



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

October 30, 2012

Mr. Tom. A. Lynch
Vice President
Southern Nuclear Operating Company, Inc.
Joseph M. Farley Nuclear Plant
P.O. Drawer 470, BIN B500
Ashford, AL 36312

**SUBJECT: JOSEPH M. FARLEY NUCLEAR PLANT - NRC INTEGRATED INSPECTION
REPORT 05000348/2012004; AND 05000364/2012004**

Dear Mr. Lynch:

On September 30, 2012, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Joseph M. Farley Nuclear Plant, Units 1 and 2. The enclosed inspection report documents the inspection results, which were discussed on October 4, 2012, with you and members of your staff.

The inspectors examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations, and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

The inspectors identified two self-revealing findings of very low safety significance (Green) during this inspection. The inspectors determined that these findings involved violations of NRC requirements. The NRC is treating these violations as non-cited violations (NCVs) consistent with Section 2.3.2 of the Enforcement Policy.

If you contest these non-cited violations, 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 Joseph M. Farley Nuclear Plant.

If you disagree with a cross-cutting aspect assignment in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region II; and the NRC Resident Inspector at Joseph M. Farley Nuclear Plant.

T. Lynch

2

In accordance with 10 CFR 2.390 of the NRC's Rules of Practice, a copy of this letter, its enclosure, and your response, if any, will be available electronically for public inspection in the NRC public document room or from the publicly available records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC website at <http://www.nrc.gov/reading-rm/adams.html> (the public electronic reading room).

Sincerely,

/RA/

Frank Ehrhardt, Chief
Reactor Projects Branch 2
Division of Reactor Projects

Docket Nos.: 50-348, 50-364
License No.: NPF-2, NPF-8

Enclosure: Inspection Report 05000348/2012004; and 05000364/2012004
w/Attachment: Supplemental Information

cc w/encl.: (See page 3)

T. Lynch

2

In accordance with 10 CFR 2.390 of the NRC's Rules of Practice, a copy of this letter, its enclosure, and your response, if any, will be available electronically for public inspection in the NRC public document room or from the publicly available records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC website at <http://www.nrc.gov/reading-rm/adams.html> (the public electronic reading room).

Sincerely,

/RA/

Frank Ehrhardt, Chief
Reactor Projects Branch 2
Division of Reactor Projects

Docket Nos.: 50-348, 50-364
License No.: NPF-2, NPF-8

Enclosure: Inspection Report 05000348/2012004; and 05000364/2012004
w/Attachment: Supplemental Information

cc w/encl.: (See page 3)

PUBLICLY AVAILABLE

NON-PUBLICLY AVAILABLE

SENSITIVE

NON-SENSITIVE

ADAMS: Yes

ACCESSION NUMBER: _____

SUNSI REVIEW COMPLETE FORM 665 ATTACHED

OFFICE	RII:DRP	RII:DRP	RII:DRP	RII:DRP	RII:DRP	RII:DRS	RII:DRS
SIGNATURE	Via email	FJE /RA for/	Via email	Via email	Via email	Via email	Via email
NAME	MMiller	TLighty	ECrowe	JSowa	GCroon	GLaska	DLanyi
DATE	10/30/2012	10/30/2012	10/24/2012	10/24/2012	10/30/2012	10/24/2012	10/30/2012
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO
OFFICE	RII:DRP						
SIGNATURE	FJE /RA for/						
NAME	FEHrhardt						
DATE	10/30/2012						
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

OFFICIAL RECORD COPY
004 .DOCX

DOCUMENT NAME: G:\DRPI\IRPB2\FARLEY\REPORTS\2012\IR\2012004\FARLEY IR 2012-

cc w/encl:
C. Russ Dedrickson
Fleet Support Supervisor
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

Cheryl A. Gayheart
Plant Manager
Joseph M. Farley Nuclear Plant
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

S. Kuczynski
Chairman, President and CEO
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

Leigh Perry
SVP & General Counsel-Ops & SNC
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

D. G. Bost
Chief Nuclear Officer
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

Dennis R. Madison
Vice President
Edwin I. Hatch Nuclear Plant
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

Paula Marino
Vice President
Engineering
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

T. E. Tynan
Site Vice President
Vogtle Electric Generating Plant
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

M. J. Ajluni
Nuclear Licensing Director
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

Mark Williams
Commissioner
Georgia Department of Natural Resources
Electronic Mail Distribution

B. D. McKinney, Jr.
Regulatory Response Manager
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

D. W. Daughhetee
Licensing Engineer
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

T. D. Honeycutt
Regulatory Response Supervisor
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

Bradley J. Adams
Vice President
Fleet Operations Support
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

N. J. Stringfellow
Licensing Manager
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

L. P. Hill
Licensing Supervisor
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

(cc w/encl continued next page)

T. Lynch

4

(cc w/encl continued)

L. L. Crumpton
Administrative Assistant, Sr.
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

William D. Oldfield
Principal Licensing Engineer
Joseph M. Farley Nuclear Plant
Electronic Mail Distribution

Todd L. Youngblood
Vice President
Fleet Oversight
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

John G. Horn
Site Support Manager
Joseph M. Farley Nuclear Plant
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

Cynthia A. Sanders
Radioactive Materials Program Manager
Environmental Protection Division
Georgia Department of Natural Resources
Electronic Mail Distribution

James C. Hardeman
Environmental Radiation Program Manager
Environmental Protection Division
Georgia Department of Natural Resources
Electronic Mail Distribution

Mr. Mark Culver
Chairman
Houston County Commission
P. O. Box 6406
Dothan, AL 36302

James L. McNees, CHP
Director
Office of Radiation Control
Alabama Dept. of Public Health
P. O. Box 303017
Montgomery, AL 36130-3017

Donald E. Williamson
State Health Officer
Alabama Dept. of Public Health
RSA Tower - Administration
Suite 1552
P.O. Box 30317
Montgomery, AL 36130-3017

Chuck Mueller
Manager
Policy and Radiation Program
Georgia Department of Natural Resources
Electronic Mail Distribution

T. Lynch

5

Letter to T. A. Lynch from Frank Ehrhardt dated October 30, 2012

SUBJECT: JOSEPH M. FARLEY NUCLEAR PLANT - NRC INTEGRATED INSPECTION
REPORT 05000348/2012004; AND 05000364/2012004

Distribution w/encl:

J. Baptist, RII

L. Douglas, RII

OE Mail

RIDSNRRDIRS

PUBLIC

RidsNrrPMFarley Resource

U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos.: 05000348, 05000364

License Nos.: NPF-2, NPF-8

Report No.: 05000348/2012004; and 05000364/2012004

Licensee: Southern Nuclear Operating Company, Inc.

