

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

November 8, 2017

Dennis R. 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 – NUCLEAR REGULATORY COMMISSION PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION 05000348/2017009 AND 05000364/2017009

Dear Mr. Madison:

On October 5, 2017, the U. S. Nuclear Regulatory Commission (NRC) completed a problem identification and resolution biennial inspection at your Farley Nuclear Plant Units 1 and 2 and discussed the results of this inspection with you and other members of your staff. The inspection team documented the results of this inspection in the enclosed inspection report.

The NRC inspection team reviewed the plant's corrective action program and the plant's implementation of the program to evaluate its effectiveness in identifying, prioritizing, evaluating, and correcting problems, and to confirm that the plant was complying with NRC regulations and licensee standards for corrective action programs. Based on the samples reviewed, the team determined that your staff's performance in each of these areas adequately supported nuclear safety.

The team also evaluated the plant's processes for use of industry and NRC operating experience information and the effectiveness of the plant's audits and self-assessments. Based on the samples reviewed, the team determined that your staff's performance in each of these areas adequately supported nuclear safety.

Finally, the team reviewed the plant's programs to establish and maintain a safety-conscious work environment (SCWE), and interviewed plant personnel to evaluate the effectiveness of these programs. Based on the team's observations and the results of these interviews the team found no evidence of challenges to your organization's safety-conscious work environment. Your employees appeared willing to raise nuclear safety concerns through at least one of the several means available.

The team documented one NRC-identified finding of very low safety significance (Green) and non-cited Severity Level (SL) IV violation in this report. Both of 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 NRC Enforcement Policy, which appears on the NRC's Web site at http://www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html.

If you contest the violations or the significance of these violations, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region II; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Farley Nuclear Plant. If you disagree with a cross-cutting aspect assignment or a finding not associated with a regulatory requirement in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region II; and the NRC resident inspector at the 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, and Requests for Withholding."

Sincerely,

/**RA**/

Shane Sandal, Chief Reactor Projects Branch 6 Division of Reactor Projects

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

Enclosure: IR 05000348/2017009 and 05000364/2017009 w/Attachment: Supplementary Information

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D. Madison

SUBJECT: JOSEPH M. FARLEY NUCLEAR PLANT – NUCLEAR REGULATORY COMMISSION PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION 05000348/2017009 AND 05000364/2017009 <u>November 8, 2017</u>

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U.S. NUCLEAR REGULATORY COMMISSION

REGION II

| Docket Nos.: | 50-348, 50-364 |
|---------------|---|
| License Nos.: | NPF-2 and NPF-8 |
| Report No.: | 05000348/2017009 and 05000364/2017009 |
| Licensee: | Southern Nuclear Operating Company, Inc |
| Facility: | Joseph M. Farley Nuclear Plant |
| Location: | Columbia, AL |
| Dates: | September 25 - 29, 2017 October 2 - 5, 2017 |
| Inspectors: | N. Staples, Senior Project Engineer, Team Leader C. Rapp, Senior Project Engineer S. Ninh, Senior Project Engineer R. Kellner, Senior Health Physicist |
| Approved by: | Shane Sandal, Chief Reactor Projects Branch 6 Division of Reactor Projects |

SUMMARY

IR 05000348/2017009 and 05000364/2017009; September 25-29 – October 2-5, 2017; Farley Nuclear Plant, Units 1 and 2; Assessment of the Corrective Action Program.

The inspection was conducted by three senior project engineers and a senior health physicist. One Green non-cited violation (NCV) and one SL IV NCV were identified. The significance of most findings is identified by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process (SDP)," dated April 29, 2015. The cross-cutting aspects were determined using IMC 0310; "Aspects Within 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 findings for which the SDP does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 6.

Identification and Resolution of Problems

The inspectors concluded that, in general, problems were properly identified, evaluated, prioritized, and corrected. The licensee was effective at identifying problems and entering them into the corrective action program (CAP) for resolution, as evidenced by the relatively few number of deficiencies identified by external organizations (including the NRC) that had not been previously identified by the licensee, during the review period. Generally, prioritization and evaluation of issues were adequate, formal root cause evaluations for significant problems were adequate, and corrective actions specified for problems were acceptable. Overall, corrective actions developed and implemented for issues were generally effective and implemented in a timely manner.

The inspectors determined that overall, audits and self-assessments were adequate in identifying deficiencies and areas for improvement in the CAP, and appropriate corrective actions were developed to address the issues identified. Operating experience usage was found to be generally acceptable and integrated into the licensee's processes for performing and managing work, and plant operations.

Based on discussions and interviews conducted with plant employees from various departments, the inspectors determined that personnel at the site felt free to raise safety concerns to management and use the CAP to resolve those concerns.

Cornerstone: Mitigating Systems

<u>Green</u>: The NRC identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for failure to ensure that a corrective action taken to preclude repetition (CAPR) of a significant condition adverse to quality would be implemented. The licensee closed the CAPR tracking item, Technical Evaluation (TE), prior to all affected Steam Flow Transmitter calibration procedures revisions being completed. The licensee entered this issue in the CAP as CR 10413319.

