



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

April 30, 2015

Mr. Benjamin C. Waldrep  
Site Vice President  
Shearon Harris Nuclear Power Plant  
5413 Shearon Harris Road  
New Hill, NC 27562-0165

**SUBJECT: SHEARON HARRIS NUCLEAR POWER PLANT - NRC INTEGRATED  
INSPECTION REPORT 05000400/2015001**

Dear Mr. Waldrep:

On March 31, 2015, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Shearon Harris Nuclear Power Plant Unit 1. The enclosed inspection report documents the inspection results which were discussed on April 17, 2015, with you and other members of your staff.

No NRC-identified or self-revealing findings were identified during this inspection. However, one 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 non-cited violation (NCV) consistent with Section 2.3.2.a 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.

B. Waldrep

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In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390 of the NRC's "Agency Rules of Practice and Procedure," 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/**

George T. Hopper, Chief  
Reactor Projects Branch 4  
Division of Reactor Projects

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

Enclosure:  
NRC IR 05000400/2015001  
w/Attachment: Supplemental Information

cc Distribution via ListServ

B. Waldrep

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Letter to Benjamin C. Waldrep from George T. Hopper dated April 30, 2015.

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INSPECTION REPORT 05000400/2015001

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**U.S. NUCLEAR REGULATORY COMMISSION**

**REGION II**

Docket Nos.: 50-400

License Nos.: NPF-63

Report No.: 05000400/2015001

Licensee: Duke Energy Progress, Inc.

Facility: Shearon Harris Nuclear Power Plant, Unit 1

Location: 5413 Shearon Harris Road  
New Hill, NC 27562

Dates: January 1, 2015 through March 31, 2015

Inspectors: J. Austin, Senior Resident Inspector  
P. Lessard, Resident Inspector  
J. Dodson, Senior Project Engineer (Section 4OA2)

Approved by: George T. Hopper, Chief  
Reactor Projects Branch 4  
Division of Reactor Projects

Enclosure

## **SUMMARY OF FINDINGS**

IR 05000400/2015001; January 1, 2015, through March 31, 2015; Duke Energy Progress, Inc., Shearon Harris Nuclear Power Plant, Unit 1, Integrated Inspection Report.

The report covered a three-month period of inspection by resident inspectors and a regional senior project engineer. No findings were identified during this inspection period. The significance of inspection findings are indicated by their color (i.e., greater than Green, or Green, White, Yellow, Red) and determined using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP) dated June 2, 2011. The cross-cutting aspects are determined using IMC 0310, "Aspects within the Cross-Cutting Areas," dated December 4, 2014. All violations of NRC requirements are dispositioned in accordance with the NRC's Enforcement Policy dated January 28, 2013. The NRC's program for overseeing the safe operations of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 5.

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

## REPORT DETAILS

### Summary of Plant Status

Unit 1: The plant operated at or near rated thermal power for the entire inspection period.

#### 1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

##### 1R01 Adverse Weather Protection (71111.01 – 1 sample)

###### a. Inspection Scope

###### Impending Adverse Weather Conditions

The inspectors reviewed the licensee's preparations to protect risk-significant systems from a severe cold weather period that started February 17, 2015. The inspectors evaluated the licensee's implementation of adverse weather preparation procedures and compensatory measures, including operator staffing, before the onset of the severe cold weather. The inspectors reviewed the licensee's plans to address the ramifications of potentially lasting effects that may result from the adverse weather condition. The inspectors verified that operator actions specified in the licensee's adverse weather procedure maintain readiness of essential systems. The inspectors verified that required surveillances were current, or were scheduled and completed, if practical, before the onset of anticipated adverse weather conditions. The inspectors also verified that the licensee implemented periodic equipment walkdowns or other measures to ensure that the condition of plant equipment met operability requirements.

###### b. Findings

No findings were identified.

