



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

October 29, 2010

Mr. J. Randy Johnson
Vice President - Farley
Southern Nuclear Operating Company, Inc.
7388 North State Highway 95
Columbia, AL 36319

**SUBJECT: JOSEPH M. FARLEY NUCLEAR PLANT - NRC INTEGRATED INSPECTION
REPORT 05000348/2010004 AND 05000364/2010004**

Dear Mr. Johnson:

On September 30, 2010, 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 21, 2010, with members of your staff.

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

The report documents one self-revealing finding of very low safety significance (Green) which was determined to involve a violation of NRC requirements and one NRC identified Severity Level IV violation and associated finding. Additionally, one licensee-identified violation (LIV), which was determined to be of very low safety significance, is listed in this report. However, because of the very low safety significance and categorization at Severity Level IV and because they were entered into your corrective action program (CAP), the NRC is treating these violations as non-cited violations (NCVs) consistent with the NRC's Enforcement Policy. If you contest any NCV, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN.: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region II; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at Joseph M. Farley Nuclear Plant. In addition, if you disagree with the cross-cutting aspect assigned to any finding 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, RII, and the NRC Senior Resident Inspector at Farley Nuclear Plant.

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

Scott M. Shaeffer, Chief
Reactor Projects Branch 2
Division of Reactor Projects

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

Enclosure: Inspection Report 05000348/20010004 and 05000364/2010004
w/Attachment: Supplemental Information

cc w/encl.: (See page 3)

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Letter to J. Randy Johnson from Scott M. Shaeffer dated October 29, 2010

SUBJECT: JOSEPH M. FARLEY NUCLEAR PLANT - NRC INTEGRATED INSPECTION
REPORT 05000348/2010004 AND 05000364/2010004

Distribution w/encl:

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U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos.: 05000348, 05000364

License Nos.: NPF-2, NPF-8

Report No.: 05000348/2010004 and 05000364/2010004

Licensee: Southern Nuclear Operating Company, Inc.

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

Location: Columbia, AL

Dates: July 1, 2010, through September 30, 2010

Inspectors: E. Crowe, Senior Resident Inspector
J. Sowa, Resident Inspector
P. Capehart, Senior Operations Engineer (Section 1R11)
R. Reyes, Resident Inspector
S. Sandal, Resident Inspector
K. Schaaf, Operations Engineer (Section 1R11)

Approved by: Scott M. Shaeffer, Chief
Reactor Projects Branch 2
Division of Reactor Projects

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SUMMARY OF FINDINGS

IR 05000348/2010004 and 05000364/2010004; 07/01/2010 – 09/30/2010; Joseph M. Farley Nuclear Plant, Units 1 and 2; Identification and Resolution of Problems, Event Followup.

The report covered a three-month period of inspection by the resident inspectors, a senior operations engineer and an operations engineer. One NRC-identified Severity Level IV NCV and one self-revealing NCV with very low safety significance (Green) were identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP). Findings for which the SDP does not apply may be Green or be assigned a severity level after NRC management review. The cross-cutting aspect was determined using IMC 0310, "Components Within The Cross-Cutting Areas." 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: Mitigating Systems

- SL IV. An NRC identified violation of 10 CFR 21.21, Notification of failure to comply or existence of a defect and its evaluation, was identified for an inadequate procedure, resulting in the licensees' untimely reporting of a substantial safety hazard. Specifically, the licensees' station procedure FNP-0-AP-62, Evaluation of Defects and Non-compliances Potentially Reportable Under 10CFR21, failed to identify the appropriate timeliness aspect required by 10 CFR 21.21(a), and allowed the term "discovery" to be the date of the Plant Review Board (PRB) approval, regardless of the date of discovery of the deviation. This resulted in a substantial safety hazard being reported approximately 260 days after the deviation was identified. The NRC received the Part 21 report on July 6, 2010 (approximately 260 days after discovery of the deviation).

The inspectors determined the inadequate procedure allowing untimely reporting of substantial safety hazards was a performance deficiency. This finding was more than minor because if the procedure was left uncorrected, a more serious safety concern could occur. Specifically, failure to evaluate deviations and to perform notifications within the specified time frame, 60 days, does not allow for timely evaluation of other components that could be subject to the deviation. Because this issue affected a potential reporting requirement and the NRC's ability to perform its regulatory function, it was evaluated using the traditional enforcement process. Consistent with the guidance of the NRC Enforcement Policy, this violation was categorized at Severity Level IV NCV. This finding was assigned a cross-cutting aspect in the CAP component of the PI&R area in that problems should be thoroughly evaluated such that the resolutions address causes and extent of conditions, as necessary. This includes properly classifying, prioritizing, and evaluating for operability and reportability conditions adverse to quality. Specifically, the licensee was untimely in evaluating and reporting the substantial safety hazard (P.1(c)). (Section 4OA2.2)

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- Green. A self-revealing NCV of 10 CFR 50, Appendix B, Criterion V, Instructions, Procedures, and Drawings, was identified for the licensees' failure to modify surveillance test procedure FNP-2-STP-40.0, Safety Injection with Loss of Off-site Power (LOSP) Test. Following implementation of a modification to the LOSP/Safety Injection (SI) sequencer on both units, the licensee failed to update FNP-2-STP-40.0, resulting in an inadequate procedure. The procedure failed to address placing the Test Trip Override Switch in its "OFF" position during restoration steps. This resulted in an unplanned power interruption to the 2F electrical bus from its only source of power during the test conducted on April 30, 2010, and subsequent re-loading of safety-related loads by the LOSP/SI sequencer, B2F. Following the unplanned power interruption, the licensee implemented a temporary procedure change and promptly restored plant components to required conditions for the current plant mode of operation. The licensee entered the event in its corrective action program (CAP) as CR 2010105854.

The finding is more than minor because it adversely affected the procedure quality attribute of the Mitigating Systems (MS) cornerstone objective of ensuring the availability, reliability, and capability of systems responding to initiating events to prevent undesirable consequences (i.e. core damage). Specifically, this finding affected the Unit 2 Train 'A' 4160 volt safety-related 2F electrical bus's ability to provide power to engineered safeguards feature components. Because the unit was in Mode 6, with greater than 23 feet of water above the reactor vessel, the significance of this finding was assessed using the Phase 1 screening worksheets of Attachment 4 and Appendix G, Attachment 1, Checklist 4 of IMC 0609, SDP. The inspectors determined this finding was of very low safety significance (Green), because it did not increase the likelihood of a loss of reactor coolant system (RCS) inventory or degrade the licensees' ability to terminate a leak path or add to RCS inventory. This finding was assigned a cross-cutting aspect in the resources component of the Human Performance area because complete, accurate, and up-to-date procedures were not provided (H.2(c)). (Section 4OA3.2)

Violations of very low safety significance, identified by the licensee, have been reviewed by the NRC. Corrective actions taken or planned by the licensee have been entered into the licensees' CAP. These violation and corrective action tracking numbers are listed in Section 4OA7 of this report.

