



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

June 27, 2017

Mr. Dennis Madison, Vice President
Southern Nuclear Operating Company, Inc.
Joseph M. Farley Nuclear Plant
7388 North State Highway 95
Columbia, AL 36319

**SUBJECT: JOSEPH M. FARLEY NUCLEAR PLANT - NRC DESIGN BASES INSPECTION
ASSURANCE INSPECTION (TEAM) REPORT NUMBER 05000348/2017007
AND 05000364/2017007**

Dear Mr. Madison,

On May 18, 2017, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Joseph M. Farley Nuclear Station, Units 1 and 2, and on June 19, 2017, the NRC inspectors discussed the results of this inspection with Mr. Scott Briggs and other members of your staff. The results of this inspection are documented in the enclosed report.

NRC inspectors documented two findings of very low safety significance (Green) in this report. These findings involved violations of NRC requirements. The NRC is treating these violations as non-cited violations (NCVs) consistent with Section 2.3.2.a of the Enforcement Policy.

If you contest the violations or significance of these NCVs, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region II; the Director, Office of Enforcement; and the NRC resident inspector at the 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 U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region II; and the NRC resident inspector at the Joseph M. Farley Nuclear Plant.

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

Sincerely,

/RA/

Jonathan H. Bartley, Chief
Engineering Branch 1
Division of Reactor Safety

Docket Nos. 50-348, 50-364
License Nos. NPF-2, NPF-8

Enclosure:
Inspection Report 05000348/2017007
and 05000364/2017007, w/Attachment:
Supplemental Information

cc: Distribution via ListServ

SUBJECT: JOSEPH M. FARLEY NUCLEAR PLANT - NRC DESIGN BASES INSPECTION
 ASSURANCE INSPECTION (TEAM) REPORT NUMBER 05000348/2017007
 AND 05000364/2017007 –dated June 27, 2017.

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

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U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos.: 050000348, 05000364

License Nos.: NPF-2, NPF-8

Report Nos.: 05000348/2017007, 05000364/2017007

Licensee: Southern Nuclear Operating Company, Inc.

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

Location: Columbia, AL

Dates: May 1 – 18, 2017

Inspectors: M. Riley, Acting Senior Reactor Inspector (Lead)
C. Franklin, Reactor Inspector
J. Watkins, Reactor Inspector (Region IV)
L. Jones, Reactor Inspector
W. Satterfield, Reactor Inspector (Trainee)
C. Baron, Contractor
A. Della Greca, Contractor

Approved by: Jonathan H. Bartley, Chief
Engineering Branch 1
Division of Reactor Safety

Enclosure

SUMMARY

Inspection Report (IR) 05000348/2017007 and 05000364/2017007; May 1 – 18, 2017; Farley Nuclear Plant, Units 1 and 2; Design Bases Assurance Inspection (Team).

The inspection activities described in this report were performed between May 1 through May 18, 2017, by a team of six U.S. Nuclear Regulatory Commission (NRC) inspectors and two contractors. The team identified two non-cited violations. The significance of inspection findings are indicated by their color (i.e., greater than Green, or Green, White, Yellow, or Red) and determined using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process," (SDP) dated April 29, 2015. Cross-cutting aspects are determined using IMC 0310, "Aspects Within the Cross-Cutting Areas," dated December 4, 2014. All violations of NRC requirements are dispositioned in accordance with the NRC's Enforcement Policy dated November 1, 2016. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 6.

NRC-Identified and Self-Revealing Findings

Cornerstone: Mitigating Systems

- Green: The NRC identified a non-cited violation (NCV) of Title 10 Code of Federal Regulations (CFR) Part 50, Appendix B, Criterion III, "Design Control," for the licensee's failure to translate the design basis time limit for the alignment of the emergency core cooling system (ECCS) to cold leg recirculation into their time critical operator action procedure. Specifically, the licensee failed to translate the ECCS to cold leg recirculation alignment activity time requirement of 9 minutes and 25 seconds from calculation SM-94-0452-001, "RWST Depletion During Injection Mode with LOCA Until Switchover to Recirculation," Version 5.0, and UFSAR Table 6.3-4, into procedure NMP-OS-014-001, "FNP Time Critical Operator Action Program," Version 4.0. The licensee entered this issue into their corrective action program as condition report 10365952 and determined that operability was not impacted due to conservatism in the calculation and recent operating crew simulator performance.

