



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION II
245 PEACHTREE CENTER AVENUE NE, SUITE 1200
ATLANTA, GEORGIA 30303-1257

January 25, 2013

Mr. George Hamrick, Vice President
Carolina Power and Light Company
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 05000400/2012005**

Dear Mr. Hamrick:

On December 31, 2012, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Shearon Harris reactor facility Unit 1. The enclosed inspection report documents the inspection results which were discussed on January 24, 2013, 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.

No NRC-identified or self-revealing findings were identified during this inspection. However, a licensee-identified violation which was determined to be of very low safety significance is listed in this report. The NRC is treating this violation as a non-cited violation (NCV) consistent with Section 2.3.2 of the Enforcement Policy.

If you contest this NCV, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region II; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Shearon Harris reactor facility.

G. Hamrick

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In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's Agencywide Document Access and Management 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/

Randall A. Musser, Chief
Reactor Projects Branch 4
Division of Reactor Projects

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

Enclosure: NRC Inspection Report 05000400/2012005
w/Attachment: Supplemental Information

cc w/encl: (See page 3)

G. Hamrick

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G. Hamrick

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Letter to George T. Hamrick from Randall A. Musser dated January 25, 2013.

SUBJECT: SHEARON HARRIS NUCLEAR POWER PLANT - NRC INTEGRATED
INSPECTION REPORT 05000400/2012005

Distribution w/encl:

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U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No.: 50-400

License No.: NPF-63

Report No.: 05000400/2012005

Licensee: Carolina Power and Light Company

Facility: Shearon Harris Nuclear Power Plant, Unit 1

Location: 5413 Shearon Harris Road
New Hill, NC 27562

Dates: October 1, 2012 through December 31, 2012

Inspectors: J. Austin, Senior Resident Inspector
P. Lessard, Resident Inspector
M. Bates, Senior Operations Engineer (Section 1R11)
J. Laughlin, Emergency Preparedness Inspector (Section 1EP4)
C. Fletcher, Senior Reactor Inspector (Section 4OA5.2)

Approved by: Randall A. Musser, Chief
Reactor Projects Branch 4
Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

IR 05000400/2012005: Carolina Power and Light Company; on October 1, 2012 – December 31, 2012; Shearon Harris Nuclear Power Plant, Unit 1; Integrated Report.

The report covered a three month period of inspection by resident inspectors, one senior operations engineer, and an emergency preparedness inspector. One licensee identified violation of very low safety significance (Green) was identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, Significance Determination Process (SDP). Cross-cutting aspects are determined using IMC 0310, Components within the Cross Cutting Areas. Findings for which the SDP does not apply may be Green or be assigned a severity level after NRC management review.

A. NRC-Identified and Self-Revealing Findings

None

B. Licensee-Identified Violations

A violation of very low safety significance which was identified by the licensee was reviewed by the inspectors. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program (CAP). That violation and corrective action tracking number are listed in Section 4OA7 of this report.

Enclosure

REPORT DETAILS

Summary of Plant Status

With the exception of a planned power reduction to 75 percent for turbine valve testing on November 30, 2012, Unit 1 operated at or near Rated Thermal Power (RTP) for the entire inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection

.1 Winter Seasonal Readiness Preparations

a. Inspection Scope

The inspectors conducted a review of the licensee's preparations for winter conditions to verify that the plant's design features and implementation of procedures were sufficient to protect mitigating systems from the effects of adverse weather. Documentation for selected risk-significant systems was reviewed to ensure that these systems would remain functional when challenged by inclement weather. During the inspection, the inspectors focused on plant specific design features and the licensee's procedures used to mitigate or respond to adverse weather conditions. Additionally, the inspectors reviewed the Updated Final Safety Analysis Report (UFSAR) and performance requirements for systems selected for inspection, and verified that operator actions were appropriate as specified by plant specific procedures. Cold weather protection, such as heat tracing and area heaters, was verified to be in operation where applicable. The inspectors also reviewed corrective CAP items to verify that the licensee was identifying adverse weather issues at an appropriate threshold and entering them into their CAP in accordance with station corrective action procedures. Specific documents reviewed during this inspection are listed in the Attachment. The inspectors' reviews focused specifically on the following plant systems due to their risk significance or susceptibility to cold weather issues:

- Emergency Service Water (ESW) System
- Instrument Air System

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

- AR #500457, Supply 3 Fan Access Door Left Open
- AR #491351, "B" Startup Transformer Oil Filled Cable Heaters
- AR #580104, Electric Unit Heater Thermostats Set Greater than Required in ESW Building

Enclosure

b. Findings

No findings were identified.

.2 External Flooding

a. Inspection Scope

The inspectors evaluated the design, material condition, and procedures for coping with the design basis probable maximum flood. The evaluation included a review to check for deviations from the descriptions provided in the UFSAR for features intended to mitigate the potential for flooding from external factors. As part of this evaluation, the inspectors checked for obstructions that could prevent draining, checked that the roofs did not contain obvious loose items that could clog drains in the event of heavy precipitation, and determined that barriers required to mitigate the flood were in place and operable. Additionally, the inspectors performed a walkdown of the protected area to identify any modification to the site which would inhibit site drainage during a probable maximum precipitation event or allow water ingress past a barrier. The inspectors also reviewed the abnormal operating procedure (AOP) for mitigating the design basis flood to ensure it could be implemented as written.

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

- AR #556586, Reactor Auxiliary Building Door In-Leakage
- AR #575214, Operability Assessment Weakness

b. Findings

No findings were identified.

.3 Readiness For Impending Adverse Weather Condition

a. Inspection Scope

On December 17, 2012, elevated wind speeds were projected for the plant area and inspectors reviewed the licensee's overall preparations for impending adverse weather conditions. The inspectors walked down areas of the plant susceptible to high winds, including the licensee's emergency alternating current (AC) power systems. During the inspection, the inspectors focused on plant specific design features and the licensee's procedures used to respond to specified adverse weather conditions. The inspectors utilized the guidance contained in Operating Experience Smart Sample (OPESS) 2012/01, High Wind Generated Missile Hazards to assist in the performance of this inspection.

b. Findings

No findings were identified.

