



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II**

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

February 7, 2018

Mr. Joseph W. Shea  
Vice President, Nuclear Regulatory  
Affairs and Support Services  
Tennessee Valley Authority  
1101 Market Street, LP 4A  
Chattanooga, TN 37402-2801

SUBJECT: SEQUOYAH NUCLEAR PLANT – NUCLEAR REGULATORY COMMISSION  
INTEGRATED INSPECTION REPORT 05000327/2017004 AND  
05000328/2017004

Dear Mr. Shea:

On December 31, 2017, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Sequoyah Nuclear Plant Units 1 and 2. On January 23, 2018, the NRC inspectors discussed the results of this inspection with Mr. Tony Williams and other members of your staff. The results of this inspection are documented in the enclosed report.

No findings or violations of NRC requirements were identified.

This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at <http://www.nrc.gov/reading-rm/adams.html> and at the NRC Public Document Room in accordance with 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

**/RA/**

Anthony D. Masters, Chief  
Reactor Projects Branch 5  
Division of Reactor Projects

Docket Nos.: 05000327, 05000328  
License Nos.: DPR-77, DPR-79

Enclosure:  
IR 05000327/2017004 and 05000328/2017004  
w/Attachment: Supplemental Information

cc Distribution via Listserv

J.Shea

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INTEGRATED INSPECTION REPORT 05000327/2017004 AND  
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**U.S. NUCLEAR REGULATORY COMMISSION**

**REGION II**

Docket Nos.: 50-327, 50-328

License Nos.: DPR-77, DPR-79

Report No.: 05000327/2017004 and 05000328/2017004

Licensee: Tennessee Valley Authority (TVA)

Facility: Sequoyah Nuclear Plant

Location: Soddy-Daisy, TN 37379

Dates: October 1 through December 31, 2017

Inspectors: D. Hardage, Senior Resident Inspector  
W. Deshcaine, Resident Inspector  
D. Lanyi, Sr. Operations Engineer

Approved by: Anthony Masters, Chief  
Reactor Projects Branch 5  
Division of Reactor Projects

Enclosure

## **SUMMARY**

IR 05000327/2017004, 05000328/2017004; 10/1/2017-12/31/2017; Sequoyah Nuclear Plant, Units 1 and 2; Integrated Inspection Report

The report covered a three-month period of inspection by resident inspectors and one regional inspector. No findings were identified during this inspection period. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 6. The documents reviewed not identified in the Report Details are listed in the Attachment.

## REPORT DETAILS

### Summary of Plant Status

Unit 1 began the inspection period at 100 percent rated thermal power (RTP). On October 1, the unit was removed from service to replace pressurizer safety valves. The unit returned to 100 percent RTP on October 11.

Unit 2 operated at or near 100 percent RTP for the entire inspection period.

#### 1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

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

###### a. Inspection Scope

###### 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 seasonal extreme weather conditions. Documents reviewed are listed in the Attachment.

The inspectors evaluated the following risk-significant systems:

- Unit 1 and 2 emergency diesel generators (EDG)
- Unit 1 and 2 main steam system (portions exposed to outside air)
- Unit 1 and 2 refueling water storage tanks (RWSTs)

###### b. Findings

No findings were identified.

##### 1R04 Equipment Alignment (71111.04)

###### a. Inspection Scope

###### .1 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 four systems or trains to inspect:

- "A" emergency gas treatment system (EGTS) train while the "B" EGTS train was out of service for planned maintenance.
- "1A" EDG while the "1B" was out of service for maintenance
- "MB" essential raw cooling water (ERCW) pump following pump replacement
- "A" train control room air condition system (CRACS) while "B" main control room chiller was out of service for maintenance

## .2 Complete Walkdown

The inspectors verified the alignment of the Unit 2 Auxiliary Feedwater System. The inspectors selected this system for assessment because it is a risk-significant mitigating system. The inspectors determined the correct system lineup by reviewing plant procedures, drawings, the updated final safety analysis report, and other documents. The inspectors reviewed records related to the system design, maintenance work requests, and deficiencies. The inspectors verified that the selected system was correctly aligned by performing a complete walkdown of accessible components.

To verify the licensee was identifying and resolving equipment alignment discrepancies, the inspectors reviewed corrective action documents, including condition reports and outstanding work orders. The inspectors also reviewed periodic reports containing information on the status of risk-significant systems, including maintenance rule reports and system health reports. Documents reviewed are listed in the Attachment.

### b. Findings

No findings were identified.

