012 “Utilize Dedicated Shutdown System to Restore RCP Seal Cooling IAW EPP - 22" Revision 8

Written Exams
Biennial SRO Exams -3W6S, 03C6W4S, 03C6W5S
Biennial RO Exams - 3W6R, 03C6W4R, 03C6W5R

Procedures
OMM-001-5 “Training and Qualification” Revision 29
Plant Operating Manual Vol. 8, Part 1, Training Program Procedure (TPP) -Simulator Program, Revision 15
Training Administrative Procedure (TAP)-403 Examination and Testing, Revision 18
TAP- 409 Conduct of Simulator Training and Evaluation, Revision 14
TAP- 410 NRC License Examination Security Program Revision 9
Plant Operating Manual Vol. 8, Part 1, TPP- 200 Licensed Operator /Shift Technical Advisor Continuing Training Program, Revision 8
TAP - 411 Simulator Setup, Revision 9
TAP-001 Training Conduct and Expectations, Revision 0
TAP - 502, Training Review Board, Revision 1
Nuclear Generation Group Support Department Procedure NGGS-TRN-0002, Performance Review and Remedial Training, Revision 1
Nuclear Generation Group Standard Procedure, Volume 99, Book/Part 99, TRN-NGGC-0300, Development Phase, Revision 0

Other Documents
LER 2003-001-00 04/24/2003
LER 2004-002-00 07/21/2004
Training Feedback Forms
Security Door Records (4)
Reactivation Records (4)
Medical Records (13)

Section 1R12: Maintenance Effectiveness

Action Requests
129041, Relief Valve AFW-13 Found with Manual Lift Engaged
136998, [Integrated technical specifications][limiting condition for operation] 3.3.4 condition A unanticipated entry - charging pump A
144512, Relief Valve AFW-13 Failed to Lift Within the Set Pressure Range
145912, As-Found Setpoint Test of AFW-13 was Unsatisfactory Due to Leakage
146013, Rework on AFW-13 Relief Valve Due to Seat Leakage
137028, MS-V1-8C Failed to Fully Open After Breaker Maintenance

Procedures
ADM-NGGC-0104, Work Management Process, Rev. 28
CAP-NGGC-0200, Corrective Action Program, Rev. 14
PM-493, E-023 - [Motor Control Center] Inspection and Cleaning

Maintenance Rule Documents
For the Chemical and Volume Control System (system 2060):
- Scoping and Performance Criteria
- Event Log for 1/1/03 - 2/10/05
- Expert Panel Meeting Minutes

- Performance Summary

For the Auxiliary Feedwater System (system 3065):
- Scoping and Performance Criteria
- Event Log for 1/1/03 - 2/21/05
- Expert Panel Meeting Minutes
- Performance Summary

For the Main Steam System (system 3020):
- Scoping and Performance Criteria
- Event Log for 9/14/02 - 2/14/05
- Expert Panel Meeting Minutes
- Performance Summary

Work Orders
612051, Indication lost for charging pump A
613490, [Auxiliary Feedwater System valve AFW-13] possibly leaking by, is hot to touch
64261-01, Perform Thermal Overload Test on MCC-6(18M)
64171-01, Trip Testing of MCC-6(18M)

Drawings
G-190196, Main and Extraction Steam Flow Diagram, Sheet 1 of 4, Rev. 55
B-190628, Control Wiring Diagram, Sheet 633A, Rev. 11
B-190628, Control Wiring Diagram, Sheet 627, Rev. 15

Section 1R14: Personnel Performance During Nonroutine Plant Evolutions

Procedure OP-105, Maneuvering the Plant When Greater than 25% Power, Rev. 32
Procedure OP-904, Circulating Water System, Rev. 19
Procedure OP-301, Chemical and Volume Control System, Rev. 82