1R04 Equipment Alignment

.1 Quarterly Partial System Walkdowns

a. Inspection Scope

The inspectors performed three partial system walkdowns of the following risk-significant systems:

- “A” and “B” Motor Driven Auxiliary Feedwater (MDAFW) systems while the Turbine Driven Auxiliary Feedwater (TDAFW) pump while out-of-service for planned maintenance on October 10, 2012;
- “A” and “B” ESW system while the licensee conducted critical maintenance in the electrical switchyard on October 23, 2012; and
- “A” and “B” Main Feedwater System during routine operation on December 21, 2012.

The inspectors selected these systems based on their risk-significance relative to the reactor safety cornerstones at the time they were inspected. The inspectors attempted to identify any discrepancies that could impact the function of the system and, therefore, potentially increase risk. The inspectors reviewed applicable operating procedures, system diagrams, applicable portions of the UFSAR, Technical Specification (TS) requirements, outstanding work orders, condition reports, and the impact of ongoing work activities on redundant trains of equipment in order to identify conditions that could have rendered the systems incapable of performing their intended functions. The inspectors also walked down accessible portions of the systems to verify system components and support equipment were aligned correctly and operable. The inspectors examined the material condition of the components and observed operating parameters of equipment to verify that there were no obvious deficiencies. The inspectors also verified that the licensee had properly identified and resolved equipment alignment problems that could cause initiating events or impact the capability of mitigating systems or barriers and entered them into the CAP with the appropriate significance characterization. Documents reviewed are listed in the Attachment.

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

- AR #575169, No Margin Evaluation for Feedwater System Health Report
- AR #572767, Margin Issues Identified and Plant Health Items Updated
- AR #566582, Air Voids in AFW

b. Findings

No findings were identified.

Enclosure

.2 Semi-Annual Complete System Walkdown

a. Inspection Scope

During the week of December 3, 2012, the inspectors performed a complete system alignment inspection of the Secondary Steam Relief system, including the Power Operated Relief Valves (PORVs) and Safety Relief Valves (SRVs), to verify the functional capability of the system. This system was selected because it was considered risk significant in the licensee's probabilistic risk assessment. The inspectors walked down the system to review mechanical and electrical equipment line ups, electrical power availability, system pressure and temperature indications, component labeling, component lubrication, component and equipment cooling, hangers and supports, operability of support systems, and to ensure that auxiliary equipment or debris did not interfere with equipment operation. A review of a sample of past and outstanding work orders (WOs) was performed to determine whether any deficiencies significantly affected the system function. In addition, the inspectors reviewed the CAP database to ensure that system equipment alignment problems were being identified and appropriately resolved. The documents used for the walkdown and issue review are listed in the Attachment.

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

- AR #424455, 1MS-58, Main Steam Line (MSL) "A" PORV Stroke Open Time Exceeds Limiting Value of 20 Seconds
- AR #527674, As-Found Test Of 1MS-48, MSL "C" SRV Outside Allowable Range
- AR #328826, 1MS-50, MSL "B" SRV Initial Stroke out of Tolerance During Testing

b. Findings

No findings were identified.

1R05 Fire Protection

.1 Quarterly Resident Inspector Tours

a. Inspection Scope

The inspectors conducted five fire protection walkdowns which were focused on availability, accessibility, and the condition of firefighting equipment in the following risk-significant plant areas:

- Steam Tunnel
- "A" Switchgear and Battery Rooms and Non-Safety Battery Room
- "B" Switchgear and Battery Rooms and Alternate Control Panel Room
- "A" Cable Spreading Room
- "B" Cable Spreading Room

The inspectors reviewed areas to assess if the licensee had implemented a fire protection program that adequately controlled combustibles and ignition sources within the plant, effectively maintained fire detection and suppression capability, maintained passive fire protection features in good material condition, and had implemented adequate compensatory measures for out-of-service, degraded or inoperable fire protection equipment, systems, or features in accordance with the licensee's fire plan. The inspectors selected fire areas based on their overall contribution to fire risk as documented in the plant's Individual Plant Examination of External Events with later additional insights, their potential to impact equipment which could initiate or mitigate a plant transient, or their impact on the plant's ability to respond to a security event. Using the documents listed in the attachment, the inspectors verified that fire hoses and extinguishers were in their designated locations and available for immediate use; that fire detectors and sprinklers were unobstructed, that transient material loading was within the analyzed limits; and fire doors, dampers, and penetration seals appeared to be in satisfactory condition. The inspectors also verified that minor issues identified during the inspection were entered into the licensee's CAP.

b. Findings

No findings were identified.

.2 Annual Fire Protection Drill Observation

a. Inspection Scope

On October 15, 2012, the inspectors observed fire brigade performance during an announced fire drill. This drill tested the licensee's response to a fire in the turbine building, in the vicinity of the entrance to the main control room. The observation was used to determine the readiness of the plant fire brigade to fight fires. The inspectors verified that the licensee staff identified deficiencies; openly discussed them in a self-critical manner at the drill debrief, and took appropriate corrective actions. Specific attributes evaluated were:

- Proper wearing of turnout gear and self-contained breathing apparatus
- Proper use and layout of fire hoses
- Employment of appropriate fire fighting techniques
- Sufficient firefighting equipment brought to the scene
- Effectiveness of fire brigade leader communications, command, and control
- Search for victims and propagation of the fire into other plant areas
- Smoke removal operations
- Utilization of preplanned strategies
- Adherence to the preplanned drill scenario
- Fulfillment of drill objectives

The inspectors reviewed the following AR associated with this area to verify that the licensee identified and implemented appropriate corrective actions:

- AR #567541, Fire Trailer Hitch Malfunction

b. Findings

No findings were identified.

1R06 Flood Protection Measures

.1 Review of Areas Susceptible to Internal Flooding

a. Inspection Scope

The inspectors reviewed selected risk important plant design features and licensee procedures intended to protect the plant and its safety related equipment from internal flooding events. The inspectors reviewed flood analyses and design documents, including the UFSAR, engineering calculations, and abnormal operating procedures (AOPs), for licensee commitments. The specific documents reviewed are listed in the Attachment. In addition, the inspectors reviewed licensee drawings to identify areas and equipment that may be affected by internal flooding caused by the failure or misalignment of nearby sources of water, such as the fire suppression or the circulating water systems. The inspectors also reviewed the licensee's corrective action documents with respect to past flood-related items identified in the CAP to verify the adequacy of the corrective actions. The inspectors performed a walkdown of the following plant area(s) to assess the adequacy of watertight doors and reviewed that drains and sumps were clear of debris and were operable, and that the licensee complied with its commitments:

- "A" and "B" Emergency Diesel Generator (EDG) Equipment Room

b. Findings

No findings were identified.