## 1R05 Fire Protection (71111.05AQ)

### 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. 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 (CAP)

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

- Auxiliary Building Elevation 749 (480V Transformer Room 2B)
- Auxiliary Building Elevation 749 (Mechanical Equipment Room 1A)
- Auxiliary Building Elevation 749 (Mechanical Equipment Room 2A)
- Control Building 669 Elevation

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 November 21, 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 included a failure of automatic pressurizer pressure control, a ruptured steam generator, and failure of the reactor to trip.

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

On October 1, the inspectors observed licensed operator performance in the main control room during shutdown and cooldown of unit one for a maintenance outage to replace pressurizer safety valves.

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.

### .3 Annual Review of Licensee Regualification Examination Results

On December 20, 2017, the licensee completed the annual requalification operating examinations required to be administered to all licensed operators in accordance with Title 10 of the *Code of Federal Regulations* 55.59(a)(2), "Requalification Requirements," of the NRC's "Operator's Licenses." The inspectors performed an in-office review of the overall pass/fail results of the individual operating examinations and the crew simulator operating examinations in accordance with Inspection Procedure (IP) 71111.11, "Licensed Operator Requalification Program." These results were compared to the thresholds established in Section 3.02, "Requalification Examination Results," of IP 71111.11.

#### 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.

- CDE 2983 – Unit board 2C relay 62-222 failure
- CDE 2997 – 'A-A' main control room chiller trip

#### b. Findings

No findings were identified.

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

#### a. Inspection Scope

The inspectors reviewed the two 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.

- Unit 1 and Unit 2, week of October 1 – October 7, including protected equipment status reviews for Unit 1 maintenance outage and Unit 2 routine maintenance
- Unit 1 and Unit 2, week of October 29 – November 4, including protected equipment status reviews for Units 1 and 2 routine maintenance.

b. Findings

No findings were identified.

1R15 Operability Determinations and Functionality Assessments (71111.15)

a. Inspection Scope

Operability and Functionality Review

The inspectors selected the six 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 1, Insulation configuration on pressurizer safety valve and loop seals not as designed, CR 1347243
- Unit 2, FCV-063-0025, SIS CCP injection tank shutoff valve wire number 81 and 85 missing from terminal block, CR 1359305
- Unit 2, FCV-074-0003, 2A-A RHR pump suction valve monitor annunciator for off normal position failed, CR 1361194
- Unit 1, 1A2-A 480V shutdown board with 1A1-A diesel generator auxiliary board powered from alternate supply, CR 1361194
- Target Rock solenoid qualification methodologies issues, CR 1365730
- Units 1 and 2, vital instrument power board 1-4 breakers are not installed per drawing 45N701-4A, CR 1329425

b. Findings

No findings were identified.

## 1R18 Plant Modifications (71111.18)

### a. Inspection Scope

The inspectors verified that the three plant modifications 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.

- Design Equivalent Change Package 100065, Replace Unit 1 Loop 2 Pressurizer Spray Bypass Valve 1-VLV-068-0555
- Design Change Notice (DCN) 23247 - Replace Fire/Flood Mode Pump A-A Motor
- EQV 23162 – Replacement of Steam Generator level transmitter (2-LT-3-39-F)

### 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 eight 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.

- WO 118919335, Replace PRT rupture disc 1-DISC-068-0300A, October 7, 2017
- WO 118613861, Replace pressurizer safety valve 1-VLV-068-0565, October 9, 2017
- WO 119099302, Replace pressurizer spray bypass valve 1-VLV-68-555, October 9, 2017
- WO 118621901, 1B RHR pump motor lubrication, bridge and meggar, November 15, 2017
- WO 118365268, Replace cooler coil RHR pump cooler 1B-B, November 15, 2017
- WO 118335549, Clean and lube EDG room 2B exhaust fan 2 and associated isolation/exhaust damper 2-FCO-300-0454, October 17, 2017
- WO 117352451, Rebuild Bettis actuator in the 5th vital battery room for the B1-A tornado damper, October 18, 2017
- WO 118652770, Belt inspection and lubrication of emergency gas treatment exhaust fan B-B, October 31, 2017

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 maintenance outage from October 1, 2017 through October 11, 2017, the inspectors evaluated the following outage activities:

- outage planning
- shutdown, cooldown, heatup, and startup
- reactivity and inventory control
- decay heat removal system operation
- containment closure

The inspectors verified that the licensee:

- considered risk in developing the outage schedule
- controlled plant configuration per administrative risk reduction methodologies
- 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 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

- 2-SI-IFT-099-90.8B, Reactor Trip Instrumentation Functional Test (SSPS) Train B

#### 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 November 1, 2017. The inspectors observed licensee activities in the simulator and/or technical support center 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

#### 4OA2 Problem Identification and Resolution (71152)

##### .1 Routine Review

The inspectors screened items entered into the licensee's CAP to identify repetitive equipment failures or specific human performance issues for follow-up. The inspectors reviewed nuclear condition reports, attended screening meetings, or accessed the licensee's computerized corrective action database.