Section 1R16: Operator Work-Arounds

Action Request 111308, Time Transient Conditions for Appendix R
Action Request 133328, APP-001-D1 Blue Dot Active Greater Than 30 Days
Drawing 5379-376, Component Cooling Water Flow Diagram, Sheet 2 of 4, Rev. 31
Drawing 5379-376, Component Cooling Water Flow Diagram, Sheet 3 of 4, Rev. 23
Procedure FP-001, Fire Emergency, Rev. 45
Procedure OMM-001-1, Operations Unit Organization and Administration, Rev. 24
Procedure EGR-NGGC-0005, Engineering Change, Rev. 22
Procedure APP-001, Miscellaneous [Nuclear Steam Supply System], Rev. 37
Procedure OMM-001-8, Control of Equipment and System Status, Rev. 28
Work Order 335741-01, APP-001-D1 Alarms Too Early / Setpoint is 50 [Gallons Per Minute], Flow is 74 [Gallons Per Minute]
Work Order 67350-01, Calibrate the Reactor Coolant Pump Temperature and Flow Instruments
Work Order 140680-01, Calibrate the Reactor Coolant Pump Temperature and Flow Instruments
Workaround 04-14, Spurious [Reactor Coolant Pump] Thermal Barrier Low Flow Alarm
Workaround 04-18, Postulated Fire in Fire Zone 19 or 20

Section 1R17: Permanent Plant Modifications

Action Request 148024, EC 59037 - Revise [EPP-28] for Deepwell Pump D
Calculation RNP-M/MECH-1769, Deep Well Pump D Thermal Hydraulic Analysis, Rev. 0
Calculation RNP-M/MECH-1712, Appendix R Mechanical Basis
Engineering Change EC 59037, Install Deepwell Pump "D"
Engineering Service Request 00-00042, Appendix R Analysis for Fire Area A and HVAC, Rev. 0
Letter CPL-87-570, Restoration of Seal Cooling Following Appendix R Fire Scenario
Letter OG-00-009, Transmittal of RCP Operation During Loss of Seal Cooling
Procedure EPP-28, Loss of Ultimate Heat Sink, Rev. 4
Procedure Basis Document EPP-28-BD, EPP-28 Basis Document
Procedure EGR-NGGC-005, Engineering Change
Sketch SK-59037-—2003, Well Water to Service Water Flow Path Methodology, Rev .A
Sketch SK-59037-E-3001, 2nd level Reactor Auxiliary Building and B Waste Evaporator Penthouse Cable and Raceway Layout, Rev. A
Sketch SK-59037-E-3002, Deep Well Pump D Cable and Conduit Layout, Rev. A
Sketch SK-59037-E-3003, Deep Well Pump D Cable and Conduit Layout, Rev. A
Vendor report WCAP 10541, Reactor Coolant Pump Seal Performance Following a Loss of All [Alternating Current] Power
Work Order 616124, Concurrent Modification Support for EC 59037

Section 1R19: Post Maintenance Testing

Procedures
OP-604, Emergency Diesel Generators "A" and "B", Rev. 60
OST-202, Steam Drive Auxiliary Feedwater System Component Test, Rev. 62
OST-252-1, Residual Heat Removal Pump B and Components Test, Rev. 20
OST-302-1, Service Water Pumps A and B Inservice Test, Rev. 43
OST-401-1,[Emergency Diesel Generator] A Slow Speed Start, Rev. 24
PM-479, Motor Testing, Rev. 4

Other Documents
Work Order 591335, Contingency Work Order - Replace A Service Water Pump Motor
Engineering Change 47186, Difference in Motor Nameplate and Design Documents

Section 1R22: Surveillance Testing

Procedures
OST-101-1, [Chemical & Volume Control System] Component Test Charging Pump A, Rev. 38
OST-201-1, [Motor Driven Auxiliary Feedwater] System Component Test - Train A, Rev. 24
OST-401-2, [Emergency Diesel Generator] B Slow Speed Start, Rev. 27
OST-701-5, Reactor Coolant System Inservice Valve Test, Rev. 15
ADM-NGGC-0101, Maintenance Rule Program, Rev. 17
OMM-001-11, Logkeeping, Rev. 33
SP-1516, Adjustment of Valve SI-958, Rev. 2

Other Documents
Drawing 5379-1082, Safety Injection System Flow Diagram, Sheet 2 0f 5, Rev. 44
Action Request 120414, Equipment Unavailability Associated with Surveillance Testing

Inservice Testing Performance Evaluation Number 05-01, Safety Injection Pump C, Dated 1/12/2005

Section 1R23: Temporary Plant Modifications

Action Requests
133328, APP-001-D1 blue dot active greater than 30 days
150911, [Flow Indicator Controller]-626 Intermittent Problems

