



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION III
2443 WARRENVILLE RD. SUITE 210
LISLE, IL 60532-4352

August 1, 2017

Mr. Paul Fessler, Senior VP
and Chief Nuclear Officer
DTE Energy Company
Fermi 2-210 NOC
6400 North Dixie Highway
Newport, MI 48166

**SUBJECT: FERMI POWER PLANT, UNIT 2—NRC PROBLEM IDENTIFICATION AND
RESOLUTION INSPECTION REPORT 05000341/2017007**

Dear Mr. Fessler:

On June 23, 2017, the U.S. Nuclear Regulatory Commission (NRC) completed a Problem Identification and Resolution (PI&R) inspection at your Fermi Power Plant, Unit 2 (Fermi-2). The enclosed inspection report documents the inspection results, which were discussed at an exit meeting on June 23, 2017, with you and other members of your staff.

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

On the basis of the samples selected for review, the team concluded that the Corrective Action Program (CAP) at Fermi-2, was generally effective in identifying, evaluating and correcting issues. The licensee had a low threshold for identifying issues and entering them into the CAP. A risk based approach was used to determine the significance of the issues and priority for issue evaluation and resolution. Corrective actions were generally implemented in a timely manner, commensurate with their safety significance. Operating experience was entered into the CAP when appropriate and evaluated according to procedure. The use of operating experience was integrated into daily activities and found to be effective in preventing similar issues at the plant. In addition, self-assessments and audits were conducted at appropriate frequencies with sufficient depth for all departments based on the documents the team reviewed. The self-assessments were thorough and effective in identifying site performance deficiencies, programmatic concerns, and improvement opportunities. On the basis of the interviews conducted, the inspectors did not identify any impediment to the establishment of a safety conscious work environment at Fermi-2. Your staff was aware of and generally familiar with the CAP and other station processes, including the Employee Concerns Program, through which concerns could be raised. The team determined that your station's performance in each of these areas supported nuclear safety.

Based on the results of this inspection, the NRC has identified one finding of very low safety significance (Green). The NRC has also determined that a violation is associated with this finding. Because you have initiated corrective actions to address the issue, this violation is being treated as a Non-Cited Violation (NCV), consistent with Section 2.3.2.a of the Enforcement Policy. The NCV is described in the subject inspection report.

If you contest the violation or significance of the NCV, 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 III; the Director, Office of Enforcement, and the NRC Resident Inspector at the Fermi Power 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/

Billy Dickson, Chief
Branch 2
Division of Reactor Projects

Docket No. 50-341
License No. DPR-43

Enclosure:
Inspection Report 05000341/2017007

cc: Distribution via LISTSERV®

Letter to Paul Fessler from Billy Dickson dated August 1, 2017

SUBJECT: FERMI POWER PLANT, UNIT 2—NRC PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION REPORT 05000341/2017007

DISTRIBUTION:

Jeremy Bowen
 RidsNrrDorlLpl3
 RidsNrrPMFermi2 Resource
 RidsNrrDirslrib Resource
 Cynthia Pederson
 James Trapp
 Richard Skokowski
 Allan Barker
 Carole Ariano
 Linda Linn
 DRPIII
 DRSIII
ROPreports.Resource@nrc.gov

ADAMS Accession Number: ML17213A364

OFFICE	RIII	RIII	RIII	
NAME	RNg:tt	RSkokowski	BDickson	
DATE	7/25/2017	7/27/2017	8/01/2017	

OFFICIAL RECORD COPY

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No: 50-341
License No: DPR-43

Report No: 05000341/2017007

Licensee: DTE Energy Company

Facility: Fermi Power Plant, Unit 2

Location: Newport, MI

Dates: June 5 through June 23, 2017

Team Leader: R. Ng, Project Engineer

Inspectors: P. Smagacz, Resident Inspector
V. Meghani, Reactor Inspector
M. Jones, Reactor Inspector

Approved by: B. Dickson, Chief
Branch 2
Division of Reactor Projects

Enclosure

SUMMARY

Inspection Report 05000341/2017007; 06/05/2017–06/23/2017; Fermi Power Plant, Unit 2; Identification and Resolution of Problems.

This inspection was performed by three region-based inspectors and the resident inspector at Fermi–2. One Green finding, which had an associated Non-Cited Violation (NCV) of the U.S. Nuclear Regulatory Commission (NRC) regulations, was identified. The significance of inspection findings is indicated by their color (i.e., greater than Green, or Green, White, Yellow, Red) and determined using Inspection Manual Chapter (IMC) 0609, “Significance Determination Process,” 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,” dated July 2016.