##### .2 Semi-Annual Trend Review

##### a. Inspection Scope

The inspectors reviewed issues entered in the licensee's CAP and associated documents to identify trends that could indicate the existence of a more significant safety issue. The inspectors focused their review on human performance trends, but also considered the results of inspector daily nuclear condition report screenings, and licensee trending efforts. The review nominally considered the 6-month period of July 2017 through December 2017, although some examples extended beyond those dates when the scope of the trend warranted. The inspectors compared their results with the licensee's analysis of trends. Additionally, the inspectors reviewed the adequacy of corrective actions associated with a sample of the issues identified in the licensee's trend reports. The inspectors also reviewed corrective action documents that were processed by the licensee to identify potential adverse trends in the condition of structures, systems, and/or components as evidenced by acceptance of long-standing non-conforming or degraded conditions. Documents reviewed are listed in the Attachment.

b. Findings and Observations

No findings were identified. However, the inspectors noted there were numerous condition reports documenting waivers from 10CFR26 work hours limits intended to limit fatigue. Over one hundred condition reports were generated to document issues during the period reviewed. These documented licensed operators' waivers and fatigue assessments to fill routine nonoutage shift coverage. Current reactor operator staffing is one below the minimum for shift coverage, thus requiring routine overtime to man the shift. The licensee's corrective action is to license more operators and staff the shifts above minimum requirements. An initial license exam was given in December 2017 with seven candidates for reactor operator licenses. The residents will continue to monitor shift staffing and the use of overtime in excess of Part 26 requirements.

.3 Annual Follow-up of Selected Issues: Failure to perform stroking of flood mode valves

a. Inspection Scope

The inspectors conducted a detailed review of various condition reports dealing with components required to function in the design basis flood but are not routinely operated to ensure functionality.

The inspectors evaluated the following attributes of the licensee's actions:

- complete and accurate identification of the problem in a timely manner
- evaluation and disposition of operability and reportability issues
- consideration of extent of condition, generic implications, common cause, and previous occurrences
- classification and prioritization of the problem
- identification of root and contributing causes of the problem
- identification of any additional condition reports
- completion of corrective actions in a timely manner

Documents reviewed are listed in the Attachment.

b. Findings and Observations

No findings were identified. Condition Report 1354486 documents open items from the 2012 Near Term Task Force (NTTF) Flooding Walkdowns. Specifically, a population of approximately 180 components (mostly valves), which are required to function in the design basis flood, and are not included in a test program to ensure they could perform their intended function. This long-standing issue was first identified and documented in CR 624806. This CR was closed to a series of actions which were later cancelled. In 2013 a licensee self-assessment determined that the issues identified in the NTTF walkdowns had not been resolved, and initiated a new CR 782327. The initial CAP for CR 782327 was also ineffective since the final corrective action was to present a long term asset management item and not test the valves. In early 2016 licensee oversight identified the NTTF walkdown issues had still not been resolved. The corrective action plan for CR 782327 was revised and CR 1318832 was generated to track the corrective actions. Draft procedure 0-PI-SFT-000-003.3, "Stroke of Flood Mode Valves" is currently scheduled to be issued in March 2018. The residents will continue to follow this issue.

.4 Annual Follow-up of Selected Issues: Corrective Actions (CA) associated with a NRC non-cited violation (NCV) documented in inspection report 2015-007-05

a. Inspection Scope

The inspectors conducted a detailed review of CR 1093813 which was written to address a NRC-identified NCV documented in inspection report 2015-007-05.

The inspectors evaluated the following attributes of the licensee's actions:

- complete and accurate identification of the problem in a timely manner
- evaluation and disposition of operability and reportability issues
- consideration of extent of condition, generic implications, common cause, and previous occurrences
- classification and prioritization of the problem
- identification of apparent and contributing causes of the problem
- identification of any additional condition reports
- completion of corrective actions in a timely manner

b. Findings and Observations

Introduction: The inspectors identified an unresolved item (URI) associated with their review of CR 1093813.

