



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION II

245 PEACHTREE CENTER AVENUE NE, SUITE 1200
ATLANTA, GEORGIA 30303-1257

May 3, 2016

Mr. Scott Batson
Site Vice President
Duke Energy Carolinas, LLC
Oconee Nuclear Station
7800 Rochester Highway
Seneca, SC 29672

**SUBJECT: OCONEE NUCLEAR STATION - NRC INTEGRATED INSPECTION REPORT
05000269/2016001, 05000270/2016001, AND 05000287/2016001**

Dear Mr. Batson:

On March 31, 2016, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Oconee Nuclear Station Units 1, 2, and 3. On April 12, 2016, the NRC inspectors discussed the results of this inspection with you and other members of your staff. Inspectors documented the results of the inspection in the enclosed report.

The NRC inspectors did not identify any findings or violations of more than minor significance.

In accordance with Title 10 of the *Code of Federal Regulations* 2.390 "Public Inspections, Exemptions, Requests for Withholding," 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's Public Document Room or from the Publicly Available Records (PARS) component of NRC's Agencywide Documents 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/

Frank Ehrhardt, Chief
Reactor Projects Branch 1
Division of Reactor Projects

Docket Nos.: 50-269, 50-270, 50-287
License Nos.: DPR-38, DPR-47, DPR-55

Enclosure: NRC Integrated Inspection Report 05000269/2016001,
05000270/2016001, and 05000287/2016001
w/Attachment – Supplementary Information

cc: distribution via ListServ

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ADAMS: Yes ACCESSION NUMBER: ML16124A081 SUNSI REVIEW COMPLETE FORM 665 ATTACHED

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DATE	5/02/2016	5/02/2016				
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Letter to S. Batson from F. Ehrhardt dated May 3, 2016

SUBJECT: OCONEE NUCLEAR STATION - NRC INTEGRATED INSPECTION REPORT
05000269/2016001, 05000270/2016001, AND 05000287/2016001

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U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos: 50-269, 50-270, 50-287

License Nos: DPR-38, DPR-47, DPR-55

Report Nos: 05000269/2016001, 05000270/2016001, 05000287/2016001

Licensee: Duke Energy Carolinas, LLC

Facility: Oconee Nuclear Station, Units 1, 2 and 3

Location: Seneca, SC 29672

Dates: January 1, 2016 through March 31, 2016

Inspectors: E. Crowe, Senior Resident Inspector
N. Childs, Resident Inspector
J. Parent, Resident Inspector
P. Niebaum, Senior Resident Inspector (Farley Nuclear Plant)
S. Bussey, Reactor Technology Instructor

Approved by: Frank Ehrhardt, Chief
Reactor Projects Branch 1
Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

IR 05000269/2016001, 05000270/2016001, and 05000287/2016001; January 1, 2016 through March 31, 2016; Oconee Nuclear Station Units 1, 2 and 3; Integrated Inspection Report

The report covered a three-month period of inspection by resident inspectors and two visiting inspectors. No findings were identified during this inspection period. The NRC's program for overseeing the safe operations of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 5.

REPORT DETAILS

Summary of Plant Status

Unit 1 began the inspection period at approximately 100 percent rated thermal power (RTP) and remained at this power level until January 7, 2016 when an unplanned power change occurred. On January 7, 2016 reactor power was reduced to 89 percent RTP due to high temperatures on the main generator output to the 230 KV switchyard motor operated disconnect device. On January 8, 2016 power was further reduced to 19 percent RTP and the main generator was disconnected from the grid to facilitate repairs to the motor operated disconnect device. On January 9, 2016, the unit returned to 100 percent RTP. On March 6, 2016, the Unit 1 main step-up transformer developed an internal short which generated a fire and resulted in a main turbine/generator trip. This caused an automatic reactor trip. The licensee completed repairs to the main transformer and restored the unit to approximately 100 percent RTP on March 30, 2016. The unit remained at this level for the remainder of the inspection period.

