

September 23, 1999

Carolina Power & Light Company
ATTN: Mr. James Scarola
Vice President - Harris Plant
Shearon Harris Nuclear Power Plant
P. O. Box 165, Mail Code: Zone 1
New Hill, NC 27562-0165

SUBJECT: NRC INTEGRATED INSPECTION REPORT 50-400/99-05

Dear Mr. Scarola:

On August 28, 1999, the NRC completed an inspection at your Shearon Harris facility. The enclosed report presents the results of that inspection. The results of the inspection were discussed with you and other members of your staff on September 2, 1999.

The inspection was an examination of 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. Within these areas, the inspection consisted of a selective examination of procedures and representative records, observations of activities, and interviews with personnel. Specifically the inspection covered periodic resident inspections and a scheduled public radiation safety inspection.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be placed in the NRC Public Document Room (PDR).

Sincerely,

(Original signed by Brian R. Bonser)

Brian R. Bonser, Chief
Reactor Projects Branch 4
Division of Reactor Projects

Docket No.: 50-400
License No.: NPF-63

Enclosure: NRC Integrated Inspection Report

cc w\encl: (See page 2)

cc w/encl:

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3

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PUBLIC

U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No: 50-400
License No: NPF-63

Report No: 50-400/99-05

Licensee: Carolina Power & Light (CP&L)

Facility: Shearon Harris Nuclear Power Plant, Unit 1

Location: 5413 Shearon Harris Road
New Hill, NC 27562

Dates: July 18 - August 28, 1999

Inspectors: J. Brady, Senior Resident Inspector
R. Hagar, Resident Inspector
E. Testa, Senior Radiation Specialist (Sections 2PS1 and 2PS3)

Approved by: B. Bonser, Chief, Projects Branch 4
Division of Reactor Projects

SUMMARY OF FINDINGS

Shearon Harris Nuclear Power Plant, Unit 1
NRC Inspection Report 50-400/99-05

The report covers a six-week period of resident inspection. In addition, it includes the results of announced inspections by a regional senior radiation specialist.

Performance Indicators Verification

The initiating events cornerstone performance indicators were reviewed and verified. These included Unplanned Scrams Per 7,000 Critical Hours, Scrams With A Loss Of Normal Heat Removal, and Unplanned Power Changes Per 7,000 Critical Hours. Two years of data was reviewed. No findings were identified.

No findings were identified during this inspection period.

Report Details

The unit was at essentially 100% power for the entire period.

1. **REACTOR SAFETY** **Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity**

1R03 Emergent Work

a. Inspection Scope

The inspectors reviewed the emergent items described in the following Work Requests/Job Orders (WRJOs):

<u>WR/JO</u>	<u>Title</u>
98-AGUQ1	Replace the leaking gasket(s) for 1CS-E016 (excess letdown heat exchanger)
99-AFYL1	Emergency Service Water Pump main reservoir traveling screen will not rotate due to broken coupling
99-AGDL1	"A" vacuum pump would not stay running

b. Observations and Findings

No findings were identified and documented through this inspection.

1R04 Equipment Alignment

a. Inspection Scope

The inspectors performed a detailed review of the emergency diesel generator (EDG) system. This included a review of the Final Safety Analysis Report, and system descriptions; a review of the status of work orders and condition reports (CR) with the system engineer; and a walkdown of the EDG system.

b. Observations and Findings

No findings were identified and documented through this inspection.

1R05 Fire Protection

a. Inspection Scope

The inspectors reviewed the high fire risk areas which included four fire zones that did not screen out using the Fire Induced Vulnerability Evaluation methodology in the Individual Plant Examination for External Events (IPEEE). Two zones contained the control room

envelope and the other two contained the two switchgear rooms. The inspectors also discussed the fire drill schedule with the licensee to determine when drills would be conducted in the high fire risk areas.

b. Observations and Findings

No findings were identified and documented in relation to inspection of the high fire risk areas.

The inspectors observed that no drills were scheduled in the switchgear areas. In discussing this with the licensee, the inspectors learned that no fire drill in these areas had been scheduled in at least the past seven years. The licensee had decided that since full scale fire drills in the switchgear rooms could inadvertently initiate plant events, drills would not be conducted in those areas. The IPEEE indicated that the core damage frequency contribution from the two switchgear rooms was $3.1E-6/\text{year}$ and $4.0E-6/\text{year}$ (highest of any room in the plant). The licensee initiated CR 99-01973 to review the fire brigade training for the switchgear areas and to reassess the decision not to conduct drills there.

1R09 Inservice Testing (IST) of Pumps and Valves

a. Inspection Scope

The inspectors reviewed the performance of the following IST tests:

<u>Number</u>	<u>Rev.</u>	<u>Title</u>
OST-1041	5	A Train Heating Ventilation and Air Conditioning (HVAC) Safety Related Essential Service Chilled Water (ESCW) Temperature Control Valves (TCVs) Inservice Inspection (ISI) Operability Test
OST-1085	13	1A-SA Diesel Generator Operability Test Semiannual Interval
MST-I0116	11	Hydrogen Monitor Operability Test

b. Observations and Findings

No findings were identified and documented through this inspection.

1R12 Maintenance Rule Implementation

a. Inspection Scope

The inspectors reviewed the licensee's implementation of the Maintenance Rule (10 CFR 50.65) with respect to the equipment issues described in the following CRs:

CR 99-01450 Emergency Safeguards Sequencer relay 2-30/1161 was found out of tolerance

CR 99-01808 Turbine Driven Auxiliary Feedwater Manual/Automatic station failed

CR 99-02087-1 "A" Waste Gas Compressor Breaker tripped

b. Observations and Findings

No findings were identified and documented through this inspection.