Facility: Joseph M. Farley Nuclear Plant, Units 1 and 2

Location: Columbia, AL

Dates: July 1, 2012 through September 30, 2012

Inspectors: E. Crowe, Senior Resident Inspector
J. Sowa, Resident Inspector
G. Croon, Project Engineer
T. Lighty, Project Engineer
D. Lanyi, Operations Engineer
G. Laska, Senior Operations Examiner
M. Miller, Senior Project Engineer

Approved by: Frank Ehrhardt, Chief
Reactor Projects Branch 2
Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

IR 05000348/2012004; and 05000364/2012004; July 1, 2012, through September 30, 2012; Joseph M. Farley Nuclear Plant; Maintenance Effectiveness, and Follow-up of Events and Notices of Enforcement Discretion

The report covered a three-month period of inspection by resident and regional inspectors. The inspectors identified two self-revealing findings of very low safety significance (Green) during this inspection. The inspectors determined that the findings involved violations of NRC requirements. The significance of most findings is indicated by their color (greater than Green, Green, White, Yellow, or Red). The significance was determined using inspection manual chapter 0609, Significance Determination Process. The inspectors identified cross-cutting aspects using Manual Chapter 0310, Components Within the Cross-Cutting Areas. Findings for which the significance determination process does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, Reactor Oversight Process, Revision 4, dated December, 2006.

Cornerstone: Initiating Events (IE)

- Green A Green self revealing non-cited violation (NCV) of Technical Specifications (TS) 5.4.1.a, Procedures, was identified for the failure to accomplish shutdown of the 1-2A emergency diesel generator (EDG) in accordance with station procedure FNP-1-STP-40.0. The failure resulted in a loss of all shutdown cooling to the Unit 1 reactor. The licensee correctly diagnosed the unplanned loss of shutdown cooling and promptly restarted the 1A residual heat removal (RHR) pump. This violation was entered into the licensee's corrective action program as condition report (CR) 434764.

Failure to accomplish shutdown of the 1-2A EDG in accordance with station procedure FNP-1-STP-40.0, is a performance deficiency. The performance deficiency was more-than-minor because it adversely affected the Initiating Events Cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, all shutdown cooling to the reactor was lost when 1A RHR pump stopped operating due to loss of electrical power. This finding was assessed using IMC 0609 Attachment 4, Initial Characterization of Findings; Appendix G, Shutdown Operations Significance Determination Process; and Appendix G, Attachment 1, Phase 1 Operational Checklist for Both PWRs and BWRs. The finding was determined to be of very low safety significance (Green) because the inadvertent change in RCS temperature due to loss of RHR was less than 20 percent of the temperature margin time to boil and did not trip any of the criteria of Appendix G, Attachment 1, Checklist 4. The inspectors determined this performance deficiency has a cross-cutting aspect in the area of human performance and resources component because the licensee did not ensure that personnel, equipment, procedures, and other resources were available and adequate to assure nuclear safety. Specifically, step 5.36.4 of FNP-1-STP-40.0, was inadequate and confusing which resulted in a failure to comply with the procedure. [H.2(c)] (Section 40A3)

Enclosure

Cornerstone: Mitigating Systems (MS)

- Green A Green self revealing NCV of TS 5.4.1.a, Procedures, was identified for the failure to accomplish the installation of the auxiliary contacts of the K1 relay associated with the 1C emergency diesel generator (EDG) in accordance with station work order SNC92235. The improper installation resulted in a direct short of control circuitry wiring and damage to installed resistors and wiring. Local annunciator panels alarmed and the licensee promptly shutdown the engine. The licensee replaced damaged wiring and resistors. This violation was entered into the licensee's corrective action program as condition report (CR) 467468.

Failure to accomplish the installation of the auxiliary contacts of the K1 relay associated with the 1C EDG in accordance with station work order SNC92235 is a performance deficiency. The performance deficiency adversely affects the Mitigating Systems Cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e. core damage). Specifically, the equipment performance objective of availability was adversely affected due to the damage caused to the static exciter and voltage regulator circuit of the generator and the additional unavailability time accrued to effect repairs. This finding was assessed using IMC 0609 Attachment 4, Initial Characterization of Findings; and IMC 0609 Appendix A, The Significance Determination Process (SDP) for Findings At-Power. The IMC 0609 Appendix A review, determined that the finding was of very low safety significance (Green) because the performance deficiency resulted in additional EDG unavailability that did not exceed the period of the TS Limiting Condition for Operation. The inspectors determined this performance deficiency has a cross-cutting aspect in the area of human performance and resources component because the licensee did not ensure that personnel, equipment, procedures, and other resources were available and adequate to assure nuclear safety. Specifically, station work order SNC92235 only provided high level guidance for replacing the K1 relay which was insufficient to ensure proper replacement of the relay and was therefore inadequate. [H.2(c)] (Section 1R12)

REPORT DETAILS

Summary of Plant Status

Unit 1 remained at or near 100 percent rated thermal power (RTP) until July 27, 2012, when the licensee shutdown Unit 1 to comply with Technical Specification 3.8.1.B completion time for an inoperable emergency diesel generator (EDG). The licensee brought Unit 1 critical on July 29, 2012, and achieved 100 percent RTP on July 31, 2012. Unit 1 remained at RTP for the remainder of the inspection period.

Unit 2 started the report period at 100 percent RTP. The unit remained at or near 100 percent RTP for the remainder of the inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity

1R01 Adverse Weather Protection (71111.01)

a. Inspection Scope

Impending Adverse Weather Conditions

The inspectors reviewed the licensee's preparations to protect risk-significant systems from high winds and flooding expected August 24, 2012, through August 28, 2012. The inspectors evaluated the licensee's implementation of adverse weather preparation procedures and compensatory measures, including operator staffing, before the onset of the adverse weather conditions. The inspectors reviewed the licensee's plans to address the ramifications of potentially lasting effects that may result from high winds and flooding conditions. 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 the licensee implemented periodic equipment walk-downs 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.

Enclosure

1R04 Equipment Alignment (71111.04)a. Inspection Scope

Partial Walk-Down: The inspectors verified that critical portions of selected risk-significant systems were correctly aligned. The inspectors selected systems for assessment because they were a redundant or backup system/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 verified that critical portions of the selected systems were correctly aligned by performing partial walkdowns. Documents reviewed are listed in the attachment. The inspectors selected the following four systems/trains to inspect:

- Unit 1, component cooling water (CCW) system during planned maintenance to the 1B CCW heat exchanger (HX)
- Unit 1, safety related electrical distribution system while the 1B EDG was out of service for a 24 month outage/surveillance
- Unit 1, 1B containment spray train during modifications to the motor operated valves of the Train A containment spray
- Unit 2, 2B RHR pump and equipment during planned outage for modifications to motor operated valves of Train A RHR

b. Findings

No findings were identified.

1R05 Fire Protection Annual/Quarterly (71111.05AQ).1 Quarterly Fire Protection Area Toursa. Inspection Scope

The inspectors evaluated the adequacy of selected abnormal operating procedures by comparing the abnormal operating procedures to the defined hazards and defense-in-depth features specified in the fire protection program. In evaluating the abnormal operating procedures, the inspectors assessed the following items: (1) control of transient combustibles and ignition sources, (2) fire detection systems, (3) water-based fire suppression systems, (4) gaseous fire suppression systems, (5) manual firefighting equipment and capability (6) passive fire protection features, (7) compensatory measures and fire watches, and (8) 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, 1C charging pump equipment room, fire zone 5
- Unit 1, cable spreading room, fire zone 11

- Unit 1, corridor (area of failed containment tendon), fire zone 4
- Unit 2, 2B charging pump equipment room, fire zone 5
- Unit 2, spent fuel pool pump room, fire zone 4

1R06 Flood Protection Measures (71111.06)

a. Inspection Scope

The inspectors walked-down the following area to monitor risk significant attributes for the site specific installation. For those areas where operator actions are credited, the inspectors reviewed the procedures such as abnormal or emergency procedures for coping with flooding to determine whether they can reasonably be used to achieve the desired actions, including whether the flooding event could limit or preclude the required operator actions. Documents reviewed are listed in the attachment.