Drawings
5379-376, [Component Cooling Water] Flow Diagram, Rev. 31, Sheet 2 of 4
5379-376, [Component Cooling Water] Flow Diagram, Rev. 23, Sheet 3 of 4
HBR2-11098, Annunciator Window Engraving & Input Tabulation APP-001, Rev. 1, Sheet 2

Engineering Changes
58495, HVH-7B Room Cooler Temporary Repair
58495, HVH- 6A and B, -7A and B, and -8A and B - Acceptability of Belzona Repairs
60066, Disable APP-001-D1, Disable APP-001-D1 [Reactor Coolant Pump] Thermal Barrier Low Flow Alarm

Procedures
CAP-NGGC-0200, Corrective Action Program, Rev. 14
EGR-NGGC-0005, Engineering Change, Rev. 22
OMM-001-8, Control of Equipment and System Status, Rev. 28
OMM-007, Equipment Inoperable Record, Rev. 63

Work Orders
328950, Calibrate the reactor coolant pump temperature and flow instrument
335741, APP-001-D1 alarms too early, 11/08/02
517431, Alarm on APP-001-D1, 2/4/04
529274, Open flow controller FIC-626 for [equipment qualification] inspection
542641, Alarms received without apparent cause 4/5/04
545288, Alarms received without apparent cause, 5/3/04
584276, APP-001-D1 spurious alarm received, 6/28/04
635825, HVH-7B Has a Minor Service Water Leak
657294, [Second Repair] on HVH-7B Cooler
667118, Disable APP-001-D1 annunciator window per EC 60066

Other Documents
Design Basis Document DBD/R87038/SD13, Component Cooling Water System, Rev. 6
Operator Shift Log for 2/2/05
Operator Shift Log for 9/19/04

Section 1EP6: Drill Evaluation

Participants' manual for the 2005 Emergency Preparedness Drill, March, 2005
NEI 99-02, Regulator Assessment Performance Indicator Guideline, November 2001, Rev. 2
Procedure EPPRO-01, Program and Responsibilities, Rev. 17

Section 2OS3: Radiation Monitoring Instrumentation and Protective Equipment

Procedures, Guidance Documents, and Manuals
AP-038, Administrative Procedure for SCBA and Fire Brigade Breathing Air Supply, Rev. 6
AP-504, Respiratory Protection Program, Rev. 1
DOS-NGGC-0020, Whole Body Counter (WBC) System Calibration
HPP-104, Verification and Operation of Breathing Air Supplies, Rev. 20
HPP-111, Control and Use of Respiratory Protective Equipment, Rev. 30
PLP-031 Contamination Monitoring Program for Personnel/Personal Effects, Rev. 27
RST-008, Calibration of Radiation Monitoring System, Monitors R-1 Through R-8, Rev. 25
RST-009, Calibration of Radiation Monitoring System, Monitors R-9, R-30, R-31A, B, C, and R-33, Rev. 21
RST-020, Verification of Electronic Calibration of Radiation Monitoring System Monitors R-32A&B, Rev. 16
RST-023, Routine Respirator Maintenance, Rev. 20
SIC-008, Calibration and Operation of the SAM9 Small Article Monitor, Rev. 10
SIC-037, Calibration and Operation of the APTEC PMW-3 Personnel Monitor, Rev. 11
SIC-038, Calibration Gamma-60 Portal Monitor, Rev. 1

