

U.S. NUCLEAR REGULATORY COMMISSION

REGION II

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

Report No: 50-261/97-06

Licensee: Carolina Power & Light (CP&L)

Facility: H. B. Robinson Unit 2

Location: 3581 West Entrance Road
Hartsville, SC 29550

Dates: March 23 - April 26, 1997

Inspectors: B. Desai, Senior Resident Inspector
J. Zeiler, Resident Inspector
G. Wiseman, Reactor Engineer, Region II

Approved by: M. Shymlock, Chief, Projects Branch 4
Division of Reactor Projects

Enclosure 2

9706050079 970523
PDR ADOCK 05000261
G PDR

EXECUTIVE SUMMARY

H. B. Robinson Power Plant, Unit 2
NRC Inspection Report 50-261/97-06

This integrated inspection included aspects of licensee operations, maintenance, engineering, and plant support. The report covers a five-week period of resident inspection; in addition, it includes the results of an inspection by one Region II based project engineer.

Operations

- Conduct of operations was professional and safety-conscious (Section 01.1).
- Operators properly controlled a 50 percent downpower evolution to repair a service water leak in the "A" Condensate Pump motor upper oil cooler. In addition, operators adequately responded to and handled a heater drain tank level control failure which resulted in a feedwater/condensate transient. The transient was caused by troubleshooting activities on the heater drain tank level controller and indicated a weakness in contingency action planning and understanding of the potential adverse impact of the activity on the plant (Section 01.2).
- Several management changes were announced including Vice President and Director of Site Operations (Section 06.1).
- The Plant Nuclear Safety Committee and the Nuclear Assessment Section provided strong oversight and safety focus of licensee activities (Section 07.1).

Maintenance

- Routine and emergent maintenance and surveillance activities were performed satisfactorily. In general, good work control and coordination was observed, however, several minor problems were identified indicating a need for greater attention to detail by maintenance personnel following work instructions and understanding the work scope prior to implementation (Section M1.1).
- A Violation was identified for inadequate Engineered Safeguards (ESF) testing procedures, in that, they allowed ESF trains to be inoperable for testing, without invoking a Technical Specification action statement (Section M3.1).
- A Non-Cited Violation was identified for an inadequate Safety Injection system check valve test procedure which allowed a testing configuration that placed the Safety Injection system in a condition outside its design basis. An Unresolved Item was identified to determine whether the licensee needed to supplement a Licensee Event Report involving this issue (Section M8.1).

Engineering

- Efforts to strengthen the predictive maintenance program was determined to be achieving the desired results. A critical self assessment was performed by the licensee that identified areas of improvement. The licensee is in the process of developing a program document (Section E2.1).

Plant Support

- A security Hand Geometry system equipment failure was being adequately investigated. Security personnel failed to properly implement compensatory measures resulting in an employee whose security badge was not currently active being allowed to enter the Protected Area (Section S2.1).
- The performance by the fire brigade during a drill was satisfactory and significantly improved from that observed in October 1996. The use of additional fire drill props improved fire drill realism and aided the fire brigade leader in assessing conditions. The fire brigade response was aggressive and communication and guidance to the off-site fire department personnel was good (Section F5).

Report Details

Summary of Plant Status

Unit 2 remained at power the entire inspection period. Power was reduced to approximately 50 percent on April 14 to replace the upper oil cooler to the "A" Condensate Pump motor. Power was reduced to approximately 95 percent on April 17 to assess root cause of minor feedwater oscillations.

I. Operations

01 Conduct of Operations

01.1 General Comments (71707)

The inspector conducted periodic control room tours to verify proper staffing, operator attentiveness and communications, and adherence to approved procedures. The inspector attended daily operations turnover, management review, and plan-of-the-day meetings to maintain awareness of overall plant operations. Operator logs were reviewed to verify operational safety and compliance with Technical Specifications (TSs). Instrumentation, computer indications, and safety system lineups were periodically reviewed from the Control Room to assess operability. Frequent plant tours were conducted to observe equipment status and housekeeping. Condition Reports (CRs) were routinely reviewed to assure that potential safety concerns and equipment problems were reported and resolved.