.2 Annual Review of Cables Located in Underground Bunkers/Manholes

a. Inspection Scope

The inspectors conducted an inspection of underground bunkers/manholes subject to flooding that contain cables whose failure could disable risk-significant equipment. The inspectors performed walkdowns of risk-significant areas, including Bunker Manholes 523 "A" and "B", to verify that the cables were not submerged in water, that cables and/or splices appear intact and to observe the condition of cable support structures. When applicable, the inspectors verified proper dewatering device (sump pump) operation and verified level alarm circuits are set appropriately to ensure that the cables

will not be submerged. Where dewatering devices were not installed; the inspectors ensured that drainage was provided and was functioning properly.

b. Findings

No findings were identified.

1R11 Licensed Operator Regualification Program

.1 Quarterly Review

a. Inspection Scope

On November 19, 2012, the inspectors observed a crew of licensed operators in the plant's simulator during licensed operator regualification examinations to verify that operator performance was adequate, evaluators were identifying and documenting crew performance problems and training was being conducted in accordance with licensee procedures. The inspectors evaluated the following areas during simulated feed control issues and "C" steam generator tube rupture:

- Licensed operator performance
- Crew's clarity and formality of communications
- Ability to take timely actions in the conservative direction
- Prioritization, interpretation, and verification of annunciator alarms
- Correct use and implementation of abnormal and emergency procedures
- Control board manipulations
- Oversight and direction from supervisors
- Ability to identify and implement appropriate TS actions and Emergency Plan actions and notifications

The crew's performance in these areas was compared to pre-established operator action expectations and successful critical task completion requirements.

b. Findings

No findings were identified.

.2 Licensed Operator Performance in the Actual Plant/Main Control Room

a. Inspection Scope

On November 30, 2012, the inspectors observed operators in the plant's main control room during turbine valve testing which required a planned power reduction to 75 percent followed by the restoration to RTP. The inspectors evaluated the following areas:

- Operator compliance and use of plant procedures, including procedure entry and exit, performing procedure steps in the proper sequence, procedure place-keeping, and TS entry and exit;
- Control board/in-plant component manipulations;
- Communications between crew members;
- Use and interpretation of plant instruments, indications, and alarms; diagnosis of plant conditions based on instruments, indications, and alarms;
- Use of human error prevention techniques, such as pre-job briefs and peer checking;
- Documentation of activities, including initials and sign-offs in procedures, control room logs, TS entry and exit, entry into out-of-service logs; and
- Management and supervision of activities, including risk management and reactivity management.

b. Findings

No findings were identified.

.3 Annual Review of Licensee Regualification Examination Results

a. Inspection Scope

On August 31, 2012, the licensee completed the comprehensive biennial requalification written examinations and annual requalification operating tests required to be administered to all licensed operators in accordance with 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 Manual Chapter 609 Appendix I, Operator Requalification Human Performance Significance Determination Process.

b. Findings

No findings were identified.

1R12 Maintenance Effectiveness

a. Inspection Scope

The inspectors assessed performance issues with respect to the reliability, availability, and condition monitoring of the system. In addition, the inspectors verified maintenance effectiveness issues were entered into the CAP with the appropriate significance characterization. Documents reviewed are listed in the Attachment. The inspectors evaluated degraded performance issues involving the following risk significant components:

- AR #566259, "A" Battery Room Exhaust Fan Failed Circuit Breaker Test
- AR #570924, Adjusted Residual Heat Removal Heat Exchanger "A" Outlet Flow during Testing

Enclosure

The inspectors focused on the following attributes:

- Implementing appropriate work practices;
- Identifying and addressing common cause failures;
- Scoping of systems in accordance with 10 CFR 50.65(b) of the maintenance rule;
- Characterizing system reliability issues for performance;
- Counting unavailability time during performance of maintenance;
- Trending key parameters for condition monitoring;
- Ensuring 10 CFR 50.65(a)(1) or (a)(2) classification or re-classification; and
- Verifying appropriate performance criteria for structures, systems, and components (SSCs)/functions classified as (a)(2) are appropriate and adequate goals and corrective actions for systems classified as (a)(1).

b. Findings

No findings were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control

a. Inspection Scope

The inspectors reviewed the licensee's evaluation and management of plant risk for the five maintenance and emergent work activities affecting risk-significant equipment listed below to verify that the appropriate risk assessments were performed prior to removing equipment for work:

- Planned maintenance outage on "B" ESW which was extended due to issues with the "B" ESW screen wash pump on October 19, 2012;
- Planned maintenance on "A" Startup Transformer resulting in yellow risk on October 21, 2012;
- Testing that required the "C" Feed Regulating Valve to be in manual resulting in a qualitative yellow risk condition on November 26, 2012;
- Planned down power to 75 percent for main turbine valve testing resulting in yellow risk on November 30, 2012; and
- Unreliable performance of the "C" Air Compressor on December 20, 2012.

These activities were selected based on their potential risk significance relative to the reactor safety cornerstones. As applicable for each activity, the inspectors verified that risk assessments were performed as required by 10 CFR 50.65(a)(4) and were accurate and complete. When emergent work was performed, the inspectors verified that the plant risk was promptly reassessed and managed. The inspectors reviewed the scope of maintenance work, discussed the results of the assessment with the licensee's probabilistic risk analyst or shift technical advisor, and verified plant conditions were consistent with the risk assessment. The inspectors also reviewed TS requirements and walked down portions of redundant safety systems, when applicable, to verify risk analysis assumptions were valid and applicable requirements were met.

Enclosure

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

- AR #568101, "B" ESW Screen Wash Pump Flow is too Low
- AR #568123, "B" ESW Screen Wash Pump Testing Delays
- AR #568446, Safety System Outage Performance has not met Expectations
- AR #578621, Spurious Starts and Trips of the "C" Air Compressor

b. Findings

No findings were identified.