The performance deficiency was determined to be more than minor because it was associated with the procedure quality attribute of the mitigating systems cornerstone and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the licensee's failure to translate the correct design basis time requirement into their acceptance criteria in procedure NMP-OS-014-001 resulted in several unidentified periodic time validation failures without remediation, therefore adversely affecting the licensee's capability and reliability of aligning safety-related equipment needed during a loss of coolant accident within the established design basis time limits. The team determined the finding to be of very low safety significance (Green) because the finding was a deficiency affecting the design and qualification of a mitigating system, structure, or component (SSC), and the SSC maintained its operability. The team determined that no cross-cutting aspect was applicable because the finding did not reflect current licensee performance. (Section 1R21.2.b.1)

Cornerstone: Barrier Integrity

- Green: The NRC identified a non-cited violation (NCV) of Title 10 Code of Federal Regulations (CFR) Part 50, Appendix B, Criterion XVI, "Corrective Action," for the licensee's failure to implement timely corrective actions to change the classification of check valve Q2E21V0026 (QV026) from category "C" to category "A/C" in accordance with ASME OM Code-2001, Subsection ISTC-1300, "Valve Categories." The licensee entered this issue into their corrective action program as condition report 10377744, reclassified the valve as category "A/C" in January 2017 to perform the leakage test during the next outage, and determined there was reasonable assurance the valve could perform its intended safety function until the outage.

The performance deficiency was determined to be more than minor because it was associated with the structure, system, component, and barrier performance attribute of the Barriers Integrity Cornerstone and adversely affected the cornerstone objective of providing reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. Specifically, the failure to implement timely corrective actions resulted in the licensee not ensuring reverse flow to the refueling water storage tank (RWST) from the containment sump during the recirculation phase of safety injection (SI) would not exceed the plant's dose rate limits. The team determined the finding to be of very low safety significance (Green) because the finding did not only represent a degradation of the radiological barrier function provided for the control room, auxiliary building, or spent fuel pool, and the finding did not represent a degradation of the barrier function of the control room against smoke or a toxic atmosphere. The team determined the finding was indicative of present licensee performance and was associated with the cross cutting aspect of Conservative Bias in the area of Human Performance because the licensee failed to use decision making practices that emphasize prudent choices over those that are simply allowable [H.14]. (Section 1R21.2.b.2)

REPORT DETAILS

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity

1R21 Design Bases Assurance Inspection (Team) (71111.21M)

.1 Inspection Sample Selection Process

The team selected risk-significant samples and related operator actions for review using information contained in the licensee's probabilistic risk assessment. In general, this included risk significant structures, systems, and components (SSCs) that had a risk achievement worth factor greater than 1.3 or Birnbaum value greater than 1E-6. The sample included five components selected based on risk significance, one component associated with containment large early release frequency (LERF), six modifications to mitigation SSCs, and two operating experience (OE) items.

The team performed a margin assessment and a detailed review of the selected risk-significant components and associated operator actions to verify that the design bases had been correctly implemented and maintained. Where possible, this margin was determined by the review of the design basis and Updated Final Safety Analysis Report (UFSAR). This margin assessment also considered original design issues, margin reductions due to modifications, or margin reductions identified as a result of material condition issues. Equipment reliability issues were also considered in the selection of components for a detailed review. These reliability issues included items related to failed performance test results, significant corrective action, repeated maintenance, maintenance rule status, Inspection Manual Chapter 0326 conditions, NRC Resident Inspector input regarding problem equipment, system health reports, industry OE, and licensee problem equipment lists. Consideration was also given to the uniqueness and complexity of the design, OE, and the available defense-in-depth margins. An overall summary of the reviews performed and the specific inspection findings identified is included in the following sections of the report.