The finding was more than minor because it was associated with the Human Performance attribute of the Mitigating System Cornerstone and adversely affected the cornerstone objective in that the licensee closed the TE prior to all affected Steam Flow Transmitter calibration procedures being revised which could potentially prevent the fulfillment of a safety function needed to mitigate the consequences of an accident. Specifically, the licensee closed out the TE CAPR 980655 tracking item on August 24, 2017, when fourteen safety related steam flow transmitter calibration procedures revisions were not completed. Using IMC 0609, Appendix A, "The Significance Determination Process for Findings At-Power," dated June 19, 2012, and IMC 0609, Appendix A, Exhibit 2, "Mitigating Systems Screening Questions," the finding was determined to have very low safety significance because it was not a design or qualification deficiency, did not represent an actual loss of a safety function of a system or a single train greater than its technical specification allowed outage time, and did not screen as potentially risk significant due to external events. The inspectors reviewed IMC 0310, "Aspects Within Cross Cutting Areas," dated December 4, 2014, and determined that this finding had a cross-cutting aspect in the area of Procedure Adherence (H.8) because the licensee closed the tracking item prior to completing the corrective action to prevent recurrence.

<u>Other</u>

 <u>SL IV</u>: The NRC identified a Severity Level IV (SL IV) non-cited violation of 10 CFR 50.73(a)(2)(i)(b) for failure to report plant operation prohibited by Technical Specification (TS) 3.3.2. Specifically, the licensee failed to perform a past operability evaluation and failed to recognize for having two steam flow channels on the 1 C steam generator inoperable longer than allowed by TS 3.3.2. Consequently, this condition was not discussed and reported on the Licensee Event Report (LER) 2016-007-00 or 2016-007-001. The issue was entered into the licensee's CAP as condition report 10413856.

This violation adversely affected the NRC's ability to perform its regulatory function; the NRC relies on licensee's ability to identify and report conditions or events meeting the criteria specified in the regulations. The licensee did not evaluate past operability and failed to recognize, for the purpose of reportability, that the point of discovery occurred when the data was collected. Because this issue affected the NRC's ability to perform its regulatory function, it was evaluated using the traditional enforcement process. Consistent with the guidance in Section 6.9, Paragraph d.9, of the NRC Enforcement Policy and Guidance in Section 2.3.2.a, this finding was determined to be a Severity Level IV non-cited violation. This finding has no cross-cutting aspect as it was strictly associated with a traditional enforcement violation.

4. OTHER ACTIVITIES

4OA2 Problem Identification and Resolution

.1 Assessment of the Corrective Action Program

a. Inspection Scope

The inspectors reviewed the licensee's Corrective Action Program (CAP) procedures which described the administrative process for initiating and resolving problems primarily through the use of condition reports (CRs). To verify that problems were being properly identified, appropriately characterized, and entered into the CAP, the inspectors reviewed CRs that had been issued between August 2015 and September 2017, including a detailed review of selected CRs associated with the following risk-significant systems: Service Water (SW), Component Cooling Water (CCW), Auxiliary Feedwater (AFW). Where possible, the inspectors independently verified that the corrective actions were implemented as intended. The inspectors also reviewed selected common causes and generic concerns associated with root cause evaluations (RCE) to determine if they had been appropriately addressed. To help ensure that samples were reviewed across all cornerstones of safety identified in the Reactor Oversight Process (ROP), the inspectors selected a representative number of CRs that were identified and assigned to the major plant departments, including guality assurance, health physics, chemistry, emergency preparedness and security. These CRs were reviewed to assess each department's threshold for identifying and documenting plant problems, thoroughness of evaluations, and adequacy of corrective actions. The inspectors reviewed selected CRs, verified corrective actions were implemented, and attended meetings where CRs were evaluated for significance to determine whether the licensee was identifying, accurately characterizing, and entering problems into the CAP at an appropriate threshold.

The inspectors conducted plant walkdowns within the selected systems listed above and other plant areas to assess the material condition and to identify any deficiencies that had not been previously entered into the CAP. The inspectors reviewed CRs, maintenance history, CAs, completed work orders (WOs) for the systems, and reviewed associated system health reports. These reviews were performed to verify that problems were being properly identified, appropriately characterized, and entered into the CAP. Items reviewed generally covered a two-year period; however, in accordance with the inspection procedure, a five-year review was performed for selected systems for age-dependent issues.

Control room walkdowns were also performed to assess the main control room (MCR) deficiency list and to ascertain if deficiencies were entered into the CAP and tracked to resolution. Operator workarounds (OWA) and operator burden screenings were reviewed, and the inspectors verified compensatory measures for deficient equipment which were being implemented in the field.

The inspectors conducted a detailed review of selected CRs to assess the adequacy of the root cause and apparent cause evaluations of the problems identified. The inspectors reviewed these evaluations against the descriptions of the problem described in the CRs and the guidance in licensee procedure NMP-GM-002-001, Corrective Action Program Instructions.

The inspectors assessed if the licensee had adequately determined the cause(s) of identified problems, and had adequately addressed operability, reportability, common cause, generic concerns, extent-of-condition, and extent-of-cause. The review also assessed if the licensee had appropriately identified and prioritized corrective actions to prevent recurrence.

