



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

REGION II  
SAM NUNN ATLANTA FEDERAL CENTER  
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ATLANTA, GEORGIA 30303-8931

April 30, 2006

Carolina Power and Light Company  
ATTN: Mr. C. J. Gannon, Jr.  
Vice President - Harris Plant  
Shearon Harris Nuclear Power Plant  
P. O. Box 165, Mail Code: Zone 1  
New Hill, North Carolina 27562-0165

SUBJECT: SHEARON HARRIS NUCLEAR POWER PLANT - NRC INTEGRATED  
INSPECTION REPORT 05000400/2006002

Dear Mr. Gannon:

On March 31, 2006, the US Nuclear Regulatory Commission (NRC) completed an inspection at your Shearon Harris reactor facility. The enclosed integrated inspection report documents the inspection findings, which were discussed on April 4, 2006, with you 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.

Based on 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) components 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.: 50-400  
License No.: NPF-63

Enclosure: NRC Inspection Report 05000400/2006002  
w/Attachment: Supplemental Information

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3

Report to Mr. C. J. Gannon, Jr. from Paul E. Fredrickson dated April 30, 2006.

SUBJECT: SHEARON HARRIS NUCLEAR POWER PLANT - NRC INTEGRATED  
INSPECTION REPORT 05000400/2006002

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U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No: 50-400

License No: NPF-63

Report No: 05000400/2006002

Licensee: Carolina Power and Light Company

Facility: Shearon Harris Nuclear Power Plant, Unit 1

Location: 5413 Shearon Harris Road  
New Hill, NC 27562

Dates: January 1, 2006 - March 31, 2006

Inspectors: R. Musser, Senior Resident Inspector  
P. O'Bryan, Resident Inspector  
K. VanDoorn, Senior Reactor Inspector, (Sections 1R02, 1R17)  
T. Nazario, Reactor Inspector, (Sections 1R02, 1R17)

Approved by: P. Fredrickson, Chief  
Reactor Projects Branch 4  
Division of Reactor Projects

**SUMMARY OF FINDINGS**

IR 05000400/2006-002; 01/01/2006 - 03/31/2006; Shearon Harris Nuclear Power Plant, Unit 1; Routine Integrated Report

The report covered a three-month period of inspection by resident inspectors and an announced inspection by a regional senior reactor inspector and a regional reactor inspector. 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. Inspector-Identified and Self-Revealing Findings

None.

B. Licensee-Identified Violations

None.

## REPORT DETAILS

Summary of Plant Status

The unit began the inspection period at full rated thermal power, and operated at full power for the entire inspection period with the exception of a brief down-power to 90 percent on March 4 for turbine valve testing.

## 1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity

1R02 Evaluations of Changes, Tests or Experimentsa. Inspection Scope

The inspectors reviewed selected samples of evaluations to confirm that the licensee had appropriately considered the conditions under which changes to the facility, Updated Final Safety Analysis Report (UFSAR), or procedures may be made, and tests conducted, without prior NRC approval. The inspectors reviewed evaluations for five changes and additional information, such as calculations, supporting analyses, the UFSAR, and drawings to confirm that the licensee had appropriately concluded that the changes could be accomplished without obtaining a license amendment. The five evaluations reviewed are listed in the Attachment.

The inspectors also reviewed samples of changes for which the licensee had determined that evaluations were not required, to confirm that the licensee's conclusions to "screen out" these changes were correct and consistent with 10CFR50.59. Two equivalency evaluations were also credited as 10CFR50.59 screens. The 15 "screened out" changes reviewed are also listed in the Attachment.

The inspectors also reviewed Actions Requests (ARs) and a trend report to confirm that problems were identified at an appropriate threshold, were entered into the corrective action process, and appropriate corrective actions had been initiated.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignmenta. Inspection ScopePartial System Walkdowns:

The inspectors performed the following three partial system walkdowns, while the

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indicated structures, systems and components (SSCs) were out-of-service (OOS) for maintenance and testing:

- A emergency diesel generator (EDG) with B EDG OOS on January 18, 2006.
- Train A of the containment spray (CS) system with train B OOS on January 25, 2006.
- Train B of the residual heat removal (RHR) system with A OOS on February 15, 2006.