Identification and Resolution of Problems

On the basis of the samples selected for review, the team concluded that the Corrective Action Program (CAP) at Fermi–2, was generally effective in identifying, evaluating and correcting issues. The licensee had a low threshold for identifying issues and entering them into the CAP. A risk based approach was used to determine the significance of the issues and priority for issue evaluation and resolution. Corrective actions were generally implemented in a timely manner, commensurate with their safety significance. Operating experience was entered into the CAP when appropriate and evaluated according to procedure. The use of operating experience was integrated into daily activities and found to be effective in preventing similar issues at the plant. In addition, self-assessments and audits were conducted at appropriate frequencies with sufficient depth for all departments based on the documents the team reviewed. The assessments were thorough and effective in identifying site performance deficiencies, programmatic concerns, and improvement opportunities. On the basis of the interviews conducted, the inspectors did not identify any impediment to the establishment of a safety conscious work environment at Fermi–2. Your staff was aware of and generally familiar with the CAP and other station processes, including the Employee Concerns Program, through which concerns could be raised. The team determined that your station’s performance in each of these areas supported nuclear safety.

Although implementation of the CAP was determined to be effective overall, the inspectors identified several issues that represented potential weakness of the program.

NRC–Identified and Self-Revealed Findings

Cornerstone: Mitigating Systems

Green. The inspectors identified a finding of very low safety significance with an associated NCV of Title 10 of the *Code of Federal Regulations* (10 CFR), Part 50, Appendix B, Criterion XVI, “Corrective Actions,” for the licensee’s failure to correct a design deficiency that mis-quantified unidentified leakage from reactor coolant system (RCS) pressure boundary. Specifically, in April 2007, the licensee identified that the driver mount drain for the reactor recirculation pump could potentially drain leakage from nearby pipe cracks to the identified leakage collection point. However, the licensee had

not corrected this design deficiency as of the start of this inspection. The licensee documented this issue into the CAP as Condition Assessment Resolution Document (CARD) 17-25489 and developed a night order to direct the operators how to calculate unidentified leakage. The licensee also planned to revise procedure 24.000.02 as an interim measure until the modification was implemented.

The inspectors determined that the licensee's failure to correct the design deficiency that mis-quantified unidentified leakage is a performance deficiency that is reasonably within the licensee's ability to foresee and correct. The inspectors determined that this issue is more than minor because if left uncorrected, the performance deficiency has the potential to lead to a more significant safety concern. Specifically, leakage that would normally be collected and measured as unidentified leakage could be collected and measured as identified leakage, leading to a potential violation of the TS unidentified leakage rate. Because the finding did not represent a loss of system or function, or represent an actual loss of function of at least a single train for greater than its Technical Specification (TS) Allowed Outage Time, or represent an actual loss of function of one or more non-TS trains of equipment designated as high safety-significant in the licensee's Maintenance Rule Program, it was screened as very low safety significance. The inspectors did not identify a cross-cutting aspect since the issue originated more than three years ago. (Section 4OA2.1.b.3.ii)

REPORT DETAILS

4. OTHER ACTIVITIES

4OA2 Problem Identification and Resolution (71152B)

This inspection constituted one biennial sample of problem identification and resolution (PI&R) inspection as defined by Inspection Procedure 71152, "Problem Identification and Resolution." Documents reviewed are listed in the Attachment to this report. Note that the licensee's computer program tracks condition reports as CARDS.

.1 Assessment of the Corrective Action Program Effectiveness

a. Inspection Scope

The inspectors reviewed the procedures and processes that described the CAP at Fermi-2 to ensure, in part, that the requirements of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," were met. The inspectors observed and evaluated the effectiveness of meetings related to the CAP, such as the Management Review Committee meetings and the CARD Ownership / Screening Committee meetings. Selected licensee personnel were interviewed to assess their understanding of and their involvement in the CAP.

The inspectors reviewed selected CARDS across all seven Reactor Oversight Process cornerstones to determine if problems were being properly identified and entered into the licensee's CAP. The majority of the risk-informed samples of CARDS reviewed were issued since the last NRC biennial PI&R inspection completed in December of 2015. The inspectors also reviewed selected issues that were more than five years old.