REPORT DETAILS

Summary of Plant Status

Unit 1 started the report period at 100 percent Rated Thermal Power (RTP). The unit remained at or near 100 percent RTP until July 4, 2010, when power was reduced to 76 percent RTP due to a step increase in main turbine number nine bearing vibrations. The unit was returned to 100 percent RTP on July 6, 2010. The unit was ramped to 60 percent RTP on July 12, 2010, due to a trip of the 1A steam generator (SG) feed pump resulting from a trip of its oil pump. The licensee repaired the failed breaker for the tripped oil pump and returned the unit to 100 percent RTP on July 14, 2010. The unit remained at or near 100 percent RTP until September 17, 2010, when the unit entered a RCS temperature coastdown for the upcoming refueling outage (RFO). The unit ended the inspection period at approximately 89 percent RTP.

Unit 2 started the report period at 100 percent RTP and 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

a. Inspection Scope

Impending Adverse Conditions: The inspectors evaluated implementation of adverse weather preparation procedures and compensatory measures for the following adverse weather condition. The inspectors reviewed station procedures and reviewed trends of containment temperatures. The inspectors also inspected temperature-sensitive areas of the plant to ensure proper ventilation was provided. The inspectors verified the applicable portions of procedure FNP-0-AOP-21.0, Severe Weather, were performed. Documents reviewed are listed in the Attachment.

- Excessively high temperatures during the week of July 19, 2010 through July 23, 2010

b. Findings

No findings were identified.

1R04 Equipment Alignment

a. Inspection Scope

Partial Walk-Down: The inspectors performed partial walk-downs of the following three systems to verify the operability of redundant or diverse trains and components when safety equipment was inoperable. The inspectors attempted to identify discrepancies impacting the function of the system and therefore, potentially increasing risk. The walk-downs were performed using the criteria in licensee procedures NMP-OS-007, Conduct of Operations, and FNP-0-SOP-0, General Instructions to Operations Personnel. The

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walk-downs included reviewing the Updated Final Safety Analysis Report (UFSAR), plant procedures and drawings, checks of control room and plant valves, switches, components, electrical power, support equipment and instrumentation. Documents reviewed are listed in the Attachment.

- Unit 1 Component Cooling Water (CCW) System during testing of modification to service water (SW) flow control valve (FCV 3009C) for the 1C CCW Heat Exchanger.
- Unit 2 Residual Heat Removal (RHR) B Train during maintenance and inoperability of RHR A Train.
- Unit 2 SW System 'A' Train during maintenance of SW System 'B' Train.

Complete Walk-Down. The inspectors conducted a complete walk-down of the accessible portions of the following system. The inspectors used licensee procedure FNP-2-SOP-23.0, CCW System, and Functional System Description (FSD) A181000 to verify system alignment of on-service equipment. The inspectors also interviewed personnel, reviewed control room logs, Maintenance Rule (MR) monthly reports, CRs, quarterly system health reports, outstanding work orders (WOs) and industry operating experience to verify alignment and equipment discrepancies were being identified and appropriately resolved. Documents reviewed are listed in the Attachment.

- Unit 2 CCW System

b. Findings

No findings were identified.

1R05 Fire Protection

a. Inspection Scope

Fire Protection Area Tours: The inspectors conducted a tour of the four fire areas listed below to assess material condition and operation status of the fire protection equipment. The inspectors verified combustibles and ignition sources were controlled in accordance with the licensees' administrative procedures; fire detection and suppression equipment was available for use; passive fire barriers were maintained in good material condition; and compensatory measures for out-of-service, degraded, or inoperable fire protection equipment were implemented in accordance with the requirements of licensee procedures FNP-0-AP-36, Fire Surveillance and Inspection; FNP-0-AP-38, Use of Open Flame; FNP-0-AP-39, Fire Patrols and Watches; and the associated Fire Zone Data sheets. Documents reviewed are listed in the Attachment.

- Unit 1 High Head Safety Injection (HHSI) Pump Rooms, Fire Zone 5
- Unit 2 HHSI Pump Rooms, Fire Zone 5
- Unit 2 Low Head Safety Injection (LHSI) Pump Rooms, Fire Zone 1
- Unit 1 and Unit 2 Service Water Intake Structure (SWIS), Fire Zones 72A and 72B

Fire Drill: On September 20, 2010, the inspectors observed a fire drill for a simulated fire in the Unit 2 non-radiological portion of the Auxiliary Building in the CCW Pump and Heat Exchanger Room. The inspectors observed licensee response in the fire equipment staging area, main control room, and entry into the simulated fire area to verify it was in accordance with plant procedures. The inspectors verified licensee personnel utilized proper fire fighting techniques and equipment was properly restored to operating status following the fire drill. The inspectors reviewed station procedures FNP-0-AOP-29.0, Plant Fire, FNP-0-EIP-13.0, Fire Emergencies, and FNP-0-FVP-14.0, Auxiliary Building Smoke and CO₂/Halon Removable (Portable Equipment) to verify these procedures were properly implemented.

b. Findings

No findings were identified.

1R07 Heat Sink Performance

a. Inspection Scope

The inspectors reviewed the results of performance testing for the 1C CCW Heat Exchanger (HX) documented in PR 02-71, 1C CCW HX Eddy Current Test Preliminary Report. The inspectors verified the licensee utilized the periodic maintenance method outlined in Electric Power Research Institute (EPRI) report NP-7552, HX Performance Monitoring Guidelines, and station procedure FNP-0-ETP-4379.0, Performance Test for Units 1 and 2 CCW HX, accurately reflected those guidelines. The inspectors evaluated this activity for conditions masking degraded performance, common cause heat sink performance problems increasing risk, and heat sink performance problems resulting in initiating events or affecting multiple HXs in mitigating systems. The inspectors also reviewed the licensees' CR database to verify HX problems were being identified and resolved.

b. Findings

No findings were identified.

1R11 Licensed Operator Requalification Program

.1 Resident Inspector Quarterly Review:

a. Inspection Scope

On July 29, 2010, the inspectors observed portions of the licensed operator training and testing program to verify 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 scenario 10-S0102, conducted in the licensees' simulator for a loss of both SG Feed Pumps followed by a reactor trip concurrent with a LOSP. Additionally, the scenario simulated a loss of the Condensate

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Storage Tank due to a tornado and a resultant Alert declaration. 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 licensees' scenario. Documents reviewed are listed in the Attachment.

b. Findings

No findings were identified.

.2 Biennial Review

a. Inspection Scope

The inspectors reviewed the facility operating history and associated documents in preparation for this inspection. During the week of September 20-24, 2010, 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 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 for use in 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 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, watchstanding records, and medical records. The records were inspected using the criteria listed in Inspection Procedure 71111.11. Documents reviewed during the inspection are documented in the List of Documents Reviewed.

b. Findings

No findings were identified.