Unit 2 began the inspection period at approximately 100 percent rated thermal power (RTP) and remained at this power level for the remainder of the inspection period.

Unit 3 began the inspection period at approximately 100 percent rated thermal power (RTP) and remained at this power level for the remainder of the inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01)

a. Inspection Scope

.1 Seasonal Extreme Weather Conditions

The inspectors conducted a detailed review of the station's adverse weather procedures written for extreme low temperatures. The inspectors verified that weather-related equipment deficiencies identified during the previous year had been placed into the work control process and/or corrected before the onset of seasonal extremes. The inspectors evaluated the licensee's implementation of adverse weather preparation procedures and compensatory measures before the onset of and during seasonal extreme weather conditions. Documents reviewed are listed in the attachment.

The inspectors evaluated the following risk-significant systems:

- Unit 1, Unit 2, and Unit 3 emergency feed water systems
- standby shutdown facility (SSF)
- protected service water system (PSW)
- emergency AC power paths

.2 Impending Adverse Weather Conditions

The inspectors reviewed the licensee's preparations to protect risk-significant systems from extreme low temperature and icy conditions expected during the periods of time of January 4 and January 22 through January 25. The inspectors evaluated the licensee's implementation of adverse weather preparation procedures and compensatory measures, including operator staffing, before the onset of and during the adverse

weather conditions. The inspectors reviewed the licensee's plans to address the consequences that may result from the extreme low temperatures and icy weather conditions. The inspectors verified that operator actions specified in the licensee's adverse weather procedure maintained 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. Documents reviewed are listed in the attachment.

b. Findings

No findings were identified.

1R04 Equipment Alignment

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. The inspectors observed whether there was indication of degradation, and if so, verified the degradation was being appropriately managed in accordance with an aging management program and it had been entered into the licensee's corrective action program. Documents reviewed are listed in the attachment.

The inspectors selected the following four systems or trains to inspect:

- Unit 0, "B" high pressure service water (HPSW) pump, switch, and breaker during planned maintenance of "A" HPSW pump
- Unit 0, SSF building and Units 1, 2, and 3 feedwater pump, switches, and breakers with PSW unavailable during CT-5 degraded voltage testing
- Unit 1, 2, and 3 emergency feedwater system, high pressure service water, emergency AC power paths during SSF auxiliary service water pump planned maintenance
- Units 1 and 2, 1B and 1C low pressure service water (LPSW) pumps, switches, and breakers during planned maintenance of 1A LPSW pump

b. Findings

No findings were identified.

1R05 Fire Protection (71111.05AQ)a. Inspection ScopeQuarterly 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. In evaluating the fire plans, the inspectors assessed the following items:

- control of transient combustibles and ignition sources
- fire detection systems
- 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 corrective action program

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

- Unit 1, control battery room, fire zone 109
- Unit 1 and 2, blockhouse, fire zones 45 and 46
- Unit 1 and 2, control room, fire zone 110
- Unit 2, control battery room, fire zone 104
- Unit 3, control room, fire zone 112

b. Findings

No findings were identified.

1R06 Flood Protection Measures (71111.06)a. Inspection ScopeUnderground Cables

The inspectors reviewed related flood analysis documents and inspected the areas listed below containing cables whose failure could adversely impact risk-significant equipment. The inspectors directly observed the condition of cables and cable support structures and, as applicable, verified that dewatering devices and drainage systems were functioning properly. In addition, the inspectors verified the licensee was identifying and properly addressing issues using the corrective action program. Documents reviewed are listed in the attachment.

- Unit 0, CT-5 cable trench in west parking lot – sump pump B
- Unit 0, CT-5 cable trench west of radiation protection building – sump pump C
- Unit 0, intake cable trench – sump pump TR-39

b. Findings

No findings were identified.

