



~~OFFICIAL USE ONLY - SECURITY RELATED INFORMATION~~
UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
245 PEACHTREE CENTER AVENUE NE, SUITE 1200
ATLANTA, GEORGIA 30303-1257

August 18, 2011

Mr. L. Mike Stinson
Vice President - Farley
Southern Nuclear Operating Company, Inc.
Farley Nuclear Plant
P.O. Drawer 470
BIN B500
Ashford, AL 36312

SUBJECT: JOSEPH M. FARLEY NUCLEAR PLANT - NRC PROBLEM IDENTIFICATION
AND RESOLUTION INSPECTION REPORT 05000348/2011008,
05000364/2011008, 05000348/2011406 AND 05000364/2011406

Dear Mr. Stinson:

On June 24, 2011, the U. S. Nuclear Regulatory Commission (NRC) completed an inspection at the Joseph M. Farley Nuclear Plant. The enclosed inspection report documents the inspection findings, which were discussed on June 24, 2011, with you and other members of your staff during an exit meeting. A re-exit was conducted via telephone on July 20, 2011, with you and your staff.

The inspection was an examination of activities conducted under your license as they relate to the identification and resolution of problems, and compliance with the Commission's rules and regulations and with the conditions of your operating license. Within these areas, the inspection involved examination of selected procedures and representative records, observations of plant equipment and activities, and interviews with personnel.

On the basis of the samples selected for review, the team concluded that in general, problems were properly identified, evaluated, and corrected but, there were weaknesses identified in the security department regarding the use of the corrective action program. There were three Green NRC identified findings during this inspection associated with security. These findings were determined to be violations of NRC requirements. However, because of their very low safety significance and because they have been entered into your corrective action program, the NRC is treating these findings as non-cited violations (NCV) consistent with the NRC Enforcement Policy. If you wish to contest these non-cited violations, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN.: Document Control Desk, Washington DC 20555-001; 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 Senior Resident Inspector at the Farley Nuclear Station.

~~Enclosure(s) transmitted herewith contain(s) SUNSI. When separated from Attachment 2, this transmittal document is decontrolled~~

~~LIMITED INTERNAL DISTRIBUTION PERMITTED~~

In addition, examples of minor problems were identified by the team, such as procedure issues, and deficiencies identified during walkdowns that were not entered into the corrective action program, long term equipment issues that were not properly addressed, and effectiveness review procedural requirements that could allow corrective actions or corrective actions to prevent recurrence to be reclassified under the wrong severity level.

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, Region II and the NRC Resident Inspector at the Joseph M. Farley Nuclear Plant.

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 the NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room). However, because of the security-related concerns contained in the enclosure, and in accordance with 10 CFR 2.390, a copy of this letter's enclosure will not be available for public inspection.

Sincerely,

/RA/

George Hopper, Chief
Reactor Projects Branch 7
Division of Reactor Projects

Docket Nos.: 50-348 and 50-364
License Nos.: NPF-2 and NPF-8

Enclosure: Inspection Report 05000348/2011008, 05000364/2011008, 05000348/2011406 and
05000364/2011406
w/Attachment: Supplemental Information

cc w/encl: (See page 3)

~~OFFICIAL USE ONLY – SECURITY RELATED INFORMATION~~

SNC

2

In addition, examples of minor problems were identified by the team, such as procedure issues, and deficiencies identified during walkdowns that were not entered into the corrective action program, long term equipment issues that were not properly addressed, and effectiveness review procedural requirements that could allow corrective actions or corrective actions to prevent recurrence to be reclassified under the wrong severity level.

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, Region II and the NRC Resident Inspector at the Joseph M. Farley Nuclear Plant.

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 the NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room). However, because of the security-related concerns contained in the enclosure, and in accordance with 10 CFR 2.390, a copy of this letter's enclosure will not be available for public inspection.