To evaluate the operability of the selected trains or systems under these conditions, the inspectors reviewed valve and power alignments by comparing 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 125 VDC distribution system. The inspectors reviewed the documents listed in the Attachment to determine that the system was properly aligned and that the ability of the system to perform its function 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 ARs associated with this area to verify that the licensee identified and implemented appropriate corrective actions:

- 148536, Failed Battery Charger
- 185036, Oil Leakage into Battery Room
- 148536, Battery Charger 1B-SB Failed Surveillance
- 184160, Relay 27/1B1-SB Found Out of Tolerance

b. Findings

No findings of significance were identified.

1R05 Fire Protection

a. Inspection Scope

For the twenty 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 FSAR Section 9.5.1, Fire Protection System, and FSAR 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 applicable FSAR sections. Documents reviewed are listed in the Attachment.



- The Unit 1 EDG building including areas 1-D-1-DGA-RM, 1-D-3-DGA-ES, 1-D-DTA, 1-D-1-DGA-ASU, 1-D-1-DGA-ER, and 1-D-3-DGA-HVR, (6 areas)
- The 236' level of the reactor auxiliary building including areas 1-A-3-MP, 1-A-3-COR, and 1-A-3-COME (3 areas)
- The 236' level of the reactor auxiliary building including areas 1-A-3-COMC, 1-A-3-COMB, and 1-A-3-COMI (3 areas)
- The diesel fuel oil storage building including areas 1-O-PA, 1-O-PB, and 5-O-BAL (3 areas)
- The 261' level of the reactor auxiliary building including areas 1-A-4-COR and 1-A-4-CHLR (2 areas)
- The 190' and 216' levels of the reactor auxiliary building including areas 1-A-1-PA, 1-A-1-PB, and 1-A-2-MP (3 areas)

b. Findings

No findings of significance were identified.

1R06 Flood Protection Measures

a. Inspection Scope

External Flooding

The inspectors walked down the reactor auxiliary building water exclusion features and roof drainage system, to verify that the area configuration, features, and equipment functions were consistent with the descriptions and assumptions used in FSAR Section 2.4.10, Flood Protection Requirements, and Section 3.4.1, Flood Protection.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification

a. Inspection Scope

On March 1, 2006, the inspectors observed licensed-operator performance during requalification simulator training for crew C, to verify that operator performance was consistent with expected operator performance, as described in Exercise Guide EOP-SIM-17.103, RHR Operations. This training tested the operators' ability to place the RHR system into service and diagnose system problems. The inspectors focused on clarity and formality of communication, the use of procedures, alarm response, control board manipulations, group dynamics and supervisory oversight.

The inspectors observed the post-exercise critique to verify that the licensee had 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 one degraded SSC/function condition, repetitive functional failures of the 'C' air compressor. The repetitive failures were evaluated against the eight attributes listed below. The purpose of this review was to verify that the licensee's handling of this condition was in accordance with 10CFR50, Appendix B, Criterion XVI, Corrective Action, and 10CFR50.65, Maintenance Rule. Documents reviewed are listed in the Attachment.

- 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

The inspectors reviewed the licensee's risk assessments and the risk management actions for the plant configurations associated with the five activities listed below. The inspectors verified 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 also verified that any increase in risk was promptly assessed, and that appropriate risk management actions were promptly implemented.

- Corrective maintenance on valve 1SW-1055 (A train of essential services chilled water) on February 7, 2006.
- Planned maintenance on the B train of RHR on February 15, 2006.
- Corrective maintenance on the turbine driven auxiliary feed pump on February 21, 2006.

- Planned maintenance on A EDG with the A main steam power operated relief valve OOS on March 3, 2006.
- Planned maintenance on A and B RHR trains on March 5, 2006.

b. Findings

No findings of significance were identified.

1R14 Operator Performance During Non-Routine Evolutions and Events

a. Inspection Scope

During a non-routine evolutions involving a unit down-power for turbine valve testing on March 4, the inspectors observed plant instruments and operator performance to verify that the operators performed in accordance with the associated procedures and training.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations

a. Inspection Scope

The inspectors reviewed five operability determinations addressed in the ARs listed below. The inspectors assessed the accuracy of the evaluations, the use and control of any necessary compensatory measures, and compliance with the Technical Specifications (TS). The inspectors verified that the operability determinations were made as specified by Procedure OPS-NGGC-1305, "Operability Determinations." The inspectors compared the justifications made in the determination to the requirements from the TS, the FSAR, 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:

- 180464, Core Boring Impact on 1CS-168 Conduit
- 182092, Safety Bus A-SA and B-SB Rated Voltages Exceeded
- 184100, B EDG control circuit voltage UV relay 27/1B1-SB out of calibration
- 185634, 1SI-52, 86, and 107 may lead to reactor coolant system (RCS) overcharge
- 153553, Control room outside air intake damper failed to transfer to the auxiliary control panel during ORT-1813

The inspectors reviewed AR 168529, High Grid Voltage Effect on the Operation of Start-up Transformers to verify that the licensee identified and implemented appropriate corrective actions.

b. Findings

No findings of significance were identified.