##### 1R04 Equipment Alignment (71111.04 – 3 samples)

###### a. Inspection Scope

###### Partial Walkdown

The inspectors verified that critical portions of the selected systems were correctly aligned by performing partial walkdowns. The inspectors selected systems for assessment because they were a redundant or backup system or train, were important for mitigating risk for the current plant conditions, had been recently realigned, or were a single-train system. The inspectors determined the correct system lineup by reviewing plant procedures and drawings. Documents reviewed are listed in the Attachment.

The inspectors selected the following systems or trains to inspect:

- Security Diesel Generator and Switchgear System on January 15, 2015
- “A” Emergency Service Water (ESW) system while it was protected on January 23, 2015
- “B” Air Compressor and the #1 Temporary Air Compressor while they were protected on February 24, 2015

b. Findings

No findings were identified.

1R05 Fire Protection (71111.05Q – 6 samples)

a. Inspection Scope

Quarterly Inspection

The inspectors evaluated the adequacy of selected fire plans by comparing the fire plans to the defined hazards and defense-in-depth features specified in the fire protection program. The inspectors assessed the following items:

- control of transient combustibles and ignition sources
- fire detection systems
- water-based fire suppression systems
- gaseous fire suppression systems
- manual firefighting equipment and capability
- passive fire protection features
- compensatory measures and fire watches
- issues related to fire protection contained in the licensee’s CAP

The inspectors toured the following fire areas to assess material condition and operational status of fire protection equipment. Documents reviewed are listed in the Attachment.

- Turbine Building, 261’ Elevation
- “A” Diesel, 261’ Elevation
- “B” Diesel, 261’ Elevation
- Fuel Handling Building, 286’ Elevation
- “A” Train ESW Pump Room
- “B” Train ESW Pump Room

b. Findings

No findings were identified.



1R11 Licensed Operator Requalification Program and Licensed Operator Performance (71111.11 – 2 samples)

a. Inspection Scope

.1 Resident Inspector Quarterly Review of Licensed Operator Requalification

The inspectors observed a simulator scenario conducted for training of an operating crew for an upcoming reactor refueling outage (RFO) on January 29, 2015. The scenario challenged the operators' ability to respond to events which could occur during a RFO, including residual heat removal system malfunctions and loss of the "A" safety related electrical bus.

The inspectors assessed the following:

- licensed operator performance
- the ability of the licensee to administer the scenario and evaluate the operators
- the quality of the post-scenario critique
- simulator performance

.2 Resident Inspector Quarterly Review of Licensed Operator Performance in the Actual Plant/Main Control Room

The inspectors observed licensed operator performance in the main control room during an entry into AOP-019, "Malfunction of Reactor Coolant System Pressure Control," on March 3, 2015.

The inspectors assessed the following:

- use of plant procedures
- control board manipulations
- communications between crew members
- use and interpretation of instruments, indications, and alarms
- use of human error prevention techniques
- documentation of activities
- management and supervision

b. Findings

No findings were identified.

1R12 Maintenance Effectiveness (71111.12 – 2 samples)

a. Inspection Scope

The inspectors assessed the licensee's treatment of the issues listed below to verify the licensee appropriately addressed equipment problems within the scope of the maintenance rule (10 CFR 50.65, "Requirements for Monitoring the Effectiveness of

Maintenance at Nuclear Power Plants”). The inspectors reviewed procedures and records to evaluate the licensee’s identification, assessment, and characterization of the problems as well as their corrective actions for returning the equipment to a satisfactory condition. The inspectors also interviewed system engineers and the maintenance rule coordinator to assess the accuracy of performance deficiencies and extent of condition.