.2 Component Reviews

a. Inspection Scope

Components Selected Based on Risk Significance

- 125 VDC Unit Buses (Q1/2R42B001)
- 600V Load Center (LC) 'E' (Q1/2R16B007)
- Volume Control Tank (VCT) Level Instrumentation (Q1/2E21LT0112/115)
- Residual Heat Removal (RHR) Heat Exchanger (HX) to Reactor Coolant System (RCS) cold leg isolation valves (Q1/2E11MOV8888 and Q1/2E11V023)
- Motor-Driven Auxiliary Feedwater (MDAFW) Pump Room Cooler (Q1/2E16H005)

Components with LERF Implications

- RHR Pumps (1/2LHPMP001AB)

Modifications to Mitigation SSCs

- SNC683212 – Unit 2 Turbine-Driven Auxiliary Feedwater Pump (TDAFWP) Controller Start Time Delay Relay
- SNC368758 – Unit 1 RHR Auto Closure Interlock Removal
- ED SNC655056 – Replacement of ASCO Solenoid Valve for Emergency Air To Atmospheric Relief Valve Solenoid
- SNC833459 – Configuration Change Evaluation for Q2B31PT0455 and Q2B31PT0457 (Pressurizer Pressure Transmitters)
- SNC647902 – Install Q1P16V560 Valve (SW To CW LCV Addition)
- ED SNC643723 – Evaluate Replacement TDAFWP Lube Oil Cooler

For the six components listed above, the team reviewed the plant technical specifications (TS), UFSAR, design bases documents, and drawings to establish an overall understanding of the design bases of the components. Design calculations and procedures were reviewed to verify that the design and licensing bases had been appropriately translated into these documents and that the most limiting parameters and equipment line-ups were used. Logic and wiring diagrams were also reviewed to verify that operation of electrical components conformed to design requirements. Test procedures and recent test results were reviewed against design bases documents to verify the adequacy of test methods and that acceptance criteria for tested parameters were supported by calculations or other engineering documents, and that individual tests and analyses served to validate component operation under accident conditions. Maintenance procedures were reviewed to ensure components were appropriately included in the licensee's preventive maintenance program, that components or sub-components were being replaced before the end of their intended service life, and that the licensee has appropriate controls in place for components that are beyond vendor recommended life. Vendor documentation, system health reports, preventive and corrective maintenance history, and corrective action program documents were reviewed (as applicable) in order to verify that the performance capability of the component was not negatively impacted, and that potential degradation was monitored or prevented. Maintenance Rule information was reviewed to verify that the component was properly scoped, and that appropriate preventive maintenance was being performed to justify current Maintenance Rule status. Component walk downs and interviews were conducted to verify that the installed configurations would support their design and licensing bases functions under accident conditions, and had been maintained to be consistent with design assumptions.

For the six modifications listed above, the team reviewed design bases, licensing bases, and performance capability of components to ensure they have not been degraded through modifications. In addition, post-modification testing was reviewed to ensure operability was established by verifying unintended system interactions will not occur, SSC performance characteristic continue to meet the design bases, modification design assumptions are appropriate, and modification test acceptance criteria have been met. The team also verified design basis documentation was updated consistent with the design change, verified other design basis features were not adversely impacted,

verified procedures and training plans affected by the modification were updated, and verified that affected test documentation was updated or initiated as required by applicable test programs. Walk downs and interviews were conducted as necessary to verify that the modifications were adequately implemented. Documents reviewed are listed in the Attachment.

Additionally, the team performed the following specific reviews:

- The team reviewed the potential impact of WCAP-17308-NP, Rev. 0, "Treatment of Diesel Generator Technical Specification Frequency and Voltage Tolerances," on the operation of the RHR pumps to verify acceptable performance under the most limiting Diesel Generator operating conditions.
- The team reviewed the application of design basis single failures to the transfer of ECCS and Containment Spray from the RWST to the containment sump to verify that the associated time critical operator verification was bounding.

b. Findings

.1 Failure to Translate Design Basis Time Requirement into the Time Critical Operator Action Program Procedure

Introduction: The NRC identified a Green non-cited violation (NCV) of Title 10 Code of Federal Regulations (CFR) Part 50, Appendix B, Criterion III, "Design Control," for the licensee's failure to translate the design basis time limit for the alignment of the emergency core cooling system (ECCS) to cold leg recirculation into their time critical operator action procedure. Specifically, the licensee failed to translate the ECCS to cold leg recirculation alignment activity time requirement of 9 minutes and 25 seconds from calculation SM-94-0452-001, "RWST Depletion During Injection Mode with LOCA Until Switchover to Recirculation," Version 5.0, and UFSAR Table 6.3-4, into procedure NMP-OS-014-001, "FNP Time Critical Operator Action Program," Version 4.0.