The inspectors assessed the licensee's characterization and evaluation of the issues and examined the assigned corrective actions. This review encompassed the full range of safety significance and evaluation classes, including root cause evaluations, apparent cause evaluations, common cause evaluations and direct cause evaluations. The inspectors assessed the scope and depth of the licensee's evaluations. For issues that were characterized as significant conditions adverse to quality, the inspectors evaluated the licensee's corrective actions to prevent recurrence and for issues that were less significant, the inspectors reviewed the corrective actions to determine if they were implemented in a timely manner commensurate with their safety significance.

The inspectors performed a five-year review of the safety-related emergency equipment cooling water system based on input from the resident staff. The system provides cooling water to remove heat from essential equipment located in the auxiliary building and reactor buildings that are required to shutdown the reactor. Additionally, the system provides cooling to essential loads following a loss of reactor building closed cooling water system, a loss of coolant accident or a loss of offsite power. The primary purpose of this review was to determine whether the licensee was monitoring and addressing performance issues of the emergency equipment cooling water system. The inspectors performed walkdowns, as needed, to verify the resolution of issues.

A five-year review of the offgas system was undertaken to assess the licensee staff's efforts in monitoring system performance. Although this system is non-safety related, its

function is to reduce the offsite exposures at the nearest site boundary to less than the established maximum limit. Therefore, its failure could adversely affect plant operation and require operator intervention. The inspectors' review was to determine whether the licensee staff was properly monitoring and evaluating the performance of the system through effective implementation of station monitoring program, such as the system health report. The inspectors performed walkdowns, as needed, to verify the resolution of issues.

The inspectors examined the results of self-assessments of the CAP completed by the licensee during the review period. The results of the self-assessments were compared to self-revealed and NRC-identified findings. The inspectors also reviewed the corrective actions associated with previously identified NCVs and findings to determine whether the station properly evaluated and resolved those issues. The inspectors also performed walkdowns, as necessary, to verify the resolution of the issues.

b. Assessment

(1) Identification of Issues

Based on the results of the inspection, the inspectors concluded that Fermi-2 was generally effective in identifying issues at a low threshold and entering them into the CAP. The inspectors determined that problems were normally identified and captured in a complete and accurate manner in the CAP. The licensee appropriately screened issues from both NRC and industry operating experience at an appropriate level and entered them into the CAP when applicable to the station. The inspectors also noted that deficiencies were identified by external organizations (including the NRC) that had not been previously identified by licensee personnel. These deficiencies were subsequently entered into the CAP for resolution.

The inspectors determined that the licensee was generally effective at trending low level issues to prevent larger issues from developing. The licensee used the CAP to document instances where previous corrective actions were ineffective or were inappropriately closed.

The inspectors performed a five-year review on the emergency equipment cooling water system. As a part of this review, the inspectors interviewed the current system engineer, reviewed CARDS, critical equipment failure evaluations, and condition evaluations. In addition, the inspectors performed a system walkdown to assess the material condition of the system and surrounding areas. The inspectors concluded that emergency equipment cooling water system related concerns were identified and entered into the CAP at a low threshold, and concerns were resolved in a timely manner commensurate with their safety significance.

i) Observation

Change in Rate of Identification

During the last biennial problem identification and resolution inspection, the team identified a small decline in CARD generation rate over the preceding five years. The licensee attributed the small decline partially to process changes in how low level conditions were captured. The licensee implemented actions to educate its staff on the

CAP process. The team reviewed the CARD generation for the last two years and concluded that the decline in generation rate had been arrested. The licensee continued to monitor the generation rates and would implement additional corrective actions when necessary.

ii) Findings

No findings were identified.

(2) Prioritization and Evaluation of Issues

Based on the results of the inspection, the inspectors concluded that the station was effective at prioritizing and evaluating issues commensurate with the safety significance of the identified issue, including an appropriate consideration of risk.

The inspectors determined that the Management Review Committee meetings and the CARD Ownership/Screening Committee meetings were generally thorough and maintained a high standard for evaluation quality. Members of the committees were engaged and discussed selected issues in sufficient detail as well as challenged each other regarding their conclusions and recommendations.