- AR #725359, “C” Component Cooling Water Pump Seal Leak
- AR #725592, “B” Phase would not Trip on Breaker 1B36-SB-24 (Reactor Auxiliary Building Electrical Equipment Room Purge Inlet)

b. Findings

No findings were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13 – 5 samples)

a. Inspection Scope

The inspectors reviewed the maintenance activities listed below to verify that the licensee assessed and managed plant risk as required by 10 CFR 50.65(a)(4) and licensee procedures. The inspectors assessed the adequacy of the licensee’s risk assessments and implementation of risk management actions. The inspectors also verified that the licensee was identifying and resolving problems with assessing and managing maintenance-related risk using the CAP. Additionally, for maintenance resulting from unforeseen situations, the inspectors assessed the effectiveness of the licensee’s planning and control of emergent work activities. Documents reviewed are listed in the Attachment.

- Green risk condition due to extending the duration of the “B” Emergency Service Chill Water Compressor on February 4, 2015
- Elevated green risk while the “B” EDG was inoperable for scheduled maintenance on February 4, 2015
- Elevated green risk condition during planned Main Steam Safety Valve (MSSV) testing on March 12, 2015
- Unplanned yellow risk condition after taking manual control of the “B” Feed Regulating Valve to restore steam generator level following failure of the pressure input to the level controlling channel on March 20, 2015
- Green risk condition while the “A” EDG was inoperable when lube oil temperature was low due to a planned electrical outage on March 26, 2015

b. Findings

No findings were identified.

1R15 Operability Determinations and Functionality Assessments (71111.15 – 5 samples)

a. Inspection Scope

The inspectors selected the operability determinations or functionality evaluations listed below for review based on the risk-significance of the associated components and systems. The inspectors reviewed the technical adequacy of the determinations to ensure that technical specification (TS) operability was properly justified and the components or systems remained capable of performing their design functions. To verify whether components or systems were operable, the inspectors compared the operability and design criteria in the appropriate sections of the TS and UFSAR to the licensee's evaluations. Where compensatory measures were required to maintain operability, the inspectors determined whether the measures in place would function as intended and were properly controlled. Additionally, the inspectors reviewed a sample of corrective action documents to verify the licensee was identifying and correcting any deficiencies associated with operability evaluations. Documents reviewed are listed in the Attachment.

- AR #729046, Sand Fill Voids Beneath ESW Intake Structure Concrete Slab
- AR #734880, Unexpected Alarm During "A" EDG Run
- AR #733731, Containment Sump Narrow Range Level Transmitters Lack Sufficient Basis for Qualification
- AR #740026, Potential Margin Question with Molded Case Circuit Breaker (MCCB) Trip Settings
- AR #735869, Pressurizer Heaters Group "B" Operability Evaluation following Deenergization of the Heaters.

b. Findings

No findings were identified.

1R18 Plant Modifications (71111.18 – 1 sample)

a. Inspection Scope

The inspectors verified that the plant modification listed below did not affect the safety functions of important safety systems. The inspectors confirmed the modifications did not degrade the design bases, licensing bases, and performance capability of risk significant structures, systems and components. The inspectors also verified modifications performed during plant configurations involving increased risk did not place the plant in an unsafe condition. Additionally, the inspectors evaluated whether system operability and availability, configuration control, post-installation test activities, and changes to documents, such as drawings, procedures, and operator training materials, complied with licensee standards and NRC requirements. In addition, the inspectors

reviewed a sample of related corrective action documents to verify the licensee was identifying and correcting any deficiencies associated with modifications. Documents reviewed are listed in the Attachment.

- Engineering Change (EC) #99561, Temporary Modification for Security Diesel

b. Findings

No findings were identified.

1R19 Post-Maintenance Testing (71111.19 – 6 samples)

a. Inspection Scope

The inspectors either observed post-maintenance testing or reviewed the test results for the maintenance activities listed below to verify the work performed was completed correctly and the test activities were adequate to verify system operability and functional capability.