1R17 Permanent Plant Modifications

.1 Annual Review

a. Inspection Scope

The inspectors reviewed the modification described in Engineering Change 63114, for a change to the turbine low hydraulic pressure trip setpoints, 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 10CFR50, Appendix B.

b. Findings

No findings of significance were identified.

.2 Bi-Annual Review

a. Inspection Scope

The inspectors evaluated engineering change packages (ECs) for eight modifications, in the Mitigating Systems and Initiating Events Cornerstone areas, to evaluate the modifications for adverse effects on system availability, reliability, and functional capability. The eight modifications and the associated attributes reviewed are as follows:

EC 58613, Revise Penetration Seal P3329 and Delete Seals E4602A and E4603A (Mitigating Systems)

- conformance with design standards
- plant document updating
- installation records

EC 60286, Auxiliary Feedwater Turbine Steam Low Pressure Switch (Mitigating Systems)

- seismic qualification
- materials/replacement components (conformance with design parameters)
- post-modification testing and calibration
- environmental evaluation
- plant document updating
- field configuration observation

EC 55486, Emergency Service Water (ESW) Pump Stuffing Box Lantern Ring Replacement (Mitigating Systems)

- post-modification testing records
- installation and inspection records
- material selection (corrosion effects)
- plant document updating
- independent observation of lantern ring

EC 55569, Internal Coating for ESW Booster Pumps (Mitigating Systems)

- material certification and evaluation
- plant document updating
- vendor documents
- quality assurance requirements for protective coatings

EC 61686, Pipe Replacement of ESW Lines to A CSIP Coolers and Installation of Flow Instrumentation (Mitigating Systems)

- system flow requirements
- post-modification testing records
- materials/replacement components
- seismic qualification
- independent field observation (supports, valves, ESW lines, flow instrumentation)

EC 56523, Turbine Trip Throttle Valve Closure Limit Switch (Initiating Events)

- design analysis
- plant document updating
- installation records
- post-modification testing

EC 53894, Service Water Automatic Bus Transfer (Mitigating Systems)

- design analysis
- installation records
- plant document updating

EC 54341, Reactor Coolant Pump Undervoltage Trip (Initiating Events)

- design analysis
- installation records
- plant document updating
- post-modification testing

For selected modification packages, the inspectors observed the as-built configuration. Documents reviewed included procedures, engineering calculations, modification design and implementation packages, work orders, site drawings, corrective action documents, applicable sections of the living UFSAR, supporting analyses, TS, and design basis information.

The inspectors also reviewed selected ARs and an assessment associated with modifications to confirm that problems were identified at an appropriate threshold, were entered into the corrective action process, and appropriate corrective actions had been initiated.

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 function(s) described in the FSAR and TS. The tests included the following:

- OST-1073, 1B-SB Emergency Diesel Generator Operability Test Monthly Interval Modes 1-6, following preventative maintenance on January 18, 2006.
- OP-112, Containment Spray System, following preventive maintenance on the B CS pump on January 25, 2006.
- OST-1092, 1B-SB RHR Pump Operability Quarterly Interval Modes 1-2-3, following maintenance on the B RHR pump and valve 1RH-58 on February 15, 2006.
- OST-1013, 1A-SA Emergency Diesel Generator Operability Test Monthly Interval Modes 1-6, following corrective maintenance on March 3, 2006.
- PM-I0055, Motor Operated Valve (MOV) Testing Using Teledyne Brown Engineering Quicklook System, for 1CS-753 following preventative maintenance on March 17, 2006.

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 test data, to verify that the SSCs involved in these tests satisfied the requirements described in the TS and the FSAR, and that the tests demonstrated that the SSCs were capable of performing their intended safety functions.

- OST-1005, Control Rod and Rod Position Indicator Exercise, Quarterly Interval Modes 1-3, on January 13, 2006.

- \*OST-1093, CVCS/SI System Operability Train B Quarterly Interval Modes 1-4, on January 24, 2006.
- OST-1026, Reactor Coolant System Leakage Evaluation, Computer Calculation, Daily Interval, Modes 1-4, on February 2, 2006.
- EST-400, Engineered Safety Feature Air Filtration Testing, on March 9, 2006.
- OST-1124, 86/UV Contact Status Test, section 7.3, on March 21, 2006.