Sincerely,

/RA/

George Hopper,
Reactor Projects Branch 7
Division of Reactor Projects

Docket Nos.: 50-348 and 50-364
License Nos.: NPF-2 and NPF-8

Enclosure: Inspection Report 05000348/2011008, 05000364/2011008, 05000348/2011406 and
05000364/2011406
w/Attachment: Supplemental Information

cc w/encl: (See page 3)

X PUBLICLY AVAILABLE

☐ NON-PUBLICLY AVAILABLE

☐ SENSITIVE X NON-SENSITIVE

ADAMS: ☐ Yes ACCESSION NUMBER: ML11230B326

X SUNSI REVIEW COMPLETE

OFFICE	RII:DRP	RII:DRP	RII:DRP	RII:DRP	RII:DRP	RII:DRS	RII:DRS	RII:DRP
SIGNATURE	Via email	Via email	Via email	Via email	GTH /RA/	Via email	Via telecom	JAH /RA for/
NAME	TLighty	ASabisch	JSowa	MSchwieg	GHopper	JGraham	ARichardson	SShaeffer
DATE	08/17/2011	08/07/2011	08/08/2011	08/08/2011	08/17/2011	08/05/2011	08/17/2011	08/17/2011
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

OFFICIAL RECORD COPY DOCUMENT NAME: G:\DRPI\RPB2\FARLEY\REPORTS\2011\IR\2011-008\FARLEY
PIR INSPECTION REPORT 2011008 PUBLIC DOCX

~~OFFICIAL USE ONLY – SECURITY RELATED INFORMATION~~

~~OFFICIAL USE ONLY — SECURITY RELATED INFORMATION~~

SNC

3

cc w/encl:
B. D. McKinney, Jr.
Regulatory Response Manager
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

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

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

Todd L. Youngblood
Plant Manager
Joseph M. Farley Nuclear Plant
Electronic Mail Distribution

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

Jeffrey T. Gasser
Chief Nuclear Officer
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

R. L. Gladney
Licensing Engineer
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

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

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

J. L. Pemberton
SVP & General Counsel-Ops & SNC
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

Chris Clark
Commissioner
Georgia Department of Natural Resources
Electronic Mail Distribution

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

Ted V. Jackson
Emergency Response and Radiation
Program Manager
Environmental Protection Division
Georgia Department of Natural Resources
Electronic Mail Distribution

Tom W. Pelham
Performance Improvement Supervisor
Joseph M. Farley Nuclear Plant
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

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

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

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

(cc w/encl continued next page)

~~OFFICIAL USE ONLY — SECURITY RELATED INFORMATION~~

SNC

4

(cc w/encl continued)

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

James A. Sommerville
Program Coordination Branch Chief
Environmental Protection Division
Georgia Department of Natural Resources
Electronic Mail Distribution

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

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

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

F. Allen Barnes
Director
Environmental Protection Division
Georgia Department of Natural Resources
Electronic Mail Distribution

SNC

5

Letter to L. Mike Stinson from George Hopper dated August 18, 2011

SUBJECT: JOSEPH M. FARLEY NUCLEAR PLANT - NRC PROBLEM IDENTIFICATION
AND RESOLUTION INSPECTION REPORT 05000348/2011008,
05000364/2011008, 05000348/2011406 AND 05000364/2011406

Distribution w/encl:

C. Evans, RII
L. Douglas, RII
OE Mail
RIDSNNRRDIRS
PUBLIC
R. Martin, NRR

~~OFFICIAL USE ONLY — SECURITY RELATED INFORMATION~~

U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos.: 50-348, 50-364

License Nos.: NPF-2, NPF-8

Report No.: 05000348/2011008, 05000364/2011008,
05000348/2011406 and 05000364/2011406

Licensee: Southern Nuclear Operating Company Inc.

Facility : Joseph M. Farley Nuclear Plant

Location: Columbia, AL

Dates: June 6 - 10, 2011, and June 20 - 24, 2011

Inspectors: T. Lighty, Project Engineer (Team lead)
J. Graham, Physical Security Inspector
A. Richardson, Physical Security Inspector
A. Sabisch, Senior Resident Inspector (Oconee)
M. Schwieg, Project Engineer
J. Sowa, Resident Inspector (Farley)

Approved by: George Hopper, Chief
Reactor Projects Branch 7
Division of Reactor Projects

~~OFFICIAL USE ONLY — SECURITY RELATED INFORMATION~~

Enclosure

~~OFFICIAL USE ONLY—SECURITY RELATED INFORMATION~~

SUMMARY OF FINDINGS

IR 05000348/2011008, 05000364/2011008, 05000348/2011406 and 05000364/2011406; 6/6/2011 – 6/20/2011; Protective Strategy, Protection of Safeguards Information, Problem Identification and Resolution.