- Work Order (WO) #13477196, Security Diesel Output Breaker will not Open when Given Trip Signal
- WO #13485127, Perform CM-I0014, York Essential Services Chilled Water Chiller Temperature Controller Maintenance and WO #2068849, Replace 'B' Chiller GE CR-120B Relays with Equivalent
- Work Request (WR) #116627, "B" Pressurizer Backup Heaters Deenergized with Control Switch in "On" Position
- WO #13492689, Troubleshoot and Repair Mechanical Interlock Between 1-4A9-3B (1-4A9 Bus Feeder Breaker) and 1-4A9-3C (Security Diesel Output Breaker)
- WO #13501107, Replace Failed Power Source for "B" Steam Generator Pressure Loop
- WO #13474250, (1CP-3) Normal Containment Purge Exhaust Damper Failed Shut

The inspectors evaluated these activities for the following:

- Acceptance criteria were clear and demonstrated operational readiness.
- Effects of testing on the plant were adequately addressed.
- Test instrumentation was appropriate.
- Tests were performed in accordance with approved procedures.
- Equipment was returned to its operational status following testing.
- Test documentation was properly evaluated.

Additionally, the inspectors reviewed a sample of corrective action documents to verify the licensee was identifying and correcting any deficiencies associated with post-maintenance testing. Documents reviewed are listed in the Attachment.

b. Findings

No findings were identified.

1R22 Surveillance Testing (71111.22 – 5 samples)

a. Inspection Scope

The inspectors reviewed the surveillance tests listed below and either observed the test or reviewed test results to verify testing adequately demonstrated equipment operability and met TS and licensee procedural requirements. The inspectors evaluated the test activities to assess for preconditioning of equipment, procedure adherence, and equipment alignment following completion of the surveillance. Additionally, the inspectors reviewed a sample of related corrective action documents to verify the licensee was identifying and correcting any deficiencies associated with surveillance testing. Documents reviewed are listed in the Attachment.

Routine Surveillance Tests

- OST-1045, Engineered Safety Feature Actuation System (ESFAS) Train B Slave Relay Test Quarterly Interval on January 9, 2015
- OST-1040, Essential Services Chilled Water Systems Operability Quarter Interval on January 18, 2015
- ORT-1408, Security Diesel Operability Run Monthly Interval on February 21, 2015

Reactor Coolant System Leak Detection

- OST-1026, Reactor Coolant System Leakage Evaluation, Computer Calculation, Daily Interval, Modes 1-4 on February 21, 2015

In-Service Tests (IST)

- EST-224, Insitu Main Steam Safety Valve (MSSV) Test using Assist Device

b. Findings

No findings were identified.

Cornerstone: Emergency Preparedness

1EP6 Drill Evaluation (71114.06 – 2 samples)

a. Inspection Scope

The inspectors observed the following two emergency preparedness drills this quarter. The first was conducted on January 13, 2015, and involved a simulated loss of coolant accident (LOCA). The second was conducted on March 3, 2015, and involved a fuel failure, Anticipated Transient without Scram (ATWS), and a steam generator tube leak. The inspectors observed licensee activities in the simulator, technical support center and the emergency operations facility to evaluate implementation of the emergency plan, including event classification, notification, and protective action recommendations. The inspectors evaluated the licensee's performance against criteria established in the

licensee's procedures. Additionally, the inspectors attended the post-exercise critique to assess the licensee's effectiveness in identifying emergency preparedness weaknesses and verified the identified weaknesses were entered in the CAP. Documents reviewed are listed in the Attachment.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification (71151 – 3 samples)

a. Inspection Scope

The inspectors reviewed a sample of the performance indicator (PI) data, submitted by the licensee, for the Unit 1 PIs listed below. The inspectors reviewed plant records compiled between January 2014 and December 2014 to verify the accuracy and completeness of the data reported for the station. The inspectors reviewed the PI data to verify it complied with guidance contained in Nuclear Energy Institute 99-02, "Regulatory Assessment Performance Indicator Guideline," and licensee procedures. The inspectors reviewed the data to verify the accuracy of the reported data that was used to calculate the value of each PI. In addition, the inspectors reviewed a sample of related corrective action documents to verify the licensee was identifying and correcting any deficiencies associated with PI data. Documents reviewed are listed in the Attachment.