\*This procedure included inservice testing requirements.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification

a. Inspection Scope

To verify the accuracy of the PI data reported during that period, the inspectors compared the licensee's basis in reporting each data element to the PI definitions and guidance contained in NEI 99-02, "Regulatory Assessment Indicator Guideline," Rev. 3.

Initiating Events Cornerstone

For the initiating events and barrier integrity cornerstone performance indicators (PIs) listed below, the inspectors sampled licensee submittals for the period from April 1, 2004 through December 31, 2005.

- Unplanned Scrams PI
- Scrams with Loss of Heat Removal PI
- Unplanned Power Changes PI

The inspectors reviewed a selection of licensee event reports, operator log entries, daily reports (including the daily corrective action reports), and PI data sheets to verify that the licensee had adequately identified the number of scrams and unplanned power changes greater than 20 percent that occurred during the previous four quarters. The inspectors compared this number to the number reported for the PI during the current quarter. The inspectors also reviewed the accuracy of the number of critical hours reported and the licensee's basis for crediting normal heat removal capability for each of the reported reactor scrams. In addition, the inspectors interviewed licensee personnel associated with the PI data collection, evaluation, and distribution.

### Mitigating Systems Cornerstone

- Safety System Functional Failures

For the period of July 1, 2004 through December 31, 2005, the inspectors reviewed licensee event reports, records of inoperable equipment, and Maintenance Rule records, to verify that the licensee had adequately accounted for functional failures that the subject systems had experienced during the previous four quarters. The inspectors also reviewed the number of hours those systems were required to be available and the licensee's basis for identifying functional failures. In addition, the inspectors interviewed licensee personnel associated with the PI data collection, evaluation, and distribution.

### Barrier Integrity Cornerstone

- Reactor Coolant System Activity

For the period of January 1, 2004 through December 31, 2005, the inspector reviewed licensee records of reactor coolant system analyses for dose equivalent iodine activity, and compared the licensee-reported performance indicator data with records developed by the licensee while analyzing the samples. Also, on January 25, 2006, the inspector observed licensee technicians performing a reactor coolant sample and activity analysis.

- Reactor Coolant System Leakage

For the period of April 1, 2004 through December 31, 2005, the inspectors reviewed records of daily measures of RCS identified leakage and observed daily leak rate surveillance test (OST-1026) on February 2, 2006.

b. Findings

No findings of significance were identified.

## 4OA2 Identification and Resolution of Problems

### .1 Routine Review of ARs

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

### .2 Annual Sample Review

a. Inspection Scope

The inspectors selected ARs 150114 and 174210 for detailed review. AR 150114 was associated with a degraded EDG control solenoid manifold, and AR 174210 was

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associated with malfunctioning EDG shuttle valves. The inspectors reviewed these reports to verify that the licensee identified the full extent of the issues, performed appropriate evaluations, and specified and prioritized appropriate corrective actions. The inspectors evaluated the report against the requirements of the licensee's CAP as delineated in corporate procedure CAP-NGGC-0200, Corrective Action Program, and 10 CFR 50, Appendix B.

b. Observations and Findings

From the review of these ARs, no findings of significance were identified.

.3 Annual Sample Review - Operator Work-Arounds

a. Inspection Scope

The inspectors reviewed the cumulative effects of the operator workarounds listed below, to verify that those effects could not increase an initiating event frequency, affect multiple mitigating systems, or affect the ability of operators to respond in a correct and timely manner to plant transients and accidents.

- Operator action required to maintain water chillers WC-2A and WC-2B tank pressures.
- The containment criticality safety function status tree must be monitored manually.
- Emergency service water pump seal flow is degraded causing low flow alarm on the main control board and requires local monitoring when running.
- Main steam isolation valves are required to be shut following plant trip due to excessive plant cooldown.

b. Findings

No findings of significance were identified.

4OA3 Event Follow-up

.1 (Closed) Licensee Event Report (LER) 05000400/2006001-00. Multiple Turbine EHC Low Fluid Pressure Switches Inoperable due to a Common Cause.