- Unit 1, 1B containment spray pump room

b. Findings

No findings were identified.

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

a. Inspection Scope:

Resident Inspector Quarterly Review (Licensed Operator Regualification):

The inspectors observed portions of the licensed operator training and testing program on August 1, 2012. The inspectors verified implementation of procedures FNP-0-AP-45, Farley Nuclear Plant Training Plan; FNP-0-TCP-17.6, Simulator Training Evaluation/Documentation; and FNP-0-TCP-17.3, Licensed Operator Continuing Training Program Administration. The inspectors observed operations simulator annual examination Scenario 11 conducted as part of an annual operator regualification examination. The scenario included a steam generator feed pump trip and a steam generator tube rupture that resulted in an ALERT emergency action level declaration. The scenario also included a main steam line rupture downstream of the main steam isolation valves concurrent with B train main steam isolation valves failure to close. The inspectors observed high-risk operator actions, overall crew performance, self-critiques, training feedback, and management oversight to verify operator performance was evaluated against the performance standards of the licensee's scenario. Documents reviewed are listed in the attachment.

Resident Inspector Quarterly Review (Licensed Operator Performance): The inspectors observed control room operator performance during a startup of the Unit 1 reactor on July 29, 2012. Inspectors observed licensed operator conduct and operations to assess:

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

Biennial Review by Regional Specialist: The inspectors reviewed the facility operating history and associated documents in preparation for this inspection. During the week of August 13-16, 2012, the inspectors reviewed documentation, interviewed licensee personnel, and observed the administration of operating tests associated with the licensee's operator requalification program. Each of the activities performed by the inspectors was done to assess the effectiveness of the facility, and the licensee in implementing requalification requirements identified in 10 CFR Part 55, Operators' Licenses. The evaluations were also performed to determine if the licensee effectively implemented operator requalification guidelines established in NUREG-1021, Operator Licensing Examination Standards for Power Reactors, and Inspection Procedure 71111.11, Licensed Operator Requalification Program. The inspectors also evaluated the licensee's simulation facility for adequacy in conducting operator licensing examinations using ANSI/ANS-3.5-1985, American National Standard for Nuclear Power Plant Simulators for use in Operator Training and Examination. The inspectors observed two shift crews during the performance of the operating tests. Documentation reviewed included written examinations, Job Performance Measures (JPMs), simulator scenarios, licensee procedures, on-shift records, simulator modification request records, simulator performance test records, operator feedback records, licensed operator qualification records, remediation plans, watch standing records, and medical records. The records were inspected using the criteria listed in Inspection Procedure 71111.11. Documents reviewed during the inspection are listed in the Attachment.

b. Findings

No findings were identified.

1R12 Maintenance Effectiveness (71111.12)a. Inspection Scope

The inspectors evaluated issues associated with structures, systems, and components to assess the licensee's implementation of the Maintenance Rule (10 CFR 50.65) requirements with respect to the characterization of failures and the appropriateness of the associated 10 CFR 50.65 (a)(1) or (a)(2) classification. The inspectors reviewed operator logs, associated condition reports, maintenance work orders, and the licensee's procedures for implementing the maintenance rule to determine if equipment failures were being identified and properly assessed. The inspectors also verified whether corrective actions were established to meet the requirements of 10 CFR 50.65. The inspectors interviewed system engineers and the maintenance rule coordinator to assess the accuracy of identified performance deficiencies and extent of condition. The inspectors inspected the two areas listed below. Documents reviewed are listed in the Attachment.

- CR 467468, K1 relay aux contact on 1C EDG;
- CR 486902, #3 service water intake structure (SWIS) battery charger breaker opened inadvertently

b. Findings

Introduction: A Green self-revealing NCV of TS 5.4.1.a, Procedures, was identified for the failure to install the auxiliary contacts of the K1 relay associated with the 1C EDG in accordance with station work order SNC92235. The improper installation resulted in a direct short of control circuitry wiring and damage to installed resistors and wiring.

Description: The licensee started the 1C EDG following maintenance on June 6, 2012. The engine started and multiple annunciators were received on the local control panel. These alarms indicated a control circuit failure and generator field ground. The operators promptly shut down the 1C EDG. The licensee discovered the auxiliary contacts associated with the control circuit K1 relay were improperly installed and had created a direct short to ground. In addition, the licensee discovered resistors and cabling associated with the circuit's K2 relay were damaged from overheating. The licensee accrued additional unavailability hours because the scope of the work was increased to repair/replace the damaged electrical cables and resistors. The licensee completed these repairs on June 10, 2012.

Prior to starting the engine on June 6, the licensee performed a 24 month surveillance/maintenance outage of the 1C EDG which included the verification of resistance of relays K1, K2, K3 and K4 in the static exciter and voltage regulator circuit of the generator. Licensee staff disassembled the auxiliary contacts from the circuit's K1 relay and removed the relay K1 in order to take the relay back to the electrical shop for calibration and resistance measurement. This activity was controlled by station work order SNC92235. Step 3.j. of the work order directed the craft to "re-install relay into local control panel." The craft experienced difficulty in the installation of the removed auxiliary contacts during the completion of step 3.j which resulted in the failure to

Enclosure

correctly install the auxiliary contacts. The K1 relay actuated when the control circuit was energized causing the associated auxiliary contacts to dislodge from the relay and create a direct short to ground.

Analysis: Failure to accomplish the installation of the auxiliary contacts of the K1 relay associated with the 1C EDG in accordance with station work order SNC92235 is a performance deficiency. The performance deficiency adversely affects the Mitigating Systems Cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e. core damage). Specifically, the equipment performance objective of availability was adversely affected due to the damage caused to the static exciter and voltage regulator circuit of the generator and the additional unavailability time accrued to effect repairs. This finding was assessed using IMC 0609 Attachment 4, Initial Characterization of Findings; and IMC 0609 Appendix A, The Significance Determination Process (SDP) for Findings At-Power. The IMC 0609 Appendix A review, determined that the finding was of very low safety significance (Green) because the performance deficiency resulted in additional EDG unavailability that did not exceed the period of the TS Limiting Condition for Operation. The inspectors determined this performance deficiency has a cross-cutting aspect in the area of human performance and resources component because the licensee did not ensure that personnel, equipment, procedures, and other resources were available and adequate to assure nuclear safety. Specifically, station work order SNC92235 only provided high level guidance for replacing the K1 relay which was insufficient to ensure proper replacement of the relay and was therefore inadequate. [H.2(c)]

Enforcement: Farley TS 5.4.1.a, Procedures, requires in part that written procedures shall be established, implemented and maintained covering the activities of the applicable procedures recommended in Regulatory Guide 1.33, Revision 2, Appendix A, February 1978. Contrary to the above, on June 6, 2012, the licensee failed to accomplish the installation of the auxiliary contacts of the K1 relay associated with the 1C EDG in accordance with station work order SNC92235. This failure resulted in additional unplanned unavailability time and a direct short of control circuitry wiring resulting in damage to installed resistors and wiring. The licensee promptly shutdown the 1C EDG engine and repaired the damaged wiring and resistors. Because this violation was of very low safety significance and it was entered into the licensee's corrective actions program as CR 467468, this violation is being treated as an NCV, consistent with the Enforcement Policy. NCV 05000348/2012004-01 Damaged Wiring and Resistors in the Static Exciter and Voltage Regulator Circuit of 1C EDG.