The inspectors determined that the licensee usually evaluated equipment functionality requirements adequately after a degraded or non-conforming condition was identified. In general, appropriate actions were assigned to correct the degraded or non-conforming condition.

i) Observations

Weakness on the Engineering Product Update Process

The inspectors reviewed the engineering backlog data provided by the licensee. Licensee procedure MES21, "Incorporation of Changes into Design Documentation," prescribes the methods and schedule for incorporation of the as-built design change documents. It requires incorporation within 180 days after accumulation of five as-built design change documents affecting QA Level 1 calculations, unless an exception was approved by the responsible supervisor. The inspectors reviewed a sample of calculations included on the backlog list and found more than five posted changes against the safety-related calculations with some of the posted changes dating back to the early 90's. The inspectors also noted that since the procedure specified time clock for incorporation started only after accumulation of five design changes, there may be additional calculations beyond the backlog list having multiple and very old postings. Even though the procedure allowed exception based on supervisor approval, the inspectors were concerned that the need to review all the postings against the calculation while assessing a new design change affecting a calculation with numerous postings would impose additional burden on the engineers performing the review and increase the possibility of errors. The licensee entered this issue in the CAP for evaluation and possible process improvements.

ii) Findings

No findings were identified.

(3) Effectiveness of Corrective Actions

Based on the results of the inspection, the inspectors concluded that the licensee was generally effective in addressing identified issues and the assigned corrective actions were generally appropriate. The licensee implemented corrective actions in a timely manner, commensurate with their safety significance, including an appropriate consideration of risk.

Problems identified using root or apparent cause methodologies were resolved in accordance with the CAP procedural and regulatory requirements. Corrective actions designed to prevent recurrence were generally comprehensive, thorough, and timely. The inspectors sampled corrective action assignments for selected NRC documented violations and determined that actions assigned were generally effective and timely.

The inspectors performed a five-year review of the offgas system. The inspectors interviewed program owner and reviewed corrective action documents, inspection reports, inspection procedures, as well the system health reports. The inspectors evaluated in-progress and planned actions and performed a partial system walkdown of visible parts of the system.

The inspectors determined that there were numerous offgas system chiller failures in the past five year due to hardware and logic issues indicating significant problems adversely affecting the system performance. At the time of the inspection, the system health rating was Red, indicating unacceptable performance requiring significant actions for improvement. However, the licensee's recent actions including implementation of a modification to replace the logic controller and completion of a number of work orders is expected to return the performance to acceptable level within the next one or two quarters. The licensee also plans to replace the chiller tubing for further improvement. The inspectors concluded that the licensee staff were properly monitoring the performance of the system and taking actions necessary for improvement.

i) Observations

Outstanding Corrective Action Items

During the last biennial PI&R inspection, the inspectors identified that there was a large population of outstanding correction action items. Specifically, there were over 3000 open corrective action items at the time of the inspection. More than 500 of these open corrective action items were Level 3 to Level 1 items, which the licensee considered conditions adverse to quality or significant conditions adverse to quality. There were 68 items that were greater than two years old. For those items that affected safety related equipment, the inspectors determined that the corrective actions were untimely and the issues were minor violations of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Actions," because the equipment affected were either operable or operable with appropriate compensatory actions in place. Since the majority of these outstanding corrective action items were design non-conformances, the inspectors were mainly concerned that these outstanding items could potentially affect the licensee's understanding of the design basis of the plant and complicate future equipment issue resolution. The licensee acknowledged the inspectors' concern and implemented a number of actions to reduce the backlog.

During this inspection, the inspectors reviewed the licensee's outstanding corrective action items and determined that the licensee had made good progress on resolving these issues. Overall, the licensee had reduced this backlog by one-third. As of the start of this inspection, there were just under 2000 open CARDS with only 300 of them were Level 1 to 3. There were about 40 corrective action items that were greater than two years old. The inspectors sampled a number of these corrective actions in each significance level and determined that they were being tracked with appropriate level of attention to ensure their completion. The inspectors also sampled other action items and verified that the licensee did not systematically downplay the action items as non-corrective actions. Although good progress had been made, the licensee needs to remain focus on reducing the backlog.

ii) Findings

Failure to Correct a Design Deficiency that Mis-Quantified Unidentified Leakage

Introduction: The inspectors identified a finding of very low safety significance (Green) and an associated NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Actions," for the licensee's failure to correct a design deficiency that mis-quantified unidentified leakage from RCS pressure boundary. Specifically, in April 2007, the licensee identified that the driver mount drain for the reactor recirculation pump could potentially drain leakage from nearby pipe cracks to the identified leakage collection point. However, the licensee had not corrected this design deficiency as of the start of this inspection.