Description: Procedure NMP-OS-014-001 defined the population of time critical actions (TCAs) for Farley Nuclear Station and included a TCA for the alignment of the ECCS to cold leg recirculation (i.e., TCA E05). The procedure specified that the time requirement and pass/fail criterion for licensed operator training and periodic validation for TCA E05 was 10 minutes. Upon review of the acceptance criteria in the procedure and the design basis time requirement located in calculation SM-94-0452-001, the team identified a discrepancy between the acceptance criteria used for TCA E05 in the procedure and the design basis time requirement located in the calculation. Calculation SM-94-0452-001 specified a requirement of 9 minutes and 25 seconds instead of the 10 minutes used in the procedure. The team also noted that the source document for the acceptance criteria used in procedure NMP-OS-014-001 referenced section 6.3.2.2.7.B of the Updated Safety Analysis Report (UFSAR) as the genesis of the 10 minute value. The team noted that UFSAR Section 6.3.2.2.7.B stated that the ECCS switchover is completed approximately 10 minutes after the refueling water storage tank (RWST) low-level switchover setpoint is reached and to see UFSAR Table 6.3-4. UFSAR Table 6.3-4 showed that the design basis time limit for aligning ECCS to cold leg recirculation was also 9 minutes and 25 seconds, instead of the 10 minutes used as the acceptance criteria in the procedure.

The team determined that the acceptance criteria used in procedure NMP-OS-014-001 was non-conservative because it would allow the operators to exceed the established design basis time requirement to ensure adequate core cooling during a loss of coolant accident (LOCA) by the calculation and UFSAR. To understand the ramifications of this discrepancy, the team reviewed periodic time validations of TCA E05 performed by licensed operators from the years 2015 through 2017. The team identified that if the actual design basis requirement of 9 minutes 25 seconds had been stipulated as the pass/fail criterion during the periodic time validations, the number of crew failures would have more than doubled from five to eleven during the period. Therefore, the team determined that there were several unidentified periodic time validation failures from 2015 to 2017 for which the operators were not remediated to ensure they could meet the design basis time requirement.

On May 16, 2017, the licensee entered this issue into their corrective action program as condition report (CR) 10365952 and determined that operability was not impacted due to conservatism in the RWST drain-down rate calculation and recent operating crew simulator performance.

Analysis: The licensee's failure to translate the design basis time limit of 9 minutes 25 seconds for the alignment of the ECCS to cold leg recirculation into their acceptance criteria for procedure NMP-OS-014-001, in accordance with Title 10 CFR Part 50, Appendix B, Criterion III, "Design Control," was a performance deficiency (PD). The PD was determined to be more than minor because it was associated with the procedure quality attribute of the mitigating systems cornerstone and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the licensee's failure to translate the correct design basis time requirement into their acceptance criteria for TCA E05 in procedure NMP-OS-014-001 resulted in several unidentified periodic time validation failures without remediation, therefore adversely affecting the licensee's capability and reliability of aligning safety-related equipment needed during a LOCA within the established design basis time limits.

The team used Inspection Manual Chapter (IMC) 0609, Att. 4, "Initial Characterization of Findings," issued October 7, 2016, for mitigating systems, and IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," issued June 19, 2012, and determined the finding to be of very low safety significance (Green) because the finding was a deficiency affecting the design and qualification of a mitigating system, structure, or component (SSC), and the SSC maintained its operability. The team determined that no cross-cutting aspect was applicable because the finding did not reflect current licensee performance.