1R13 Maintenance Work Prioritization & Control

a. Inspection Scope

The inspectors reviewed the licensee's assessments of the risk impacts of removing from service the components associated with the Emergent Work items listed in section 1R03.

b. Observations and Findings

No findings were identified and documented through this inspection.

1R14 Nonroutine Evolutions

a. Inspection Scope

The inspectors observed the operating crew's performance during the following non-routine evolutions:

! Placing excess letdown in service and removing normal letdown from service, August 4, 1999, and August 12-13, 1999, and

! Response to unidentified reactor coolant system leakage greater than Technical Specification limits, August 4, 1999.

b. Observations and Findings

No findings were identified and documented through this inspection.

1R15 Operability Evaluations

a. Inspection Scope

The inspectors reviewed the operability evaluations described in the following Engineering Service Requests (ESRs):

<u>ESR No.</u>	<u>Rev.</u>	<u>Title</u>
99-00254	0	Operability Determination for Preaction and Multicycle System
99-00323	0	Excess Letdown Heat Exchanger Piping Operability Determination
99-00331	0	Operability Determination for Response Spectrum Analyzer

b. Observations and Findings

No findings were identified and documented through this inspection.

1R16 Operator Workarounds

a. Inspection Scope

The inspectors reviewed the operator work-around associated with operating the letdown pressure control valve in manual rather than automatic control. The inspectors reviewed plant conditions to assess whether operator work-around items were being identified in the operator work-around program.

b. Observations and Findings

The inspectors observed a fire alarm in the EDG building and the licensee's investigation of that alarm. The investigation revealed that the alarm was spurious and was caused by the starting of the motor driven fire pump (MDFP). Licensee operations personnel revealed that these spurious alarms occur frequently when the MDFP is started. The inspectors determined that spurious alarms would direct operator attention and fire brigade response from a real fire. As a result, the licensee initiated CR 99-02369 to document this condition and added the work-around to the program. No findings were identified and documented through this inspection.

1R19 Post Maintenance Testing

a. Inspection Scope

The inspectors reviewed the following post-maintenance tests:

<u>Number</u>	<u>Rev.</u>	<u>Title</u>	<u>Related maintenance task</u>
EPT-33	20	Emergency Safeguards Sequencer System Test	99-AEZK1, Replace 2 relays in "A" emergency sequencer
OST-1085	13	1A-SA Diesel Generator Operability Test Semiannual Interval	Various preventive-maintenance tasks
OST-1032	9	Reactor Auxiliary Building	99-ADUF1, Replace E-6 fan

Emergency Exhaust System
Train A Operability Monthly
Interval Modes 1-4

outboard bearing

b. Observations and Findings

No findings were identified and documented through this inspection.

1R22 Surveillance Testing

a. Inspection Scope

The inspectors reviewed the following surveillance tests:

OST-1026, Reactor Coolant System Leakage Evaluation, Computer Calculation, Daily Interval, Modes 1-2-3-4, Revision 12

MST-I0145, Steam Generator A Narrow Range Level Loop (L-0476) Operational Test, Revision 4

MST I0146, Steam Generator B Narrow Range Level Loop (L-0484) Operational Test, Revision 4

b. Observations and Findings

No findings were identified and documented through this inspection.

Cornerstone: Emergency Preparedness

1EP1 Drill, Exercise, and Actual Events

a. Inspection Scope

The inspectors reviewed licensee participation in the August 26, 1999, emergency drill.

b. Observations and Findings

No findings were identified and documented through this inspection.

2. RADIATION SAFETY

Cornerstone: Public Radiation Safety

2PS1 Gaseous and Liquid Effluent Treatment Systems

a. Inspection Scope

The inspectors reviewed the licensee's performance to ensure that the gaseous and liquid effluent processing systems are maintained so that radiological releases are properly mitigated, monitored, and evaluated to limit public exposure.

b. Observations and Findings

No findings were identified and documented through this inspection.

2PS3 Radiological Environmental Monitoring Program

a. Inspection Scope

The inspectors reviewed the licensee's performance in implementing the Radiological Environmental Monitoring Program (REMP) as required by Technical Specifications and the Offsite Dose Calculation Manual (OCDM).

b. Observations and Findings

No findings were identified and documented through this inspection.

4. OTHER ACTIVITIES

4OA2 Performance Indicator Verification

a. Inspection Scope

The inspectors reviewed and verified the July 1999 performance indicator data for all of the initiating events cornerstone performance indicators. The inspectors reviewed two years of data that included inspection reports, monthly operating reports and operator logs.

b. Observations and Findings

No findings were identified and documented through this inspection.

4OA5 Management Meetings

.1 Exit Meeting Summary

The inspectors presented the inspection results to members of licensee management on September 2, 1999. The licensee acknowledged the findings presented.

The inspectors asked the licensee whether any of the material examined during the inspection should be considered proprietary. No proprietary information was identified.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

D. Alexander, Manager, Regulatory Affairs
C. Burton, Director, Site Operations
B. Clark, General Manager, Harris Plant
R. Field, Manager, Nuclear Assessment
T. Hobbs, Acting Manager, Operations
J. Holt, Manager, Outage and Scheduling
G. Kline, Manager, Harris Engineering Support Services
J. Scarola, Vice President, Harris Plant
B. Waldrep, Manager, Maintenance
E. Wills, Manager, Environmental & Radiation Control

NRC

B. Bonser, Chief, Reactor Projects Branch 4
R. Laufer, Harris Project Manager, NRR

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Closed

None

Discussed

None