Description: The inspectors reviewed CR 1093813, which was written to address a Green NCV identified in the NRC issued inspection report (IR) 2015-007. This CR was determined to be a condition adverse to quality by the licensee and screened as a B level which included a level 2 cause evaluation to be conducted. The level 2 evaluation was completed on October 15, 2015, with an apparent cause identified and CA developed. The following are the corrective actions listed in the CR:

- CA-001 - Track NEI Task Force progress to align TVA's approach on design life and design shelf life to industry standards
- CA-002 - Revise CAP based on future recommendations provided by the NEI Task Force
- CA-003 - Site Licensing to track condition identified in CR 1093813. Provide formal resolutions or recommendations if available to Engineering as input to revise the CAP for CR 1093813
- CA-004 - Present CR 1093813 to morning meeting and focus on the following: INPO Trait LA.5, Change Management. There was a potential breakdown in the systematic approach on how SQN addresses the qualified life for safety-related SSCs
- CA-005 – Evaluate the use of EPRI Service Life Assessment Guide, Document No. 3002008007 (On 6/7/17 the level 2 evaluation was revised to include this as an additional CA)

During their review the inspectors identified an issue of concern. The corrective actions developed did not correct the condition adverse to quality identified in the inspection report and the condition details of the CR. TVA submitted a denial letter for this NCV on December 21, 2017. Due to this denial letter being under review by the NRC, the inspectors determined that more inspection of this issue was required in order to identify if performance deficiencies exist, thus opening a URI was warranted. This issue will be tracked as URI 05000327,328/2017004-01, "Corrective Actions associated with a NRC NCV documented in inspection report 2015-007-05."

#### 4OA5 Other Activities

##### Operation of an Independent Spent Fuel Storage Installation (60855.1)

#### a. Inspection Scope

The inspectors performed a walkdown of the onsite independent spent fuel storage installation (ISFSI) on December 29, 2017. The inspectors reviewed changes made to the ISFSI programs and procedures, including associated 10 CFR 72.48, "Changes, Tests, and Experiments," screens and evaluations to verify that changes made were consistent with the license or certificate of compliance. The inspectors also reviewed surveillance records to verify that daily surveillance requirements were performed as required by technical specifications.

#### b. Findings

No findings were identified.

#### 4OA6 Meetings, Including Exit

On January 23, 2018, the resident inspectors presented the inspection results to Mr. Tony Williams 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

## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### **Licensee personnel**

D. Dimopoulos, Director Operations  
G. Garner, Director Training  
J. Johnson, Program Manager Licensing  
M. Lovitt, Chemistry Manager  
M. McBrearty, Licensing Manager  
M. Rasmussen, Plant Manager  
C. Reneau, Director Engineering  
A. Williams, Site Vice President

#### **NRC personnel**

A. Hon, Project Manager, Office of Nuclear Reactor Regulation

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

#### **Opened**

05000327,328/2017004-01	URI	Corrective Actions associated with a NRC NCV documented in inspection report 2015-007-05 (Section 4OA2.4)
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## **LIST OF DOCUMENTS REVIEWED**

The following is a list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspectors reviewed the documents in their entirety but rather that selected sections or portions of the documents were evaluated as part of the overall inspection effort. Inclusion of a document on this list does not imply NRC acceptance of the document or any part of it, unless this is stated in the body of the inspection report.

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

0-PI-OPS-000.006.0, Freeze Protection, Revision 61  
1-PI-EFT-234-706.0, Freeze Protection Heat Trace Functional Test, Revision 43  
2-PI-EFT-234-706.0, Freeze Protection Heat Trace Functional Test, Revision 23

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

0-SO-65-1, Emergency Gas Treatment Air Cleanup and Annulus Vacuum, Revision 30  
2-SO-3-2, Auxiliary Feedwater System, Revision 50  
0-SO-67-1, Essential Raw Cooling Water, Revision 109  
0-SO-30-1, Control Building Heating, Air Conditioning and Ventilation, Revision 46

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

AUX-0-749-00, Fire Protection Pre-Fire Plans Auxiliary Building - El. 749 & 759, Revision 4  
AUX-0-749-01, Fire Protection Pre-Fire Plans Auxiliary Building - El. 749 Unit 1, Revision 9  
AUX-0-749-01, Fire Protection Pre-Fire Plans Auxiliary Building - El. 749 Unit 2, Revision 10  
CON-0-669-00, Fire Protection Pre-Fire Plans Control Building - El. 669, Revision 5