In general, the conduct of operations was professional and safety-conscious. Good plant equipment material conditions and housekeeping was noted throughout the report period. Specific events and noteworthy observations are detailed in the sections below.

01.2 Downpower to Repair Condensate Pump Oil Cooler Leak (71707)

a. Inspection Scope

On April 14, 1997, at approximately 1:55 a.m., a downpower to 50 percent power was initiated to repair a service water leak in the upper oil cooler to the "A" Condensate Pump motor.

b. Observations and Findings

The leak was identified by maintenance personnel through the routine oil sampling program. In order to prevent a motor failure, the licensee decided to reduce power to remove the pump from service and replace the oil cooler. Operators properly controlled the downpower and stabilized the plant at 50 percent power.

Following the downpower, the heater drain pumps were secured to support troubleshooting of the Heater Drain Tank Level Controller, LC-1530, which was not controlling level within the optimum range. During the troubleshooting, the level control signal failed high causing a feedwater/condensate transient. The operators used abnormal operating

procedures effectively to take manual control of heater drain tank and condenser hotwell level in order to restore plant conditions to normal. The transient demonstrated, however, a weakness in contingency action planning and understanding of the potential adverse impact of the troubleshooting activity.

c. Conclusions

The inspector concluded that plant operators appropriately controlled the downpower evolution and adequately responded to the feedwater/condensate transient. The transient was caused by troubleshooting activities on the heater drain tank level controller and indicated a weakness in contingency action planning and understanding of the potential adverse impact of the activity on the plant.

06 Operations Organization and Administration

06.1 Management Changes (71707)

a. Inspection Scope

The licensee announced several management changes during this report period.

b. Observations and Findings

The management changes announced by the licensee included: John S. Keenan who was promoted to Site Vice President upon departure of Scotty Hinnant to Brunswick; Dale Young was promoted to be the Director of Site Operations, and John Boska was selected as the Operations Manager due to the departure of Bruce Meyer to assume a position at Harris Nuclear Plant. The licensee plans to name the new Plant Manager in the near future. Additionally, Talmage Clements replaced John Boska as the Superintendent for Design Control, and Jim Hendrickson was promoted to Supervisor for Reactor Systems within the Robinson Engineering Support Section (RESS).

c. Conclusions

The inspector will followup and update upon the announcement of the new Plant Manager.

07 Quality Assurance In Operations

07.1 Plant Nuclear Safety Committee and Nuclear Assessment Section Oversight (40500)

a. Inspection Scope

The inspector evaluated certain activities of the Plant Nuclear Safety Committee (PNSC) and Nuclear Assessment Section (NAS) to determine

whether the onsite review functions were conducted in accordance with TS and other regulatory requirements.

b. Observations and Findings

The inspector periodically attended PNSC meetings during the report period. The presentations were thorough and the presenters readily responded to all questions. The committee members asked probing questions and were well prepared. The committee members displayed understanding of the issues and potential risks. Further, the inspector reviewed NAS audits and concluded that they were appropriately focused to identify and enhance safety.

c. Conclusions

The inspector concluded that the onsite review functions of the PNSC were conducted in accordance with TSS. The PNSC meetings attended by the inspector were well coordinated and meeting topics were thoroughly discussed and evaluated. NAS continued to provide strong oversight of licensee activities.

08 Miscellaneous Operations Issues (92901)

- 08.1 (CLOSED) Licensee Event Report (LER) 50-261/96-003-00, Condition Prohibited by Technical Specifications Due to Failure to Maintain Shift Compliment: This LER promulgated the condition described in Non-Cited Violation (50-261/96-10-01), documented in NRC Inspection Reports 50-261/96-10 and 50-261/96-11, in which a licensed Senior Reactor Operator stood seven shifts without a current biannual medical examination.

In response to the event, the licensee initiated and committed to the following corrective actions: revise operations procedures OMM-001-1, Operations Unit Organization and Administration, and OMM-001-5, Training and Qualifications, to require monitoring and reporting of the medical status of all operators and personnel assigned to the fire brigade in the Operator Hours Tracking Log.