1R12 Maintenance Rule Effectiveness

a. Inspection Scope

The inspectors reviewed the following two activities for (1) appropriate work practices; (2) identifying and addressing common cause failures; (3) scoping in accordance with 10 CFR 50.65(b) of the MR; (4) characterizing reliability issues for performance; (5) trending key parameters for condition monitoring; (6) charging unavailability for performance; (7)

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classification and reclassification in accordance with 10 CFR 50.65(a)(1) or (a)(2); and (8) appropriateness of performance criteria for structures, systems, and components (SSCs)/functions classified as (a)(2) and/or appropriateness and adequacy of goals and corrective actions for SSCs/functions classified as (a)(1). In addition, the NRC specifically reviewed events where ineffective equipment maintenance resulted in invalid automatic actuations of Engineered Safeguards Systems affecting the operating units. Documents reviewed are listed in the Attachment.

- CR 2010110828, SW from reactor coolant pump (RCP) motor air coolers isolation valve (Q1P16MOV3134) failed to indicate fully closed during surveillance testing
- CR 2010100931, Excessive leakage of the containment main purge valve (Q1P13V283)

b. Findings

.1 Failure of Containment Isolation Valve to Provide Proper Indication for its Containment Isolation Function

Introduction An issue of concern revealed itself regarding the licensees' corrective actions associated with dual position indication of containment isolation valve Q1P16MOV3134, SW from RCP Motor Air Coolers. During minor design modifications, the licensee failed to adjust the torque switch setting to provide adequate margin between the torque switch setting and the limit switch setting of the Limitorque motor-operated actuator.

Description On August 14, 2010, Q1P16MOV3134 failed to indicate 'closed' during a normal quarterly surveillance test. The valve continued to have dual position indication, and thus the ability of this valve to perform its containment isolation function, was in question. The licensee entered technical specification (TS) 3.6.3 and closed another isolation valve to restore the function as required. This action resulted in a cooling source to containment air temperature being removed. During the afternoon hours of August 14, 2010, the Unit 1 containment average temperature exceeded its TS limit of 120 degrees F. TS 3.6.5 required the licensee to reduce average temperature below 120 degrees F within eight hours, or be in Mode 3 within six hours and in Mode 5 within 36 hours. The licensee requested enforcement discretion on August 15, 2010, to maintain Unit 1 in Mode 1. Discretion was verbally granted by the NRC on August 15, 2010. The NRC determined that the requested enforcement discretion was necessary to avoid unnecessary transients as a result of compliance with the license condition and, thus, minimize potential safety consequences and operational risks.

Q1P16MOV3134 is a six-inch Enertech butterfly valve operated by a Limitorque motor-operated actuator. Each unit has three Enertech butterfly valves in the supply and return lines of SW from the RCP motor air coolers. Two of these valves provide a containment isolation function upon an engineered safeguards function (ESF) actuation. In 2004 and again in 2005, failures occurred where the Unit 2 valves had dual position indication after a demanded position during surveillance testing. In 2007, the licensee recognized the need to make these valves position limit switch seated, instead of torque switch seated, to correct the dual position indication problem. The licensee implemented minor design

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changes on all six valves to accomplish this corrective action. The licensee failed to recognize the torque switch settings needed to be increased to provide a margin between the limit switch seating value and the torque switch seating value. In 2008 and 2009, the licensee again experienced instances of dual position indication on these valves. In July 2009, the licensee created work orders to adjust the torque switch settings to ensure an appropriate limit to minimizing the potential for dual indication-type closing stroke results. Three of these work orders have been completed, and the remaining three are scheduled to occur in the future.

The inspectors did not identify an immediate safety concern for this issue because the licensee modified the actuation circuitry of Q1P16MOV3134 to remove the torque switch. The licensee has the ability to perform this same temporary modification to the other two remaining valves as well. Additionally, the licensee plans to perform the scheduled work order on Q1P16MOV3134 and Q1P16MOV3135 during the upcoming RFO in October 2010 to properly adjust the torque switch settings.

The inspectors determined in order to determine if a performance deficiency exists and disposition this issue of concern, additional inspection would be required to better understand: 1) the exact cause of the dual indications; 2) the extent of condition associated with this issue supported by review of the licensee CAP and associated work orders; and 3) the licensee planned corrective actions. This issue of concern was identified as unresolved item (URI) 05000348/2010004-01, Failure of Containment Isolation Valve to Provide Proper Indication for its Containment Isolation Function.

.2 Failure to Deactivate Containment Isolation Valve

Additionally, one LIV was identified and is documented in section 4OA7.

1R13 Maintenance Risk Assessments and Emergent Work Evaluation

a. Inspection Scope

The inspectors reviewed the following four activities to verify appropriate risk assessments were performed prior to taking equipment out of service (OOS) 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 licensees' risk assessment and risk categories 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 26, 2010, YELLOW risk condition during unavailability of 1B and 2C diesel generators (DG) during performance of surveillance test
- Unit 1, August 24, 2010, YELLOW risk condition during unavailability of Train B RHR and turbine driven auxiliary feedwater pump (TDAFWP) uninterruptable power supply (UPS)

- Unit 1, September 20, 2010, GREEN risk condition during inoperability of 1E SW pump and other routine maintenance activities
- Unit 1, September 28, 2010, YELLOW risk condition during inoperability of Train 'A' SW and removal of the valve encapsulation of Train 'A' RHR valve MOV 8811A.

b. Findings

No findings were identified.

1R15 Operability Evaluations

a. Inspection Scope

The inspectors reviewed the following four operability evaluations to verify they met the requirements of licensee procedures NMP-OS-007, Conduct of Operations and NMP-AD-012, ODs and Functionality Assessments. 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 2010110044 Unit 2 TDAFWP UPS voltage swings
- CR 2010109800 Unit 1 Train B SW flow in required action range
- CR 2010109779 Unit 1 and Unit 2 elevated SW flow rates
- CR 2010111221 Unit 1 SWP 1E circuit breaker discovered with slight amount of smoke and closing spring charging motor continuously running

b. Findings

No findings were identified.

1R18 Plant Modifications

a. Inspection Scope

The inspectors reviewed the following plant modification to ensure safety functions of important safety systems had been unaffected. The inspectors also verified design bases, licensing bases and performance capability of risk-significant SSCs had not been degraded through modifications. The inspectors verified any modifications performed during increased risk-significant configurations 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 modifications. Documents reviewed are listed in the Attachment.

Temporary Plant Modifications

- TM 2102758401, Bypass Torque Switch on Pressurizer Power Operated Relief Valve (PORV) Block Valve Motor Operated Valve (MOV) 8000A

b. Findings

No findings were identified.

1R19 Post Maintenance Testinga. Inspection Scope

The inspectors reviewed the criteria contained in licensee procedures FNP-0-PMT-0.0, Post-Maintenance Test Program, 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.