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

S-98, Steam Generator Tube Rupture, Failure of Auto Pressurizer Spray

### **Section R12: Maintenance Effectiveness**

TI-4, Maintenance Rule Performance Indicator Monitoring, Trending, and Reporting –  
10CFR50.65, Revision 30  
CDE 2983 – Unit board 2C relay 62-222 failure  
CDE 2997 – ‘A-A’ main control room chiller trip

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

NPG-SPP-07.3, Work Activity Risk Management Process, Revision 22  
NPG-SPP-07.2.4, Forced Outage or Short Duration Planned Outage Management, Revision 7  
NPG-SPP-07.2, Outage Management, Revision 8  
GOI-6, Apparatus Operations, Revision 172

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

NEDP-22, Operability Determinations and Functional Evaluations, Rev. 18  
NPG-SPP-03.5, Regulatory Reporting Requirements, Revision 14  
1-SO-201-8, Diesel Auxiliary Boards, Revision 15  
WO 119146548  
CR1347243  
CR1352549  
CR1359323  
EWR-16-RRT-201-103

**Section R18: Plant Modifications**

NPG-SPP-09.3, Plant Modifications and Engineering Change Control, Revision 27  
 NPG-SPP-09.4, 10 CFR 50.59 Evaluations of Changes, Tests, and Experiments, Revision 12  
 NPG-SPP-09.5, Temporary Modifications Temporary Configuration Changes, Revision 12  
 WO 119099302  
 CR1343991  
 Design Equivalent Change Package 100065, Replace Unit 1 Loop 2 Pressurizer Spray Bypass Valve 1-VLV-068-0555  
 Design Change Notice (DCN) 23247 - Replace Fire/Flood Mode Pump A-A Motor  
 EQV 23162 – Replacement of Steam Generator level transmitter (2-LT-3-39-F)

**Section R19: Post Maintenance Testing**

NPG-SPP-06.3, Pre-/Post-Maintenance Testing, Rev. 1  
 NPG-SPP-06.9, Testing Programs, Rev. 1  
 NPG-SPP-06.9.1, Conduct of Testing, Rev. 10  
 NPG-SPP-06.9.3, Post-Modification Testing, Rev. 8  
 0-SI-SXI-000-201.0, ASME Section XI Inservice Pressure Test, Rev. 25  
 0-SO-74-1, Residual Heat Removal System, Rev. 102  
 0-PI-SFT-030-755.0, Equipment Coolers Operability Test, Rev. 13  
 TI-50, Air Flow Measurement and Balancing Methods, Rev. 20  
 0-PI-SFT-067-001.B, ERCW Train B Flow Monitoring, Rev. 3  
 WO118919335, Replace PRT rupture disc  
 WO 118613861, Replace Pressurizer Safety Valve  
 WO 119099302, Replace pressurizer spray bypass valve 1-68-555  
 WO 118621901, 1B RHR Pump Motor Lubrication, Bridge and Meggar  
 WO 118365268, Replace cooler coil RHR Pump Cooler 1B-B  
 WO 118335549, Clean and lube Emergency Diesel Generator room 2B exhaust fan 2 and associated isolation/exhaust damper 2-FCO-300-0454  
 WO 117352451, Rebuild Bettis actuator in the 5th vital battery room for the B1-A tornado damper  
 WO 118652770, Belt inspection and lubrication of Emergency Gas Treatment exhaust fan B-B

**Section R22: Surveillance Testing**

NPG-SPP-06.9.1, Conduct of Testing, Revision 10  
 2-SI-IFT-099-90.8B, Reactor Trip Instrumentation Functional Test (SSPS) Train B  
 WO118762083

**Section 1EP6: Drill Evaluation**

EPIP-1, Emergency Plan Classification Matrix, Revision 52  
 EPIP-2, Notification of Unusual Event, Revision 35  
 EPIP-3, Alert, Revision 37  
 EPIP-4, Site Area Emergency, Revision 39  
 EPIP-5, General Emergency, Revision 48

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

NPG-SPP-22.300, Corrective Action Program, Revision 9  
 NPG-SPP-14.1, Fitness-For-Duty and Fatigue Management, Revision 16  
 NPG-SPP-03.21, Fatigue Rule and Work Hour Limits, Revision 20  
 NPG-SPP-22.303, "CR Actions, Closures and Approvals," Revision 7

CRs

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