The inspection was conducted by two project engineers, a senior resident inspector, a resident inspector and two physical security inspectors. Three Green NCVs were identified which are documented in Attachment 2. The significance of most findings is indicated by their color (greater than Green, or Green, White, Yellow, Red); the significance was determined using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP); the cross-cutting aspect was determined using IMC 0310, 'Components Within The Cross-Cutting Areas;' and that 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 4, dated December 2006.

Identification and Resolution of Problems

The team concluded that, in general, problems were properly identified, evaluated, prioritized, and corrected. Generally, the threshold for initiating condition reports (CRs) was appropriately low, as evidenced by the types of problems identified and the large number of CRs entered annually into the Corrective Action Program (CAP). Employees were encouraged by management to initiate CRs. However, the security department was found to have issues related to entering issues into CAP. The team also identified some examples where plant issues were not appropriately entered into the CAP.

Generally, prioritization and evaluation of issues were consistent with the licensee's CAP guidance, 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 timely, effective, and commensurate with the safety significance of the issues. Observations of security CRs showed that the majority of CRs generated originally received a level 4 priority which only requires a basic cause determination (BCD). This could prevent appropriate corrective actions from being identified for issues which may warrant a more thorough review. The team determined the technical adequacy and depth of evaluations was generally adequate with the exception of those conducted by the security department. There were multiple examples where apparent cause determinations (ACDs) and action items (AIs) were not properly evaluated. It was noted during the Farley PI&R Self - Assessment and Safety Culture assessment that security did not properly utilize the CAP.

The team 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. The licensee's operating experience (OE) usage was found to be generally acceptable and integrated into the licensee's processes for performing and managing work, and plant operations. However, it was noted by the team that there was limited use of equipment-specific databases such as Nuclear Plant Reliability Data

~~OFFICIAL USE ONLY—SECURITY RELATED INFORMATION~~

Enclosure

System (NPRDS), and Equipment Performance Information Exchange (EPIX) that could be used in the investigation of equipment failures, adjustment of preventive maintenance and inspection schedules based on industry experience or the development of work instructions, troubleshooting guidance, and modification packages.

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

Cornerstone: Security

The security findings are documented in Attachment 2.

.

REPORT DETAILS

4. OTHER ACTIVITIES

4OA2 Problem Identification and Resolution

a. Assessment of the Corrective Action Program

(1) Inspection Scope

The inspectors reviewed the licensee's CAP procedures which described the administrative process for initiating and resolving problems primarily through the use of condition reports (CRs). To verify whether problems were being properly identified, appropriately characterized, and entered into the CAP, the inspectors reviewed CRs that had been issued between November 2009 and June 2011, including a detailed review of selected CRs associated with four risk-significant systems and two components: component cooling water (CCW), residual heat removal (RHR), diesel generators (DGs), DC systems, motor operated valves (MOVs) and air operated valves (AOVs). In addition, the team reviewed security CR's which included CRs generated from 2008-June 2011. 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 to determine if they had been appropriately addressed. To help ensure that samples were reviewed across all cornerstones of safety identified in the NRC's Reactor Oversight Process (ROP), the team selected a representative number of CRs that were identified and assigned to the major plant departments, including operations, maintenance, engineering, emergency preparedness, health physics, 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 screened 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 of equipment associated with selected systems and components and other plant areas to assess the material condition and to look for any deficiencies that had not been previously entered into the CAP. The inspectors reviewed CRs, maintenance history, completed work orders (WOs) for the systems and components, 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 16 month period of time. However, the security related CRs covered a 36 month period.

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. Operator Workarounds and Operator Burden screenings were reviewed, and the inspectors

verified compensatory measures for deficient equipment were being implemented in the field. The team 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 procedures. 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 team reviewed selected industry operating experience 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 team 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 attended various plant meetings to observe management oversight functions of the corrective action process.

Documents reviewed are listed in Attachment 1.

(2) Assessment

Identification of Issues

The team determined that the licensee was generally effective in identifying problems and entering them into the CAP and that there was a 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," management expectation that employees were encouraged to initiate CRs for any reason, and a review of system health reports. Generally, the threshold for initiating (CRs) was appropriately low, as evidenced by the types of problems identified and the large number of CRs entered annually into the CAP. Trending was generally effective in monitoring equipment performance. Site management was actively involved in the CAP and focused appropriate attention on significant plant issues. However, the security department was found to have issues related to entering issues into the CAP.