- WO 1101017701, Thermography scans following repair high resistance wiring lug on TDAFWP UPS
- WO 2081228501, Breaker checks following replacement of cell switch for 2C SWP breaker
- WO S090669901, DG 2C Operability Test following 24 month overhaul
- WO 1091307701, 1C Charging Pump Quarterly IST following replacement of relay and other associated maintenance
- WO 2101678701, 2E SWP Quarterly IST following replacement of the 2E SWP
- WO1051571176, 1E SWP Quarterly IST following replacement of the 1E SWP

b. Findings

No findings were identified.

1R22 Surveillance Testinga. Inspection Scope

The inspectors reviewed the following five 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.

In-Service Test (IST)

- FNP-1-STP-4.1, 1A Charging Pump Quarterly IST

Surveillance Tests

- FNP-1-STP-24.2, 1C, 1D and 1D SWP Quarterly IST
- FNP-1-STP-80.1, DG 1-2A Operability Test
- FNP-2-STP-22.16, Unit 2 TDAFWP Quarterly IST
- FNP-2-STP-205.2, Refueling Water Storage Tank (RWST) Level Q2F16L 70502 Loop Calibration

b. Findings

No findings were identified.

Cornerstone: Emergency Preparedness (EP)

1EP6 Drill Evaluation

a. Inspection Scope

The NRC evaluated the conduct of routine licensee emergency drills on the following date 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 notifications 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.

- September 29, 2010 – General Emergency due to radiation levels at the site boundary greater than 1 rem/hour due a steam generator tube rupture coincident with a steam generator steam line break and fuel cladding failure

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator (PI) Verification

a. Inspection Scope

The inspectors sampled licensee data for the PIs listed below to verify the accuracy of the PI data reported during the period listed. 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.

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Barrier Integrity Cornerstone

- RCS Leakage
- RCS Specific Activity

Mitigating Systems Cornerstone

- Mitigating Systems Performance Indicator (MSPI), High Pressure Injection System

The inspectors reviewed samples of raw PI data, LERs, and Monthly Operating Reports for the period covering July, 2009 through June, 2010. The data reviewed from the LERs and Monthly Operating Reports was compared to graphical representations from the most recent PI report. The inspectors also examined a sampling of operations logs and procedures to verify the PI data was appropriately captured for inclusion into the PI report, as well as ensuring the individual PIs were calculated correctly.

b. Findings

No findings were identified.

4OA2 Identification and Resolution of Problems

.1 Daily CR Reviews

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

.2 Selected Issue Follow-up Inspection

a. Inspection Scope

In addition to the routine review, the inspectors selected the issue listed below for a more in-depth review. The inspectors considered the following during the review of the licensees' actions: (1) complete and accurate identification of the problem in a timely manner; (2) evaluation and disposition of operability/reportability issues; (3) consideration of extent of condition, generic implications, common cause and previous occurrences; (4) classification and prioritization of the problem resolution; (5) identification of root and contributing causes of the problem; (6) identification of CRs and (7) completion of corrective actions in a timely manner. The inspectors reviewed the licensees' procedures governing the 10 CFR 21 process, and interviewed station personnel about their duties associated with the above process.

- CR 2010107145, Request a Part 21 review by Licensing of the Unit 1 and Unit 2 TDAFW pump UPS capacitors manufactured by Ronken Industries

b. Findings

Introduction The NRC inspectors identified a Severity Level IV noncited violation of 10 CFR Part 21.21, "Notification of failure to comply or existence of a defect and its evaluation" for the licensee inadequate procedures which resulted in the licensee's untimely reporting of a substantial safety hazard. Specifically, licensee's station procedure FNP-0-AP-62, Evaluation of Defects and Noncompliances Potentially Reportable Under 10CFR21, failed to identify the appropriate timeliness aspect required by 10 CFR 21.21(a) and inappropriately allowed the term "discovery" to be the date of the Plant Review Board (PRB) approval, regardless of the date of discovery of the deviation. 10CFR21.21.3 defines "discovery" as the completion of the documentation first identifying the existence of a deviation or failure to comply.

Description On or about October 16, 2009, the licensee received a failure analysis report from Exelon Power Labs related to an oil-filled capacitor installed in the turbine driven auxiliary feedwater (TDAFW) pump uninterruptable power supply (UPS) on both units. The report concluded the capacitor failed due to a manufacturing defect in which the internal spot-welded connection points on the capacitors were inadequate. These connection points resulted in poor (i.e. high resistance) connections culminating in internal arcing action at several of the connection points. In January, 2010, the NRC inspectors reviewed this report and inquired as to any evaluation performed by the licensee related to 10 CFR Part 21. The inspectors were informed that no evaluation had been completed. On March 30, 2010, the NRC inspectors again inquired as to any evaluation performed by the licensee related to 10 CFR Part 21. Again, the inspectors were informed that no evaluation had been completed. On May 25, 2010, the licensee entered condition report (CR) 2010107145 into its CAP requesting a Part 21 review by corporate licensing for the TDAFW pump UPS capacitors manufactured by Ronken Industries. The licensee discussed the information contained in the Exelon Power Lab report with the dedicating entity, Trentec, Business Unit of Curtiss Wright Flow Control Company. Trentec submitted a Part 21 report on July 6, 2010 (approximately 260 days after discovery of the deviation). The report identified eight defective 70 micro Farad-660v oil filled capacitors manufactured in 2006 (06-06 date code). All eight capacitors had been shipped to the Farley Nuclear Plant. The licensee generated WOs and have replaced capacitors in the TDAFW pump UPS.

The inspectors reviewed station procedure FNP-0-AP-62, revision 9.0. The procedure requires any person discovering a defect or deviation indicative of a safety hazard to notify their group supervision. The group supervisor will then contact the Performance Analysis Supervisor (or designee). The inspectors interviewed station personnel and discovered this did not occur until prompted by the NRC inspectors. FNP-0-AP-62 further states that upon notification of a potentially reportable item, the Performance Analysis Supervisor shall determine the following: 1) does a potential defect exist; 2) has the item containing the potential defect been accepted for use by the Farley Nuclear Plant; and 3) does a potential substantial safety hazard exist. If all of the above three questions are answered in the affirmative, a report shall be prepared and

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presented to the Plant Review Board. FNP-0-AP-62 further states, "discovery shall be the date of the Plant Review Board approval of the report" mentioned above. The inspectors also discovered an alternate method to determine 10 CFR 21 reportability in FNP-0-AP-62; a request may be made that Corporate Farley Support evaluate the item. In this case, discovery is the date as defined in Southern Nuclear Company Corporate Procedure. The inspectors did not discover the licensee's use of this alternate method until after the March 30, 2010 inquiry by the NRC inspectors. The inspectors determined that as written, individuals were allowed to take the amount of time deemed sufficient, and the reporting clock did not start until the discovery date as defined in FNP-0-AP-62. The inspectors determined this failed to meet the intent of 10 CFR Part 21.21(a) which states in part defects and failures to comply associated with substantial safety hazards should be identified as soon as practicable, and, in all cases with 60 days of discovery of a deviation.