1R15 Operability Evaluations

a. Inspection Scope

The inspectors selected the following five potential operability issues based on the risk significance of the associated components and systems. The inspectors evaluated the technical adequacy of the evaluations to ensure that TS operability was properly justified and the subject component or system remained available such that no unrecognized increase in risk occurred. The inspectors compared the operability and design criteria in the appropriate sections of the TS and UFSAR to the licensee's evaluations, to determine whether the components or systems were operable. Where compensatory measures were required to maintain operability, the inspectors determined whether the measures in place would function as intended and were properly controlled. The inspectors determined, where appropriate, compliance with bounding limitations associated with the evaluations. Additionally, the inspectors also reviewed a sampling of corrective action documents to verify that the licensee was identifying and correcting any deficiencies associated with operability evaluations. Documents reviewed are listed in the Attachment.

- AR #569593, Primary Shield Fan would not stay off when secured from Main Control Board
- AR #573075, Gross Failed Fuel Detector will not Maintain Adequate Flow
- AR #563956, "A" EDG Auxiliary Oil Pump Failed to Start on Coast Down
- AR #561532, "A" Chiller Auxiliary Lube Oil Pump has an Active Oil Leak
- AR #573621, Shims Missing from "A" Essential Service Chilled Water (ESCW) Auxiliary Oil Pump Footing

The inspectors reviewed the inspection guidance in Operating Experience Smart Sample 2012/02, Revision 1, TS Interpretation and Operability Determination, to verify conservative decision-making and proper application of TS Limiting Condition of Operation and Action requirements.

Enclosure

b. Findings(Opened) Unresolved Item (URI): Failure of the Primary Shield Supply Fan (S-2B-SB) to Remain Secure when Stopped

Introduction. The inspectors identified an URI associated with the failure of the primary shield supply fan (S-2B-SB) to remain stopped when secured from the main control board on October 26, 2012. This item is unresolved pending review and evaluation of the licensee's root cause evaluation to determine if a performance deficiency exists.

Description. During monthly equipment swapping on October 26, 2012, the licensee attempted to secure the S-2B-SB from the main control board. The fan stopped when the switch was turned to the OFF position, but automatically restarted when the switch was released without a valid start signal. The inspectors identified that the failure of the S-2B-SB to remain stopped when secured from the main control board adversely affected compliance with TS Surveillance Requirements (SR) 4.8.1.1.2 F.4 which verifies operability of the "B" EDG, "B" Electrical bus and "B" sequencer.

Additional inspection activities are needed to determine the extent of condition, relative to SR compliance, and if a performance deficiency exists. Pending the results of this additional inspection, an URI will be opened and designated as URI 05000400/2012005-01, "Failure of the Primary Shield Supply Fan (S-2B-SB) to Remain Secure when Stopped."

1R19 Post Maintenance Testinga. Inspection Scope

The inspectors reviewed the following five post-maintenance (PM) activities to verify that procedures and test activities were adequate to ensure system operability and functional capability:

<u>Procedure</u>	<u>Title</u>	<u>Related Maintenance Activity</u>	<u>Date</u>
EPT-283	Local Start of the TDAFW Pump using the Trip and Throttle Valve	WO #1906909, Replace TDAFW Pump Governor Ramp Generator	October 11, 2012
OPT-1512	Essential Chilled Water Turbopak Units Quarterly Inspection/Checks Modes 1-6	WO #1862578, Replace Listed Chiller Control Panel Relays	November 13, 2012
OST-2044	Radiological Waste Daily Operation Surveillance Test Modes: At all times	MST-I0379 Waste Processing Building Stack Five Accident Monitor Operational Test	November 27, 2012

Enclosure

PM-I0054	Air Operated Valve Diagnostic Testing	WO #1865079, Replace Both Air Pressure Regulators, Converter, and Positioner for 1RH-30 ("A" RHR Heat Exchanger Outlet Isolation Valve)	November 28, 2012
EST-220	Type C Local Leak Rate Test (LLRT) of Containment Purge Exhaust Penetration (M-58)	WO #2099499, Repair the Normal Containment Purge Exhaust Isolation Valve after M-58 Failed LLRT	December 4, 2012

These activities were selected based upon the SSC's ability to impact risk. The inspectors evaluated these activities for the following: the effect of testing on the plant had been adequately addressed; testing was adequate for the maintenance performed; acceptance criteria were clear and demonstrated operational readiness; test instrumentation was appropriate; tests were performed as written in accordance with properly reviewed and approved procedures; equipment was returned to its operational status following testing, and test documentation was properly evaluated. The inspectors evaluated the activities against TS and the UFSAR to ensure that the test results adequately ensured that the equipment met the licensing basis and design requirements. In addition, the inspectors reviewed corrective action documents associated with post-maintenance tests to determine whether the licensee was identifying problems and entering them in the CAP and that the problems were being corrected commensurate with their importance to safety. Documents reviewed are listed in the Attachment.

b. Findings

No findings were identified.

1R22 Surveillance Testing

.1 Routine Surveillance Testing

a. Inspection Scope

For the two surveillance tests below, the inspectors observed the surveillance tests and/or reviewed the tests results for the following activities to verify the tests met TS surveillance requirements, UFSAR commitments, in-service testing requirements, and licensee procedural requirements. The inspectors assessed the effectiveness of the tests in demonstrating that the SSCs were operationally capable of performing their intended safety functions.

- OST-1073, "B" EDG Operability Test Monthly Interval Modes 1-6 on October 18, 2012
- OST-1013, "A" EDG Operability Test Monthly Interval Modes 1-6 on November 30, 2012

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b. Findings

No findings were identified.

2. In Service Testing (IST) Surveillance

a. Inspection Scope

The inspectors reviewed the performance of OST-1119, Containment Spray Operability Train "B" Quarterly Interval Modes 1-4, to evaluate the effectiveness of the licensee's American Society of Mechanical Engineers (ASME) Section XI testing program for determining equipment availability and reliability. This surveillance satisfies the IST requirements for the "B" Containment Spray pump and valves throughout the Containment Spray system:

The inspectors evaluated selected portions of the following areas:

- Testing procedures and methods
- Acceptance criteria
- Compliance with the licensee's IST program, TS, selected licensee commitments, and code requirements
- Range and accuracy of test instruments
- Required corrective actions

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

- AR #500882, Check Valve Testing in OST-1118 and OST-1119
- AR #569486, Containment Spray Add Tank has Pin Hole Leak near Weld on Tank

b. Findings

No findings were identified.