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

a. Inspection Scope

The inspectors reviewed the following three activities to verify appropriate risk assessments were performed prior to taking equipment out of service for maintenance. The inspectors verified risk assessments were performed as required by 10 CFR 50.65(a)(4), and were accurate and complete. When emergent work was performed, the inspectors verified appropriate use of the licensee's risk assessment and risk categories

Enclosure

in accordance with requirements in licensee procedures FNP-0-ACP-52.3, Mode 1, 2, & 3 Risk Assessment; FNP-0-UOP-4.0, General Outage Operations Guidance; NMP-GM-006, Work Management; and NMP-OS-007, Conduct of Operations.

- Unit 1, July 31, 2012, Yellow risk condition associated with 2B spent fuel pump maintenance concurrent with 2A charging pump maintenance and 2A containment spray pump discharge valve (MOV 8820A) maintenance
- Unit 1, August 28, 2012, elevated Green risk condition associated with A train containment sump suction valve (MOV 8811) maintenance
- Unit 2, September 24, 2012, Yellow risk condition associated with 2B spent fuel pump maintenance

b. Findings

No findings were identified.

1R15 Operability Determinations and Functionality Assessments (71111.15)

a. Inspection Scope

The inspectors reviewed the following four operability evaluations to verify the requirements of licensee procedures NMP-OS-007, Conduct of Operations, and NMP-AD-012, ODs and Functionality Assessments, were met. The scope of this inspection also included a review of the technical adequacy of the evaluations, the adequacy of compensatory measures, and the impact on continued plant operation.

- CR 475853, Unit 1, pressurizer pressure transmitter PT-457 drifting high
- CR 492597, Unit 2, cable discovered separated for annunciator circuit for 2D service water pump tripped annunciator
- CR 504002, Unit 2, CCW HX and RHR HX flow control valves affected by Part 21 notification regarding ITT Conoflow Model GT25 series pressure transducers
- CR 491731, Unit 2, auxiliary feedwater flow orifice thickness does not conform to drawing

b. Findings

No findings were identified.

1R18 Plant Modifications (71111.18)

a. Inspection Scope

The inspectors reviewed the following plant modification to ensure the safety functions of important safety systems were unaffected. The inspectors also verified the design bases, licensing bases, and performance capability of risk-significant SSCs had not been degraded through modifications. The inspectors verified any modification performed during a risk-significant configuration did not place the plant in an unsafe

condition. The inspectors evaluated system operability, availability, configuration control, post-installation test activities, documentation updates, and operator awareness of the modification. Documents reviewed are listed in the Attachment.

Temporary Plant Modifications

- SNC429958, installation of jacks on auxiliary feedwater system air operated valves Q2N23HV3228A, B, and C to limit position to 30% open following discovery of non-conforming turbine driven auxiliary feedwater pump discharge flow orifices.

Permanent Plant Modifications

- SNC74869, Minor JOG Changes for Q2E13MOV8820A

b. Findings

No findings were identified.

1R19 Post Maintenance Testing (71111.19)

a. Inspection Scope

The inspectors reviewed the criteria contained in licensee procedure FNP-0-PMT-0.0, Post-Maintenance Test Program, in order to verify post-maintenance test procedures and test activities for the following six systems/components were adequate to verify system operability and functional capability. The inspectors also witnessed the test or reviewed the test data to verify test results adequately demonstrated restoration of the affected safety functions. Documents reviewed are listed in the Attachment.

- FNP-1-STP-4.1, 1A Charging Pump Inservice Test, following lube oil filter and oil replacement
- FNP-1-STP-11.6, Residual Heat Removal Valves Inservice Test, following replacement of actuator motor for 1B RHR pump suction from containment sump (MOV8811B)
- FNP-2-STP-16.2, 2B Containment Spray Pump Quarterly Inservice Test, following modification to Q2E13MOV8820B, CTMT Spray Pump 2B Discharge Valve
- FNP-1-STP-80.1, Diesel Generator 1B Operability Test, following replacement of 1B EDG #12 cylinder
- FNP-2-STP-228.6, NIS Power Range Channel N42 Calibration, following replacement of power range nuclear instrument N42 summing amp
- FNP-2-STP-22.32, Turbine Driven Auxiliary Feedwater Pump Comprehensive and Pre-Service Test, following temporary modifications to auxiliary feedwater air operated valves Q2N23HV3228A, B, and C

b. Findings

No findings were identified.

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

Forced Outage Activities: The inspectors reviewed the following activities related to the Unit 1 forced outage to verify compliance with licensee procedure FNP-0-UOP-4.0, General Outage Operations Guideline, and FNP-1-UOP4.1, Controlling Procedure for Refueling. The inspectors reviewed surveillance tests to verify results were within the TS requirements. The inspectors evaluated shutdown risk, management oversight, procedural compliance, and operator awareness for each of the activities listed below. Documents reviewed are listed in the Attachment.

- Outage risk assessment
- Cooldown
- Reactor coolant instrumentation
- Electrical system alignments and bus outages
- Outage-related surveillance tests
- Clearance activities
- Decay heat removal and spent fuel pool cooling

b. Findings

No findings were identified.

1R22 Surveillance Testing (71111.22)a. Inspection Scope

The inspectors reviewed the following six surveillance tests and either observed the test or reviewed test results to verify testing adequately demonstrated equipment operability and met TS requirements. The inspectors reviewed the activities to assess for preconditioning of equipment, procedure adherence, and valve alignment following completion of the surveillance. The inspectors reviewed licensee procedures FNP-0-AP-24, Test Control; FNP-0-M-050, Master List of Surveillance Requirements; and NMP-OS-007, Conduct of Operations, and attended selected briefings to determine if procedure requirements were met. Documents reviewed are listed in the Attachment.

Surveillance Tests

- FNP-1-STP-15.0, Containment Airlock Door Seal Operability Test
- FNP-1-STP-34.1, Containment Inspection (Post Maintenance)
- FNP-2-STP-80.16, Degraded Grid Voltage and Loss of Voltage Protection Relays Operability Test Modes 1, 2, 3 & 4

In-Service Test (IST)

- FNP-2-STP-22.1, 2A Auxiliary Feedwater Pump Quarterly Inservice Test

Reactor Coolant System (RCS) Leak Detection

- FNP-1-STP-9.0, RCS Leakage Test
- FNP-2- STP-9.0, RCS Leakage Test

b. Findings

No findings were identified.

Cornerstone: Emergency Preparedness (EP)

1EP6 Drill Evaluation (71114.06)

a. Inspection Scope

The NRC evaluated the conduct of the licensee routine emergency preparedness drill listed below to identify any weaknesses and deficiencies in classification, notification, and protection action recommendation (PAR) development activities. The NRC observed emergency response operation in the simulated control room to verify event classification and notification were performed in accordance with FNP-0-EIP-9.0, Emergency Classification and Actions. The NRC used procedure FNP-0-EIP-15.0, Emergency Drills as the inspection criteria. The NRC also evaluated the licensee drill critique to compare any inspector-observed weaknesses with those identified by the licensee in order to verify whether the licensee was properly identifying issues.