Enforcement: Title 10 CFR Part 50, Appendix B, Criterion III, "Design Control," required, in part, that measures shall be established to assure that applicable regulatory requirements and the design basis are correctly translated into specifications, drawings, procedures, and instructions. Contrary to the above, since July 15, 2013, the licensee failed to translate the 9 minutes and 25 seconds time requirement in calculation SM-94-0452-001 and UFSAR Table 6.3-4 into the acceptance criteria for TCA E05 in procedure NMP-OS-014-001. This resulted in several unidentified periodic time validation failures without remediation, thereby adversely affecting the licensee's capability and reliability of aligning safety-related equipment needed during a LOCA within the design basis time requirements. The licensee entered the issue into their corrective action program (CAP)

as CR 10365952 and determined operability was not impacted due to conservatisms in the RWST drain-down rate calculation and recent operating crew simulator performance. This violation is being treated as an NCV consistent with Section 2.3.2.a of the Enforcement Policy (NCV 05000348, 364/2017007-01, "Failure to Translate Design Basis Time Requirement into the Time Critical Operator Action Program Procedure").

.2 Untimely Corrective Actions for Check Valve Q2E21V0026

Introduction: The NRC identified a Green non-cited violation (NCV) of Title 10 Code of Federal Regulations (CFR), Part 50, Appendix B, Criterion XVI, "Corrective Action," for the licensee's failure to implement timely corrective actions to change the classification of check valve Q2E21V0026 (QV026) from category "C" to category "A/C" in accordance with ASME OM Code-2001, Subsection ISTC-1300, "Valve Categories."

Description: Check valve QV026 performs a safety function to open on initiation of high head safety injection to allow flow from the refueling water storage tank (RWST) to the charging pumps and a safety function of closing to ensure that flow to the charging pumps is not diverted to the RWST during the recirculation phase of safety injection (SI). In June 2014, the licensee received two NCVs for the failure to classify check valve QV026 as Category "A/C" and to incorporate adequate acceptance criteria for the valve in procedure FNP-1/2-STP-4.10 in accordance with ASME OM Code-2001 requirements. The licensee generated several condition reports (CRs) to address these issues and in August 2014, corrective action report (CAR) 211522 was initiated to further address the violations. The CAR approved a procedure change as an interim action until a formal evaluation determined the off-site leakage requirements. The licensee performed the revised procedure on October 24, 2014, and completed the formal evaluation in January 2016. Evaluation SM-1080538201-003, "Evaluation of Loss of Coolant Accident Doses with Alternate Source Terms," Version 3, established a leakage rate of less than 0.5 gallons per minute as acceptance criteria for procedure FNP-1/2-STP-4.10 to ensure dose rates are not exceeded in the control room and offsite during the recirculation phase of SI.

In March 2016, the licensee issued preventative maintenance change request 83794, which changed the frequency of leakage testing of valve QV026 from 54 months to every refueling outage and stated this change was due to the reclassification of the valve in the In-Service Testing program from category "C" to category "A/C." However, the team noted that the valve had not been reclassified at that time and was still classified as Category "C," which resulted in the licensee failing to test the valve during the refueling outage and ensuring the dose resulting from reverse leakage from the containment sump to the RWST was maintained within the plant's dose rate limits. The team also determined that the failure to test the valve during the outage resulted in exceeding the test frequency of two years required by ASME OM Code-2001, Subsection ISTC-3630. Therefore, the team determined that the corrective actions to change the classification of the valve were not timely. The team noted that the licensee failed to classify valve QV026 as a category "A/C" valve when the violation was issued and instead chose to keep the valve classified as category "C" until the evaluation was completed and other measures were in place for testing. The team determined these actions affected the timeliness of the licensee's corrective actions.

The licensee entered this issue into their corrective action program as condition report (CR) 10377744 on June 16, 2017, reclassified the valve as category "A/C" in January 2017 to perform the leakage test during the next outage, and determined there was reasonable assurance the valve could perform its intended safety function until the outage.

Analysis: The licensee's failure to implement timely corrective actions to change the classification of check valve QV026 from category "C" to category "A/C" in accordance with ASME OM Code-2001, was a violation of Title 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," and a performance deficiency (PD). The PD was determined to be more than minor because it was associated with the structure, system, component, and barrier performance attribute of the Barriers Integrity Cornerstone and adversely affected the cornerstone objective of providing reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. Specifically, the failure to correct the condition adverse to quality resulted in the licensee not performing leakage testing on valve QV026 within its specified frequency required by ASME OM Code-2001 and ensuring reverse flow to the RWST from the containment sump during the recirculation phase of SI would not exceed the plant's dose rate limits.