Cornerstone: Initiating Events

- Unplanned scrams per 7,000 critical hours
- Unplanned power changes per 7,000 critical hours
- Unplanned scrams with complications

b. Findings

No findings were identified.

4OA2 Problem Identification and Resolution (71152 – 1 samples)

1. Safety Conscious Work Environment

a. Inspection Scope

NRC inspectors conducted an assessment of the Safety Conscious Work Environment (SCWE) in the radiation protection department using both a written survey and interviews with staff, contractors, supervisors, and the Radiation Protection Manager. During the inspection, inspectors were sensitive to areas and issues that would represent challenges to the free flow of information, such as areas where employees may be reluctant to raise concerns or report issues in the CAP. Interviewing contractors

and employees allowed inspectors to assess the SCWE of the radiation protection group. The inspectors surveyed and interviewed 40 of the 55 people assigned to the radiation protection department.

b. Assessment

Inspectors found that personnel stated that there was a good SCWE as it related to industrial and personnel safety. The inspectors clarified what was meant by SCWE as it related to nuclear safety concerns.

Personnel interviewed gave various responses which included that, the CAP process was cumbersome, they did not know how to use the Condition Report (CR) system, or had not used the system. Additionally, some individuals were hesitant to write CRs because the issues were sent back to them, as the originators, to resolve. Personnel stated there was also an unwillingness to raise issues that might result in further increases in an already high workload.

The inspectors identified underlying factors that would produce a “chilling” effect or reluctance to report safety issues. Approximately 40 percent of the people interviewed stated that they would not raise routine safety or regulatory issues for fear of direct retaliation, to either the licensee or the NRC. They further stated that if it were a significant safety or regulatory issue, they would notify the NRC anonymously or use an anonymous CR system in private.

Based on inspection insights obtained from interviews and the written survey results, the inspectors concluded that the conditions in the radiation protection department were not conducive to a healthy SCWE. The effectiveness of the corrective actions specified by the licensee in AR #740804 will be evaluated during future inspections.

4OA6 Meetings, Including Exit

On April 17, 2015, the resident inspectors presented the inspection results to Mr. B. Waldrep and other members of the licensee’s staff. The inspectors confirmed that proprietary information was not provided or examined during the inspection period.

4OA7 Licensee-Identified Violations

The following violation 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 a NCV.

TS 6.8, Procedures and Programs, Section 6.8.1.a requires, in part, that written procedures be established, implemented, and maintained covering the activities recommended in Appendix A of Regulatory Guide (RG) 1.33, Revision 2, February 1978. RG 1.33, Appendix A, Section 8.b.(1).(dd) requires, in part, that procedures be established for safety valve surveillance tests. Contrary to the above, on March 12, 2015, engineers used an inadequate procedure to test main steam safety

valves. Specifically, engineering procedure EST-224, "Insitu Main Steam Safety Valve Test using Assist Device," did not adequately direct personnel to compensate for the head differential between the pressure gauge and the seat of the main steam safety valves. This resulted in the licensee incorrectly adjusting the setpoint of MSSV MS-46 below TS 3.7.1 limits while operating in Mode 1. The licensee identified this issue after incorrectly declaring the valve operable. However, the licensee was able to restore the setpoint and operability of MS-46 within the TS 3.7.1 Limiting Condition for Operation action time. This violation was determined to be of very low safety significance (Green) because the finding did not cause a reactor trip or the loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition. The licensee entered this issue into their CAP as AR #737961. As corrective actions, the licensee revised the procedure and restored the setpoint to within TS 3.7.1 limits and retested MS-46.