- July 11, 2012 – General Emergency due to a large break loss of coolant accident concurrent with a fuel element failure and greater than 5 rem/hour radiation levels at the site boundary.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification (71151)a. Inspection Scope

The inspectors sampled licensee data for the performance indicators (PIs) listed below to verify the accuracy of the PI data reported on the NRC public website. Nuclear Energy Institute (NEI) 99-02, Regulatory Assessment Indicator Guideline, Rev. 6, was used to verify the basis in reporting for each data element. Documents reviewed are listed in the Attachment.

Cornerstone: Mitigating Systems

- Safety System Functional Failures

Cornerstone: Barrier Integrity

- RCS specific activity
- RCS leakage

b. Findings

No findings were identified.

4OA2 Problem Identification and Resolution (71152).1 Daily Condition Report Reviews

As required by IP 71152, Identification and Resolution of Problems, and in order to help identify repetitive equipment failures or specific human performance issues for follow-up, the inspectors performed a daily screening of items entered into the licensee's CAP. This review was accomplished by reviewing hard copies of CRs, attending daily screening meetings and accessing the licensee's computerized database.

.2 Licensed Operator Requalification Annual Sample Reviewa. Inspection Scope

The inspectors selected CR490159 for a detailed review. The CR was written when the licensee discovered simulator information was accessible during the administration of an annual operating test. The simulator became accessible to the local LAN when a cable was replaced during an Emergency Drill. This cable connection was normally disconnected when simulator exam security was set. The procedure, NMP-TR-423-F-17, Plant Farley – Simulator Security Checklist, directed the operator to remove a specific cable. This cable was a yellow network wire labeled 80001-017. The replacement cable was of a different color, was not labeled, and was not listed in the procedure for setting simulator examination security. Initial actions included replacing

Enclosure

the afternoon examination scenario with a different scenario. A detailed investigation including a basic cause determination was performed. It was determined that no examination compromise occurred. Additional actions were to change NMP-TR-423-F-17, Plant Farley – Simulator Security Checklist, to include a step to ensure that there are no other LAN cables connected to Ports 2 or 3. A picture was also added to aid the operator.

The inspectors concluded that the actions the licensee took appeared to be prudent and comprehensive and should prevent the issue from recurring.

b. Findings

No findings were identified.

4OA3 Followup of Events and Notices Enforcement Discretion (71153)

.1 (Closed) LER 05000348/2012-003-00 Unplanned A Train LOSP during SI with LOSP Testing

a. Inspection Scope

The inspectors reviewed this Licensee Event Report (LER) for potential performance deficiencies and/or violations of regulatory requirements. Additionally, discussions were held with operations, engineering, and licensing staff members to understand the details surrounding this issue. This condition was documented in the licensee's corrective action program as CR 434764. LER 05000348/2012-003 is closed.

b. Findings

Introduction: A Green self revealing NCV of TS 5.4.1.a, Procedures, was identified for the failure to accomplish shutdown of the 1-2A emergency diesel generator (EDG) in accordance with station procedure FNP-1-STP-40.0. The failure resulted in a loss of all shutdown cooling to the Unit 1 reactor.

Description: The licensee performed restoration activities of station procedure FNP-1-STP-40.0, after successfully testing the starting and loading capability of the 1-2A EDG on a simulated safety injection with a loss of off-site power (LOSP). Step 5.36.4 of FNP-1-STP-40.0, required the operators to perform the following four steps in sequence:

- parallel 1-2A EDG with offsite power
- place the generator in automatic standby per station procedure FNP-0-SOP-38.0
- complete Appendix 3 of station procedure FNP-0-SOP-38.0
- place the B1F sequencer test trip override switch to its ON position

The control room operator omitted the performance of the first three steps and placed the B1F sequencer test trip override switch to the ON position.

The function of the B1F sequencer test trip override switch is to open the 1-2A EDG output breaker when the generator is operating with its breaker closed and a safety injection signal is present. This action enables the unit's electrical relaying scheme to setup the B1F sequencer to properly step through its required sequence. The 1-2A EDG's output breaker opened when the control room operator inadvertently omitted the required steps of 5.36.4 of FNP-1-STP-40.0. All electrical power was lost to the Unit 1 train A 4160V safety-related electrical bus which was powering the 1A RHR pump at the time. The 1 B RHR pump was not operating and therefore, all shutdown cooling was lost to the Unit 1 reactor. The RHR pumps are not designed to receive an automatic start signal when a LOSP occurs. The 1A RHR pump was manually started approximately one minute after it was de-energized. Reactor coolant system temperature increased approximately four degrees as a result of the loss of shutdown cooling.

NMP-AP-002, Southern Nuclear Company Fleet Procedures Writers' Guide, Version 2.0, step 5.16.5.1, describes attributes of step-by-step instructions that comprise the main body of procedures. The content of this step contains the statement, "Each step shall be limited to one action unless actions are functionally related, or can be completed at one time." The inspectors determined that step 5.36.4 of FNP-1-STP-40.0, did not meet the guidance of the SNC Fleet procedures which contributed to the operator omitting required steps while completing section 5.36.4 of FNP-1-STP-40.0.

Analysis: Failure to accomplish shutdown of the 1-2A EDG in accordance with station procedure FNP-1-STP-40.0, is a performance deficiency. The performance deficiency affects the Initiating Events Cornerstone and was determined to be more-than-minor because it adversely affected the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, all shutdown cooling to the reactor was lost when the 1A RHR pump stopped operating due to loss of electrical power and the reactor coolant system temperature increased approximately four degrees. This finding was assessed using IMC 0609 Attachment 4, Initial Characterization of Findings; Appendix G, Shutdown Operations Significance Determination Process; and Appendix G, Attachment 1, Phase 1 Operational Checklist for Both PWRs and BWRs. The finding was determined to be of very low safety significance (Green) because the inadvertent change in RCS temperature due to loss of RHR was less than 20 percent of the temperature margin time to boil and did not trip any of the criteria of Appendix G, Attachment 1, Checklist 4. The inspectors determined this performance deficiency has a cross-cutting aspect in the area of human performance and resources component because the licensee did not ensure that personnel, equipment, procedures, and other resources were available and adequate to assure nuclear safety. Specifically, step 5.36.4 of FNP-1-STP-40.0, was inadequate and confusing which resulted in the operator's failure to correctly complete the required steps. [H.2(c)]

Enforcement: Farley TS 5.4.1.a, Procedures, requires in part that written procedures shall be established, implemented and maintained covering the activities of the applicable procedures recommended in Regulatory Guide 1.33, Revision 2, Appendix A, February 1978. Contrary to the above, on April 5, 2012, the licensee failed to accomplish shutdown of the 1-2A EDG in accordance with station procedure FNP-1-

Enclosure

STP-40.0. This failure resulted in the unplanned momentary loss of power to the Unit 1 train A 4160V safety related electrical bus which was powering the 1A RHR pump. The licensee correctly diagnosed the unplanned loss of shutdown cooling and restarted the 1A RHR pump within one minute. Because this violation was of very low safety significance and it was entered into the licensee's corrective actions program as CR 434764, this violation is being treated as an NCV, consistent with the Enforcement Policy. NCV 05000348/2012004-02.Loss of Shutdown Cooling due to an Unplanned Loss of Train A 4160v Safety Related Switchgear.