The inspectors reviewed selected industry operating experience (OE) items, including NRC generic communications, to verify that they had been appropriately evaluated for applicability and that issues identified through these reviews had been entered into the CAP.

The inspectors reviewed site trend reports to determine if the licensee effectively trended identified issues, and initiated appropriate corrective actions when adverse trends were identified.

The inspectors reviewed licensee audits and self-assessments, including those which focused on problem identification and resolution programs and processes, to verify that findings were entered into the CAP and to verify that these audits and assessments were consistent with the NRC's assessment of the licensee's CAP.

The inspectors attended various plant meetings to observe management oversight functions of the corrective action process. CR screening meetings and Management Review Committee (MRC) meetings.

Documents reviewed are listed in the Attachment.

b. Assessment

Problem Identification

The inspectors determined that the licensee was generally effective in identifying problems and entering them into the CAP and there was an appropriately low threshold for entering issues into the CAP. This conclusion was based on a review of the requirements for initiating CRs as described in licensee procedure NMP-GM-002-001, Corrective Action Program Instructions and management's expectation that employees were encouraged to initiate CRs for any reason. Trending was generally effective in monitoring equipment performance. Site management was actively involved in the CAP and focused appropriate attention on significant plant issues.

Problem Prioritization and Evaluation

Based on the review of CRs sampled by the inspectors during the onsite period, the inspectors concluded that problems were generally prioritized and evaluated in accordance with the licensee's CAP procedures as described in the CR significance determination guidance in NMP-GM-002-GL03, Cause Analysis and Corrective Action Guidelines. Each CR was assigned a priority level at the CR screening meeting, and adequate consideration was given to system or component operability and associated plant risk.

The inspectors determined that station personnel had conducted root cause and apparent cause analyses in compliance with the licensee's CAP procedures and assigned cause determinations were appropriate, considering the significance of the issues being evaluated. A variety of formal causal-analysis techniques were used depending on the type and complexity of the issue consistent with procedure NMP-GM-002-GL03.

Effectiveness of Corrective Actions

Based on a review of corrective action documents, interviews with licensee staff, and verification of completed corrective actions, the inspectors determined that overall, corrective actions were timely, commensurate with the safety significance of the issues, and effective, in that conditions adverse to quality were corrected and non-recurring. For significant conditions adverse to quality, the corrective actions directly addressed the cause and effectively prevented recurrence in that a review of performance indicators, CRs, and effectiveness reviews demonstrated that the significant conditions adverse to quality had not recurred. Effectiveness reviews for corrective actions to prevent recurrence (CAPRs) were sufficient to ensure corrective actions were properly implemented and were effective.

- c. Findings
 - 1. Failure to Report a Condition Prohibited by Technical Specification

Introduction:

An NRC-identified Severity Level IV (SL IV) non-cited violation of 10 CFR 50.73(a)(2)(i)(b) was identified for failure to report plant operation prohibited by Technical Specification (TS) 3.3.2. The licensee failed to perform a past operability evaluation for having two steam flow channels on the 1C steam generator (SG) inoperable longer than allowed by TS 3.3.2. Consequently, this condition was not reported in the Licensee Event Report (LER) 2016-007-00 or 2016-007-001.

Description:

The inspectors reviewed the LERs 2016-007-00 and 2016-007-001. LER 2016-007-001, dated June 7, 2017, was submitted due to plant shutdown required by Technical Specification 3.0.3 due to inoperable steam flow transmitters. The inspectors reviewed the CR, LER, control room log entries, the root cause evaluation, and data collected to ensure that all reporting criteria were met. The inspectors noted that calibration data was reviewed by engineering for the steam flow transmitters. It was determined that two steam flow channels (Q1C22DT0494 and Q1C22FT0495) on the 1C SG were outside the 2.5% acceptance criteria for measured loop steam flow DP/Scaled DP (Steam Flow equals Feed Flow) on November 17, 2016 at 11:15. This condition did not meet the minimum channels required by TS 3.3.2, Engineered Safety Feature Actuation System (ESFAS) Instrumentation. Accordingly, Unit 1 entered TS 3.0.3 Limiting Condition for Operation (LCO) which required actions within one hour to place the unit in Mode 3 within the following six hours. The licensee declared the two steam flow transmitters on the 1C steam generator inoperable on November 17, 2017, at 17:59. Unit 1 entered Mode 3 on November 18, 2017, at 00:41 and the main steam isolation valves (MSIVs) and bypass valves closed on November 18, 2017, at 04:18 at which time the licensee exited TS 3.0.3.

The inspectors determined the licensee failed to recognize that, for the purpose of reportability, the point of discovery occurred when the data was collected, not when the channels were declared inoperable and the licensee entered TS 3.0.3 LCO. Therefore, Unit 1 operated in a condition prohibited by TS 3.3.2 from November 17, 2017, at 18:15 until Mode 3 MSIV closure on November 18, 2017, at 04:18. The inspectors determined this was a violation of 50.73(a)(2)(i)(b) because plant operation prohibited by TS 3.3.2 was not reported in LER 2017-006-001. The licensee documented this violation in CR 10413856 and the LER needs to be revised.