1R07 Heat Sink Performance (71111.07)

a. Inspection Scope

Annual Review

The inspectors verified the readiness and availability of the 2A and 2B low pressure injection cooler to perform its design function by reviewing reports of those tests, and verifying critical operating parameters by reviewing operating data. Additionally, the inspectors verified that the licensee had entered any significant heat exchanger performance problems into the corrective action program and that the licensee's corrective actions were appropriate. Documents reviewed are listed in the attachment.

b. Findings

No findings were identified.

1R11 Licensed Operator Regualification Program and Licensed Operator Performance (71111.11)

a. Inspection Scope

.1 Resident Inspector Quarterly Review of Licensed Operator Regualification

On March 8, 2016, the inspectors observed an evaluated simulator scenario administered to an operating crew as part of the annual regualification operating test required by 10 CFR 55.59, "Regualification". The scenario involved a controlling T_{ave} signal failure, a steam generator tube leak followed by a rupture, a main steam line rupture, along with several other equipment failures. Events progressed to a point where the crew entered an Unusual Event declaration.

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

Documents reviewed are listed in the attachment.

.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 on February 24, 2016 during implementation of abnormal procedure AP/0/A/1700/006, "Natural Disaster," due to a tornado warning.

The inspectors observed licensed operator performance in the main control room on March 2, 2016 during the performance of WO 20058252-01, "Investigation/repair control circuit of Unit 1's Pressurizer Bank 3 Heaters."

The inspectors observed licensed operator performance in the main control room on March 6, 2016 during recovery efforts following an automatic reactor trip due to a fire in the Unit 1 main step-up transformer. This event escalated into an Alert emergency declaration.

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

Documents reviewed are listed in the attachment.

b. Findings

No findings were identified.

1R12 Maintenance Effectiveness (71111.12)

a. Inspection Scope

The inspectors assessed the licensee's treatment of the two 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. Documents reviewed are listed in the attachment.

- Unit 0, 230 KV switchyard relay house HVAC system, maintenance rule function may not be correct (NCR 01991923)
- Unit 3, main feedwater system, exceeded maintenance rule performance criteria (NCR 01986016)

b. Findings

No findings were identified.

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

a. Inspection Scope

The inspectors reviewed the five 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 corrective action program. 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.

- Unit 0, 1/26/2016, Orange risk due to inoperability of the SSF auxiliary service water system for planned maintenance
- Unit 0, 1/28/2016, Yellow risk with PSW non-functional due to Unit 3 equipment room air handling unit AHU 3-15 out of service for planned maintenance
- Unit 1 and 2, 2/9/2016, Complex activity plan for replacement of control room air handling unit AHU 1-12
- Unit 0, 2/25/2016, Yellow risk due to inoperability of Keowee Unit 2 (KHU-2) and the underground power path when KHU-2 failed to start on demand
- Unit 0, 3/22/2016, Aggregate site risk with SSF and SY-1 battery out of service for maintenance combined with PSW non-functional for all units due to CT-1 out of service

b. Findings

No findings were identified.

1R15 Operability Determinations and Functionality Assessments (71111.15)

a. Inspection Scope

.1 Operability and Functionality Review

The inspectors selected the eight 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 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 technical specification and updated final safety analysis report 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.

- Unit 0, KHU-2 failed to start from Unit 2 control room, NCR 02004766
- Unit 0, main control room complex "A" chiller oil leak, NCR 02002987
- Unit 0, pneumatic circuit breakers 8 and 9 degraded current transformer circuit affecting protective relaying, NCR 02008606
- Unit 0, SSF engine has a small oil leak on the inlet flange of the A lube oil filter, NCR 01998717
- Unit 1, multiple main steam relief valves (MSRVs) wisping during start up, NCR 01989487
- Unit 1, AHU 1-22 (Unit 1 equipment room air handling unit) belt is squeaking, NCR 01996320
- Unit 2, 2A high pressure injection 4kv transfer switch did not meet acceptance criteria, NCR 02005089
- Unit 3, main turbine stop valve #3 unexpected indication during testing, NCR 01996277

.2 Operator Work-Around Review

The inspectors performed a detailed review of the licensee's operator work-around, operator burden, and control room deficiency lists for the station in effect on March 14, 2016 to verify that the licensee identified operator workarounds at an appropriate threshold and entered them in the corrective action program. The inspectors verified that the licensee identified the full extent of issues, performed appropriate evaluations, and planned appropriate corrective actions. The inspectors also reviewed compensatory actions and their cumulative effects on plant operation. Documents reviewed are listed in the attachment.

b. Findings

No findings were identified.