Description: In February 2007, the drywell equipment sump temperature began a slow rise. Coupled with a slight increase in input into the sump, the licensee initialized a leak investigation as well as developed an Operational Decision Making Issue (ODMI) to address the leak. Due to the small quantity of the leak, the licensee chose to continue operation of the plant with a leak monitoring plan and implemented compensatory measures. During the review of potential sources of the leakage in support of the ODMI, the licensee identified that the driver mount drain for the reactor recirculation pump could potential drain leakage from nearby pipe cracks to the identified leakage collection point in April 2007. This configuration could mask the magnitude of an unidentified leak by directing it to the equipment drain instead of the floor drain. The licensee documented this issue in CARD 07-22140 and took credit for the administrative limits established by the ODMI to ensure that TS limits were satisfied. A plant modification was assigned to separate identified and unidentified leakage. An interim procedure change to the TS surveillance 24.000.02, "Shiftly, Daily and Weekly Required Surveillance," to limit the sum of identified and unidentified leakage to five gallons per minutes (gpm) was evaluated but not implemented.

In September 2007, the licensee shutdown the reactor for a refueling outage. The drywell leak was located and repaired. Subsequently, the ODMI was closed when the unit returned to full power operation after refueling. However, the licensee did not implement any action to ensure that the TS limits were satisfied due to the design deficiency. Because of this design, the unidentified leakage surveillance acceptance criterion was no longer appropriate for the circumstance.

The inspectors verified that the total leakage, unidentified and identified, had not exceeded the five gallon per minute TS limits for unidentified leakage since 2013 and therefore no TS violation had occurred during this period. The due date for the

modification to separate identified and unidentified leakage had been extended multiple times and was currently scheduled to be completed in October 2018.

Analysis: The inspectors determined that the licensee's failure to correct the design deficiency that mis-quantified unidentified leakage was contrary to the requirements in 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action." This issue was reasonably within the licensee's ability to foresee and correct and was therefore a performance deficiency. Consistent with the guidance in Inspection Manual Chapter (IMC) 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated September 7, 2012, the inspectors determined that this issue is more than minor because if left uncorrected, the performance deficiency have the potential to lead to a more significant safety concern. Specifically, leakage that would normally be collected and measured as unidentified leakage could be collected and measured as identified leakage, leading to a potential violation of the TS unidentified leakage rate. The inspectors also reviewed the examples of minor issues in IMC 0612, "Power Reactor Inspection Reports," Appendix E, "Examples of Minor Issues," dated August 11, 2009, and found no similar examples.

In accordance with IMC 0609, Attachment 4, "Initial Characterization of Findings," and IMC 0609, Appendix A, "The Significance Determination Process for Findings at Power," issued June 19, 2012, the finding was screened against the mitigating systems cornerstone and determined to be of very low safety significance (Green), because the finding did not represent a loss of system or function, or represent an actual loss of function of at least a single Train for greater than its Tech Spec Allowed Outage Time, or represent an actual loss of function of one or more non-Tech Spec Trains of equipment designated as high safety-significant in the licensee's Maintenance Rule Program.

The inspectors did not identify a cross-cutting aspect since the issue originated more than three years ago.

Enforcement: Title 10 CFR, Part 50, Appendix B, Criterion XVI, "Corrective Actions," requires, in part, that measures be established to assure that conditions adverse to quality, such as deficiencies, are promptly corrected. Contrary to the above, from April 2007 to June 21, 2017, the licensee did not correct a condition adverse to quality. Specifically, the licensee identified in April 2007 a design deficiency that mis-quantified unidentified leakage from RCS pressure boundary. The licensee implemented compensatory actions to address this issue but they were closed out in September 2007 without taking any further actions. The licensee documented this issue into the CAP as CARD 17-25489 and developed a night order to direct the operators how to calculate unidentified leakage. The licensee also planned to revise procedure 24.000.02 as an interim measure until the modification was implemented.

Because this violation was not repetitive or willful, was of very low safety significance, and was entered into the licensee's corrective action program, it is being treated as a Non-Cited Violation consistent with Section 2.3.2.a of the NRC Enforcement Policy (**NCV 05000341/2017007-01, Failure to Correct a Design Deficiency that Mis-Quantified Unidentified Leakage**).