Records, Data, and Drawings
Calibration Certificate, Eberline 6112B, s/n 37376, 12/09/04
Calibration Certificate, RO-2, s/n 2542, 10/15/04
Calibration Certificate, SAIC HD29A Portable Air Sampler, s/n 777037, 4/15/04
Calibration Data Sheet for the APTEC PMW-3, s/n 776552, 9/29/04
Calibration Data Sheet for the APTEC PMW-3, s/n 9512028, 6/04/04
Calibration Data Sheet for the FH40F3 micro-R meter, s/n 776935, 1/31/05
Calibration Data Sheet for the Gamma-60, s/n 910279, 1/18/05
Calibration Data Sheet for the Gamma-60, s/n 910280, 6/29/04
Calibration Data Sheet for the Ram Ion Chamber, s/n 777602, 1/31/05
Calibration Data Sheet for the SAM9, s/n 134, 11/18/04
Calibration Data Sheet for the SAM9, s/n 148, 1/12/05
RST-008, (Attachment) Calibration of Radiation Monitor System, Monitor R-1 (Control Room), 10/06/04
RST-008, (Attachment) Calibration of Radiation Monitor System, Monitor R-4 (Charging Pump Room), 9/14/04
RST-008, (Attachment) Calibration of Radiation Monitor System, Monitor R-7 (CV In-Core Instrumentation Room), 8/19/04
RST-009, (Attachment) Calibration of Radiation Monitor System, Monitor R-9 (Letdown Line Area), 8/17/04
RST-020, (Attachment) Calibration of Radiation Monitor System, Monitor R-32A Containment High Range Monitor (CHRM), 4/16/04
RST-020, (Attachment) Calibration of Radiation Monitor System, Monitor R-32A (CHRM), 10/08/02
RST-023, (Attachment) Routine Respirator Maintenance Certification Form for Select Units, 12/01/04
RST-023, (Attachment) Routine Respirator Maintenance Certification Form for Select Units, 01/27/05
SIC-002, Rev. 14, Attachment 10.1, Source Certification (for Shepard Calibrator), 8/05/04
SIC-002, Rev. 14, Attachment 10.2, Annual Verification (for Shepard Calibrator), 8/05/04

Corrective Action Program Documents
Dosimetry Program Self-Assessment Report, completed 8/26/04
Respiratory Protection Program Self-Assessment Report, completed 5/21/04
Radiation Control Remote Monitoring Self-Assessment Report, completed 8/20/04
R-RP-03-01, Radiation Protection Assessment (Robinson Nuclear Assessment Section (RNAS) 03-028), dated 4/02/03
Action Request Number (ARN) 14195, Contaminated Equipment Found at Bulk Warehouse, 10/27/04
ARN 126465, MVES Air Sample Head Out of Position, 5/9/04
ARN 146875, Unanticipated ODCM 2.6 Entry- Radiation Monitor R-19 Out Of Service (OOS), 12/29/04
ARN 144249, Unanticipated ODCM Entry Due to R-20 Failure, 11/20/04
ARN 137248, Unplanned ODCM Entry for R-22, 9/14/04
ARN 133977, Radiation Monitor R-3 Failure, 8/05/04

Section 2PS1: Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems

Procedures, Guidance Documents, and Operating Manuals
CP-003, Systems Sampling Procedure, Rev. 59
CP-008, Chemistry QC Charts, Rev. 9
EMP-022, Gaseous Waste Release Permits, Rev. 40
EMP-023, Liquid Waste Release and Sampling, Rev. 37
EMP-024, RETS Surveillance, Rev. 47
EMP-025, Gaseous Effluent Sampling and Analysis Requirements, Rev.37
EMP-028, Process Monitor Setpoint Determination, Rev. 22.
RCP-101, Preparation of Effluent and Non-effluent Samples Rev. 7
RST-001, Radiation Monitor Source Checks, Rev. 69
RST-010, Calibration of Radiation Monitoring System, Monitor R-11, Rev. 19
RST-011, Calibration of Radiation Monitor System Monitors R-12, R-20 and R-21, Rev. 20
RST-012, Calibration of Radiation Monitoring System Monitor R-14, Rev. 21
RST-014, Calibration of Radiation Monitoring System, Monitor R-16, Rev. 18
RST-016, Calibration of Radiation Monitor System, Monitor R-18, Rev. 20
RST-017, Calibration of Radiation Monitoring System, Monitors R-37 and R-19A, B, and C, Rev. 8
RST-026, Plant Vent Flow Monitor Calibration, Rev. 10