The following observations were identified by the team and had not been entered into the licensee's CAP. Specifically:

- There were examples noted where actions such as those called for in prompt determination of operability (PDO), such as compensatory measures, were not entered into the CAP as action items. While this is allowed by the program procedure; NMP-AD-012, using night orders, and control room action item

databases, the inspectors noted that addressing compensatory measures without entering the action into the CAP may not be prudent and may, in fact, fail to capture all of the actions taken by the licensee to address issues that are in response to a condition adverse to quality (CAQ). This impacts the ability to trend and retrieve compensatory actions taken to address or mitigate the CAQ if required. This observation was entered into the licensee's CAP as CR328335.

- PDO 09-11 - Leak projection for expansion joint leakage on 2B EDG lube oil heat exchanger outlet had a compensatory measure that had not been entered into the CAP. It was not completed or documented why the leak projection calculation was not done. This issue was entered into the licensee's CAP as CR331526.
- The 1A RHR pump miniflow valve Q1E11V037A has had indication of boric acid leakage for greater than 5 years. The valve has been repacked and cleaned but the condition has not been corrected. This issue was entered into the licensee's CAP as CR2011101802.
- A number of low level equipment issues noted by the inspectors were not entered into the CAP and were not being identified, properly documented and corrected (signage, labeling, industrial graffiti, light indications, housekeeping, seismic restraints, Environmental Health and Safety issues, missile hazards, etc) per procedure. These issues were entered into the licensee's CAP.

Prioritization and Evaluation of Issues

Based on the review of audits conducted by the licensee and the assessment conducted by the inspection team during the onsite period, the team concluded that the licensee was generally effective in the prioritization and evaluation of identified problems. Problems were generally prioritized and evaluated in accordance with the licensee's CAP procedures as described in the CR severity level determination guidance in NMP-GM-002, "Corrective Action Program." Each CR written was assigned a severity level at the CAP coordinator meeting, and adequate consideration was given to system or component operability and associated plant risk. However, observations of security CRs showed that the majority of CRs generated originally received a level 4 priority which only requires a BCD. This could prevent issues that required or needed a more thorough review to be missed. This issue was entered into the licensee's CAP as CR328275.

The team determined that the licensee had conducted root cause and apparent cause analyses in compliance with the site CAP procedures, and assigned cause determinations were appropriate considering the significance of the issues being evaluated with exceptions noted in the security department as documented above. A variety of causal-analysis techniques were used depending on the type and complexity of the issue consistent with licensee procedure NMP-GM-002-GL03, "Cause Determination Guideline." However, the team determined the technical adequacy and

depth of evaluations completed by the security department did not meet the level of rigor exhibited by the other departments. There were multiple examples where ACD's and AIs were not properly evaluated.

The team further determined that operability, reportability, and degraded or non-conforming condition determinations had been completed consistent with the guidance contained in NMP-AD-012, "Operability Determinations and Functionality Assessments for Resolution of Degraded and Nonconforming Conditions." However, the team did make the following observations in the area of prioritization and evaluation of issues:

- Due to a degraded condition two valves, Q1P17FV3096A/B & Q2P17FV3096A/B (CCW Non-essential User Isolation Valves), would not go full closed on loss of instrument air (IA). Procedure FNP-1/2-AOP-6.0, "Loss of Instrument Air" was changed to manually jack the valves closed on loss of IA. Procedure NMP-AD-12, "Operability Determinations and Functionality Assessments," and NMP-AD-10, "10CFR50.59 Screenings and Evaluations," required that compensatory actions resulting from degraded equipment that are procedure changes or temporary modifications require a 50.59 screening/evaluation. OD 0-09-19 Rev. 1 had a compensatory action to change procedure FNP-1/2-AOP-6.0, but a 50.59 review was not completed. This performance deficiency was assessed using IMC 0612 Appendix B and was screened as Minor because the observed conditions did not challenge system or component operability based on compensatory measures that were in place and no safety consequences to the plant had occurred as a result. The failure to comply with the requirements of NMP-GM-002-001, "Corrective Action Program Instructions," constituted a violation of minor significance that was not subject to enforcement action in accordance with the NRC's Enforcement Policy. This issue was entered into the licensee's CAP as CR330881.