The inspector reviewed the Operator Hours Tracking Log and verified that the medical qualifications of the April 1997 operations personnel was up-to-date. The inspector reviewed these completed corrective actions and determined that they were completed satisfactory. This item is closed.

- 08.2 (CLOSED) LER 50-261/96-004-00, Manual Initiation of Reactor Protection System (RPS) due to Turbine Governor Valve Failure: This LER described the manual reactor trip that occurred on September 7, 1996. This event was discussed previously in section 01.4 of NRC Inspection Report 50-261/96-11. The inspector determined that the licensee had adequately determined the root cause of the trip and corrected the equipment related failure.

The inspector reviewed the licensee's corrective actions which included the addition of angle mounts and weather covers to the turbine governor valve actuators to eliminate looseness and broken bolts, soldering and covering the wire terminations with heat shrink protective shields, and revisions to relevant maintenance work instructions to caution workers of the fragile wires in the valves. The inspector determined that adequate corrective actions were completed. This item is closed.

II. Maintenance

M1 Conduct of Maintenance

M1.1 General Comments (61726 and 62707)

a. Inspection Scope

The inspector observed all or portions of the following maintenance related Work Requests/Job Orders (WRs/JOs) and surveillances and reviewed the associated documentation:

- WR/JO 97-ABFZ1 Repair Pressurizer Pressure Control Station,
- WR/JO 97-ABKM1 Implement Modification ESR 97-00198 to Provide Alternate Reactor Containment Sump Discharge Flowpath,
- WR/JO 97-ABII1 Investigate Tripping of "B" Control Rod Drive Motor Generator Breaker,
- WR/JO 97-ABGH1/2 Repair Leak on Emergency Diesel Generator A Standby Circulating Coolant Pump,
- WR/JO 97-ACIR1 Auxiliary Feedwater to "C" Steam Generator Transmitter FT-1425C Calibration,
- OST-902 Containment Fan Coolers Component Test, Revision 24, and,
- SP-1388 Containment Isolation Valves Leakage Test for WD-1722, Revision 0.

b. Observations and Findings

The inspector observed that these activities were performed by personnel who were experienced and knowledgeable of their assigned tasks. Work and surveillance procedures were present at the work location and being adhered to. Procedures provided sufficient detail and guidance for the intended activities. Detailed plans were developed with good support from engineering for troubleshooting activities associated with the pressurizer pressure control malfunction and control rod drive motor

generator trip. Activities were properly authorized and coordinated with operations prior to start. Test equipment in use was calibrated, procedure prerequisites were met, system restoration was completed, and surveillance acceptance criteria were met. Specific observations and details for several of these activities included the following:

WR/JO 97-ABKM1: This activity was associated with the implementation of a temporary modification to provide an alternate flowpath from the reactor containment sump pumps to the Waste Holdup Tanks. The alternate flowpath involved connecting a pressure rated fire hose from the discharge vent on the sump pumps to a vent valve in the reactor coolant drain tank pump suction line which also discharged to the Waste Holdup Tanks. The inspector observed a minor problem when maintenance personnel tied off the hose to the incorrect line. A different line for this purpose had been seismically evaluated and was specified in the modification implementing procedure. The inspector alerted the engineer who was monitoring the activity and the discrepancy was corrected. Since the problem was corrected prior to the actual signoff and completion of the job, the inspector determined that a procedural violation had not occurred. The inspector concluded that this problem was an example of lack of attention to detail on the part of maintenance personnel in following the work instructions and poor engineering personnel overview of the activity which allowed the condition to go uncorrected until questioned by the inspector.

WR/JO 97-ABGH1/2: While mechanical maintenance personnel were completing the installation of a new circulating water coolant pump and motor assembly on the "A" Emergency Diesel Generator, the inspector noted that the instructions in WR/JO 97-ABGH2 required that Instrumentation and Control (I&C) perform an electrical resistance check of the motor following installation. The WR package, however, did not include a copy of the procedure for performing the motor check and the I&C technician who was about to start electrical connection of the motor was not aware that the test was prescribed in the WR instructions. Following discussions with his supervisor, the I&C technician obtained the procedure and completed the test. The inspector concluded that this minor problem demonstrated a need for better understanding of the work scope by the I&C personnel involved.

c. Conclusions

The inspector concluded that maintenance and surveillance activities were performed satisfactorily. In general, good work control and coordination was observed, however, several minor problems were identified indicating a need for greater attention to detail in following work instructions and understanding the work scope prior to implementation.