Analysis:

The licensee's failure to report having two steam flow channels on the 1C SG inoperable longer than allowed by TS 3.3.2 specified in Part 50.73(a)(2)(i)(B) was a violation. The licensee did not recognize the point of discovery occurred when the data was collected. This violation was evaluated using traditional enforcement because the finding affected the NRC's ability to perform its regulatory oversight function. Consistent with the guidance in Section 6.9, Paragraph d.9 of the NRC Enforcement Policy, this violation was determined to be a Severity Level IV non-cited violation. Crosscutting aspects are not assigned to traditional enforcement violations.

Enforcement:

Title 10 CFR Part 50.73(a)(2)(i)(B), required, in part, the licensee shall report any operation or condition which was prohibited by the plant's Technical Specifications. Contrary to the above, on September 28, 2017, the licensee failed to report not meeting the minimum number of operable steam flow channels as required by TS 3.3.2 on the 1C SG. This violation was placed into the licensee's corrective action program as CR 10413856. This Severity Level IV violation is being treated as a non-cited violation, consistent with Section 2.3.2.a of the Enforcement Policy: (NCV 05000348/2017009-01, "Failure to Report a Condition Which Was Prohibited by Technical Specifications")

2. Failure to Complete Corrective Actions to Preclude Repetition of a Significant Condition Adverse to Quality

Introduction:

NRC-identified non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for failure to implement corrective actions to prelude repetition (CAPR) of a significant condition adverse to quality. The licensee closed the CAPR tracking item prior to all affected Steam Flow Transmitter calibration procedures revisions being completed.

Description:

The inspectors reviewed the CR10299704 for a plant shutdown required by TS and the detailed root cause evaluation (RCA) to verify that the root cause was appropriately determined and CAPRs were properly identified and implemented.

The root cause was the failure to capture vendor manual instructions for calibration Foxboro transmitters within calibration procedures FNP-1-STP-213.19 through FNP-1-STP-213.24. During the review, the inspectors noted that the RCA was approved on May 30, 2017, and TE CAPR requires to incorporate all missing necessary manual requirements into the Foxboro procedure and either incorporate installation instructions for that model or develop a separate installation procedure for each model. The inspectors reviewed the applicable procedures and determined that TE CAPR was closed and approved by management without all procedures updated. Subsequently, the licensee's investigation identified about 14 safety-related steam flow transmitter calibration procedures revisions were not completed and documented in CR10413319.

Analysis:

The licensee's failure to ensure that a CAPR of a significant condition adverse to quality would be implemented was a performance deficiency (PD). This PD was more than minor because it was associated with Human Performance attribute of the Mitigating System Cornerstone and adversely affected the cornerstone objective in that the licensee closed the TE prior to all affected Steam Flow Transmitter calibration procedures being revised which could potentially prevent the fulfillment of a safety function needed to mitigate the consequences of an accident. Specifically, the licensee closed out the TE CAPR 980655 tracking item in the CAP on August 24, 2017, prior to 14 affected Steam Flow Transmitter calibration procedures revisions being completed. Using NRC Manual Chapter 0609, "Significance Determination Process," Phase 1 Worksheets, the finding was determined to have very low safety significance because it is not a design or qualification deficiency, did not represent an actual loss of a safety function of a system or a single train greater than its technical specification allowed outage time, and did not screen as potentially risk significant due to external events. The inspectors reviewed IMC 0310, "Aspects Within Cross Cutting Areas," dated December 4, 2014, and determined that this finding had a cross-cutting aspect in the area of Procedure Adherence (H.8) because the licensee closed the tracking item prior to completing the corrective action to prevent recurrence.

Enforcement:

10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," requires, in part, that for significant conditions adverse to quality, measures shall assure that corrective action is taken to preclude repetition. Contrary to the above, on August 24, 2017, the licensee closed out the TE CAPR 980655 tracking item on August 24, 2017, when at least 14 safety related steam flow transmitter calibration procedures revisions had not been completed, which could potentially prevent the fulfillment of a safety function needed to mitigate the consequences of an accident.

The NRC is treating this violation as an NCV, consistent with Section 2.3.2.a of the NRC Enforcement Policy, dated November 1, 2016, because this finding was of very low safety significance and was entered into the licensee's CAP as CR 10413319. (NCV 05000348, 364/2017009-02, "Failure to Complete Corrective Action to Preclude Repetition of a Significant Conditions Adverse to Quality")

2. Assessment of the Use of Operating Experience

a. Inspection Scope

The inspectors examined the licensee's use of industry OE to assess the effectiveness of the plant. In addition, the inspectors selected OE documents (e.g., NRC generic communications, 10 CFR Part 21 reports, licensee event reports, vendor notifications, and plant internal OE items, etc.) which had been issued since August 2015, to verify whether the licensee had appropriately evaluated each notification for applicability to the Farley Nuclear Plant, and whether issues identified through these reviews were entered into the CAP. Documents reviewed are listed in the Attachment.

b. Assessment

Based on a review of selected documentation related to operating experience issues, the inspectors determined that the licensee was generally effective in screening operating experience for applicability to the plant. Industry OE was evaluated at either the corporate or plant level depending on the source and type of the document. Relevant information was then forwarded to the applicable department for further action or informational purposes. Operating Experience issues requiring action were entered into the CAP for tracking and closure. In addition, operating experience was included in all apparent cause and root cause evaluations in accordance with licensee procedure NMP-GM-008-GL01, Guideline for Searching for Relevant OE.

c. Findings

No findings were identified.