ATTACHMENT: SUPPLEMENTAL INFORMATION



## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### **Licensee personnel**

D. Corlett, Manager, Nuclear Regulatory Affairs  
J. Dufner, Plant Manager  
L. Faulk, Director, Nuclear Plant Security  
D. Griffith, Manager, Nuclear Training  
L. Hughes, Manager, Nuclear Chemistry  
S. O'Connor, General Manager, Nuclear Engineering  
M. Parker, Manager, Nuclear Radiation Protection  
T. Toler, Manager, Nuclear Oversight  
J. Warner, Manager, Work Management  
B. Waldrep, Site Vice President

#### **NRC personnel**

G. Hopper, Chief, Reactor Projects Branch 4, Division of Reactor Projects, Region II

## **LIST OF DOCUMENTS REVIEWED**

### **Section 1R01: Adverse Weather Protection**

#### Procedures

ORT-1415, Electric Unit Heater Check Monthly Interval  
OP-161.01, Operations Freeze Protection and Temperature Maintenance Systems  
AP-300, Severe Weather Response  
AP-301, Seasonal Weather Preparations and Monitoring  
AR #732713, Cold Weather Effect on the Dedicated Shutdown Diesel Generator

### **Section 1R04: Equipment Alignment**

#### Partial System Walkdown

##### ESW system:

OP-139 Service Water System  
FSAR 9.2.1 Service Water System  
Drawings 2165-S-0547, 2165-S-0548, & 2165-S-0548 S02, Circulating and Service Water System

##### Compressed Air system:

OP-151.01, Compressed Air System  
Drawing 2165-S-0800 Service Air System  
Drawing 2165-S-0801 Instrument Air System

### **Section 1R05: Fire Protection**

FPP-001 Fire Protection Program Manual  
FPP-013, Fire Protection – Minimum Requirements, Mitigating Actions and Surveillance Requirements  
FPP-012-04-DBG, Diesel Generator Building Fire Pre-Plan  
FPP-012-08-SEC, Out Building Fire Pre-Plan  
FPP-012-09-LAF, Large Area Fire Pre-Plan  
CRC-151, Operation of Secondary System Chemical Addition  
AR #393619, NFPA 30 Code Compliance  
HNP-M/BMRK-0014, Code Compliance Evaluation NFPA 30, Flammable and Combustible Liquids Code  
AR #739848, DGB Fire/Security Door to “A” EDG Latch Sticks  
AR #739756, DGB Fire/Security Door to “A” EDG Latch Sticks

### **Section 1R11: Licensed Operator Regualification Program**

Simulator Lesson Plan EOP-SIM-17.103  
AOP-014, Loss of Component Cooling Water  
AOP-020, Loss of RCS Inventory or Residual Heat Removal While Shutdown  
AOP-025, Loss of One Emergency AC Bus (6.9kV) or One Emergency DC Bus (125V)  
AR #735869, Entry into AOP-019 for Lowering Pressurizer Pressure  
AOP-019, Malfunction of RCS Pressure Control

### **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  
WCM-001, On-line Maintenance  
ADM-NGGC-0006, Online Equipment Out of Service (EOOS) Models for Risk Assessment  
AR #739264, Instrument 1PIC-03-0627 Failure, Causing PT-485 to Fail Low  
OWP-ESF, Engineered Safety Feature Actuation  
1364-046576 Sheet 28, Interconnecting Wiring Diagram Cabinet Protection 3, Unit 1

### **Section 1R15: Operability Evaluations**

OPS-NGGC-1305, Operability Determinations  
AR #730449, Incomplete Information in Immediate Determination of Operability for AR #729046  
Drawing 5-G-0206, Emergency Water and Coolant Tower Make-Up Intake Structure Piping Plan  
WO #13306688, EC 91697, Train "A" Flex ESW Connections, Fukushima  
WO #279723, LIT-01CT-7161ASA, Containment Sump Narrow Range Level Sticking  
WO # 473899, LIT-01CT-7161BSB, Replace Level Transmitter  
Plant Change Request (PCR) #4994, Sealing of Level Transmitter Junction Boxes  
Drawing 6-G-0449, Containment Instrument Locations  
Drawing 1364-048366, Transmitter Drawing  
AR # 400371, Unexpected Alarm during "A" EDG OST-1013 Run  
Drawing 6-B-401 Sheet 1988, Diesel Generator 1A-SA Engine Control Sheet 1  
Drawing 6-B-401 Sheet 1989, Diesel Generator 1A-SA Engine Control Sheet 2  
Drawing 6-B-401 Sheet 1993, Diesel Generator 1A-SA Protection & Instrumentation (Potential)  
Drawing 6-B-401 Sheet 1997, Diesel Generator 1A-SA Annunciator Sheet 2  
AR #738041, RABEES Door Inoperable