M3 Maintenance Procedures and Documentation

M3.1 Engineered Safeguards Periodic Surveillance (71707, 61726)

a. Inspection Scope

The inspector observed portions of maintenance surveillance test (MST) procedure MST-23, Safeguards Relay Rack Train "B" (Monthly). MST-23 and MST-22, Safeguards Relay Rack Train "A" (Monthly) implement the Robinson TS, Section 4.1, Operational Safety Review, Table 4.1-1, Item 27 requirements to monthly test the Engineered Safeguards Features (ESF) logic circuitry.

b. Observation and Findings

The inspector noted that during the performance of MST-22 and MST-23, no TS action statement was considered applicable by the control room operating crew. During the performance of MST-22, portions of the automatic actuation capability associated with ESF Train "A" was sequentially bypassed to accommodate logic testing, thus precluding starting the respective ESF Train "A" components. The performance of MST-23 had a similar effect on Train "B". Upon further discussion, the inspector was informed that Robinson TS did not specifically prescribe an action statement during ESF logic testing, and consequently, an action statement had never been considered to be in effect.

The inspector reviewed the standard Westinghouse TS and confirmed that it prescribed a very restrictive action statement of two hours to bypass each ESF train during testing. The restrictive action statement was based on one train of multiple ESF components being out-of-service simultaneously. The inspector discussed this with the licensee.

The licensee reviewed the issue and deliberated whether to enter TS 3.0 during the future performance of MST-22 and MST-23. The licensee then made a decision that TS 3.6.3.d associated with automatic containment isolation valves would be more appropriate. This TS prescribes a four hour action statement and was the most restrictive action statement affecting ESF components. This effectively allowed four hours to bypass each ESF trains for testing. A Night Order related to this issue was issued, in addition to a condition report. The inspector noted that during the TS conversion to the new improved standard TS this item was not identified.

c. Conclusions

The inspector concluded that procedures MST-22 and MST-23 were inadequate, in that, they allowed ESF trains to be inoperable for testing, without invoking a TS action statement. The problem constituted a violation of TS 6.5.1.1.1, Procedures, Tests, and Experiments. This issue will be documented as Violation (VIO) 50-261/97-06-01: Inadequate Safeguards Procedures that Allowed ESF Train Being Out-of-Service Without Invoking a TS Action Statement.

M8 Miscellaneous Maintenance Issues (92902)

- M8.1 (CLOSED) LER 50-261/95-01-00, Safety Injection Pump Testing Requires TS 3.0 Entry: The licensee identified that the past test configuration for ASME Section XI Inservice surveillance testing of Safety Injection (SI) system pump discharge check valves potentially rendered the SI system inoperable. During partial forward flow testing of the SI pump discharge check valves (SI-879A B, and C) in accordance with Operations Surveillance Test (OST) procedure OST-151, Safety Injection System Components Test, the procedure aligned the normally closed SI test line to the SI pump discharge header. In this configuration, adequate SI system flow to the reactor core could not be assured during all design bases accidents since a portion of the flow would be diverted to the Refueling Water Storage Tank through the SI test line. As an interim measure until the issue could be resolved, the licensee entered the action statement of TS 3.0 on three occasions to complete quarterly scheduled testing of each of the three SI pump discharge check valves.

The licensee's corrective actions included evaluating the test configuration to determine if the SI system was actually inoperable with the SI test line open. The inspector reviewed engineering calculation RNP-M/MECH-1556, Revision 1, dated April 25, 1995. The results of this calculation indicated that design SI flow rates would still be maintained to the Reactor Coolant System (RCS), even with the SI test line open. However, with a single SI pump in operation, and RCS pressure near atmospheric conditions, the increased flow rate would result in the pump exceeding its runout flow rate. Based on this, the licensee determined that there was adequate justification for changing the check valve test frequency from quarterly to a Cold Shutdown and Refueling Outage interval. The inspector reviewed Technical Management Manual (TMM) procedure TMM-004, Inservice Inspection Testing, Revision 14, and verified that the change to the testing frequency was properly documented. In addition, the inspector verified via completed check valve test data and startup procedures that the valves were being tested at refueling outage intervals and were scheduled for testing during cold shutdown conditions. This LER is closed.