3. Assessment of Self-Assessments and Audits

a. Inspection Scope

The inspectors reviewed audit reports and self-assessment reports, including those which focused on problem identification and resolution, to assess the thoroughness and self-criticism of the licensee's audits and self-assessments, and to verify that problems identified through those activities were appropriately prioritized and entered into the CAP for resolution in accordance with licensee procedure NMP-GM-003, Self-Assessment and Benchmark Procedure.

b. Assessment

The inspectors determined that the scopes of assessments and audits were adequate. Self-assessments were generally detailed and critical, as evidenced by findings consistent with the inspectors' independent review. The inspectors verified that CRs were created to document areas for improvement and findings resulting from the selfassessments, and verified that actions had been completed consistent with those recommendations. Generally, the licensee performed evaluations that were technically accurate.

c. <u>Findings</u>

No findings were identified.

4. Assessment of Safety-Conscious Work Environment

a. Inspection Scope

During the course of the inspection, the inspectors assessed the station's safety-conscious work environment (SCWE) through review of the stations Employee Concerns Program (ECP) and interviews with various departmental personnel. The inspectors reviewed a sample of ECP issues to verify that concerns were being properly reviewed and identified deficiencies were being resolved and entered into the CAP when appropriate.

b. Assessment

Based on the interviews conducted and the CRs reviewed, the inspectors determined that licensee management emphasized the need for all employees to identify and report problems using the appropriate methods established within the administrative programs, including the CAP and ECP. These methods were readily accessible to all employees. Based on discussions conducted with a sample of plant employees from various departments, the inspectors determined that employees felt free to raise issues, and that management encouraged employees to place issues into the CAP for resolution. Regional inspectors completed additional interviews of ten Maintenance Department employees on October 5, 2017, and ten DZ contractors on October 24, 2017. The inspectors did not identify any reluctance on the part of the licensee staff or contractors to report safety concerns.

c. Findings

No findings were identified.

40A6 <u>Exit</u>

Exit Meeting Summary

On October 5, 2017, the inspectors presented the inspection results to Mr. Dennis R. Madison, Vice President, and other members of the site staff. The inspectors confirmed that proprietary information was not provided or examined during the inspection.

SUPPLEMENTARY INFORMATION

KEY POINTS OF CONTACT

Licensee personnel

- S. Henry, WM Director
- M. Ludlam, Licensing Engineer
- C. Martin, Interim PI Manager
- D. Madison, Site VP
- T. Nesbit, SSS
- E. Williford, Reg Affairs Manager
- E. Surber Licensing Supervisor
- K. Rose, Causal Analyst
- R. Perleberg, PI Supervisor
- D. Williams, Nuclear Oversight Manager
- J. Wheat, Licensing Manager
- S. Wilson, CAPCO

NRC personnel

P. Niebaum, Senior Resident Inspector

LIST OF REPORT ITEMS

| Opened and Closed | | |
|--------------------------|------|--|
| 05000348/2017009-01 | SLIV | Failure to Report a Condition Which was Prohibited by Technical Specifications (Section 4OA2.1) |
| 05000348, 364/2017009-02 | NCV | Failure to Complete Corrective Action to Preclude Repetition of a Significant Conditions Adverse to Quality (Section 4OA2.1) |