3. Reactor Coolant System Leak Detection Inspection Surveillance

a. Inspection Scope

The inspectors observed and reviewed the test results for OST-1026, Reactor Coolant System (RCS) Leakage Surveillance, on October 22, 2012. The inspectors observed in plant activities and reviewed procedures and associated records to determine whether: effects of the testing were adequately addressed by control room personnel or engineers prior to the commencement of the testing; acceptance criteria were clearly stated, demonstrated operational readiness, and were consistent with the system design basis; plant equipment calibration was correct, accurate, and properly documented; and the calibration frequency were in accordance with TSs, the UFSAR, procedures, and applicable commitments; applicable prerequisites described in the test procedures were

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satisfied; test frequencies met TS requirements to demonstrate operability and reliability; tests were performed in accordance with the test procedures and other applicable procedures; test data and results were accurate, complete, within limits, and valid; equipment was returned to a position or status required to support the performance of its safety functions; and all problems identified during the testing were appropriately documented and dispositioned in the CAP. Documents reviewed are listed in the Attachment.

The inspectors reviewed the following AR associated with this area to verify that the licensee identified and implemented appropriate corrective actions:

- AR #568259, Elevated RCS Unidentified Leakage Results

b. Findings

No findings were identified.

Cornerstone: Emergency Preparedness

1EP4 Emergency Action Level and Emergency Plan Changes

a. Inspection Scope

The Office of Nuclear Security and Incident Response (NSIR) headquarters staff performed an in-office review of the latest revisions of various Emergency Plan Implementing Procedures (EPIPs) and the Emergency Plan located under ADAMS accession numbers ML12178A387, ML12180A514 and ML12206A072, as listed in the Attachment.

The licensee determined that in accordance with 10 CFR 50.54(q), the changes made in the revisions resulted in no reduction in the effectiveness of the plan, and that the revised plan continued to meet the requirements of 10 CFR 50.47(b) and Appendix E to 10 CFR Part 50. The NRC review was not documented in a safety evaluation report and did not constitute approval of licensee-generated changes; therefore, these revisions are subject to future inspection. The specific documents reviewed during this inspection are listed in the Attachment. This inspection activity satisfied one inspection sample for the emergency action level and emergency plan changes on an annual basis.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator (PI) Verification

a. Inspection Scope

To verify the accuracy of the PI data reported to the NRC, the inspectors compared the licensee's basis in reporting each data element to the PI definitions and guidance contained in Nuclear Energy Institute (NEI) Document 99-02, Regulatory Assessment Performance Indicator Guideline.

Mitigating Systems Cornerstone

- Mitigating Systems Performance Index (MSPI), Residual Heat Removal System
- MSPI, Cooling Water Systems

The inspectors sampled licensee submittals for the MSPI performance indicators listed above for the period from the fourth quarter 2011 through the third quarter 2012. The inspectors reviewed the licensee's operator narrative logs, issue reports, MSPI derivation reports, event reports and NRC Integrated Inspection reports for the period to validate the accuracy of the submittals. The inspectors reviewed the MSPI component risk coefficient to determine if it had changed by more than 25 percent in value since the previous inspection, and if so, that the change was in accordance with applicable NEI guidance. The inspectors also reviewed the licensee's issue report database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. Specific documents reviewed are described in the Attachment.

b. Findings

No findings were identified.

4OA2 Identification and Resolution of Problems

.1 Routine Review of Items Entered Into the Corrective Action Program

a. Inspection Scope

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

b. Findings

No findings were identified.

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.2 Semi-Annual Trend Review

a. Inspection Scope

The inspectors performed a review of the licensee's CAP and associated documents to identify trends that could indicate the existence of a more significant safety issue. The inspectors' review was focused on repetitive equipment issues, but also considered the results of daily inspector CAP item screening discussed in Section 4OA2.1 above, licensee trending efforts, and licensee human performance results. The inspectors' review nominally considered the six month period of July 1, 2012, through December 31, 2012, although some examples expanded beyond those dates where the scope of the trend warranted. The review also included issues documented outside the normal CAP in major equipment problem lists, repetitive and/or rework maintenance lists, departmental problem/challenges lists, system health reports, quality assurance audit/surveillance reports, self assessment reports, and Maintenance Rule assessments. The inspectors compared and contrasted their results with the results contained in the licensee's CAP trending reports. Corrective actions associated with a sample of the issues identified in the licensee's trending reports were reviewed for adequacy.

b. Findings and Observations

No findings were identified.

The inspectors identified that an adverse trend exists associated with immediate determinations of operability. Specifically, the failure to completely evaluate operability and account for all aspects of the design of the equipment resulted in several adverse issues. The following items are examples of this trend:

- AR #569593, Primary Shield Fan would not stay off when Secured from Main Control Board,
- AR #564728, Two Operability Evaluations on "A" EDG had Different Results
- AR #562556, Operability Determination on "A" Chiller Needed Revision
- AR #566201, Containment Sump Operability following Refueling Outage 17

This trend was entered into the licensee's CAP as AR #584473.

.3 Annual Sample: Review of Operator Workarounds (OWAs)

a. Inspection Scope

The inspectors evaluated the licensee's implementation of their process used to identify, document, track, and resolve operational challenges. Inspection activities included, but were not limited to, a review of the cumulative effects of the OWAs on system availability and the potential for improper operation of the system, for potential impacts on multiple systems, and on the ability of operators to respond to plant transients or accidents. The inspectors performed a review of the cumulative effects of OWAs. The documents listed in the attachment were reviewed to accomplish the objectives of the inspection

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procedure. The inspectors reviewed both current and historical operational challenge records to determine whether the licensee was identifying operator challenges at an appropriate threshold, had entered them into their CAP and proposed or implemented appropriate and timely corrective actions which addressed each issue. Reviews were conducted to determine if any operator challenge could increase the possibility of an Initiating Event, if the challenge was contrary to training, required a change from long-standing operational practices, or created the potential for inappropriate compensatory actions. Daily plant and equipment status logs, degraded instrument logs, and operator aids or tools being used to compensate for material deficiencies were also assessed to identify any potential sources of unidentified OWAs.