- Analysis The inspectors determined the inadequate procedure, which allowed untimely reporting of substantial safety hazards, was a performance deficiency. This finding was more than minor because if the procedure was left uncorrected, a more serious safety concern could occur. Specifically, failure to evaluate deviations and to perform notifications within the specified time frame, 60 days, does not allow for timely evaluation of other components in the industry that could be subject to the deviation. Because this issue affected a potential reporting requirement and the NRC's ability to perform its regulatory function, it was evaluated with the traditional enforcement process. Consistent with the guidance of the NRC Enforcement Policy, this violation was categorized at Severity Level IV NCV. Consistent with the guidance of MC 0612, the inspectors evaluated the performance deficiency in accordance with the reactor oversight process and performed a Phase 1 SDP analysis using the screening worksheets of Attachment 4 of MC 0609. The inspectors determined the finding to be of very low safety significance because the finding did not result in loss of safety function of a single train for longer than it's allowed technical specification outage time and was not risk significant due to seismic, flooding or severe weather concerns. This finding was assigned a cross-cutting aspect in the CAP component of the PI&R area in that problems should be thoroughly evaluated such that the resolutions address causes and extent of conditions, as necessary. This includes properly classifying, prioritizing, and evaluating for operability and reportability conditions adverse to quality. Specifically, the licensee was untimely in evaluating and reporting the substantial safety hazard. P.1(c)

Enforcement 10 CFR 21.21(a), "Notification of failure to comply or existence of a defect and its evaluation" states, in part, that each individual or corporation subject to the regulations in this part shall adopt appropriate procedures to evaluate deviations and failures to comply. These defects and failures to comply associated with substantial safety hazards should be identified as soon as practicable, and, in all cases with 60 days of discovery. Contrary to the above, the licensees' procedural guidance in FNP-0-AP-62 was inadequate in that individuals were allowed to take the amount of time deemed sufficient, and the reporting clock did not start until the completion of documentation to the Plant Review Board. This resulted in the evaluation of the manufacturing defect in the 70 micro Farad capacitor taking approximately 260 days. This is a Severity Level IV violation because the finding impacted the regulatory process and is consistent with the NRC Enforcement Policy. Because this finding was of very low safety significance and

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has been entered into the corrective action program as CR 2010110840, this violation is being treated as a noncited violation, consistent with the NRC Enforcement Policy: SL IV 05000348/364/2010004-02, "Failure to Adopt Appropriate Procedures to Evaluate Deviations and Failures to Comply with 10 CFR 21 Evaluations."

4OA3 Event Follow-up

.1 (Closed) LER 05000348/2010-002-01: Two Auxiliary Feedwater Pumps Inoperable

a. Inspection Scope

On February 2, 2010, at 4:15 p.m., the Unit 1 TDAFWP was declared inoperable due to high temperature identified on an electrical cable in the TDAFW UPS. The cable high temperature condition was identified by the licensee during performance of a scheduled thermography scan of the UPS cabinet for preventative maintenance. Because the Train 'B' EDG had previously been removed from service for scheduled maintenance, the Train 'B' MDAFWP was also declared inoperable at 8:15 p.m. with the redundant TDAFW pump in an inoperable status. The concurrent inoperability of the TDAFW and Train 'B' MDAFWP was determined by the licensee to represent a condition that could have prevented the fulfillment of a safety function because two out of three trains of AFW are required to meet flow requirements for the limiting design basis accident. The licensee completed repairs to the electrical cable on the TDAFWP UPS at 10:16 p.m. on February 2, 2010, restoring the safety function when the TDAFWP and MDAFWP were returned to operable status. On April 2, 2010, the licensee submitted Unit 1 Licensee Event Report (LER) 2010-002-00 to the NRC regarding the event. The licensee performed additional analysis of the high temperature condition following completion of repairs and determined that the TDAFWP UPS function would not have been adversely affected. The licensee revised the LER on August 20, 2010 to document the post event analysis. The inspectors reviewed the original and revised LERs. The licensee documented the condition in CR 2010101183. This LER is closed.

b. Findings

No findings were identified.

.2 (Closed) LER 05000364/2010-001-00: Unplanned LOSP During SI with LOSP Testing

a. Inspection Scope

On April 30, 2010, Farley Nuclear Plant Unit 2 experienced an unplanned LOSP on the Train 'A' 4160 volt safety-related 2F electrical bus. The licensee previously performed the testing portion of FNP-2-STP-40.0, Safety Injection with LOSP Test, to verify operability of the B2F LOSP/SI sequencer. The licensee was performing the restoration steps of this procedure when the unplanned LOSP occurred. The inspectors reviewed the LER, the licensees' cause determination and licensee planned and completed corrective actions. The inspectors interviewed station personnel to gain understanding

of the licensee activities related to the event. The inspectors reviewed applicable procedures related to the event.

b. Findings

Introduction A Green self-revealing NCV of 10 CFR 50, Appendix B, Criterion V, Instructions, Procedures, and Drawings, was identified for an inadequate procedure resulting in an unplanned LOSP on the Unit 2 Train 'A' 4160 volt safety-related electrical bus 2F. The licensees' failure to place the Test Trip Override Switch in its "off" position during restoration steps of the test procedure resulted in power interruption to electrical bus 2F from its only source of power during the test, and the subsequent re-loading of safety-related loads by the LOSP/SI sequencer B2F.

Description The licensee implemented a design change to the emergency LOSP/SI sequencers on both units to address their inoperability during surveillance testing of the EDGs. The design change provided a circuit opening the EDG output breaker if the EDG was running parallel to the safety-related 4160 volt bus, and an LOSP occurred. This allowed reloading of the EDGs in a controlled manner, which would not have previously occurred. The licensee started implementation on the Unit 1 Train B LOSP/SI sequencer B2G modification on October 14, 2009, and subsequently implemented this modification on the remaining three sequencers, completing the modification of Unit 2 Train 'A' LOSP/SI sequencer B2F on March 19, 2010.

On April 30, 2010, Farley Nuclear Plant Unit 2 was in Mode 6, with greater than 23 feet of water above the reactor vessel. The licensee established initial conditions including removal off-site power from Train 'A' 4160 volt safety-related electrical bus 2F, and stopped both RHR pumps. The licensee performed FNP-2-STP-40.0 to verify proper operation of Unit 2 Train 'A' LOSP/SI sequencer B2F, which also restarted both RHR pumps and powered Train 'A' 4160 volt safety-related electrical bus 2F from the 1-2A EDG. The licensee performed the procedure restoration steps, requiring the resetting of sequencer B2F. FNP-2-STP-40.0 left the Test Trip Override Switch in its "on" position, this caused the output breaker of the 1-2A EDG to open, causing a momentary loss of power to the Train 'A' 4160 volt safety-related bus, resulting in an unplanned LOSP. The EDG output breaker reclosed, and sequencer B2F ran through its sequence of restarting loads (approximately two minutes for the entire sequencing).