Effectiveness of Corrective Actions

Based on a review of corrective action documents, interviews with licensee staff, and verification of completed corrective actions, the team determined that overall, corrective actions were timely, commensurate with the safety significance of the issues, and effective, in that CAQ were corrected and non-recurring. For significant conditions adverse to quality, the corrective actions (CAs) directly addressed the cause and effectively prevented recurrence in that a review of performance indicators, all CRs, and effectiveness reviews demonstrated that the significant conditions adverse to quality had not recurred. However, the team did make the following observations in the area of effectiveness of corrective actions:

- The effectiveness review (EFR) procedures only required that an effectiveness review be completed to determine if the actions preclude a repeat event. It does not have to include evaluating all of the corrective actions to prevent recurrences (CAPRs) or corrective actions (CAs). This would not ensure all CAPRs or CAs were effective in preventing recurrence of some root or apparent causes. This issue was entered into the licensee's CAP as CR330019.

- Ineffective EFRs are documented in the CAP but the procedure does not require another EFR if the original one is deemed ineffective. It only allows the initiation of a CR. In addition, any new CA's or CAPR's developed do not require the reopening of the original cause determination. New CAs or CAPRs can result in new CRs but the CRs and actions may not be coded with the same priority level as the original CR. For example:

Gas void procedure changes were deemed ineffective (CR 2010108380) and a new CR for high head safety injection (HHSI) procedure changes was generated and coded as a level 5 priority CR and could have been rescheduled or adjusted without management approval. The HHSI venting procedures were changed therefore this issue was not a violation of procedure. Also, a new effectiveness review was not generated because it was not required by procedure. This was identified by the licensee as a gap in the EFR procedures NMP-GM-002-002 and NMP-GM-002-F07. This issue was entered into the licensee's CAP as CR328279 and 328327.

Evaluation of Potential Tornado Missile Density to Bound TORMIS Evaluation

The following issue regarding diesel generator fuel oil storage tank TORMIS evaluation was reviewed during this inspection:

(3) Findings

Introduction: An unresolved item (URI) was identified because additional information related to the impact of ongoing major projects on the approved Farley Nuclear Plant (FNP) TORMIS analysis is required to determine whether a performance deficiency existed with regards to the introduction of potential tornado missiles in excess of the bounding value in the Safety Evaluation Report (SER) issued in 2001. The inspectors will review the additional information after the licensee has assembled any evaluations that may have been performed as part of the ongoing major projects at the site.

Description: The FNP requested NRC approval to use the TORMIS model for evaluating tornado missile impingement on SSC's at the site through letters dated June 29, 2000, and August 31, 2001. On September 26, 2001, the NRC issued an SER approving its use at the station within the defined parameters contained in the SER. The TORMIS model and its use on an on-going basis is described in RIS 2008-14 and associated documents referenced therein. One of the five points discussed in the RIS is that missile density and their proximity to safety-related and risk-significant SSC's are important factors in the use of TORMIS, especially as conditions may change at the site due to specific work activities. During 2011, the site has conducted extensive work to support relocation of the protected area fence which included staging and relocation of required equipment and material. The licensee was asked for an assessment of the change in the number of potential tornado missiles created by the ongoing major projects which is a required component of the application of the TORMIS model for identifying if additional protection is required for safety-related SSC's. The inspectors will review the additional

information detailing any evaluations performed prior to the start of the projects or on an ongoing basis which assessed the change in potential tornado missile density in the area of safety-related SSC's when received from the licensee to determine if a performance deficiency exists. This item is identified as URI 05000348/2011008-001 and 05000364/2011008-001: Evaluation of Potential Tornado Missile Density to Bound TORMIS Evaluation. This issue was entered into the licensee's CAP as CR 331527.

b. Assessment of the Use of Operating Experience (OE)

(1) Inspection Scope

The team examined licensee programs for reviewing industry operating experience and reviewed licensee procedure NMP-GM-008, "Operating Experience Program," to assess the effectiveness of how external and internal operating experience data was handled at the plant. In addition, the team selected operating experience documents (e.g., NRC generic communications, 10 CFR Part 21 reports, licensee event reports, vendor notifications, and plant internal operating experience items, etc.), which had been issued since November 2009 to verify whether the licensee had appropriately evaluated each notification for applicability to the Farley plant, and whether issues identified through these reviews were entered into the CAP. Documents reviewed are listed in Attachment 1.