1R18 Plant Modifications (71111.18)

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) 100111, “Control Room Area Cooling System (CRACS) AHU 1-12 Replacement”

b. Findings

No findings were identified.

1R19 Post-Maintenance Testing (71111.19)

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.

- PT/1/A/0261/010, Essential Siphon Vacuum (ESV) System Test - 1B ESV Train, after 1B ESV pump replacement, February 12, 2016
- OP/0/A/1106/019, Keowee Hydro at Oconee following troubleshooting and repair of normal manual start circuit, February 18, 2016
- TT/1/A/EC100111/001, AHU 1-12 Performance Test for EC100111, after AHU 1-12 replacement, February 23, 2016
- OP/0/A/1106/019, Keowee Hydro at Oconee following troubleshooting and repair of pneumatic circuit breakers 8 and 9 degraded current transformer circuit affecting protective relaying, March 21, 2016

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.

1R20 Refueling and Other Outage Activities (71111.20)a. Inspection Scope

For the Unit 1 forced outage from March 6, 2016 through March 30, 2016, due to a main transformer fire and subsequent automatic reactor trip the inspectors evaluated the following outage activities:

- outage planning
- shutdown, cooldown, heat-up, and start-up
- reactor coolant system instrumentation and electrical power configuration
- reactivity and inventory control
- decay heat removal and spent fuel pool cooling system operation

The inspectors verified that the licensee:

- considered risk in developing the outage schedule
- controlled plant configuration per administrative risk reduction methodologies
- developed work schedules to manage fatigue
- developed mitigation strategies for loss of key safety functions
- adhered to operating license and technical specification requirements

The inspectors verified that safety-related and risk-significant structures, systems, and components not accessible during power operations were maintained in an operable condition. The inspectors also reviewed a sample of related corrective action documents to verify the licensee was identifying and correcting any deficiencies associated with outage activities.

b. Findings

No findings were identified.

1R22 Surveillance Testing (71111.22)a. Inspection Scope

The inspectors reviewed the four surveillance tests listed below and either observed the test or reviewed test results to verify testing adequately demonstrated equipment operability and met technical specification and current licensing basis. 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

- IP/0/A/3001/011 K, Testing Motor Operated Valves Using VIPER – 1LP-21 monitoring
- PT/0/A/0610/021, CT-5 Degraded Grid Voltage Protection Logic Test

- PT/0/A/0620/016, Keowee Hydro Emergency Start Test

In-Service Tests (IST)

- PT/1/A/0204/007, Reactor Building Spray Pump Test

b. Findings

No findings were identified.

Cornerstone: Emergency Preparedness

1EP6 Drill Evaluation (71114.06)

a. Inspection Scope

The inspectors observed the emergency preparedness drill conducted on January 7, 2016. The inspectors observed licensee activities in the simulator to evaluate implementation of the emergency plan, including event classification, and notification. The inspectors evaluated the licensee's performance against criteria established in the licensee's procedures. Additionally, the inspectors verified that the licensee's identified weaknesses were entered into the corrective action program. Documents reviewed are listed in the attachment.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification (71151)

a. Inspection Scope

The inspectors reviewed a sample of the performance indicator (PI) data, submitted by the licensee, for the Unit 1, Unit 2, and Unit 3 PIs listed below. The inspectors reviewed plant records compiled between January 2015 and December 2015 to verify the accuracy and completeness of the data reported for the station. The inspectors verified that the PI data complied with guidance contained in Nuclear Energy Institute 99-02, "Regulatory Assessment Performance Indicator Guideline," and licensee procedures. The inspectors verified the accuracy of reported data that were 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.