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

- AR #561532, Monitor Oil Leakage on "A" Chiller Auxiliary Oil Pump
- AR #556586, Reactor Auxiliary Building Door In-Leakage

b. Findings

No findings were identified.

4OA3 Follow-up of Events

.1 (Closed) Licensee Event Report (LER) 05000400/2012-001-00, Delayed Closure of Main Steam Isolation Valves Due to Corrosion

On April 21, 2012, during plant shutdown for a refueling outage, two Main Steam Isolation Valves (MSIVs) failed to stroke close within their required stroke times during surveillance testing. The licensee subsequently identified high friction in all three of the MSIVs as a result of unexpected long-term corrosion of the valve piston rings. The primary cause was that the MSIVs were not properly categorized/tested in the air operated valve diagnostic test program, and previous opportunities to identify potential valve degradation were not recognized. Licensee corrective actions included replacing the valve piston rings with material less susceptible to corrosion and implementing a diagnostic testing program on the MSIVs. The inspectors reviewed the subject LER, as well as the licensee's root cause evaluation (RCE) report associated with NCR 531773. The inspectors verified the LER accuracy and that the root cause evaluation was conducted to a level of detail commensurate with the significance of the problem and reached reasonable conclusions as to the root and contributing causes of the event. The inspectors also concluded that the licensee identified reasonable and appropriate corrective actions for each root and contributing cause and that the corrective actions appeared to be prioritized commensurate with the safety significance of the issues. The enforcement aspects of this issue associated with the failure to properly categorize the MSIVs in the air operated valve program and conduct diagnostic testing that could have identified the valve degradation was previously addressed in NCV 05000400/2012009-01. No new findings were identified. This LER is closed.

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4OA5 Other Activities.1 Quarterly Resident Inspector Observations of Security Personnel and Activitiesa. Inspection Scope

During the inspection period the inspectors conducted observations of security force personnel and activities to ensure that the activities were consistent with licensee security procedures and regulatory requirements relating to nuclear plant security. These observations took place during both normal and off-normal plant working hours.

These quarterly resident inspector observations of security force personnel and activities did not constitute any additional inspection samples. Rather, they were considered an integral part of the inspectors' normal plant status reviews and inspection activities.

b. Findings

No findings were identified.

.2 (Discussed) Temporary Instruction (TI) -2515/182 - Review of the Implementation of the Industry Initiative to Control Degradation of Underground Piping and Tanks, Phase 1a. Inspection Scope

Leakage from buried and underground pipes has resulted in ground water contamination incidents with associated heightened NRC and public interest. The industry issued a guidance document, Nuclear Energy Institute (NEI) 09-14, "Guideline for the Management of Buried Piping Integrity," (ADAMS Accession No. ML1030901420), to describe the goals and required actions (commitments made by the licensee) resulting from this underground piping and tank initiative. On December 31, 2010, NEI issued Revision 1 to NEI 09-14, "Guidance for the Management of Underground Piping and Tank Integrity," (ADAMS Accession No. ML110700122), with an expanded scope of components which included underground piping that was not in direct contact with the soil and underground tanks. On November 17, 2011, the NRC issued TI-2515/182 "Review of the Industry Initiative to Control Degradation of Underground Piping and Tanks," to gather information related to the industry's implementation of this initiative.

The inspectors reviewed the licensee's programs for buried pipe and underground piping and tanks in accordance with TI-2515/182 to determine if the program attributes and completion dates identified in Sections 3.3 A and 3.3 B of NEI 09-14, Revision 1 were contained in the licensee's program and implementing procedures. For the buried pipe and underground piping program attributes, with completion dates that had passed, the inspectors reviewed records to determine if the attribute was in fact complete and to determine if the attribute was accomplished in a manner which reflected good or poor practices in program management.

b. Observations

The licensee's buried piping and underground piping and tanks program was inspected in accordance with paragraphs 03.01.a through 03.01.c of TI-2515/182 and was found to meet all applicable aspects of NEI 09-14 Revision 1, as set forth in Table 1 of the TI.

Based upon the scope of the review described above, Phase I of TI-2515/182 was completed.

c. Findings

No findings were identified.

.3 (Discussed) NRC Temporary Instruction (TI) 2515/187, Inspection of Near-Term Task Force Recommendation 2.3 Flooding Walkdowns

a. Inspection Scope

Inspectors conducted independent walkdowns to verify that the licensee completed the actions associated with the flood protection feature specified in paragraph 03.02.a.2 of this TI. Inspectors are performing walkdowns at all sites in response to a letter from the NRC to licensees, entitled "Request for Information Pursuant to Title 10 of the *Code of Federal Regulations* 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-Ichi Accident," dated March 12, 2012 (ADAMS Accession No. ML12053A340).

Enclosure 4 of the letter requested licensees to perform external flooding walkdowns using an NRC-endorsed walkdown methodology (ADAMS Accession No. ML12056A050). Nuclear Energy Industry (NEI) document 12-07 titled, "Guidelines for Performing Verification Walkdowns of Plant Protection Features," (ADAMS Accession No. ML12173A215) provided the NRC-endorsed methodology for assessing external flood protection and mitigation capabilities to verify that plant features, credited in the CLB for protection and mitigation from external flood events, and are available, functional, and properly maintained.

b. Findings

Findings or violations associated with the flooding, if any, will be documented in the 1st quarter integrated inspection report of 2013.

.4 (Closed) NRC Temporary Instruction (TI) 2515/188, Inspection of Near-Term Task Force Recommendation 2.3 Seismic Walkdowns

a. Inspection Scope

The inspectors accompanied the licensee on their seismic walkdowns of the following components:

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- “A” ESW Strainer
- The 1A-23-SA Motor Control Center (MCC) in the “A” EDG Electrical Room
- “A” EDG Starting Air Compressor
- “B” EDG Air Receiver

The inspectors verified that the licensee confirmed that the following seismic features associated with the component listed above were free of potential adverse seismic conditions.

- Anchorage was free of bent, broken, missing or loose hardware
- Anchorage was free of corrosion that is more than mild surface oxidation
- Anchorage was free of visible cracks in the concrete near the anchors
- Anchorage configuration was consistent with plant documentation.
- SSCs will not be damaged from impact by nearby equipment or structures.
- Overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls are secure and not likely to collapse onto the equipment.
- Attached lines have adequate flexibility to avoid damage.
- The area appears to be free of potentially adverse seismic interactions that could cause flooding or spray in the area.
- The area appears to be free of potentially adverse seismic interactions that could cause a fire in the area.