During implementation of the design change to the emergency LOSP/SI sequencers, the licensee failed to update station procedures FNP-1-STP-40.0 (Unit 1) and FNP-2-STP-40.0 (Unit 2), to include a requirement to place the Test Trip Override Switch in the "off" position prior to resetting the associated LOSP/SI sequencer. This step was necessary to prevent the opening of the associated EDG output breaker during the resetting of the sequencer. Following the unplanned LOSP event, the licensee implemented a temporary procedure change, and promptly restored plant components to their required conditions for the current plant mode of operation. The licensee documented the event in CR 2010105854.

Analysis The failure to modify surveillance test procedure FNP-2-STP-40.0, SI with LOSP Test, following the implementation of a modification to the LOSP/SI sequencer on both units, resulting in an inadequate procedure, was a performance deficiency. This resulted in an unplanned LOSP on Unit 2 Train 'A' 4160 volt safety-related electrical bus 2F, due to the improper control the Test Trip Override Switch on the Unit 2 LOSP/SI sequencer B2F. The finding was more than minor because it adversely affected the procedure quality attribute of the Mitigating Systems cornerstone objective of ensuring the availability, reliability, and capability of systems responding to initiating events to prevent undesirable consequences (i.e. core damage). Specifically, this finding affected the ability of the Unit 2 Train 'A' 4160 volt safety-related 2F electrical bus to provide power to engineered safeguards feature components. The significance of this finding was assessed using the Phase 1 screening worksheets of Attachment 4 and Appendix G, Attachment 1, Checklist 4 of Manual Chapter 0609, SDP. The inspectors determined because the Unit was in Mode 6, with greater than 23 feet of water above the reactor vessel, that Checklist 4 was the appropriate evaluation tool. The inspectors determined the finding was of very low safety significance (Green) because the finding did not increase the likelihood of a loss of RCS inventory or degrade the licensees' ability to terminate a leak path or add to RCS inventory. This finding was assigned a cross-cutting aspect in the Resources component of the Human Performance area in that complete, accurate, and up-to-date procedures were not provided (H.2(c)).

Enforcement 10 CFR 50, Appendix B, Criterion V states, in part, that activities affecting quality shall be prescribed by documented instructions, procedures or drawings of a type appropriate to the circumstances, and shall be accomplished in accordance with these instructions, procedures or drawings. Contrary to the above, the licensee failed to change station procedures FNP-1-STP-40.0 and FNP-2-STP-40.0 to include a requirement to place the Test Trip Override Switch in "OFF" position prior to resetting the associated LOSP/SI sequencer. The licensee immediately restored compliance on Unit 2 with a temporary change to its procedure. The licensee also implemented corrective actions to address the oversight in the remaining station procedures. Because this finding is of very low safety significance (Green), and is entered into the licensees' CAP as CR 2010105854, this finding is being treated as an NCV consistent with the NRC Enforcement Policy: NCV 05000364/2010004-03, Inadequate Procedure Leads to LOSP on Unit 2 4160 volt Safety-Related Bus. This LER is closed.

.3 (Closed) LER 05000348/2010-001-00: Failure to Deactivate Containment Isolation Valve

a. Inspection Scope

On January 15, 2010, the licensee performed a local leak rate test (LLRT) on Unit 1 containment purge exhaust penetration number 13. The licensee misidentified the outside containment mini-purge valve (Q1P13HV2876C), as leaking past its seat. The licensee entered T.S. 3.6.3, Containment Isolation Valves, which required at least one closed and deactivated valve in the affected flow path within 24 hours of detection of excessive penetration leakage. The licensee promptly closed the inside containment mini-purge valve (Q1P13HV2876D), and deactivated the valve as required by TS 3.6.3. On January 26, 2010, following additional troubleshooting, the licensee discovered the

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inside containment purge valve (Q1P13V283) had seat leakage, and the outside containment mini-purge valve (Q1P13HV2876C) was not leaking past its seat. During the time the inside CTMT isolation valves were closed and deactivated, the outside CTMT Mini-Purge valve was not deactivated. The licensee closed and deactivated the outside containment mini-purge valve (Q1P13HV2876C) as required by TS 3.6.3.

The inspectors reviewed the LER, the licensee's cause determination and licensee planned and completed corrective actions. The inspectors interviewed station personnel to gain understanding of the licensee activities related to the event. The inspectors reviewed applicable procedures related to the event, reviewed WOs related to the event and past work performed on these valves.

b. Findings

One LIV was identified and is documented in section 4OA7 of this report. This LER is closed.

4OA5 Other Activities

.1 Quarterly Resident Inspector Observations of Security Personnel and Activities

a. Inspection Scope

During the inspection period, the inspectors conducted observations of security force personnel and activities to ensure these activities were consistent with licensee security procedures and regulatory requirements relating to nuclear plant security. These observations took place during both normal and off-normal plant working hours. These quarterly resident inspector observations of security force personnel and activities did not constitute any additional inspection samples. Rather, they were considered an integral part of the inspectors' normal plant status reviews and inspection activities.

b. Findings

No findings were identified.

.2 Resident Inspector Observations of Independent Spent Fuel Storage Installation

a. 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 2008 to verify the changes were consistent with the licensee and Certificate of Compliance, and did not reduce the program effectiveness.

b. Findings

No findings were identified.

4OA6 Meetings, Including Exit

On October 21, 2010, the NRC inspectors presented the inspection results to Mr. Randy Johnson and other members of the Farley Nuclear Plant staff who acknowledged the findings. The NRC confirmed proprietary information was properly identified and controlled during this inspection.

4OA7 Licensee Identified Violations

The following violation of very low safety significance was identified by the licensee, and was a violation of NRC requirements and met the criteria of the NRC Enforcement Policy, for being dispositioned as an NCV.

- TS 3.6.3, Containment Isolation Valves, requires that each containment isolation valve shall be operable in Modes 1, 2, 3 and 4. Condition D requires one or more penetration flow paths containing containment purge valves with penetration leakage, such that with the sum of the leakage for all Type B and C tests, is not within limits, the affected penetration flow path is isolated by use of at least one closed and deactivated automatic valve, closed manual valve or blind flange within 24 hours. Contrary to the above, on January 15, 2010, Unit 1 containment purge exhaust penetration number 13 was declared inoperable due to excessive leakage, but the wrong containment mini-purge valve (Q1P13HV2867D) was closed and deactivated. This was corrected on January 26, 2010, when, as the result of additional troubleshooting, the licensee discovered the main containment purge valve (Q1P13V283) had seat leakage resulting in the excessive leakage identified during the LLRT on January 15, 2010. Immediately following the discovery on January 26, 2010, the licensee closed and deactivated containment mini-purge valve (Q1P13HV2867C) as required by TS 3.6.3. The licensee entered this condition in its CAP as CR 2010100931. This finding was assessed using IMC 0609, Phase 1 screening worksheets of Attachments 4 and Appendix H relating to Containment Barrier Integrity, and determined to be of very low safety significance (Green) because the leaking penetration would not have allowed the entire volume of containment to exit through the opening within a 24 hour period.