Cornerstone: Initiating Events

- unplanned scrams per 7000 critical hours
- unplanned power changes per 7000 critical hours
- unplanned scrams with complications

b. Findings

No findings were identified.

4OA2 Problem Identification and Resolution (71152)a. Inspection ScopeRoutine Review

The inspectors screened items entered into the licensee's corrective action program to identify repetitive equipment failures or specific human performance issues for followup. The inspectors reviewed problem identification program reports, attended screening meetings, or accessed the licensee's computerized corrective action database.

b. Findings and observations

No findings were identified.

4OA3 Followup of Events and Notices of Enforcement Discretion (71153)a. Inspection Scope

The inspectors responded to an event at the Oconee Nuclear Station on March 6, 2016 which involved a fire on the Unit 1 main transformer. The fire resulted from a failure of the "Y" phase power bushing and caused the main generator and main turbine to automatically trip. This actuation also resulted in a trip of the Unit 1 reactor. The inspectors evaluated the above conditions, including the primary and secondary plant response, to ensure the event was well understood by the licensee and that appropriate plant procedures were followed. The inspectors also evaluated the licensee's emergency response and communicated information to senior NRC management to ensure appropriate agency response to the event. The inspectors evaluated licensee communications and reports to ensure the event was properly classified and required notifications were made to state/county governments and the NRC.

b. Findings and observations

No findings were identified.

4OA6 Meetings, Including Exit

On April 12, 2016, the resident inspectors presented the inspection results to Mr. Scott Batson and other members of the licensee's staff. The inspectors verified that no proprietary information was retained by the inspectors or documented in this report.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTARY INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

S. Batson, Site Vice President
B. Bowers, Operations Instructor
E. Burchfield, Engineering Manager
T. Doss, LOR Supervisor
C. Dunton, Site Support Director
P. Fisk; Superintendent of Operations
D. Lewis, Programs Engineering
T. Patterson, Safety Assurance Manager
J. Pottmeyer, Simulator Supervisor
J. Pounds, OMP Tornado/HELB QA Oversight
T. Ray, Station Manager
C. Ropp, Operations Training Supervisor
M. Russo, Balance of Plant Engineering
C. Saville, Programs Engineering
J.R. Steely, Training Manager
J. Smith, Regulatory Compliance
P. Street, Emergency Planning Manager
C. Wasik, Regulatory Compliance Manager

NRC Personnel

R. Hall, Project Manager, NRR

LIST OF ITEMS OPENED, CLOSED, DISCUSSED AND UPDATED

None

LIST OF DOCUMENTS REVIEWED

Section 1R01: Adverse Weather Protection

Procedures

RP/0/A/1000/035, Severe Weather Preparations, Rev 1

Section 1R04: Equipment Alignment

Other

Oconee Nuclear Station Protected Equipment Log, dated January 12, 2016

Section 1R05: Fire Protection

Drawings

O-0310-FZ-024, Misc. Structures Fire Protection Plan, Rev. 0

O-310-K-22, Misc. Structures Fire Protection Plan, Rev. 10

Documents

O-FS-0-PA-90000-001, Pre-Fire Plan for Yard Protected Area East, Rev. 0

O-FS-1-AB-9809-001, Pre-Fire Plan for Unit 1 Auxiliary Bldg., Elev. 809', Rev. 01

O-FS-2-AB-9809-001, Pre-Fire Plan for Unit 2 Auxiliary Bldg., Elev. 809', Rev. 01