The inspector determined that, prior to the licensee recognizing the adverse test configuration, procedure OST-151 was not appropriate to the circumstances, constituting a violation of 10 CFR 50, Appendix B, Criterion V, Procedures. This licensee-identified and corrected violation is being treated as a Non-Cited Violation (NCV), consistent with Section VII.B.1 of the NRC Enforcement Policy. This issue will be documented as NCV 50-261/97-06-02: Inadequate SI Pump Discharge Check Valve Testing Procedure.

During review of this LER, the inspector noted that a supplement to the existing LER had not been submitted to the NRC in order to report the results of the SI operability determination. The past operability evaluation had concluded that the SI system would have operated at runout conditions resulting in the inoperability of the system. The inspector believed that a supplement to the LER, reporting the

inoperability, had been required. At the end of the report period, the licensee had not completed their review to determine whether an LER supplement was warranted. This issue was identified as Unresolved Item (URI) 50-261/97-06-03: Review Licensee Assessment of Need to Supplement LER 50-261/95-001-00.

- M8.2 (CLOSED) LER 50-261/96-007-00, Automatic Initiation of RPS Due to Steam Generator Feedwater Level Control System Failure: On October 20, 1996, an automatic reactor trip occurred from 20 percent power during startup from Refueling Outage 17. The reactor trip occurred on Steam Generator high water level after the "B" feedwater regulating valve automatic/manual control station failed to properly control steam generator level. During the previous inspection report period covering the date of this trip, the inspector reviewed the licensee's post-trip report and plant data to ensure that plant equipment operated properly in response to the trip. With the exception of several minor operator training enhancements, no problems were identified.

The licensee was unable to determine the exact cause of the controller failure and concluded that the most likely failure mechanism was controller aging. The "B" feedwater automatic/manual control station was replaced and no further problems were experienced. As part of the licensee corrective actions, the event was reviewed with all licensed operators during subsequent routine operator training. Preventive maintenance procedures were implemented to perform periodic diagnostic testing of automatic/manual control stations to detect potentially degrading controllers. The inspector determined that adequate corrective actions were completed. This LER is closed.

III. Engineering

E2 Engineering Support of Facilities and Equipment

E2.1 Predictive Maintenance (37551)

a. Inspection Scope

The inspector reviewed licensee activities relating to the predictive maintenance program.

b. Observations and Findings

During this report period, as a result of the predictive maintenance program, the licensee identified several components that were showing degradation. Oil analysis from the "A" Safety Injection pump's outboard bearing indicated an increasing trend in iron and wear particles. The pump bearing was replaced. Additionally, the "B" Spent Fuel Cooling Pump was refurbished based on vibration and oil analysis indicating a negative trend.

The licensee has recently employed a supervisor/engineer whose is also responsible for the coordination of the predictive maintenance program. Efforts are also under way to develop a predictive maintenance program guidance/procedure to better coordinate future activities.

c. Conclusions

The inspector concluded that efforts are under way to further strengthen the predictive maintenance program. A critical self assessment was performed by the licensee that identified areas for improvement. The licensee is in the process of developing a program document.

E7 Quality Assurance in Engineering Activities

E7.1 Special UFSAR Review

A recent discovery of a licensee operating their facility in a manner contrary to the UFSAR description highlighted the need for a special focused review that compares plant practices, procedures and/or parameters to the UFSAR descriptions. While performing the inspection discussed in this report, the inspector reviewed selected portions of the UFSAR that related to the areas inspected. The inspector verified that for the select portions of the UFSAR reviewed, the UFSAR wording was consistent with the observed plant practices, procedures and/or parameters.