LIST OF DOCUMENTS REVIEWED

Procedures

DOWG 16-01, Resource Manual for IP-ENG-001, Standard Design Process, 3/1/2017 FNP-0-ACP-110.0, Equipment Abandonment Process Procedure, Ver. 2.0 FNP-0-AOP-26.0, TOXIC/ASPHYXIANT/FLAMMABLE GAS RELEASE, Rev. 1.0 FNP-0-CCP-679.0, Operation of the Portable Multi-gas Monitors, Ver. 17.0 FNP-0-IMP-430.16, Environmentally Qualified Instrument Replacement Procedure, Version 29.0 FNP-0-RCP-281, Operation and Maintenance of MSA KWIK-DRAW Sampling Pump, Ver. 5.0 IP-ENG-001, Standard Design Process, Rev. 0 NMP-AD-012, Operability Determinations and Functionality Assessments, Version 13.1 NMP-AD-012, Operability Determinations and Functionality Assessments, Ver. 12.7, & 13.1 NMP-AD-012-GL01. Prompt Determination of Operability Guideline. Ver. 5.2 NMP-AD-012-GL02, Functionality Assessment Guideline, Ver. 6.0 NMP-AD-012-GL03, Immediate Determination of Operability Guideline, Version 3.0 NMP-AD-012-GL03, Immediate Determination of Operability Guideline, Ver. 2.3, & 3.0 NMP-AD-013-003, Physical Protection of Safeguards Information (SGI), Ver. 14.0 NMP-AD-025, Quality Assurance and Non-Quality Assurance Records Administration, Version 4.0 NMP-AD-12-GL-01, Prompt Determination of Operability Guideline, Version 5.2 NMP-CH-016, Chemistry Instrument and Equipment Program, Ver. 6.0 NMP-EP-303, Drill and Exercise Standards, Version 16.1 NMP-ES-002, System Monitoring and Health Reporting, Ver. 21.1 NMP-ES-002-003, System Health Reporting Instructions, Ver. 7.6, & NMP-ES-002-005, System Monitoring, Ver. 8.2 NMP-ES-006, Preventive Maintenance Implementation and Continuing Equipment Reliability Improvement, Ver. 9.1 NMP-ES-006-002. Preventive Maintenance Change Requests, Ver. 4.0. & 6.0 NMP-ES-027-001, Maintenance Rule Implementation, Ver. 7.0, 8.0 NMP-ES-038-GL01, General Engineering Guidance, Ver. 12.0 NMP-ES-042, Design Input and Verification Process, Ver. 7.2 NMP-ES-084-001, Plant Modification and Configuration Change Processes, Ver. 6.0 NMP-FLS-005, Confined Space Procedure, Ver. 2.1 NMP-GM-002-002-Effectiveness Review Instructions, Ver. 4.2, 5.0, & 2.1 NMP-GM-002-004, CAP Training and Qualification Plan Instruction, Ver. 4.1, & 5.0 NMP-GM-002-006, Root Cause Analysis Instruction, Version 9.1 NMP-GM-002, Corrective Action Program, Ver. 13.2, 14.0, 14.1, 14.2, & 14.3 NMP-GM-002, Corrective Action Program, Version 14.3 NMP-GM-002, Corrective Action Program, Versions 12.1 – 13.2 NMP-GM-002-001, Corrective Action Program Instructions, Ver. 34.0, 35.0, 35.1, 535.2, 35.4, and 36.0 NMP-GM-002-001, Corrective Action Program Instructions, Version 34 NMP-GM-002-001, Corrective Action Program Instructions, Version 36.0 NMP-GM-002-001, Corrective Action Program Instructions, Version 36.1 NMP-GM-002-001, Corrective Action Program Instructions, Versions 31.1 – 34.0 NMP-GM-002-006, Root Cause Analysis Instruction, Version 9.1

- NMP-GM-002-GL03, Cause Analysis and Corrective Actions Guideline, Ver. 26.0, 26.1, 27.1, 27.2, & 28.0
- NMP-GM-002-GL03, Cause Analysis Techniques Guideline, Versions 1.0 5.0
- NMP-GM-003, Self-Assessment and Benchmark Procedure, Version 21
- NMP-GM-003-001, Self-Assessment Instructions for Focused Area Self-Assessment (FASA), Version 4.1
- NMP-GM-003, Self-Assessment and Benchmark Procedure, Ver. 22.0, 23.0, & 23.1
- NMP-GM-006, Work Management, Version 13.3
- NMP-GM-006-GL01, Work Planning, Packaging, and Closure, Version 29.1
- NMP-GM-008, Operating Experience Program, Version 15.1
- NMP-GM-008, Operating Experience Program, Ver. 17.0, 17.1, 17.2, & 17.3
- NMP-GM-016-F01, Management Review Committee (MRC) Charter, Version 3.0
- NMP-GM-024, Nuclear Safety Culture Program, Version 5.0
- NMP-GM-024-001, Nuclear Safety Culture Monitoring and Review Process, Version 6.0
- NMP-GM-027, Plant Health Process, Ver. 11.0
- NMP-HP-301, Airborne Radioactivity Sampling and Evaluation, Ver. 3.3
- Surveillance Test Procedure, FNP-1-STP-201.14, Reactor Coolant System Q1B21FT0435 Loop Calibration and Operational Test, Revision 37.0
- Surveillance Test Procedure, FNP-1-STP-201.7, Reactor Coolant System Q1B21FT0414 Loop Calibration and Operational Test, Revision 34.0
- Surveillance Test Procedure, FNP-1-STP-201.8, Reactor Coolant System Q1B21FT0415 Loop Calibration and Operational Test, Revision 34.0
- Surveillance Test Procedure, FNP-1-STP-201.9, Reactor Coolant System Q1B21FT0416 Loop Calibration and Operational Test, Revision 33.0
- Surveillance Test Procedure, FNP-2-STP-201.12, Reactor Coolant System Q2B21FT0426 Loop Calibration and Operational Test, Revision 25.1
- Surveillance Test Procedure, FNP-2-STP-201.13, Reactor Coolant System Q2B21FT0434 Loop Calibration and Operational Test, Revision 28.0
- Surveillance Test Procedure, FNP-2-STP-201.15, Reactor Coolant System Q2B21FT0436 Loop Calibration and Operational Test, Revision 30.0
- Surveillance Test Procedure, FNP-2-STP-201.8, Reactor Coolant System Q2B21FT0416 Loop Calibration and Operational Test, Revision 29.0
- Surveillance Test Procedure, FNP-2-STP-201.9, Reactor Coolant System Q2B21FT0416 Loop Calibration and Operational Test, Revision 28.0