Records and Data
Gaseous Waste Out Of Service Log, 7/23/2002 to 12/17/04
Liquid Waste OOS Log, 11/19/2002 to 12/23/04
Radiation Monitor OOS Log, 7/23/2002 to 12/29/04
RST-010, Calibration of Radiation Monitoring System, Monitor R-11, 10/14/03
RST-011, Calibration of Radiation Monitor System, Monitors R-12, R-20, and R-21, 8/13/04
RST-012, Calibration of Radiation Monitoring System Monitor R-14 (R-14C), 10/11/03
RST-012, Calibration of Radiation Monitoring System Monitor R-14 (R-14E), 5/4/03
RST-014, Calibration of Radiation Monitoring System, Monitor R-16, 10/28/03
RST-016, Calibration of Radiation Monitoring System, Monitor R-18, 7/20/04
RST-017, Calibration of Radiation Monitoring System, Monitors R-37 and R-19A, B, and C [R-19A], 8/21/03
RST-017, Calibration of Radiation Monitoring System, Monitors R-37 and R-19A, B, and C [R-19B], 8/21/03

RST-017, Calibration of Radiation Monitoring System, Monitors R-37 and R-19A, B, and C [R-19C], 8/21/03
RST-026, Plant Vent Flow Monitor Calibration, 12/16/03
Work Order 00204666-01, Calibrate the Steam Generator Blowdown Steam Generator "B", 6/30/03
Work Order 00204667-01, Calibrate the Steam Generator Blowdown Steam Generator "A", 5/23/03
Work Order 00204668-01, Calibrate the Steam Generator Blowdown Steam Generator "C", 8/26/03
Work Order 00377585-01, Calibrate the Waste Disposal Release Flow Instruments, 11/25/04

Corrective Action Program Documents
Self Assessment: 54763, Radiation Monitoring System, 5/6-10/02
Self Assessment: 77017, Maintenance Rule(a)(3) Periodic Assessment [parts pertaining to radiation monitors], 10/6-9/03
Self Assessment: 77831: Radiochemistry, 7/14-17/03
Self Assessment: 77881, Gamma Analysis, 8/27-29/03
Self Assessment: 109288, Post Maintenance Testing Assessment [parts pertaining to radiation monitors], 9/20-30/04
Internal Audit: RNAS 04-021, Robinson Nuclear Plant Environmental and Chemistry Assessment, 3/15/04
System Health Report: Waste Gaseous System(including gas analyzer), 7/19/04
System Health Report: Radioactive Liquid Waste System, 7/28/04
System Health Report: Radiation Monitoring, 7/29/04
ARN 139273, On 10/6/2004 it was noted that the R-11 count rate had increased from 7100 to 8600 cpm over a period of a few hours. The increase was due to an increase in leakrate from 0.01 to 0.05 gpm inside containment.
ARN 129820, Carbon vane sample pump failed. [Monitor R11/12]
ARN 131202, Sample pump failed. [Monitor R14]
ARN 127616, Valves failed in PASS system allowing primary coolant to enter secondary coolant sample giving false indication of steam generator tube failure during startup from a refueling outage. This forced operations to enter an abnormal operating procedure (AOP-005).
ARN 112422, Unplanned ODCM and Technical Requirements Manual entry due to R-14A-E failure.
ARN 113305, Unplanned ODCM entry due to R-14 detector shield low temperature alarm.

Section 2PS3: Radiological Environmental Monitoring Program and Radioactive Material Control Program

Procedures, Guidance Documents, and Operating Manuals
Offsite Dose Calculation Manual, Rev. 25
SIC-038, Calibration of the Gamma-60 Portal Monitor, Rev. 1
SIC-037, Calibration and Operation of the APTEC PMW-3 Personnel Monitor, Rev. 11
SIC-008, Calibration and operation of the SAM9 Small Articles Monitor, Rev. 10
EC10005R, Environmental Responsibilities, Rev. 0
Environmental Air Sampling, Qualification Checkout Card On the Job Training and Task Performance Evaluation, 06/16/97

Records and Data
2004 Land Use Census, 11/05/05

2004 Land Use Census, Comparisons to Prior Reports
Effluent and Waste Disposal Annual Report, January 1, 2003 - December 31, 2003
Met Data Recovery Data
Radiological Environmental Operating Report, 2003
Comparison of Meteorological Data 02/05/05
Air Particulate and Charcoal (APAC) Sampler Number 1, Calibration Meter S/N RNPOCE8407, 03/31/04
APAC Sampler Number 3, Calibration Meter S/N RNPOCE8407, 03/31/04
APAC Sampler Number 5, Calibration Meter S/N RNPOCE8407, 03/31/04
APAC Sampler Number 6, Calibration Meter S/N RNPOCE8407, 03/31/04
APAC Sampler Number 7, Calibration Meter S/N RNPOCE8407, 03/31/04
APAC Sampler Number 55, Calibration Meter S/N RNPOCE8407, 03/31/04
APAC Sampler Number 60, Calibration Meter S/N RNPOCE8407, 03/31/04