(2) Assessment

Based on a review of documentation related to the review of OE issues, the team determined that the licensee was generally effective in screening OE for applicability to the plant. The inspectors verified for selected issues that industry OE was evaluated at either the corporate or plant level depending on the source and type of document. Relevant information was then forwarded to the applicable department for further action or informational purposes. OE issues requiring action were entered into the CAP for tracking and closure. In addition, operating experience was included in each root cause evaluation reviewed by the inspectors in accordance with licensee procedure NMP-GM-002-GL03, "Cause Determination Guideline." Although, Operating Experience is being utilized by station personnel through use of sources such as the station CAP, SNC Fleet OE notices, the industry OE Extractor, Nuclear Network, users groups for specific components and others, there is limited use of equipment-specific databases such as NPRDS, and EPIX. These databases could be used in the investigation of equipment failures, adjustment of preventive maintenance and inspection schedules based on industry experience or the development of work instructions, troubleshooting guidance and modification packages. Some more experienced members of the Engineering and Maintenance departments are familiar with these databases and actively use the information to address issues both proactively and reactively; however, this is not done consistently across the Plant Farley organization. This issue was entered into the licensee's CAP as CR331460 and CR331523.

(3) Findings

No findings of significance were identified.

c. Assessment of Self-Assessments and Audits

(1) Inspection Scope

The team 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."

(2) Assessment

The team determined that the scopes of assessments and audits were adequate. Self-assessments were generally detailed and critical, as evidenced by findings consistent with the team's independent review. The team verified that CRs were created to document all areas for improvement and findings resulting from the self-assessments, and verified that actions had been completed consistent with those recommendations. The Self-Assessments were reflective of current sight performance, and the data in the CAP program mirrors the issues noted in the site assessment. Generally, the licensee performed evaluations that were technically accurate. Site trend reports were thorough and a threshold was established for evaluation of potential trends, as evidenced by the CRs reviewed that were initiated as a result of adverse trends.

(3) Findings

No findings of significance were identified.

d. Assessment of Safety-Conscious Work Environment

(1) Inspection Scope

During normal interactions with plant employees during the course of this inspection, the inspectors informally interviewed plant personnel regarding their knowledge of the CAP at Farley and their willingness to write CRs or raise safety concerns. The inspectors conducted interviews to develop a general perspective of the safety-conscious work environment at the site to determine if any conditions existed that would cause employees to be reluctant to raise safety concerns. The inspectors reviewed the licensee's Concerns Program Procedure and interviewed the Concerns Coordinator. Additionally, the inspectors reviewed a sample of employee concern issues which had been entered into the CAP to verify concerns were being properly reviewed and deficiencies were being resolved.

(2) Assessment

Based on the interviews conducted and the CRs reviewed, the team 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 concerns program. These methods were readily accessible to most employees. Based on discussions conducted with a sample of plant employees from various departments, the inspectors concluded that most employees felt free to raise issues, and that management encouraged employees to place issues into the CAP for resolution.

(3) Findings

No findings of significance were identified.

4OA6 Meetings, Including Exit

On June 24, 2011, the inspectors presented the inspection results to and other members of the site staff. The team reviewed proprietary documentation and all information deemed as proprietary has been returned or handled appropriately. A re-exit was conducted via telephone on July 20, 2011, with you and your staff.

ATTACHMENT 1: SUPPLEMENTAL INFORMATION

~~OFFICIAL USE ONLY – SECURITY RELATED INFORMATION~~

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

M. Ajluni, Corporate Licensing Manager
T. Baker, Security Manager (Acting)
D. Boley, Site Safety
S. Brumfield, Operations
N. Bryant, Information Technology Support
E. Carlson, Site Cyber Security Analyst
S. Clark, Engineering
R. Flowers, Corporate Security
R. Hernandez, Engineer
D. Hobson, Operations
L. Hogg, Nuclear Technical Specialists
S. Hoomes, Health Physics Technician
J. Horn, Site Support Manager
J. Hunter, Operations Superintendant
P. Hurst, Corporate Employee Concerns Manager
J. Jerkins, CAP Supervisor
D. Lawton, Engineering
A. Lloyd, Engineering
S. Mask, Maintenance
C. Medlock, Manager of Site Project
J. Parrish, Project Engineer
T. Pelham, Performance Improvement Supervisor
T. Prevatt, Security Supervisor
A. Pugh, Maintenance Rule Coordinator
D. Reed, Engineering
W. Roper, Employee concerns Program Coordinator
S. Odom, Emergency Preparedness Supervisor
W. Sims, OE Coordinator
M. Stinson, Site Vice President
C. Westberry, Engineering Systems Manager
R. Whitehead, EH&S
A. Williams, Project Manager
T. Youngblood, Plant Manager