On December 19, 2005 the licensee discovered four of six pressure switches outside their TS allowable calibration limit of greater than or equal to 950 psig. The actual switch set-points were between 790 and 930 psig. The licensee's investigation revealed that the vendor of the switches changed the repeatability specification for the current switch model from 1.5% to 3.0%. The licensee's uncertainty calculation for the switch set-point did not reflect the new repeatability specification and therefore the switch set-points did not include sufficient margin to avoid dropping below the TS allowable value. The inspectors determined that the switches being out-of-calibration had minimal impact on plant safety because the switches were still functional (with slightly lower setpoints)

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and the turbine trip-reactor trip interlock is not relied upon to prevent core damage and is not credited in the accident analyses. The licensee has revised the uncertainty calculation and has calibrated the switches to include greater margin to the TS allowable value. This failure to comply with TS constitutes a violation of minor significance that is not subject to enforcement action in accordance with Section IV of the NRC's enforcement policy.

#### 40A5 Other

##### .1 Implementation of Temporary Instruction (TI) 2515/165 - Operational Readiness of Offsite Power and Impact on Plant Risk

###### a. Inspection Scope

The objective of TI 2515/165, "Operational Readiness of Offsite Power and Impact on Plant Risk," was to gather information to support the assessment of nuclear power plant operational readiness of offsite power systems and impact on plant risk. The inspectors evaluated licensee procedures against the specific offsite power, risk assessment and system grid reliability requirements of TI 2515/165. They also discussed the attributes with licensee personnel.

The information gathered while completing this TI was forwarded to the Office of Nuclear Reactor Regulation for further review and evaluation.

###### b. Findings

No findings of significance were identified.

##### .2 Institute of Nuclear Power Operations (INPO) Plant Assessment Report Review

###### a. Inspection Scope

The inspectors and branch chief reviewed the interim report for the INPO plant assessment of Harris Nuclear Power Plant conducted in January, 2006. The report was reviewed to ensure that issues identified were consistent with the NRC perspectives of licensee performance and to determine if any significant safety issues were identified that required further NRC follow-up.

###### b. Findings

No findings of significance were identified.

4OA6 Meetings, Including Exit

On April 4, 2006, the resident inspectors presented the inspection results to Mr. Gannon and other members of his staff. The inspectors confirmed that proprietary information was not provided or examined during the inspection.

ATTACHMENT: SUPPLEMENTAL INFORMATION

Enclosure

## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### **Licensee personnel**

D. Alexander, Superintendent, Environmental and Chemistry  
A. Barginere, Superintendent, Security  
D. Corlett, Supervisor - Licensing/Regulatory Programs  
R. Duncan, Director - Site Operations  
P. Fulford, Manger, Nuclear Assessment  
C. Gannon, Vice President Harris Plant  
W. Gurganious, Training Manager  
K. Henderson, Maintenance Manager  
C. Kamilaris, Manager - Support Services  
I. LaCross, Electrical/I&C Design Supervisor  
E. McCartney, Plant General Manager  
T. Natale, Manager - Outage and Scheduling  
S. O'Connor, Manager - Engineering  
T. Pilo, Supervisor - Emergency Preparedness  
G. Simmons, Superintendent - Radiation Control  
K. Voelsing, Senior Specialist  
C. Williams, Mechanical/Civil Design Supervisor  
E. Wills, Operations Manager

#### **NRC personnel**

P. Fredrickson, Chief, Reactor Projects Branch 4

**LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED**

Opened

None

Closed

05000400/2006-001-00	LER	Multiple Turbine EHC Low Fluid Pressure Switches Inoperable due to a Common Cause
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Discussed

None

## LIST OF DOCUMENTS REVIEWED

### Section 1R02: Evaluation of Changes, Tests, or Experiments

#### Full Evaluations

EC 60881, Dose Consequence Changes due to Vendor Error and Failure to Fully Consider Recirculation to the Refueling Water Storage Tank  
Evaluation No. 05-0006, Inoperable Fuel Handling Building Area Radiation Monitor  
EC 60828, Charging/Safety Injection Pump Suction Cross Connect Valves  
EC 60257, Charging/Safety Injection Pump C Power Supply  
EC 55938, Electrical Equipment Rooms Ventilation System Dampers

#### Screened Out Items

EC 48732, Scaffolding in Containment in Modes 1-4  
EC 55065, Emergency Service Water Intake Structure Input/Output Fiber Optic Loop Optimization  
EC 59959, Replacement of Turbine Driven Auxiliary Feedwater Overspeed Resistor  
EC 58613, Revise Penetration Seal P3329 and Delete Seals E4602A and E4603A  
EC 60286, Auxiliary Feedwater Turbine Steam Low Pressure Switch  
EC 55486, Lantern Ring Replacement for ESW Pumps  
EC 55569, Internal Coating for ESW Booster Pumps  
EC 61686, Pipe Replacement of ESW Lines to A CSIP Coolers and Installation of Flow Instrumentation  
EC 50779, Reclassification of Pressurizer Upper Level Instrument Lines  
ME06707R00, Equivalency for Insert on 30" METSO Butterfly Valves  
ME06930R00, Equivalency for Enersys Model Genesis NP7-6 6V Lead-Acid Batteries  
EC 60228, Online Probabilistic Risk Assessment Model Calculation  
EC 56584, Steam Generator Nozzle Dam Installation  
EC 53894, Service Water Automatic Bus Transfer  
EC 54341, Reactor Coolant Pump Undervoltage Trip