Condition Reports Generated

10413319, TE 986055 was closed prior to the action being completed

- 10413486, TE 987884 extension not performed in accordance with NMP-GM-002-001
- 10413511, TE 977336 did not perform effectiveness review using the form NMP-GM-002-F07
- 10413586, LER U1-2016-007-00 Revision Required
- 10415575, PMCR created to change CCW pump coupling grease packing method
- 10415926, Scaffold missing tag
- 10415950, Scaffold erected but not marked as completed in schedule
- 10418569, Observation Over-reliance on MRC and FASAs
- 10418571, Observation Ambiguity with understanding CAP

Condition Reports Reviewed

| | C C | |
|----------------------|----------------------|----------|
| 10012214 | 10209251 | 10296268 |
| 10020479 | 10209365 | 10296271 |
| 10104980 | 10209701 | 10296287 |
| 10107828 | 10210260 | 10297136 |
| 10109603 | 10211315 | 10297143 |
| 10109698 | 10213828 | 10297343 |
| 10110664 | 10215684 | 10297720 |
| 10112414 | 10218247 | 10299652 |
| 10112423 | 10218375 | 10299669 |
| 10113406 | 10220077 | 10299704 |
| 10113929 | 10221646 | 10305833 |
| 10121857 | 10223610 | 10308188 |
| 10122411 | 10225144 | 10317155 |
| 10122529 | 10231300 | 10318514 |
| 10124685 | 10245660 | 10319968 |
| 10125209 | 10248216 | 10321553 |
| 10126484 | 10250825 | 10321727 |
| 10128684 | 10261278 | 10323654 |
| 10133270 | 10267379 | 10324387 |
| 10135499 | 10267548 | 10328306 |
| 10136251 | 10273516 | 10329134 |
| 10137838 | 10273516 10273546 | 10335267 |
| 10140932 | 10273540 | 10335991 |
| 10145090 | 10282340 | 10338934 |
| 10149716 | 10283580 | 10346247 |
| 10151982 | 10285473 | 10347137 |
| 10155638 | 10285537 | 10349863 |
| 10159536 | 10286840 | 10352131 |
| 10159877 | 10286991 | 10353945 |
| 10162308 | 10289356 | 10354867 |
| 10163129 | 10289565 | 10361688 |
| 10168705 | 10290262 | 10367559 |
| 10174365 | 10291612 | 10373314 |
| 10176365 | 10292490 | 10376478 |
| 10178550 | 10293519 | 10377490 |
| 10179742 | 10293555 | 10377744 |
| 10179774 | 10293555 | 10378449 |
| 10181701 | 10293580 | 10381522 |
| 10183056 | 10293683 | 10383006 |
| 10184781 | 10293690 | 10387973 |
| 10184826 10191811 | 10294051 | 10403738 |
| | 10294290 | 10413319 |
| 10193323 | 10295236 | 10413856 |
| 10194628 | 10296045 | 10415638 |
| 10202914 | | |

| Work Orders (WO) | | |
|------------------|--------|--------|
| 453395 | 542644 | 783995 |
| 454539 | 648187 | 806408 |
| 454546 | 648522 | 814967 |
| 454549 | 666691 | 823172 |
| 455097 | 709610 | 824052 |
| 455644 | 709995 | 826287 |
| 461395 | 746917 | |
| 101000 | | |

Corrective Action Records (CAR) 248970

| Technical Evaluations (TE) | | |
|----------------------------|--------|--------|
| 931653 | 972764 | 977433 |
| 941892 | 973030 | 977436 |
| 943160 | 976187 | 977437 |
| 948534 | 976190 | 977438 |
| 958961 | 977341 | 977439 |
| 960087 | 977419 | 978911 |
| 961372 | 977423 | 969120 |
| 970673 | 977424 | |
| 31482 | 977429 | |
| | | |

Identification

- NMP-AD-012-GL01, Prompt Determination of Operability Guideline, Version 5.2, dated September 21, 2016
- NMP-AD-012-GL03, Immediate Determination of Operability Guideline, Version 3.0, dated September 21, 2016
- NMP-AD-012, Operability Determinations and Functionality Assessments, Version 13.1, dated October 21, 2016
- NMP-GM-031-GL01, Past Operability/Functionality Review, Version 1.0, Final Approved dated May 19, 2017
- Licensee Event Report (LER) 2016-007-00, Plant Shutdown Required by Technical Specifications due to Inoperable Steam Flow Transmitters, dated January 13, 2017.
- (LER) 2016-007-01, Plant Shutdown Required by Technical Specifications due to Inoperable Steam Flow Transmitters, dated June 7, 2017.
- Unit 1 Control Room Log dated November 16 and 17, 2017.
- FNP-1-IMP-213_16 data collect for Cycle 28 startup.xls
- Root Cause Determination Report (CAR 267745)

Audits and Self-Assessments

Focused Area Self-Assessment, NRC PI&R Inspection preparation in accordance with NMP-AD-027, 6/16/2017