NRC

G. Hopper, Branch Chief, Reactor Projects Branch 7
S. Shaeffer, Branch Chief, Reactor Projects Branch 2
E. Crowe, Senior Resident Inspector, Farley Nuclear Plant
M. Ernstes, Chief, Plant Support Branch 2, DRS

~~OFFICIAL USE ONLY – SECURITY RELATED INFORMATION~~

~~OFFICIAL USE ONLY — SECURITY RELATED INFORMATION~~

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

05000348, 05000364/2011008-01	URI	Evaluation of Potential Tornado Missile Density to Bound TORMIS Evaluation Enclosure (4OA2)
-------------------------------	-----	---

Opened and Closed

See Attachment 2

Discussed

None

~~OFFICIAL USE ONLY — SECURITY RELATED INFORMATION~~

Attachment 1

~~OFFICIAL USE ONLY—SECURITY RELATED INFORMATION~~

LIST OF DOCUMENTS REVIEWED

Procedures

NMP-GM-002-001, Corrective Action Program Instructions, Version 21.0
NMP-GM-002, Corrective Action Program, Version 11.0
NMP-AD-013, Control of Safeguards Information - (SGI) Version 1.0
FNP-0-AOP-21.0, Abnormal Operating Procedure for Severe Weather, Rev. 31
FNP-1-ARP 3.1; Alarm Response for BOP Panel L, Annunciator H-3
NMP-AD-012; Operability Determinations and Functionality Assessments, Rev 9.0
NMP-AD-10 10CFR50.59 Screenings and Evaluations Version 10.0
NMP-OS-010; Protected Train/Division and Protected Equipment Program, Version 4.0
F-ESP1010, System Engineer Qualification Card, Version 1
FNP-0-ACP-35.3, Administrative Control Of Tools And Equipment Left Unattended In The Plant, Version 6.0
NMP-AD-026, Equipment Identification and Labeling, Version 1.0
NMP-GM-002-006, Root Cause Analysis Instruction, Version 2.0
NMP-GM-002-008, Common Cause Analysis Instruction, Version 1.0
NMP-GM-003-F04, Self Assessment Final Report (Focused Self-Assessment), Version 1.0
NMP-OS-007-003, Plant Operating Orders, Version 1.0
NMP-AD-008-F01, Applicability Determination, Version 6.0
NMP-GM-008, Operating Experience Program, Version 12.0
FNP-0-M-1-1, Boric Acid Corrosion Control Program, Version 15.0
NMP-ES-019, Boric Acid Corrosion Control Program, Version 8.0
NMP-ES-022-F07, Impact Review Evaluation Form, Version 6.0
NMP-ES-050-F01, RER Response Form, Version 1.0
NMP-AD-12-F01, Prompt Determination Of Operability Form, Version 2.0
FNP-1-AOP-6.0, Loss of Instrument Air, Version 39.0
NMP-AD-012-GL01,

Condition Reports

2009101074	2009103575	2009104992	2010101571	2010101761	2009114934
2009113434	2010107407	2010113318	2009114825	2010101426	2009114934
2011104936	2010105988	2010101065	2010105985	2010110599	2009107070
2006105261	2010114837	2009104069	2011101082	2006204461	2006204460
2007204464	2007205306	2008101720	2008107290	2008201479	2009100971
2009102621	2009105672	2009106406	2009106856	2009107314	2009107782
2009108122	2009108991	2009112166	2009112639	2009112805	2009113434
2009200262	2009202518	2009208658	2010100635	2010100260	2010100572
2010101063	2010101065	2010101329	2010101371	2010104571	2010104918
2010104981	2010104991	2010105280	2010105297	2010105445	2010105320
2010106108	2010106758	2010107107	2010107140	2010108371	2010108380
2010108470	2010108626	2010110146	2010110640	2010110899	2010111040
2010111101	2010111197	2010113731	2010113764	2010115013	2010118079
2010118216	2010208700	2011100053	2011100096	2011100475	2011102464
2011102469	2011103456	2011103701	2011104301	2011104304	2011104305
2011104306	2011104307	2011104309	2011104310	2011104313	2011104314
2011104318	2011104320	2011104321	2011104323	2011104324	2011104326