The area appears to be free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding).

The inspectors independently performed their walkdown and reviewed the following components:

- TDAFW Pump
- The 1A-21-SA MCC in the “A” Switchgear Room, 1A-SA

Observations made during the walkdown that could not be determined to be acceptable were entered into the licensee’s CAP for evaluation.

Additionally, inspectors verified that items that could allow the spent fuel pool to drain down rapidly were added to the seismic walkdown equipment list (SWEL) and these items were walked down by the licensee.

b. Findings

No findings were identified.

4OA6 Management Meetings

Exit Meeting Summary

On January 24, 2013 the inspector presented the inspection results to Mr. George Hamrick, and other members of the licensee staff. The inspectors confirmed that proprietary information was not provided or examined during the inspection period.

4OA7 Licensee-Identified Violations

The following finding of very low safety significance (Green) was identified by the licensee and is a violation of NRC requirements which meets the criteria of the NRC Enforcement Policy for being dispositioned as an NCV.

- The licensee identified during the performance of OST-2044 (Radwaste Daily Operations Surveillance Test) on November 27, 2012, that the Waste Processing Building Stack 5 Accident Monitor (RM-WV-3546-1) was reading lower than expected and declared the monitor inoperable. An investigation revealed that at the conclusion of the maintenance activities performed the previous day, the monitor was returned to operable status while its database had incorrect settings. The inaccurate database was determined to have rendered the monitor inoperable. 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," states in part that activities affecting quality shall be prescribed by documented instructions and procedures. Contrary to the above, on November 26, 2012, the licensee's procedure OWP-RM-19 (Operations Work Procedure Radiation Monitor) failed to adequately prescribe the correct instructions to ensure Radioactive Gaseous Effluent Monitoring Instrumentation received the appropriate post maintenance test. The licensee entered this issue into their CAP as AR #574702 and the monitor database was restored and tested. Using IMC 0609, Significance Determination Process, this finding was determined to be of low safety significance because the finding did not represent an actual dose impact in excess of Appendix I to 10 CFR Part 50 or 10 CFR 20.1301(e).

ATTACHMENT: SUPPLEMENTAL INFORMATION

Enclosure

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee personnel

D. Corlett, Supervisor, Licensing/Regulatory Programs
L. Bennett, Buried Piping Program Manager
J. Doorhy, Licensing Engineer
J. Dufner, Director, Engineering
D. Griffith, Training Manager
G. Hamrick, Vice President Harris Plant
E. Kapopoulos, Plant General Manager
B. McCabe, Manager, Nuclear Oversight
K. Miller, Engineering Programs Supervisor
S. O'Connor, Manager, Support Services
M. Parker, Superintendent, Radiation Control
M. Robinson, Superintendent, Environmental and Chemistry
T. Slake, Manager, Security
J. Warner, Manager, Outage and Scheduling
F. Womack, Manager, Operations

NRC personnel

R. Musser, Chief, Reactor Projects Branch 4, Division of Reactor Projects, Region II

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

05000400/2012005-01	URI	Failure of the Primary Shield Supply Fan (S-2B-SB) to Remain Secure when Stopped (Section 1R15)
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Closed

05000400/2012-001-00	LER	Delayed Closure of Main Steam Isolation Valves Due to Corrosion (Section 4OA3.2)
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Temporary Instruction 2515/188	TI	Inspection of Near-Term Task Force Recommendation 2.3 Seismic Walkdowns (Section 4OA5.4)
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Discussed

Temporary Instruction 2515/182	TI	Review of the Implementation of the Industry Initiative to Control Degradation of Underground Piping and Tanks, Phase 1 (Section 4OA5.2)
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Temporary Instruction 2515/187	TI	Inspection of Near-Term Task Force Recommendation 2.3 Flooding Walkdowns (Section 4OA5.3)
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LIST OF DOCUMENTS REVIEWED

Section 1R01: Adverse Weather Protection

ORT-1415, Electric Unit Heater Check Monthly Interval
OP-161.01, Operations Freeze Protection and Temperature Maintenance Systems
AP-300, Severe Weather
AP-301, Seasonal Weather Preparations and Monitoring
EC 87905, Fukushima 2.3 Flooding Inspection Documentation
EC 87910, Fukushima 2.3 Seismic Inspection Documentation
WO # 1859523, CTMU Structure Breaker Tripped, AP-301 Concern
WO #1833864, Replace Breaker for AP-301
WO #2038842, Install Temporary Heater at LFDCP-9 for AP-301
Operating Experience Smart Sample 2012/01, High Wind Generated Missile Hazards, dated 12/29/2011

Section 1R04: Equipment Alignment

Partial System Walkdown

Auxiliary Feedwater System:

Procedure OP-137, Auxiliary Feedwater System,
Drawing 2165-S-0544, Simplified Flow Diagram Auxiliary Feedwater Systems

Emergency Service Water system:

Procedure OP-139, Service Water System,
Drawing 2165-S-0547, Simplified Flow Diagram Circulating and Service Water Systems
Drawing 2165-S-0547, Sheets 1 and 2, Simplified Flow Diagram Circulating and Service Water Systems

Complete System Walkdown

DBD-125, Steam Generator, Main Steam, Extraction Steam, Steam Dump and Auxiliary Steam Systems
Drawing 2165-S-0542, Simplified Flow Diagram Main Steam Supply System
FSAR section 10.3, Main Steam Supply System
WR #538649, 1MS-43 (MS LINE A SRV), Minor Steam Leakby
WR #529193, MS Line C SRV CIV is Wisping Steam
WR #538648, 1MS-45 (MS LINE C SRV), Minor Steam Leakby
WR #458602, 1MS-60, Is Not Stable While Controlling Steam Pressure
WO # 1848404, Adjust Deadband on 1MS-60 "B" PORV / Troubleshoot Cycling
Third Quarter 2012, System Health Report: Main Steam System

Section 1R05: Fire Protection

FPP-001 Fire Protection Program Manual
FIR-NGGC-0009, NFPA 805 Transient Combustibles and Ignition Source Controls Program
FPP-013, Fire Protection – Minimum Requirements, Mitigating Actions and Surveillance Requirements
FPP-012-02-RAB261, Reactor Auxiliary Building Elevation 261 Fire Pre-Plan
FPP-012-02-RAB 286, Reactor Auxiliary Building Elevation 286 Fire Pre-Plan