E8 Miscellaneous Engineering Issues (92903)

E8.1 (CLOSED) Violation 50-261/96-10-01, Inadequate Corrective Actions for Solenoid Operated Valve (SOV) Design Discrepancies: This violation involved inadequate licensee corrective actions to address configuration control problems associated with air-operated SOVs being overpressurized beyond their design limits. In 1988, the licensee failed to adequately evaluate whether problems existed at Robinson after being alerted to the potential problem via NRC Information Notice 88-24, Failures of Air-Operated Valves Affecting Safety-Related Systems. Following a subsequent review of the Information Notice in 1995, the licensee again failed to adequately evaluate the extent of condition, or determine the operability impact of 14 safety-related SOVs that were identified with operating pressure exceeding their design limits.

The licensee responded to the violation by letter dated October 13, 1996. The root cause was attributed to personnel failure to follow operating experience and corrective action procedures after conditions adverse to quality were identified. The inspector reviewed these procedures and determined that they had been enhanced to provide more specific guidance to plant personnel if potential operability concerns are identified. In addition, engineering personnel were provided real time training to emphasize management expectations in this area.

The licensee conducted an evaluation of all safety-related and non-safety-related SOVs to identify and evaluate any SOVs in applications

where their design pressure limits were exceeded. The inspector reviewed the results of this evaluation and determined that it was comprehensive and detailed. Discrepancies identified by the licensee were being adequately resolved. This item is closed.

E8.2 (CLOSED) Inspector Followup Item (IFI) 50-261/96-12-03, Review Licensee Justification for not Completing Non-Validated DBD and GID Evaluations:

This issue was raised during a review of licensee corrective actions for Violation 50-261/94-23-01 involving the failure to properly revise plant documents based on the results of a non-validated Containment Isolation Generic Issue Document (GID) evaluation. Initial licensee corrective actions for this violation had been to implement a procedure to ensure that plant personnel perform formal reviews of non-validated GIDs and Design Basis Documents (DBDs) to ensure that there were no other plant documents that needed revision. However, only one non-validated DBD involving the Main Steam System was formally reviewed. Since the results of this review did not identify any documents that needed revision, the licensee believed it unlikely that there were any other problems with the other 14 non-validated GIDs and DBDs. Based on this, the licensee decided not to perform a formal review of the remaining documents.

The inspector did not consider this adequate justification for not completing the original scope of the corrective actions for Violation 50-261/94-23-01. During subsequent discussions with the licensee concerning this matter, the licensee committed to complete the review of all other non-validated GIDs and DBDs. The inspector reviewed CP&L letter dated February 11, 1997, which provided the licensee's response to the NRC's request pursuant to 10 CFR 50.54(f) regarding the adequacy and availability of design bases information at CP&L nuclear plants. As part of their enhancements to provide additional assurance that the plant's design bases had been incorporated into the design, operation, and maintenance of the plant, the licensee committed to complete the review of all other non-validated GIDs and DBDs by October 15, 1998. Based on this commitment, the inspector concluded that this IFI was closed.

IV. Plant Support

R1 Radiological Protection and Chemistry Controls (71750)

R1.1 Tours of the Radiological Control Area (RCA)

The inspector periodically toured the RCA during the inspection period. Radiological control practices were observed and discussed with radiological control personnel including RCA entry and exit, survey postings, locked high radiation areas, and radiological area material conditions. The inspector concluded that radiation control practices were proper.

S1 Conduct of Security and Safeguards Activities (71750)**S1.1 General Comments**

During the period, the inspector toured the protected area and noted that the perimeter fence was intact and not compromised by erosion or disrepair. Isolation zones were maintained on both sides of the barrier and were free of objects which could shield or conceal an individual. The inspector periodically observed personnel, packages, and vehicles entering the protected area and verified that necessary searches, visitor escorting, and special purpose detectors were used as applicable prior to entry. Lighting of the perimeter and of the protected area was acceptable and met illumination requirements.