~~OFFICIAL USE ONLY—SECURITY RELATED INFORMATION~~

~~OFFICIAL USE ONLY – SECURITY RELATED INFORMATION~~

4

2011104328	2011104331	2011104336	2011104341	2011104342	2011104343
2011104344	2011104345	2011104346	2011104347	2011104348	2011104349
2011104350	2011104351	2011104352	2011104353	2011104354	2011104356
2011104357	2011104358	2011104359	2011104361	2011104372	2011105207
2011105303	2011106031	2011106155	2011106190	2011107176	2011107377
2011107378	2011107529	330043	306452	328289	

Work Orders

2102424201	2091641901	1103193801	1062802801	1062649601	1091052901
1110600001	1091022101	1091213701	2090434301	1091082601	2102424201
1080445401	1100254801	1072570801	1061936701	1061908601	1051018301
2092301101	2091575501	1091590201	1092301001		

Action Items

2011200050	2011200051	2011200519	2011200520	2011200527	2011200529
2011200832	2011201396	2010201355	2011202331		

Self-Assessments and Audits

2011 NRC PI&R Preparation Self Assessment dated 03/31/11

SNC Fleet Organization Team OE Self-Assessment 8/30-9/10/2010 dated 10/29/10

F-FOA-SC-2011-1 Fleet Oversight Assessment 2011 Safety Culture Report dated June 24, 2011

Other Documents

System Health Report, Emergency Diesel Generators and Auxiliaries – 1st and 2nd quarters, 2011

System Health Report, DC Distribution, 1st quarter 2011

System Walkdown Checklist; R42 – Batteries / R21 – Inverters

System Walkdown Checklist; 1-2A, 1B, 2B and 2C Diesel Generators

List of Operating Experience Reports sent to the industry in the period of July 2009 to June 2011

April 2011 CAP Performance Indicators

CAP Quaterly Trend Reports, 3rd quarter 2010, 4th quarter 2010 and 1st quarter 2011

NEL-00-0140; Facility Operating License Amendment Request Design Basis for Tornado-Generated Missiles, June 29, 2000

Farley FSAR Section 8.3.2; DC Power Systems

U-419253, Qualification Report on CA10 Series Selector Switches and Aluminum Handles and Retaining Nuts, Version 4.0

DCP 2060002401, Version 2.0

DCP 1060002301, Version 2.0

FNP Problem Identification & Resolution P.1(c) Cross-Cutting Issues 6/6/2011 powerpoint

RER 1092627901 - Evaluate Capability of Q1P17HV3096A&B, Q2P17HV3096A&B to meet SSC Safety Functions and Maintain safety position for appropriate mission time. Seq. 1

OD FNP-0-11-002 - 125 VDC control circuits for 4kV loads, Rev. 2

OD 09-11 - Q2R43A0505 Emergency Diesel Generator 2B

OD 1-10-07 - A Train Service Water Return Header Drain Pinhole Leak, Rev. 1.0

~~OFFICIAL USE ONLY – SECURITY RELATED INFORMATION~~

Attachment 1

~~OFFICIAL USE ONLY – SECURITY RELATED INFORMATION~~

5

OD FNP1-10-01 - Service Water to B Train Containment Coolers Thru Wall Leak, Rev. 1.0

OD 09-04 - Service Water to B Train Containment Coolers Leak, Rev 1.0

OD 08-12 – R43 Emergency Diesel Generators 1-2A, 1B, 2B Lube oil Heat Exchanger leaks, Rev 5.0

OD 09-07 – Q1R43A0502 Emergency Diesel Generator 1B load Swings, Rev. 1.0

OD 09-06 – Unit 1 A Train Service Water Strainer (Degraded Shaft)

OD 09-19 - Q1P17HV3096A/B, Q1P16FV3009A/B/C, Rev.1.0

NRC Identified CRs

2011107501	2011107502	2011107504	2011107505	2011107506	2011107507
2011107508	2011107517	2011107528	328272	328275	328276
328279	328285	328290	328295	328300	327912
328307	328310	327914	328313	328319	328327
328331	328335	328340	328220	330019	330881
331017	331021	331068	331070	331074	331076
331107	331112	331102	331199	331223	331227
331297	331456	331460	331523	331524	331526
331527	331693	331668	331673	331777	331790
331797	331817	331822	331828		

~~OFFICIAL USE ONLY – SECURITY RELATED INFORMATION~~

Attachment 1