Section 1R06: Flood Protection MeasuresUFSAR Sections

2.4.10, Flooding Protection Requirements

3.6A.6, Flooding Analysis

Calculations

Appendix I to the HNP Probabilistic Safety Assessment, Internal Flooding Analysis

Calculation #PRA-F/E-4, RAB Unit 1 Elevation 190' & 216' Flood Analysis

Calculation #PRA-F/E-5, RAB Unit 1 Elevation 236 Compartment Flood Analysis

Calculation #PRA-F/E-6, RAB Unit 1 Elevation 261 Compartment Flood Analysis

Calculation #PRA-F/E-7, RAB Unit 1 Elevation 286 Compartment Flood Analysis

Calculation #PRA-F/E-8, RAB Unit 1 Elevation 305 Compartment Flood Analysis

Ebasco Services Incorporated #SD-4, Turbine Building Sump Size

Ebasco Services Incorporated #SD-1, Turbine Building Sump Data Sheet

PFR-F/E-0009 Diesel Equipment Room Flooding Analysis

Other Documents

Specification CAR-SH-E-14B, Electric Cables

Carolina Power & Light Company Quality Release No. 5984, Power and Coaxial Cable

The Vendor Quality Assurance Report Release for Shipment for Purchase Order N4435045, Release 12

Cable-qualification test reports obtained from the Kerite Company under Kerite Factory Order D-857

Kerite Engineering Memorandum No. 223, Determining Temperature 'Rating' of High Temperature Kerite Insulated Cables for Operation in Wet and Alternate Wet/Dry Locations, 5/4/77

Section 1R11: Licensed Operator Requalification ProgramBenchmark Tests

SST-001, "Steady State Accuracy and Stability Test", Performed 11/16/09, 12/15/10

SST-002, "Steady State Accuracy and Stability Test", Performed 11/16/09, 12/15/10

SST-003, "Steady State Accuracy Test", Performed 11/16/09, 12/15/10

TT-001, "Reactor Trip", Performed 10/10

Job Performance Measure (JPM) Packages

Transfer Control to The ACP

Reset Turbine Driven Aux Feedwater Pump

Isolate Ruptured SG – MSIV Will Not Close

Place Containment Cooling in the Maximum Cooling Mode

Classify an Event – ALERT

General Documentation Reviewed

Biennial written examination for 2010 – weeks 1 through 5

Calculation E-5525, Safe Shutdown in Case of Fire

Remedial Action Plan – 2009 – 2010

Requal attendance records 2009-2010

EOP-User's Guide, Part 4, Rev 29
 LERs 2009 to 2010

Procedures

OSP-NGGC-1000, Fleet Conduct of Operations, Revision 3
 Operations Management Manual, OMM-001, Operations Administrative Requirements, Rev 92
 Training Administrative Procedure (TAP) -403, Examination and Testing, Rev 19
 TAP 410, NRC License Examination Security Program, Rev 15
 TAP-412, Simulator Operations, Maintenance and Testing, Rev 8
 Training Program Procedure (TPP)-206 Training Program Procedure-Simulator Rev 10
 TPP- 306, Licensed Operator Continuing Training Program, Revision 20
 TRN-NGGC-0002, Performance Review and Remedial Training, Rev 0
 TRN-NGGC-0420, Conduct of Simulator Training and Evaluation, Rev 0,
 TRN-NGGC-0440, Rev 0
 TRN-NGGC-1000, Conduct of Training, Rev 3
 AOP- 004, Remote Shutdown
 HNP-E/ELEC-0001 Appendix 1 Compliance Assessment by Scenario
 TRN-NGGC-1000, Conduct of Training, Rev 3

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

Section 1R13: Maintenance Risk Assessments and Emergent Work Evaluation

OMP-003, Outage Shutdown Risk Management
 OMM-001, Conduct of Operations
 WCP-NGGC-1000, Conduct of On-Line Work Management
 OPS-NGGC-1311, Protected Equipment
 WCM-001, On-line Maintenance
 ADM-NGGC-0006, Online Equipment Out-of-Service (EOOS) Models for Risk Assessment

Section 1R15: Operability Evaluations

Procedures

OPS-NGGC-1305, Operability Determinations

Other Documents

Operating Experience Smart Sample 2012/02, Technical Specification Interpretation and Operability Determination, dated 5/17/2012

Section 1EP4: Emergency Action Level and Emergency Plan Changes

Change Packages

PLP-201, Emergency Plan, Revision 58

EP-EAL, "Emergency Action Levels," Revision 10
EMG-NGGC-0002, "Off-Site Dose Assessment," Revision 3
PEP-110, "Emergency Classification and Protective Action Recommendations," Revision 20
PEP-310, "Notifications and Communications," Revision 27
PEP-240, "Activation and Operation of the Technical Support Center," Revision 15

Section 40A1: Performance Indicator Verification

NEI 99-02, Regulatory Assessment Performance Indicator Guideline
Calculation HNP-F/PSA-0068, NRC Mitigating System Performance Index Basis Document for Harris Nuclear Plant

Section 40A2: Identification and Resolution of Problems

CAP-NGGC-0200, Condition Identification and Screening Process
CAP-NGGC-0205, Condition Evaluation and Corrective Action Process
CAP-NGGC-0206, Performance Assessment and Trending

Section 40A5: Other Activities

Procedures

EGR-NGGC-0209, Rev 3, Buried Piping Program

Other Documents

HNP Buried Piping Integrity Initiative Completion Schedule
HNP Buried Piping Inspection Plan
HNP NEI NSIAC Buried Piping Integrity Initiative Implementation Status of Action 1 Requirements, June 22, 2010
HNP NEI NSIAC Buried Piping Integrity Initiative Implementation Status of Action 2 Requirements, December 1, 2010
HNP Underground Piping and Tanks Initiative Implementation Status of Action 1
HNP Underground Piping and Tanks Initiative Implementation Status of Action 2
CR 567704, Repeat Leak on Waste Neutralization Line
Event Notification 45625, Groundwater Protection Initiative
CAP-NGGC-0201-7-17, Formal Self Assessment Report