#### Self-Assessment Documents

Nuclear Assessment Trend Report for January 1 through June 30, 2005  
AR 151397, Individual Performing 50.59 Screens not Qualified  
AR 161048, Clearance Order Hanging for Greater than 90 Days  
AR 170886, Adverse Trend in use of Bounding Screens in 10 CFR 50.59  
AR 158958, Revision to EC 55938 50.59

### Section 1R04: Equipment Alignment

#### Partial System Walkdown

#### Emergency diesel generator system

Procedure OP-155, Diesel Generator Emergency Power System  
Drawing 2165-S-0633, sheets 1 through 4, Simplified Flow Diagram Emergency Diesel  
Generator Systems

Containment spray system

Procedure OP-112, Containment Spray System  
Drawing 2165-S-0550, Simplified Flow Diagram Containment Spray System

Residual heat removal system

Procedure OP-111, Residual Heat Removal System  
Drawing 2165-S-1324, Simplified Flow Diagram Residual Heat Removal Systems

Complete System Walkdown

125 VDC distribution system

Procedure OP-156.01, DC Distribution  
System Description 156, Plant Electrical Distribution System

Design Basis Document -202, Plant Electrical Distribution System  
FSAR section 8, Onsite Power Systems

**Section 1R05: Fire Protection**

FPP-001, Fire Protection Program Manual  
Fire Pre-Plan Drawings

**Section 1R06: Flood Protection Measures**

FSAR Sections

2.4.10, Flooding Protection Requirements

3.4.1, Flood Protection

**Section 1R11: Licensed Operator Regualification**

OP-111, Residual Heat Removal System

**Section 1R12: Maintenance Effectiveness**

NUMARC 93-01, Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear  
Power Plants

ADM-NGGC-0101, Maintenance Rule Program  
System Notebook MR Events Log - Radiation Monitoring and C Air Compressor

Action Requests associated with C Air Compressor:

- #109481, C Air Compressor Repetitive Failures
- #146045, C Air Compressor Oil Sump Heaters
- #169326, C Air Compressor Load/Unload Switch not in Expected Position
- #106426, Unable to Start C Air Compressor
- #112508, C Air Compressor Inadequate Design Change
- #116110, Root Cause Investigations

**Section 1R13: Maintenance Risk Assessments and Emergent Work Evaluation**

WCM-001, On-line Maintenance

**Section 1R14: Operator Performance During Non-Routine Evolutions and Events**

OP-107, Chemical and Volume Control System

**Section 1R15: Operability Evaluations**

OPS-NGGC-1305, Operability Determinations  
EOP-EPP-010, Transfer to Cold Leg Recirculation  
Engineering Change 60828, De-energizing 1CS-168

**Section 1R17: Permanent Plant Modifications**

Engineering Change 63114  
System Description SD-103, Reactor Protection System  
Design Basis Document DBD-301, Reactor Control and Protection System  
Final Safety Analysis Report Section 15.2.3, Turbine Trip

**Self-Assessment Documents**

H-ES-05-01, Harris Engineering Functional Area Assessment  
AR 86816, Weakness in Reviews of Design Changes Effecting Control Room Envelope  
AR 113084, Problems with Updated of ECs and Post Modification Testing  
AR 153607, Inconsistent Implementation of Engineering Product Quality Process  
AR 156083, Inconsistent Understanding of the Risk Management Tool  
AR 69088, Grid Disturbance Caused Reactor Trip  
AR 91632, Throttle Valve Limit Switch Out-of-Calibration

**Section 4OA2: Identification and Resolution of Problems**

CAP-NGGC-0200, Corrective Action Program  
AR 151302, EDG control air solenoid leakage  
Work Order 00670882, Replace solenoid manifold on EDG A  
Work Order 00689543, Replace solenoid manifold on EDG B  
ECR 7200, Replace shuttle valves in EDG-A and EDG-B pneumatic controls