The team used Inspection Manual Chapter (IMC) 0609, Att. 4, "Initial Characterization of Findings," issued October 7, 2016, for barrier integrity, and IMC 0609, App. A, "The Significance Determination Process (SDP) for Findings At-Power," issued June 19, 2012, and determined the finding to be of very low safety significance (Green) because the finding did not only represent a degradation of the radiological barrier function provided for the control room, auxiliary building, or spent fuel pool, and the finding did not represent a degradation of the barrier function of the control room against smoke or a toxic atmosphere.

The team determined the finding was indicative of present licensee performance and was associated with the cross cutting aspect of Conservative Bias in the area of Human Performance because the licensee failed to use decision making practices that emphasize prudent choices over those that are simply allowable. Specifically, the licensee failed to classify valve QV026 as a category "A/C" valve when the violation was issued and instead chose to keep the valve classified as category "C" until 31 months later, after the evaluation was completed containing the acceptance criteria and other measures were in place. This resulted in the licensee not having actions in place to ensure that the valve was tested within its specified frequency (refueling outage) to verify that there would be no significant reverse flow to the RWST during the recirculation phase of SI [H.14].

Enforcement: Title 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," requires, in part, that measures shall be established to assure that conditions adverse to quality are promptly identified and corrected. Contrary to the above, from June 2014 until January 2017, the licensee failed to establish measures to correct a condition adverse to quality to assure that the classification of check valve QV026 was changed from category "C" to category "A/C" in accordance with the 2001 ASME OM Code. The failure to correct the condition adverse to quality resulted in the licensee not performing leakage testing on valve QV026 within its specified frequency and ensuring reverse flow to the RWST from the containment sump during the recirculation phase of SI would not exceed the plant's dose rate limits. The licensee entered this issue into their corrective

action program as CR 10377744, reclassified the valve as category "A/C" in January 2017 to perform the leakage test during the next outage, and determined there was reasonable assurance the valve could perform its intended safety function until the outage. This violation is being treated as an NCV consistent with Section 2.3.2.a of the Enforcement Policy (NCV 05000348, 364/2017007-02, "Untimely Corrective Actions for Check Valve Q2E21V0026")

.3 Operating Experience

a. Inspection Scope

The team reviewed two operating experience issues for applicability at the Joseph M. Farley Nuclear Plant. The team performed an independent review for these issues and, where applicable, assessed the licensee's evaluation and disposition of each item. The issues that received a detailed review by the team included:

- NRC Information Notice No. 96-55, "Inadequate Net Positive Suction Head of Emergency Core Cooling and Containment Heat Removal Pumps Under Design Basis Accident Conditions"
- Westinghouse NSAL 99-005, "Reactor Coolant Pump Operation During Loss of Seal Injection"

b. Findings

None

4. OTHER ACTIVITIES

4OA6 Meetings, Including Exit

On May 18, 2017, the team presented the inspection results to Mr. Dennis Madison and other members of the licensee's staff. On June 19, 2017, a telephone re-exit was conducted to present the final inspection results to Mr. Scott Briggs and other members of the licensee's staff. Proprietary information that was reviewed during the inspection was returned to the licensee or destroyed in accordance with prescribed controls.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee personnel:

D. Madison, Site Vice President
L. Williford, Regulatory Affairs Manager
K. Baity, Site Design Manager
J. Bracewell, Design Engineer
S. Briggs, Plant Manager
D. Morrow, Fleet Programs Manager
D. Lambert, Fleet Design Manager
J. Summy, Engineering Director
J. Wheat, Fleet Licensing Manager
A. Palmer, Site Design
R. Fletcher, Maintenance
S. Henry, WM Director
J. Seales, Site Design I&C Supervisor
D. Gilbert, EP
D. Williams, Nuclear Oversight Manager
B. Askreu, Security Manager
M. Hernandez, Electrical Design Supervisor
B. Cates, Site Design Lead Electrical
J. Hutto, Fleet Regulatory Affairs Directors
V. Flowers, Chemistry Manager
R. Bryant, RP Support
M. Euten, Licensing Engineer
K. Osborne, Licensing Engineer
B. Goodwin, Corporate
D. Churchman, Corporate
J. Forrest, Corporate
J. Collier, Site Licensing Engineer

NRC personnel:

G. MacDonald, Senior Risk Analyst
P. Niebaum, Senior Resident Inspector
K. Miller, Resident Inspector

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened & Closed

05000348, 364/2017007-01	NCV	Failure to Translate Design Basis Time Requirement into the Time Critical Operator Action Program Procedure (Section 1R21.b.1)
05000348, 364/2017007-02	NCV	Untimely Corrective Actions for Check Valve Q2E21V0026 (Section 1R21.b.2)

LIST OF DOCUMENTS REVIEWED

Corrective Action Documents Written as a Result of the Inspection (CRs)

10366449, NMP-OS-014 Procedure Revision
10366440, Enhancement to TCA E05
10361785, TCOA Event not Scheduled in a Timely Manner
10365952, RWST Maximum Drawdown Rate Evaluation
10361798, FSAR Table 9.4-6 not Updated for Description of HVAC Component Features
10361368, NMP-OS-014 Procedure Revision
10361312, A181004 Functional System Description Electrical Distribution System Needs To Be Updated
10361110, DBA-related CR - TDAFW Lube Oil Cooler
10360634, Housekeeping Issue- Noted during NRC Walkdown
10356887, CR for Missing Documentation of Heat Detector
10360897, Missing Work Order

Procedures

29402-C, Work Request Processing, Version 67
FNP-0-AOP-42.0, Shutdown Core Cooling, Version 4
FNP-0-EMP-1313.19, Electrical Maintenance Procedure, Inspection and Adjustment of Cutler-Hammer 4.16KV Circuit Breakers Type MA-VR350, Version 14.1
FNP-0-EMP-1320.01, Electrical Maintenance Procedure, General Inspection of Switchgear, Motor Control Centers and Electrical Enclosures, Version 17.0
FNP-0-EMP-1322.01, Westinghouse and Cutler-Hammer DS-206 and DS-416 Circuit Breakers, Version 41.0
FNP-0-EMP-1322.03, Electrical Maintenance Procedure, Westinghouse DS-206 and DS-416 Circuit Breakers (EPRI/NMAC Extended Maintenance Recommendations), Version 14.1
FNP-0-EMP-1322.10, Electrical Maintenance Procedure, Maintenance & Cleaning of Westinghouse Switchgear, Version 9.1
FNP-0-EMP-1513.08, Electrical Maintenance Procedure, ITE Magnetic Starter Testing, Version 9.0
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826059	10197340	10293749
854987	10207112	10306529
886187	10211978	10318899
888281	10229059	10332659
10000600	10238709	10332766
10011452	10239458	100077519
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SNC389669	SNC461093	SNC658712
SNC389670	SNC466179	SNC662838
SNC389672	SNC511403	SNC697859
SNC389673	SNC514109	SNC74458
SNC389920	SNC514166	SNC74460
SNC390029	SNC52765	SNC76393
SNC390081	SNC53127	SNC767575
SNC390312	SNC533033	SNC785733
SNC390313	SNC55907	SNC788620
SNC390920	SNC57946	SNC796442
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 FMEA-FD-SNC368758-E001, FMEA for Residual Heat Removal Autoclosure Interlock Deletion, Version 1.0
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 Lesson Plan, Chemical and Volume Control System, dated 7/2/12
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 NRC Letter, Joseph M. Farley Nuclear Plant, Units 1 and 2 - Issuance of Amendments Related to Technical Specification 3.3.5 (CAC Nos. MF7106 and MF7107) with copy of related Safety Evaluation, dated 11/17/16
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OPS-62101F/52101F/40301F, Lesson Plan – CVCS, Version 2
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 U418156, Instruction Manual RHR Pumps, Version 4.0
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 U-518094, Operators Manual ASCO 432 Automatic Transfer Switches 30 thru 400 Amp Sizes for DC to DC and AC to DC Applications, Rev. A
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Modifications

SNC731753TM, Unit 2 Low Idle Setpoint Change for Turbine Driven Auxiliary Feedwater Pump, Version 1.0
 SNC731754TM, Unit 2 Low Idle Setpoint Change for TDAFWP, Version 1.0
 SNC628279TM, Remove wire 203 from the Controller CR2 Terminal, Version 1.0
 SNC683212, DCP Unit 2 TDAFWP Controller Start Time Delay Relay, Version 1.0