IMP-ON-2016-0098 and IMP-ON-2015-0160, Fire Protection Impairments

Nuclear Condition Report

02016327

Procedures

AD-EG-ALL-1520, Transient Combustible Control, Rev. 3

Section 1R06: Flood Protection Measures

Drawings

O-390, Rev 18

O-392, Rev 5

O-2740-L, Rev 6

OFD-133A-3.6, Rev 11

Work Orders/Requests

20030862

Section 1R07: Heat Sink Performance

Drawings

OFD-102-2.1, Rev 57

OFD-102-2.2, Rev 51

Documents

OSC-4156, LPI,LPSW, Rev 21

Procedures

PT/2/A/0251/069, LPI Cooler Test, Rev 5

Section 1R11: Licensed Operator RequalificationProcedures

AP/0/A/1700/006, Natural Disaster, Rev. 027

Other

Active Simulator Exam OP-OC-ASE-12, Rev. 0

Work Orders/Requests

WO 20058252-01

Section 1R12: Maintenance EffectivenessDocuments

ONS Maintenance Rule Manager Application

Nuclear Condition Report

01907317; 01938912; 01978070; 01986016;

Section 1R13: Maintenance Risk Assessments and Emergent Work ControlProcedures

NSD 415, Operational Risk Management (Modes 1 – 3) per 10 CFR 50.65 (a)(4), Rev 8
AD-WC-ALL-0410, Work Activity Integrated Risk Management, Rev 1

Section 1R15: Operability EvaluationsNuclear Condition Report

01905287; 01996277; 01996320; 01998717; 02002987; 02005089; 02008606; 02012624

Section 1R18: Plant ModificationsOther

Complex Activity Plan for EC10111, Control Room Area Cooling System AHU 1-12
Replacement

Section 1R19: Post-Maintenance TestingNuclear Condition Report

02008606; 02012624;

Other

Material Request 15077308

Material Request 15077489

Work Order Completion Comments 02181252

Work Order Completion Comments 02193103

Procedures

AD-MN-ALL-0002, Foreign Material Exclusion, Rev. 004

AD-OP-ALL-0200, Clearance and Tagging, Rev. 12

IP/0/A/2000/004, Doble Testing, Rev. 023

OP/0/A/1106/019, Keowee Hydro at Oconee, Rev 100

IP/0/A/2001/002 B, Keowee Hydro Station Bus Inspection and Maintenance, Rev. 010

MP/0/A/1800/084 A, Fabricating or Modifying Parts (Machining), Rev. 014

PT/1-2/A/0110/015, Control Room Pressurization, performed February 23, 2016

Work Orders/Requests

WO 02181252-02

WO 02184271-01

WO 02193103-84, -85, -86, -92, -97

WO 02193103-85

WO 20064451

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Section 1R22: Surveillance TestingProcedures

AD-MN-ALL-0002, Foreign Material Exclusion, Rev 4

IP/0/A/3001/001, Limitorque Preventive Maintenance, Rev 90

IP/0/A/3001/011 K, Testing Motor Operated Valves Using VIPER, Rev 16

MP/0/A/1800/132, Inspection, Assessment, and Cleanup of Boric Acid on Plant Materials, Rev 9

PT/0/A/0620/016, Keowee Hydro Emergency Start Test, Rev 49

PT/1/A/0204/007, Reactor Building Spray Pump Test, Rev 103

Work Orders/Requests

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Section 1EP6: Drill EvaluationNuclear Condition Report

02004868

Other

Oconee Nuclear Station Drill Scenario 2016-01, updated January 6, 2016

Procedures

RP/0/A/1000/001, Emergency Classification, Rev 4

Section 4OA3: Followup of Events and Notices of Enforcement Discretion (NOED)Procedures

AP/0/A/1700/043, Fire Brigade Response Procedure, Rev 6

AP/1-2/A/1700/035, Loss of Spent Fuel Pool Cooling and/or Level, Rev 15

EOP, Enclosure 5.5, Reactor Trip Response

OP/1/A/1106/001, Enclosure 4.2, Turbine Generator Shutdown, Rev 118

OP/1/A/1102/010, Enclosure 4.14, Shutdown to Mode 3 Following Rx Trip or Rapid Shutdown,
Rev 199

OP/1/A/1104/012C, Enclosure 4.1, CVP System Startup, Rev 11

OP/1-2/A/1104/009, Enclosure 4.7, Raw Cooling Water Pump Operation, Rev 29