Corrective Action Program Documents
R-EC-04-01, Robinson Nuclear Plant Environmental and Chemistry, Assessment, 03/15/04
R-RP-04-02, Robinson Nuclear Plant Radiation Protection Assessment Report, 01/04/05
R-RP-04-01, Robinson Nuclear Plant Radiation Protection Assessment Report, 02/16/04
AR 77831, Radiochemistry Self Assessment, 07/03
AR 109255, Formal Benchmark Report, Contamination Control, 06/04
AR 109257, Formal Benchmark Report, ALARA, 08/04
AR 144937, Benefits As a result of Self Evaluation Fourth Quarter, 04
AR 141951, Control of Polar Control Panel (Inverter)

Section 4OA1: Performance Indicator Verification

Records and Data
Gaseous Waste Release Permit - Batch (Containment), 04-256G, 11/30/04
Gaseous Waste Release Permit - Continuous (Plant Vent), 05-0010G, 1/10/05
Liquid Waste Release Permit (Continuous Release), 04-296L,12/2/04
Liquid Waste Release Permit (Batch Release), 05-007L, 1/3/05
Liquid Waste Release Permit (Batch Release), 1/31/05
Annual Radiological Effluents Report CY02
Annual Radiological Effluents Report CY 03
Condition Report Database searches for rad monitors, missed samples, effluents, ODCM and count room.
AR 74925, APAC 55 sample was missed because it had 30.9 hours of down time for the week of 10/14-21/02.
AR 99823, APAC-07, Hartsville Environmental Air Sample had only one half the particulate activity
AR 96466, AR # 85770 was written to address blown fuse on APAC 04; AR # 87863 was written to address the seized pump that caused the fuse to blow on APAC 55; AR # 91023 was written to address the blown fuse on APAC 61
AR 117273, APAC #3 was found to be not functioning during a housekeeping tour
AR 123680, APAC #3 was found to be not functioning during a housekeeping tour
AR 125429, Missed sample for APAC-06 for week of 3/24/03
AR 127965, On 5/24/04, sw-40 was discovered to have half the sample volume that is normal for the week. The keypad on the pump controller was found to be defective. None of the spare parts on hand would work.
AR 131308, APAC-07 missed sample for week 6/28/04 TO 7/06/04

AR 143876, During routine environmental surveillances for the week of 11/8/04, it was discovered that APAC-03, was not operating, missing required samples during the period 11/08/04 to 11/12/04
AR 123521, Missing environmental TLD #15
AR 131563, TLDS #12; #15; #38 were missing when collecting environmental TLDs for quarterly change-out
AR 139273 Investigation into containment leak rate monitor

Section 4OA2: Identification and Resolution of Problems

Action Request 137700, Unanticipated [Technical Specification] Entry for HVE-19B
Robinson Nuclear Plant Unit No. 2 Shift Logs, 9/8 - 10/28/05
Procedure MMM-006, Appendix B-12 Calibration Data Sheets, Rev. 10
System Description, SD-036, [Heating, Ventilation and Air Conditioning], Rev. 7

Section 4OA5: Reactor Pressure Vessel Lower Head Penetration Nozzles

Letter RNP-RA/03-0139, Submittal of 90-Day Response to NRC Bulletin 2003-02, "Leakage from Reactor Pressure Vessel Lower Head Penetrations and Reactor Coolant Pressure Boundary Integrity", November 13, 2003
Letter RNP-RA/04-0089, "Summary of Reactor Pressure Vessel Lower Head Inspection in Accordance with NRC Bulletin 2003-02, "Leakage from Reactor Pressure Vessel Lower Head Penetrations and Reactor Coolant Pressure Boundary Integrity", July 22, 2004
Procedure SP-1500, Visual Examination of [Reactor Pressure Vessel] Head and Vessel Bottom Penetration Nozzles, Rev. 1