.2 (Closed) LER 05000348/2012-004-00 Unplanned B Train LOSP during Switchyard Breaker Testing

a. Inspection Scope

The inspectors reviewed this LER for potential performance deficiencies and/or violations of regulatory requirements. Additionally, discussions were held with operations, engineering, and licensing staff members to understand the details surrounding this issue. This condition was documented in the licensee's corrective action program as CR 435376. LER 05000348/2012-004 is closed.

The inspectors reviewed the licensee's condition report 435376 and associated documents. The inspectors also reviewed design control package 1091584101, Replacement of 230KV Breakers 800, 816, 820 and 856. The inspectors also reviewed fleet procedure NMP-GM-021, Switchyard Access and Maintenance Controls, to ensure procedural requirements were met. From the above review, the inspectors determined that information needed by the licensee to adequately assess the testing of switchyard 230KV breakers 800, 816, 820 and 856 was missing from the design control package and test procedure. These documents were produced by Alabama Power Corporation who also controls the Farley Nuclear Plant 230KV high voltage switchyard. The test procedure was reviewed by the on-shift Shift Manager who lacked the information and technical knowledge to identify the additional relay path that required isolation to prevent the unplanned train B LOSP. Therefore, the inspectors determined the event was not within the licensee's ability to foresee and prevent. The inspectors did not discover any violation of regulatory requirements or evidence of a performance deficiency.

b. Findings

No findings were identified.

4OA5 Other Activities.1 Resident Inspection Observations of Independent Spent Fuel Storage Installationa. Inspection Scope

The licensee performed a dry fuel cask loading campaign during this inspection period. The inspectors monitored daily activities to ensure the activities were accomplished per station procedures. The inspectors walked down the cooling systems related to loading and drying activities of the Multi-Purpose Canister (MPC). The inspectors also reviewed licensee's compensatory measures for alternate cooling and the maintenance of water level in the MPC during fuel loading.

The inspectors reviewed changes made to licensee procedures since the last dry fuel cask loading campaign in 2010 to verify the changes were consistent with the license and Certificate of Compliance, and did not reduce the program effectiveness.

b. Findings

No findings were identified.

.2 (Discussed) NRC Temporary Instruction (TI) 2515/187, Inspection of Near-Term Task Force Recommendation 2.3 Flooding Walkdowns, and NRC TI 2515/188, Inspection of Near-Term Task Force Recommendation 2.3 Seismic Walkdownsa. Inspection Scope

Inspectors accompanied the licensee on a sampling basis, during their flooding and seismic walkdowns, to verify that the licensee's walkdown activities were conducted using the methodology endorsed by the NRC. These walkdowns are being performed at all sites in response to a letter from the NRC to licensees, entitled "Request for Information Pursuant to Title 10 of the *Code of Federal Regulations* 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident," dated March 12, 2012 (ADAMS Accession No. ML12053A340).

Enclosure 3 of the March 12, 2012, letter requested licensees to perform seismic walkdowns using an NRC-endorsed walkdown methodology. Electric Power Research Institute (EPRI) document 1025286 titled, "Seismic Walkdown Guidance," (ADAMS Accession No. ML12188A031) provided the NRC-endorsed methodology for performing seismic walkdowns to verify that plant features, credited in the current licensing basis (CLB) for seismic events, are available, functional, and properly maintained.

Enclosure 4 of the letter requested licensees to perform external flooding walkdowns using an NRC-endorsed walkdown methodology (ADAMS Accession No. ML12056A050). Nuclear Energy Industry (NEI) document 12-07 titled, "Guidelines for Performing Verification Walkdowns of Plant Protection Features," (ADAMS Accession No. ML12173A215) provided the NRC-endorsed methodology for assessing external

flood protection and mitigation capabilities to verify that plant features, credited in the CLB for protection and mitigation from external flood events, are available, functional, and properly maintained.

b. Findings

Findings or violations associated with the flooding and seismic walkdowns, if any, will be documented in future reports.

.3 (Discussed) LER 05000348/2012-0015-00 Unit Shutdown Required by Technical Specification 3.8.1

a. Inspection Scope

The inspectors reviewed information contained in the licensee's submittal of LER 05000348/2012-0015-00. The inspectors monitored the plant shutdown prior to the expiration also of LCO 3.8.1 during the 1B EDG maintenance outage on July 26, 2012. The inspectors monitored repair activities for the 1B EDG #12 engine cylinder failure and associated post maintenance testing. The inspectors reviewed the immediate extent of condition review to determine if other EDGs were affected. The inspectors also reviewed the condition of temperature actuated valves installed in other portions of the 1B EDG system as well as the other similar diesel generators in the plant.

On July 20, 2012, during the post-maintenance testing following a 24 month maintenance outage, oscillations in power output occurred on the 1B EDG and within minutes, the 1B EDG unexpectedly shutdown. The initial investigation determined the #12 cylinder failed. The licensees requested the NRC exercise discretion and not enforce compliance with the actions required in TS 3.8.1. The request was verbally denied on July 26, 2012 (ML12213A310). The region concluded that relying on a single alternate AC power source for a station blackout in one unit and an inoperable DG in the adjacent unit erodes the defense-in-depth aspects of the plant's design and operation and thereby reduces the safety margins due to a planned extended allowed outage time and that the request was not acceptable. On July 26, 2012, at 2151 hours CDT with Unit 1 at 100% power, a reactor shutdown was conducted in accordance with TS Condition H, for LCO 3.8.1, following expiration of the completion time allowed for compliance with TS Condition B.4, of the same LCO. The Unit was stabilized in Mode 5 to effect necessary repairs to the 1B EDG. The licensee's investigation determined the immediate cause of the 1B EDG shutdown was a high crankcase pressure trip. The underlying cause of the engine shutdown was the malfunction of the engine's intercooler thermostatic bypass valve (Q1R43V0561) due to the failure of one of three thermal actuating devices. Although the preliminary causes of the failure were determined, the licensee had not completed their root cause evaluation. Additional reviews of the root cause evaluation and corrective actions will need to be completed prior to closure of this LER. This item is identified as URI 05000348/2012004-03: LER 05000348/2012-0015-00 Unit Shutdown Required by Technical Specification 3.8.1. This issue was entered into the licensee's CAP as CR 487817.

4OA6 Meetings, Including Exit

The NRC presented the inspection results to Mr. Tom A. Lynch and other members of the licensee staff on October 4, 2012. The NRC confirmed proprietary information was not provided or examined during the inspection.