Effectiveness of Corrective Actions

NMP-GM-002, Corrective Action Program, Version 14.0, dated July 5, 2016

NMP-GM-002, Corrective Action Program, Version 14.1 dated March 7, 2017

- NMP-GM-002-001, Corrective Action Program Instructions, Version 35.1, dated July 11, 2016
- NMP-GM-002-001, Corrective Action Program Instructions, Version 35.2, dated

January 24, 2017

TE CAPR 986055

- Surveillance Test Procedure (STP, FNP-1-STP-201.10, Reactor Coolant System Q1B21FT0424 Loop Calibration and Operational Test, Revision 39.0
- Surveillance Test Procedure, FNP-1-STP-201.11, Reactor Coolant System Q1B21FT0425 Loop Calibration and Operational Test, Revision 36.0
- Surveillance Test Procedure, FNP-1-STP-201.12, Reactor Coolant System Q1B21FT0426 Loop Calibration and Operational Test, Revision 32.0
- Surveillance Test Procedure, FNP-1-STP-201.13, Reactor Coolant System Q1B21FT0435 Loop Calibration and Operational Test, Revision 35.1
- Surveillance Test Procedure, FNP-1-STP-201.15, Reactor Coolant System Q1B21FT0435 Loop Calibration and Operational Test, Revision 33.2
- Surveillance Test Procedure, FNP-1-STP-213.19, Steam Generator 1A Q1C22FT0474 Loop Calibration and Operational Test, Version 58.0

- Surveillance Test Procedure, FNP-1-STP-213.20, Steam Generator 1A Q1C22FT0475 Loop Calibration and Operational Test, Version 62.0
- Surveillance Test Procedure, FNP-1-STP-213.21, Steam Generator 1B Q1C22FT0484 Loop Calibration and Operational Test, Version 58.0
- Surveillance Test Procedure, FNP-1-STP-213.22, Steam Generator 1B Q1C22FT0485 Loop Calibration and Operational Test, Version 60.0
- Surveillance Test Procedure, FNP-1-STP-213.23, Steam Generator 1B Q1C22FT0494Loop Calibration and Operational Test, Version 58.0
- Surveillance Test Procedure, FNP-1-STP-213.24, Steam Generator 1B Q1C22FT0495Loop Calibration and Operational Test, Version 61.0
- Surveillance Test Procedure, FNP-2-STP-201.7, Reactor Coolant System Q2B21FT0414 Loop Calibration and Operational Test, Revision 29.2
- Surveillance Test Procedure, FNP-2-STP-201.10, Reactor Coolant System Q2B21FT0424 Loop Calibration and Operational Test, Revision 25.1
- Surveillance Test Procedure, FNP-2-STP-201.14, Reactor Coolant System Q2B21FT0434 Loop Calibration and Operational Test, Revision 28.0

Other Documents

- CBT F-ES-PP-125, ALERT Declaration/Lessons Learned [Engineering CBT for Ammonia Event], Completion Status, 9/27/2017
- CBT F-GEN-ALERT DECLARE, FNP ALERT Declaration Event in 2016 [Site-wide training for Ammonia Event], Completion Status, 9/27/2017
- COURSE F-RAD501-CY2, Health Physics Continuing Training-Cycle 2 / FMT [RP Training for Ammonia Event], Completion Status, 9/27/2017
- Document No. A181001, Functional System Description, Service Water System, Ver. 67.0
- Farley Long Range Plan, Radiation Monitoring System (Version 6.0), April 2014
- Farley Long Range Plan, Radiation Monitoring System, Update, 9/27/2017
- FNP-1-SOP-55.1A, Version 3.0, System Checklist, Auxiliary Steam and Condensate Steam, 4/24/2009
- FNP-2-SOP-55.1A, Version 5.0, System Checklist, Auxiliary Steam and Condensate Steam, 5/1/2007
- Joseph M. Farley Nuclear Plant Units 1 & 2 Emergency Plan, Rev. 66, 1/4/2017
- LESSON F-OPS-LOCT 16-18-SEG 17-3, Emerging Issues [Ops training for Ammonia Event], Completion Status, 9/27/2017
- Maintenance Rule Function Scoping Documentation for the following Identifiers [Radiation Monitors]: D11-F01, D11-F02, D11-F03, D11-F04, D11-F05, D11-F06, D21-F01, D21-F02, D21-F03, P06-F01, P07-F01, Various dates
- Maintenance Rule Functional Failure Evaluation, EVAL-F-D11-03827, 7/27/2017
- Preventive Maintenance Change Request (PMCR) 84747, PMs N1D21RE006 and
 - N2D21RE007 need to be reactivated, 6/2/2016

SNC-1, Quality Assurance Topical Report, Ver. 18.0
Aggregate Impact Review Spreadsheet for 2Q2017
2R24 Pen 42 Evaluation Q2P17V083
16-SO401, Simulator SIM Guide
SM-C081865601-001
SM-C080146901-001
Plant Operating Orders, MMP-OS-007-003, Reaffirmation of Standard on Procedure Use and Adherence, dated 10/2/2016
Health System Report, Unit 1 Auxiliary Feedwater, September 27, 2017
Health System Report, Unit 2 Auxiliary Feedwater, September 27, 2017