S2 Status of Security Facilities and Equipment**S2.1 Plant Access Control Equipment Problem and Compensatory Measure Deficiency (71750)****a. Inspection Scope**

The inspector reviewed licensee actions to resolve an operability problem with the security Hand Geometry system. The inspector also reviewed the licensee's preliminary investigation into an employee being allowed to enter the Protected Area (PA) with an inactive security badge while compensatory measures were being implemented for inoperable hand geometry equipment.

b. Observations and Findings

On April 6, 1997, the security Hand Geometry system malfunctioned resulting in the licensee declaring the system inoperable. Compensatory measures were implemented for controlling personnel entry into the PA. These measures included assignment of two security personnel at the PA entry point with post orders to check two forms of personnel identification for each individual seeking entry into the PA and verifying each individual was on the authorized access list.

On April 8, while these compensatory measures were still active, an employee whose security badge was not currently active was allowed to enter the PA. The employee's badge had been terminated by mistake on March 27, while the employee was on sick leave. Upon entering the PA, the employee contacted the Fitness For Duty organization to determine whether any testing was necessary for returning to work. At this time, Fitness For Duty personnel identified that the employee's badge had been terminated. After contacting security, the employee was located and escorted out of the PA. The employee had been in the PA for approximately twelve minutes unescorted.

The licensee initiated an investigation of the incident and checked the access authorization status of all other personnel granted plant access since implementing the compensatory measures to ensure that no other

instances of this type had occurred. No further instances were identified. The licensee determined that the two security personnel assigned at the PA entry point failed to verify the individual's access levels prior to allowing the individual access to the PA. Each of the two security persons involved in the incident had assumed that the other person had performed the required access verification indicating a lack of clear assignment of task responsibility. Following the incident, the licensee revised the post orders to include specific assignment of the tasks between security personnel assigned to this post. The inspector periodically observed implementation of the revised post orders to verify adequate security personnel performance. No other problems were identified. The licensee plans to submit an LER for the unauthorized entry. The inspector will review completion of the licensee's investigation and corrective actions during review of the LER.

The malfunction in the Hand Geometry system involved an intermittent problem with the transfer of employee hand profile data between the turnstyle hand readers and the main security computer. On April 17, the problem was temporarily corrected and the system was placed back in service. The inspector determined that the problem did not involve the potential for an unauthorized individual to gain access due to hand geometry reading errors. At the end of the report period, the licensee was continuing troubleshooting and discussions with the vendor to fully understand and prevent any future data transfer problems.

c. Conclusions

The inspector concluded that the licensee was adequately investigating the cause of the Hand Geometry system failure. Security personnel failed to properly implement compensatory measures for the inoperable equipment resulting in an employee whose security badge was not currently active being allowed to enter the Protected Area. Further review and enforcement disposition of this incident is planned during followup of the LER.

F5 Fire Protection Staff Training and Qualification (71750)

F5.1 Fire Drill (71750)

a. Inspection Scope

On April 15, 1997, at 8:00 p.m., the inspector witnessed an announced backshift fire brigade drill (Fire Drill Number 97-2Q-01-SHIFT-2) with assistance of the local off-site fire department located in Hartsville, South Carolina.

b. Observations and Findings

The fire drill simulated a lubricating oil spill of approximately 150 gallons with a fire involving two levels of the Unit 2 Turbine Building (Plant Fire Area "G" - Fire Zone 25). The simulated fire involved the Unit 2 turbine lubricating oil reservoir and filter pumps.

The inspector observed the drill controllers at the site directing the fire drill. The drill was conducted using fire drill planning guide FBS-01R. The licensee used fire drill props such as tape to simulate the oil spill area, strobe lights to identify the involved fire areas of both the lower and second level turbine decks, computer generated pictures to define the fire status and a device that produced fog for simulation of smoke.

The control room sounded the plant fire alarm within two minutes of the report of the simulated fire. The Unit 2 fire brigade team leader and four fire brigade members responded promptly in full protective clothing with appropriate fire fighting equipment. Additional personnel from Unit 2 operations, security and the Hartsville Fire Department, who were pre-staged onsite, also responded to the drill. An offensive fire attack was mounted utilizing two 1/2-inch attack foam fire hose lines from opposite sides of the fire on the lower level turbine deck, followed by additional 1/2-inch foam lines extended to the second level turbine deck. The fire brigade leader properly deployed the fire brigade personnel, established a command post and effectively used radio communications. The control room properly used the fire protection Pre-Plans, OMM-003, and simulated tripping the plant due to potential fire damage. A drill critique was conducted with the fire brigade members following the drill to discuss the drill, participants performance and recommendations for improvements. The drill objectives were met.

c. Conclusions

The inspector concluded the drill was performed in a controlled manner and provided realistic training for the fire brigade. The drill scenario was challenging. Fire brigade performance has improved. During observation of a fire drill, the brigade exhibited good command and control, fire ground tactics, and recovery operations.