### **Section 1R18: Plant Modifications**

AR #736480, Misalignment/Communication Associated with Required Training for EC #99561  
Drawing 2166-B-0041 Sheet 0006, Power Distribution and Motor Data Symbols  
Drawing 2166-B-0041 Sheet 0089, Power Distribution and Motor Data Bus 1-4A9  
EGR-NGGC-0005, Engineering Change

### **Section 1R19: Post Maintenance Testing**

OPT-1512, Essential Chilled Water Turbopak Units Quarterly Inspection/Checks Modes 1-6  
Drawing 6-B-041 0089, Power Distribution & Motor Data 480 V General Service Bus 1-4A9  
Drawing 6-B-041 0006, Power Distribution and Motor Data Symbols, Abbreviations & Notes

ORT-1408, Security Diesel Operability Run Monthly Interval  
 AR #736513, Perturbations on the Security 375KVA UPS System  
 OST-1021, Daily Surveillance Requirements Daily Interval Mode 1, 2  
 MST-I0011 Main Steam Line Pressure, Loop 2 (P-0485) Channel Calibration

### **Section 1R22: Surveillance Testing**

AR #734104, DG Output Breaker Indicating Light  
 AR #734016, Security Event / Full Compensatory Measures  
 AR #734013, PMT for Security DG per ORT-1408 Unsatisfactory  
 AR #734081, OST-1026 Leak Rate Exceeded Trigger Point 2  
 AR #734080, OST-1026 Leak Rate Exceeded Trigger Point 1  
 AR #738257, MSSV Testing Should Be Scheduled Closer to Outage Start Date  
 AR #738038, EST-223 As-Found Test of 1MS-49 outside Tech Spec  
 AR #737961, Incorrect Main Steam Header Pressure Used During MSSV Test

### **Section 1EP6: Drill Evaluation**

AOP-016, Excessive Primary Plant Leakage  
 EOP-E-0, Reactor Trip or Safety Injection (SI)  
 EOP-E-1, Loss of Reactor or Secondary Coolant  
 EOP-ES-1.1, SI Termination  
 EOP-ES-1.2, Post LOCA Cooldown and Depressurization  
 EOP-E-2, Faulted Steam Generator Isolation  
 EOP-FR-S.1, Response to Nuclear Power Generation/ATWS  
 AR #735897, EP Drill Protective Action Recommendations (PARs) Incorrect in Drill Scenario  
 AR #735879, EP Drill Missed Drill and Exercise Performance (DEP) Opportunities  
 AR #735874, EP Drill Problem Assessing Core Damage  
 AR #735981, EP Drill Accountability not Completed within 30 Minutes  
 AR #736493, EP Drill PAR Notification Wording in Error

### **Section 4OA1: 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 4OA2: Identification and Resolution of Problems**

AD-OP-ALL-0202, Aggregate Operator Impact Assessment  
 AD-PI-ALL-0100, Corrective Action Program  
 AD-PI-ALL-0101, Root Cause Evaluation  
 AD-PI-ALL-0102, Apparent Cause Evaluation  
 AD-PI-ALL-0103, Quick Cause Evaluation  
 AD-PI-ALL-0104, Prompt Investigation Response Team  
 AD-PI-ALL-0105, Effectiveness Reviews