4OA7 Licensee-Identified Violations

None

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

M. Ajluni, Nuclear Licensing Director
M. Byrd, Design Engineering Supervisor
T. Campbell, Nuclear Oversight
D. Christianson, Training Manager
M. Galle, Simulator Coordinator
C. Gayheart, Plant Manager
R. Gayheart, Fleet Training Manager
D. Hall, Operations Training Supervisor
D. Hobson, Operations Support
L. Hogg, Nuclear Technical Specialist
J. Horn, Site Support Manager
F. Hundley, Fleet Oversight Supervisor
P. Ivey, Regulatory Affairs Vice President
T. Lynch, Site Vice President
R. Martin, Engineering Programs Manager
S. McGavin, Security Manager
D. McKinney, Regulatory Response Manager
R. Odom, Operations Lead Instructor
M. Peel, Medical Services Coordinator
L. Riley, Performance Improvement
C. Salter, Nuclear Duty Officer
L. Smith, Maintenance Manager
B. Taylor, Performance Improvement Supervisor
C. Thornell, Operations Director
S. Varnum, CHM Manager
W. Vierkandt, Radiation Protection Manager
C. Westberry, Engineering Systems Manager

NRC personnel

Frank Ehrhardt, Chief, Branch 2, Division of Reactor Projects

LIST OF REPORT ITEMS

Opened

05000348/2012004-03 URI LER 05000348/2012-0015-00 Unit Shutdown Required by Technical Specification 3.8.1 (4OA5.3).

Opened and Closed

05000348/2012004-01 NCV Damaged Wiring and Resistors in the Static Exciter and Voltage Regulator Circuit of 1C EDG (Section 1R12)

05000348/2012004-02 NCV Loss of Shutdown Cooling due to an Unplanned Loss of Train A 4160v Safety Related Switchgear (Section 4OA3)

Closed

05000348/2012003-00 LER Unplanned A Train LOSP during SI with LOSP Testing (Section 4OA3)

05000348/2012004-00 LER Unplanned B Train LOSP during Switchyard Breaker Testing (Section 4OA3)

Discussed

05000348/364/2515/187 TI Inspection of Near-Term Task Force Recommendation 2.3 Flooding Walkdowns (4OA5.2)

05000348/364/2515/188 TI Inspection of Near-Term Task Force Recommendation 2.3 Seismic Walkdowns (4OA5.2)

05000348/2012-0015-00 LER Unit Shutdown Required by Technical Specification 3.8.1 (4OA5.3)

LIST OF DOCUMENTS REVIEWED

Section 1R01: Adverse Weather Protection

Documents:

FNP-0-AOP-21.0, Severe Weather, Version 34.0
Operating Experience Smart Sample 2012/01, High Wind Generated Missile Hazards
White Paper – Severe Weather Preparations for Hurricane Isaac, undated

Procedures:

FNP-0-AOP-21, Severe Weather, Version 34.0

Section 1R04: Equipment Alignment

Drawings:

D-172701, Sheet 1, Version 5.0
D-172702, Sheet 1, Version 3.0
D-175002, Sheet 1, Version 49.0
D-175002, Sheet 2, Version 26.0
D-175002, Sheet 3, Version 13.0
D-175038, Sheet 2, Version 23.0
D-175038, Sheet 3, Version 27.0
D-205041, Sheet 1, Version 19.0

Section 1R05: Fire Protection Annual/Quarterly

Drawings:

A-508650, Sheet 10, Version 4.0
A-508650, Sheet 15, Version 1.0
A-508650, Sheet 30, Version 11.0
A-509018, Sheet 10, Version 9.0
A-509018, Sheet 27, Version 1.0

Procedures:

FNP-0-AOP-29.0, Plant Fire, Version 41.0
FNP-0-EIP-13.0, Fire Emergencies, Version 26.0

Section 1R11: Licensed Operator Requalification Program

Documents:

2011 JPM – Sim Report
2012 Licensed Operator Annual Examination Scenario 11 Guide
2012 Operating Written Exam Report
FNP HU Clock Resets since June 2010
LER 2010-04-00, Loss of Refueling Integrity
OCT 2012 Biennial Exam Report
OPS HU CAR Report

JPM Packages:

LOCT 10-12 Seg 8 JPM Exam Week 1
LOCT 10-12 Seg 8 JPM Exam Week 2 – SRO

Procedures:

FNP-0-TCP-17.3 Licensed Operator Continuing Training Program Administration, Version 36.0
 FNP-0-TCP-17.6 Simulator Training Evaluation / Documentation, Version 29.0
 FNP-0-TCP-25.0, Version 14.0, Simulator Certification
 FNP-0-TCP-25.1 Simulator Fidelity, Version 3.0
 NMP-TR-416 Licensed Operator Continuing Training Program Administration, Version 1.1
 NMP-TR-422, Version 2.0, Simulator Configuration Control
 NMP-TR-422-01, Version 1.0, Simulator Certification Instruction
 NMP-TR-422-03, Version 1.0, Plant Farley Simulator Testing Instruction
 TR-423-F17 Plant Farley Simulator Security Checklist, Version 4

Records:

License Reactivation Packages (2 Records Reviewed)
 LORP Training Attendance records
 Medical Files (14 Records Reviewed)
 Remedial Training Records (6 Records Reviewed)
 Remedial Training Examinations (2 Records Reviewed)
 Various condition reports over the last two years related to licensed operator on shift performance
 Various closed condition reports that were simulator related

Scenario Packages:

Scenario #02 20120625
 Scenario #10 20120625
 Scenario #13 21020607
 Scenario #17 20120625
 Scenario #30 20120604
 Scenario #37 20120628

Simulator Core Performance Testing:

FNP-0-CTG-1.6, Core Performance Testing

Simulator Malfunction Tests:

FNP-0-CTG-1.24, Steam Generator Feed Pump Trip
 FNP-0-CTG-1.42, Pressurizer Steam Space Break
 FNP-0-CTG-1.43, Pressurizer Relief Valve Failure
 FNP-0-CTG-1.58, Generator Failure

Simulator Normal Evolution Tests:

FNP-0-CTG-1.0, Startup from Cold Shutdown to Hot Standby

Simulator Transient Tests:

FNP-0-CTG-3.03, Simultaneous Closure of MSIVs
 FNP-0-CTG-3.09, Steam Break
 FNP-0-CTG-3.02, Loss of all Feed

Standards:

ANSI/ANS-3.5-1985, American National Standard Nuclear Power Plant Simulators for Use In
Operator Training and Examination
ANSI/ANS-3.4-1983, Medical Certification and Monitoring of Personnel Requiring Operator
Licenses for Nuclear Power Plants

Written Examinations:

Week 5 Magenta RO and SRO Exam

Section 1R12: Maintenance Effectiveness

Condition Reports:

339257, 370636, 486902

Documents:

Corrective Action Report 192746, 195368
Planned Maintenance Change Requests: 62551, 62552, 62553, 62554, 62556, 62557
Technical Evaluations 223033, 474795, 476214, 476958, 476961

Drawings:

D-177073
D-177084
D-202825
D-207083
D-207084

Procedures:

NMP-AD-003, Equipment Clearance and Tagging, Version 16.1
NMP-AD-003-001, Tag Standards, Version 2.0

Work Orders:

92274, 344898

Section 1R15: Operability Determinations and Functionality Assessments

Condition Reports:

463235, 475853, 492597, 504002, 491731, 506329, 506448

Drawings:

D-205007, Sheet 1, Version 25.0

Documents:

Part 21 Event Report 48164
Operability Determination FNP 02-12-02, Version 3.0

Procedures:

FNP-1-STP-220.4, Containment Pressure Loop Calibration and Operational Test
Q1E13PT0953, Version 28.0

FNP-1-STP-1.0, Operations Daily and Shift Surveillance Requirements, Version 105.44

FNP-2-ARP-1.1, Main Control Board Annunciator Panel A, Version 33.1

Technical Evaluations:

490888, 504233

Work Orders:

404836

Section 1R18: Plant Modifications

Condition Reports:

515901, 516367

Documents:

NMP-ES-054-F01, Temporary Modification Form for SNC429958, Version 1.1

RER SNC424215

Drawings:

D205007, Sheet 1, Version 25.0

Procedures:

NMP-ES-017-004, MOV Diagnostic Procedure for Gate & Globe Valves, Version 6.0

Work Orders:

74868, 74869, 429958, 2090693001

Section 1R19: Post Maintenance Testing

Condition Reports:

336118, 473088, 503524

Procedures:

FNP-0-SOP-0.0, Farley Nuclear Plant Appendix V Obtaining New Baseline Data (Valves),
Version 150.1

FNP-0-SOP-38.0-1B, Diesel Pre-Start Checkout Guidance, Attachment B, Version 9.1

FNP-1-STP-4.1, 1A Charging Pump Quarterly Inservice Test, Version 64

FNP-2-STP-22.32, Turbine Driven Auxiliary Feedwater Pump Comprehensive and Pre-Service
Test, Version 3.1

FNP-1-STP-11.6, Residual Heat Removal Valves Inservice Test, Version 39.2

FNP-1-STP-80.1, Diesel Generator 1B Operability Test, Version 49.2

FNP-2-STP-16.2, 2B Containment Spray Pump Quarterly Inservice Test, Version 45.0

FNP-2-STP-16.7, Containment Spray System Valve Inservice Test, Version 24.0

FNP-2-STP-228.6, NIS Power Range Channel N42 Calibration N2C55NE0042, Version 72.0

Technical Evaluations:
439894, 439900

Work Orders:
57497, 60974, 63567, 64491, 65720, 65739, 66457, 74870, 316728, 360989, 394623, 402384, 427655

Section 1R20: Refueling and Other Outage Activities

Procedures:
FNP-1-STP-29.6, Calculation of Estimated Critical Condition, Version 13.0
FNP-1-STP-35.0, Reactor Coolant System Pressure and Temperature/Pressurizer Temperature Limits Verification, Version 21.1
FNP-1-STP-35.1, Unit Startup TS Verification, Version 46.2
FNP-1-UOP-1.1, Startup of Unit from Cold Shutdown to Hot Standby, Version 94.2
FNP-1-UOP-2.1, Shutdown of Unit from Minimum Load to Hot Standby, Version 71.1

Section 1R22: Surveillance Testing

Procedures:
FNP-1- STP-9.0, RCS Leakage Test, Version 51.1
FNP-1-STP-15.0, Containment Airlock Door Seal Operability Test, Version 35.1
FNP-1-STP-34.1, Containment Inspection (Post Maintenance), Version 40.1
FNP-2- STP-9.0, RCS Leakage Test, Version 47.1
FNP-2-STP-22.1, 2A Auxiliary Feedwater Pump Quarterly Inservice Test, Version 27.1
FNP-2-STP-80.16, Degraded Grid Voltage and Loss of Voltage Protection Relays Operability Test Modes 1, 2, 3, and 4, Version 28.0
NMP-MA-009-F02, FME Material Accountability Log, Version 4.0

Work Orders:
84553, 364487

Section 1EP6: Drill Evaluation

Documents:
Emergency Preparedness Crew 1 Drill Scenario Guide dated 7/11/2012

Procedures:
NMP-EP-110, Emergency Classification Determination and Initial Action, Versions 1.0 and 2.0
NMP-EP-111, Emergency Notifications, Versions 4.0 and 5.0

Section 4OA1: Performance Indicator Verification

Procedures:
FNP-0-AP-54, Preparation and Reporting of NRC Performance Indicator Data and NRC Operating Data, Version 14.0
FNP-0-AP-54, Preparation and Reporting of NRC Performance Indicator Data and NRC Operating Data, Attachment 1, Engineering Support PI Date Preparation, Version 14.0
FNP-0-CCP-22.0, Gross Beta Gamma Analysis of Liquid Samples, Version 17.0
FNP-0-CCP-25, DEI-131 Determination, Version 15.0
FNP-0-SOP-0.11, Watch Station Tours and Operator Logs, Version 26.2
FNP-1-STP-9.0, RCS Leakage Test, Version 51.1

FNP-2-CCP-65.1, Routine Sampling of the RCS, Version 1
 FNP-2-CCP-4C, Primary coolant liquid gamma spectroscopy Analysis, Version 25
 FNP-2-SIP 7, Primary Coolant System Gross Activity Determination, Version 1

Section 40A2: Problem Identification and Resolution

Documents:

NEI 99-02, Regulatory Assessment Performance Indicator Guideline, Revision 6
 Selected Unit 1 and Unit 2 Control Room Logs from August 2011 through August 2012

Procedures:

FNP-0-AP-54, Preparation and Reporting of NRC Performance Indicator Data and NRC Operating Data, Version 14.0

Section 40A3: Follow-up of Events and Notices of Enforcement Discretion

Condition Reports:

434767, 2007109659

Documents:

Corrective Action Report, CAR 194375
 Corrective Action Report, CAR 194391
 DCP 10915484101, Replacement of 230kV Breakers 800, 816, 820, and 856, Version 1.0
 DCP 10915484101, Replacement of 230kV Breakers 800, 816, 820, and 856, Version 2.0
 Memo: From Richard C. Lulling to Tom W. Pelham, Jr. and Douglas O. Hobson, Subject RE: Licensing Status Report

Procedures:

FNP-1-STP-40.0, Safety Injection With Loss of Off-Site Power Test, Version 62.1
 FNP-1-STP-40.0, Safety Injection With Loss of Off-Site Power Test, Version 63.0
 NMP-AP-001, Development and Control of Southern Nuclear Procedures, Version 13.0
 NMP-AP-002, SNC Fleet Procedures Writer's Guide, Version 2.0
 NMP-AP-002-GL01, SNC Fleet Procedures Writer Guide Examples, Version 2.0
 NMP-GM-021, Switchyard Access and Maintenance Controls, Version 1.0
 NMP-GM-021, Switchyard Access and Maintenance Controls, Version 2.0
 NMP-GM-021, Switchyard Access and Maintenance Controls, Version 3.0

Work Order:

1091584101

Section 40A5: Other Activities

Procedures:

FNP-0-110.2 DFS Ancillary Equipment Lay-up and Pre-use Preparations, Version 9.0
 FNP-0-MP-110.0, Dry Fuel Storage Campaign Guidelines, Version 11.2
 FNP-0-MP-110.10, Cask Transporter Maintenance, Version 7.1
 FNP-0-MP-111.2, Hi-Storm Preparation and Loading Operations, Version 14.0
 FNP-0-MP-111.3, MPC Fuel Loading Operations, Version 16.0
 FNP-0-MP-111.4, MPC Closure Operations, Version 16.0
 FNP-0-MP-111.7, Alternate Cooling Water System Operation, Version 11.2
 FNP-0-MP-111.11, MPC Helium Leak Rate Testing, Version 2.0

FNP-0-MP-111.12, Forced Helium Dehydration System Operation, Version 6.0
FNP-0-MP-112.1, DFS Malfunction Guidance, Version 6.0
FNP-0-STP-630.0 MPC Integrity-Loading, Version 5.0