ATTACHMENT: SUPPLEMENTAL INFORMATION

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SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee personnel

C. Barefield, Operations Superintendent
D. Christianson, Training Manager
L. Fields, Performance Improvement Engineer
M. Galle, Simulator Coordinator
B. Griner, Engineering Support Manager
D. Hall, Training Supervisor
D. Hobson, Operations Support
L. Hogg, Security Manager
J. Horn, Site Support Manager
F. Hundley, Field Operations Supervisor
J. Hutto, Operations Manager
R. Idom, Operations Lead Instructor
J.R. Johnson, Site Vice President
C. Medlock, Manager of Site Projects
B. Oldfield, Licensing Engineer
M. Peel, Medical Services Coordinator
T. Pelham, Performance Improvement Supervisor
T. Prevatt, Security Supervisor
L. Riley, Performance Improvement Engineer
C. Thornell, Engineering Director
S. Varnum, Chemistry Manager
C. Walker, Self Assessment Coordinator
T. Youngblood, Plant Manager

NRC personnel

Scott M. Shaeffer, Chief, Branch 2, Division of Reactor Projects

LIST OF REPORT ITEMS

Opened

05000348/2010004-01	URI	Failure of Containment Isolation Valve to Provide Proper Indication for its Containment Isolation Function (Section 1R12)
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Opened and Closed

05000348/364/2010004-02	SL IV	Failure to Adopt Appropriate Procedures to Evaluate Deviations and Failures to Comply with 10 CFR 21 Evaluations (Section 4OA2.2)
05000364/2010004-03	NCV	Inadequate Procedure Leads to LOSP on Unit 2 4160 volt Safety Related Bus (Section 4OA3.2)

Closed

05000348/2010-002-00	LER	Two Auxiliary Feedwater Pumps Inoperable (Section 4OA3.1)
05000364/2010-001-00	LER	Unplanned LOSP During SI with LOSP Testing (Section 4OA3.2)
05000348/2010-001-00	LER	Failure to Deactivate Containment Isolation Valve (Section 4OA3.3)

Discussed

None

LIST OF DOCUMENTS REVIEWED**Section 1R01: Adverse Weather Protection**Procedures:

FNP-0-AOP-21.0, Severe Weather. Version 28.0

Section 1R04: Equipment AlignmentCondition Reports:

2009110151, 2001100410, 2010100595, 2010100607, 2010108395, 2010103069, 2010108130

Drawings:

D175002, Sheet 1, Version 48.0
D175002, Sheet 2, Version 26.0
D175002, Sheet 3, Version 13.0
D205038, Sheet 1, Version 36.0
D205038, Sheet 2, Version 23.0
D205002, Sheet 1, Version 31.0
D205002, Sheet 2, Version 19.0
D200013, Sheet 2, Version 22.0

Procedures:

FNP-1-SOP-23.0, Component Cooling Water System, Version 87.0
FNP-2-SOP-7.0, Residual Heat Removal System, Version 8.0
FNP-2-SOP-24.0, Service Water System, Version 67.0

Section 1R05: Fire ProtectionCondition Reports:

2010109980

Drawings:

A-509018, Sheet 10, Revision 9
A-508650, Sheet 10, Revision 3
A-509018, Sheet 6, Revision 1
A-508651, Sheet 7, Revision 6
A-509018, Sheet 12, Revision 2.0

Documents:

FNP FSAR 9B, Revision 21

Procedures:

FNP-0-ACP-35.2, Flammable Material and Combustible Material Control, Version 13.0

Section 1R07: Heat Sink Performance

Condition Reports:

2009112587, 2009114687, 2009114688, 2010100755

Documents:

EPRI NP-7552, Heat Exchanger Performance Monitoring Guidelines
PR 02-71, Integrated Technologies, Inc., 1C CCW HX Eddy Current Test Preliminary Report
SM-C080146901-001, Units 1 and 2 CCW HX PROTO-HX Computer Model
SS-1102-23, CCW HX Specifications Document, Rev 4

Procedures:

FNP-0-ETP-4379.0, Performance Test for Unit 1 and Unit 2 CCW Heat Exchangers, Version 7.0

Work Orders:

1090767701

Section 1R11: Licensed Operator Requalification Program

Documents:

Simulator Exercise Guide OPS-56400A

Section 1R12: Maintenance Effectiveness

Condition Reports:

2004101005, 2005111100, 2008100050, 2008112219, 2009104096, 2009101938, 2009104096,
2009111977, 20091133404, 2010100526, 2010100931, 2010101933, 2010110828

Action Items:

209203977, 2009204725, 2009204727

Drawings:

D-175010 Sheet 1, Version 25.0
D-175010 Sheet 2, Version 23.0

Procedures:

FNP-0-EMP-1501.17, Testing, and Analyzing Motor-Operated Valves Using Crane Nuclear Viper and MC² Testing Systems, Version 14.0
 FNP-0-EMP-1501.18, Acquiring and Analyzing MC² Data Using the Crane Nuclear Viper Diagnostic Systems™, Version 6.0
 FNP-0-EMP-1501.19, Easy Torque Thrust Sensor – Installation, Version 3.0

Work Orders:

1063118701, 1071508801, 1072506602, 1072506603, 1072506604, 1072600301, 1080003001, 1092160601, 1100273401, 1100378301, 1100998501, 2071001901, 2071001903, 2071001904, 2071001905, 2090433101, 2092160701, 2092160901, 2092161101, 2092675501,

Section 1R13: Maintenance Risk Assessment and Emergent Work ControlProcedures:

FNP-0-ACP-52.1, Guidelines for Scheduling of On-Line Maintenance, Version 55.0
 FNP-0-ACP-52.3, Mode 1, 2, & 3 Risk Assessment, Version 9.0
 FNP-1-STP-33.5, Verification of 2C DG Output Breaker Trip From SSPS K609 Slave Relay, Version 4.0

Section 1R15: Operability EvaluationsCondition Reports:

2010110044, 2010109800, 2010109822, 2010109779, 2010104397, 2010111221

Documents:

U-419238, Unit 1 and 2 Uninterruptible Power Supply (UPS) Instruction Manual, Version 5.0
 Design Change Package 2060862701J019, 505 Digital Governor for Steam Turbines Installation and Operation Manual, Version 3.0
 SS-1102-170, Specification for Containment Cooler Coils, Revision 3
 SM-97-1356-001, CTMT Cooler Plugging Allowance, Revision 0

Drawings:

D-170119, Unit No. 1 P&ID – Service Water System, Version 34.0
 D-205003, Unit No. 2 P&ID – Service Water System, Version 6.0

Procedures:

NMP-AD-012, Operability Determinations and Functionality Assessments, Version 8.0
 FNP-0-IMP-212.2, Service Water Pump Test with Fluorescent Dye Solution, Version 22.0
 FNP-1-STP-24.2, 1C, 1D and 1E Service Water Pump Quarterly Inservice Test, Version 69.0
 FNP-2-STP-22.16, Unit 2 Turbine Driven Aux Feedwater Pump Quarterly Inservice Test

Work Orders:

1092383801, 1090077901

Section 1R18: Plant Modifications

Condition Reports:
2010112305

Documents:
TM 2102758401
U-212327, Instruction Manual – Velan Motor Operated Valves, Revision E

Drawings:
D-207615, Elementary Diagram – 575V Motor Operated Valves, Version 10.0

Procedures:
FNP-0-AP-8, Design Modification Control Version 45.0

Work Orders:
2102756201 Rev 1

Section 1R19: Post Maintenance Testing

Condition Reports:
2010101183, 2010101201, 2008104280

Action Items:
2010201676, 2010201677, 2010201678

Drawings:
D-202750, Elementary Diagram – Service Water Pump No. 2C Bus 2L, Version 12.0

Procedures:
FNP-0-EMP-2007.01, Infrared Survey Program, Version 12.0
FNP-0-EMP-1313.20, Enhanced Inspection of Cutler Hammer 4.16KV Circuit Breakers Type MA-VR350, Version 13.0
FNP-0-STP-80.17, Diesel Generator 2C Operability Test, Version 35.0
FNP-1-STP-4.3, 1C Charging Pump Quarterly Inservice Test, Version 59.0
FNP-2-STP-24.2, 2C, 2D, and 2E, Service Water Pump Quarterly Inservice Test, Version 61.0
FNP-0-SOP-0.0, Appendix P, Obtaining New Baseline Data, Version 139.0
FNP-1-STP-24.2, 1C, 1D, and 1E, Service Water Pump Quarterly Inservice Test, Version 70.0
FNP-1-MP-42.1, Removal, Installation, and Alignment of Byron-Jackson and Sulzer Service Water Pumps, Unit 1, Version 6.0

Work Orders:
1063025401, 1070643001, 1071639301, 1071765401, 1080273701, 1091307101, 1101017701, 2081228501, 2101678701, S090669901, 1051571176

Section 1R22: Surveillance TestingCondition Reports:

2010104368, 2010109800, 2010109822, 2010110044, 2010112882, 2010112947

Drawings:

D-170119, P&ID – Service Water System, Version 34.0

Procedures:

FNP-0-IMP-212.2, Service Water Pump Test with Fluorescent Dye Solution, Version 22.0
 FNP-1-STP-4.1, 1A Charging Pump Quarterly Inservice Test, Version 60.0
 FNP-1-STP-24.2, 1C, 1D and 1E Service Water Pump Quarterly Inservice Test, Version 69.0
 FNP-1-STP-80.1, Diesel Generator 1-2A Operability Test. Version 59.0
 FNP-2-STP-22.16, Unit 2 Turbine Driven Aux Feedwater Pump Quarterly Inservice Test
 FNP-2-STP-205.2, Refueling Water Storage Tank (RWST) Level Q2F16L 70502 Loop
 Calibration

Work Orders:

1081335101, 1082268701, 1082268702, 1090076301, 1090077901, S092355701

Section 4OA1: Performance Indicator Verification 71151Documents:

FNP-0-AP-54, Preparation and Reporting of NRC PI Data and NRC Operating Data, Revision 12
 FNP-0-SYP-25.0, Mitigating System Performance Index Desktop Guide, Version 2.0

Procedures:

Farley Unit 1 and Unit 2 Consolidated Data Entry, MSPI Derivation Report, MSPI High Pressure Injection System, Unavailability and Unreliability Indexes, dated second quarter 2010
 Farley Unit 1 and Unit 2 Reactor Coolant System Activity Summary, Unit 1 and Unit 2, for 8/2009 – 7/2010
 Farley Unit 1 and Unit 2 Reactor Coolant System Leak Rate Summary, Unit 1 and Unit 2, for 8/2009 – 8/2010
 Selected Unit 1 and Unit 2 Control Room Logs from July 2009 through July 2010
 NEI 99-02, Regulatory Assessment Performance Indicator Guideline, Revision 6

Section 4OA2: Identification and Resolution of Problems 71152Condition Reports:

2008105884, 2008105920, 2008106027, 2009107856, 2010102641, 20101028092010107145, 2010110840

Action Items:

2009205480

Documents:

Excelon Power Labs – Failure Analysis of an Oil-Filled Capacitor, Dated October 16, 2009
 Purchase Order QP070496 – 70 micro Farad 660v capacitor
 Purchase Order QP030907/005 – 3KVA Redundant UPS System With Bypass
 Ronken Industries Inc. Memo dated November 13, 2009

Procedures:

FNP-0-AP-62, Evaluation of Defects and Noncompliances Potentially Reportable Under
 10CFR21, Version 9.0

Work Orders:

1092015701, 1101839401

Section 4OA3: Event Follow-up 71153Condition Reports:

2010101183, 2010101201

Action Items:

2010201676, 2010201677, 2010201678

Documents:

Farley, Unit 1, LER 2010-002-00, Two Auxiliary Feedwater Pumps Inoperable

Procedures:

FNP-0-EIP-8.0, Non-emergency Notifications, Version 105
 FNP-0-EMP-2007.01, Infrared Survey Program, Version 12.0

Work Orders:

1101017701, 1063025401, 1070643001, 1071639301, 1071765401, 1080273701

Section 4OA5: Other ActivitiesCondition Reports:

2008105808, 2010106860, 20106888, 2010107116, 2010107289, 2010108030, 2010108078,
 2010108147, 2010108263, 2010108456, 2010108524, 2010108699, 2010108711, 2010109075,
 2010109301, 2010109415, 2010109418, 2010109420, 2010109942, 2010111391, 2010111727

Action Items:

2008204482, 2008204483, 2008204484, 2008204485, 2008206111, 2009200274, 2010202584,
 2010204926,

Procedures:

FNP-0-MP-110.0, Dry Fuel Storage Campaign Guidelines, Version 10.0
 FNP-0-MP-110.2, DFS Ancillary Equipment Lay-up and Pre-use Preparations, Version 6.0
 FNP-0-MP-110.0, Cask Transporter Maintenance, Version 5.0
 FNP-0-MP-111.2, Hi-Storm Preparation and Loading Operations, Version 9.0
 FNP-0-MP-111.3, MPC Fuel Loading Operations, Version 12.0

FNP-0-MP-111.4, MPC Closure Operations, Version 9.0
FNP-0-MP-111.7, Alternate Cooling Water System Operation, Version 8.0
FNP-0-MP-111.11, MPC Helium Leak Rate Testing, Version 2.0
FNP-0-MP-111.12, Forced Helium Dehydration System Operation, Version 2.0
FNP-0-MP-112.1, DFS Malfunction Guidance, Version 4.0
FNP-0-STP-630.0, MPC Integrity – Loading, Version 4.0

Section 40A7: Licensee-Identified Violations

Condition Reports:

CR 2010100526

Documents:

Surveillance Task Sheet FNP-1-STP-103-1081029901, Unit 1 Containment Purge Supply and Exhaust

Work Orders:

Maintenance WO 1100273401, Unit 1 Containment mini purge exhaust damper