V. Management Meetings

X1 Exit Meeting Summary

The inspector presented the inspection results to members of licensee management at the conclusion of the inspection on May 1, 1997. The inspector asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

X3 Management Meeting Summary

On March 25, 1997, the licensee was presented the results of the NRC Systematic Assessment of Licensee Performance (SALP) results by the Region II Regional Administrator, Luis A. Reyes. The presentation was open to the public, as well as local officials. The licensee received a SALP 1 rating in Operations and Plant Support and a SALP 2 rating in Engineering and Maintenance.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

H. Chernoff, Supervisor, Licensing/Regulatory Programs
J. Clements, Manager, Site Support Services
D. Crook, Senior Specialist, Licensing/Regulatory Compliance
J. Keenan, Vice President, Robinson Nuclear Plant
D. Winters, Acting Manager, Operations
G. Miller, Manager, Robinson Engineering Support Services
R. Moore, Manager, Outage Management
D. Stoddard, Manager, Operating Experience Assessment
R. Warden, Manager, Nuclear Assessment Section
T. Wilkerson, Manager, Regulatory Affairs
D. Young, Director, Site Operations

NRC

B. Desai, Senior Resident Inspector
J. Zeiler, Resident Inspector

INSPECTION PROCEDURES USED

IP 37551: Onsite Engineering
 IP 40500: Effectiveness of Licensee Controls in Identifying, Resolving, and Preventing Problems
 IP 61726: Surveillance Observations
 IP 62707: Maintenance Observation
 IP 71707: Plant Operations
 IP 71750: Plant Support Activities
 IP 92901: Followup - Operations
 IP 92902: Followup - Maintenance
 IP 92903: Followup - Engineering

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

<u>Type</u>	<u>Item Number</u>	<u>Status</u>	<u>Description and Reference</u>
VIO	50-261/97-06-01	Open	Inadequate Safeguards Procedures that Allowed ESF Train Being Out-of-Service Without Invoking a TS Action Statement (Section M3.1)
NCV	50-261/97-06-02	Open	Inadequate SI Pump Discharge Check Valve Testing Procedure (Section M8.1)
URI	50-261/97-06-03	Open	Review Licensee Assessment of Need to Supplement LER 50-261/95-001-00 (Section M8.1)

Closed

<u>Type</u>	<u>Item Number</u>	<u>Status</u>	<u>Description and Reference</u>
LER	50-261/96-003-00	Closed	Condition Prohibited by Technical Specifications Due to Failure to Maintain Shift Compliment (Section 08.1)
LER	50-261/96-004-00	Closed	Manual Initiation of Reactor Protection System (RPS) due to Turbine Governor Valve Failure (Section 08.2)
LER	50-261/95-001-00	Closed	Safety Injection Pump Testing Requires TS 3.0 Entry (Section M8.1)
NCV	50-261/97-06-02	Closed	Inadequate SI Pump Discharge Check Valve Testing Procedure (Section M8.1)

LER	50-261/96-007-00	Closed	Automatic Initiation of RPS Due to Steam Generator Feedwater Level Control System Failure (Section M8.2)
VIO	50-261/96-10-01	Closed	Inadequate Corrective Actions for Solenoid Operated Valve (SOV) Design Discrepancies (Section E8.1)
IFI	50-261/96-12-03	Closed	Review Licensee Justification for not Completing Non-Validated DBD and GID Evaluations (Section E8.2)

Discussed

<u>Type</u>	<u>Item Number</u>	<u>Status</u>	<u>Description and Reference</u>
-------------	--------------------	---------------	----------------------------------

None