.2 Assessment of the Use of Operating Experience

a. Inspection Scope

The inspectors reviewed the licensee's implementation of the facility's Operating Experience (OE) program. Specifically, the inspectors reviewed the OE program implementing procedures, attended CAP meetings to observe the use of OE information, and reviewed licensee evaluations of OE issues and events. The objective of the review was to determine whether the licensee was effectively integrating OE into the performance of daily activities, whether evaluations of issues were appropriate, whether the licensee's program was sufficient to prevent future occurrences of previous industry events, and whether the licensee effectively used the information in developing departmental assessments and facility audits. The inspectors also assessed if corrective actions, as a result of OE, were identified and implemented in an effective and timely manner.

b. Assessment

The inspectors observed that operating experience was discussed as part of the daily and pre-job briefings. Operating experience evaluations included NRC generic communications, significant industry issues, Part 21's, and General Electric Services Information Letters. Additional industry OE was disseminated across plant departments for their review and use, if needed. Specific equipment related issues were distributed to appropriate engineers for evaluating and screening into the CAP. The inspectors also verified that the use of OE in formal CAP products such as root cause evaluations and equipment apparent cause evaluations was appropriate and adequately considered. Generally, OE that was applicable to Fermi-2 was thoroughly evaluated and actions were implemented in a timely manner to address any issues that resulted from the evaluations.

Based on the results of the inspection, the inspectors concluded that operating experience was effectively utilized at the station. No significant issues were identified during the inspectors' review of selected licensee operating experience evaluations.

c. Findings

No findings were identified.

.3 Assessment of Self-Assessments and Audits

a. Inspection Scope

The inspectors reviewed selected self-assessments and Nuclear Quality Assurance audits, as well as the schedule of past and future assessments. The inspectors evaluated whether these audits and self-assessments were effectively managed, adequately covered the subject areas, and properly captured identified issues in the CAP. In addition, the inspectors interviewed licensee personnel regarding the implementation of the audit and self-assessment programs.

b. Assessment

Based on the results of the inspection, the inspectors concluded that self-assessments and audits were typically accurate, thorough, and effective at identifying issues and enhancement opportunities at an appropriate threshold. The inspectors concluded that these audits and self-assessments were completed by personnel knowledgeable in the subject area. In many cases, these self-assessments and audits had identified numerous issues that were not previously recognized by the station. These issues were entered into CAP as required by the procedures. The inspectors also determined that findings from the CAP self-assessment were consistent with the inspectors' assessment.

c. Findings

No findings were identified.

.4 Assessment of Safety Conscious Work Environment

a. Inspection Scope

The inspectors assessed the licensee's safety conscious work environment (SCWE) through the reviews of the facility's Employee Concerns Program (ECP) implementing procedures, discussions with the coordinator of the ECP, interviews with personnel from various departments, and reviews of condition reports. The inspectors also reviewed the results from a number of licensee initiated safety culture survey and pulses conducted in 2016.

The inspectors held scheduled interviews with 21 onsite staff members. The interviews included individual contributors and supervisors from both licensee and contractor organizations. During the interview, the inspectors assessed their willingness to raise nuclear safety issues. Additionally, the inspectors interviewed other personnel informally during plant walkdown to ascertain their views on the effectiveness of the CAP and their willingness and freedom to raise issues.

The individuals in the scheduled interviews were randomly selected to provide a distribution across various departments at the site. In addition to assessing individuals' willingness to raise nuclear safety issues, the interviews also included discussion on any changes in the plant environment over the last 12 months. Items discussed included:

- knowledge and understanding of the CAP;
- effectiveness and efficiency of the CAP;
- willingness to use the CAP; and
- knowledge and understanding of ECP.

The inspectors also discussed the function of the ECP with the program coordinator; reviewed program logs from 2015 through 2017; and reviewed selected case files to identify any emergent issues or potential trends.

b. Assessment

The inspectors did not identify any issues of concern regarding the licensee's SCWE. Information obtained during the interviews indicated that an environment was established where licensee personnel felt free to raise nuclear safety issues without fear of retaliation. Licensee personnel were generally aware of and familiar with the CAP and other processes, including the ECP and the NRC's allegation process, through which concerns could be raised. In addition, a review of the types of issues in the ECP indicated that the licensee staff members were appropriately using the CAP and ECP to identify issues. The inspectors did not observe and were not provided any examples where there was retaliation for the raising of nuclear safety issues. Documents provided to the inspectors regarding surveys and monitoring of the safety culture and SCWE generally supported the conclusions from the interviews.

c. Findings

No findings were identified.

4OA6 Management Meetings

Exit Meeting

On June 23, 2017, the inspectors presented the inspection results to Mr. P. Fessler and other members of the licensee staff. The licensee acknowledged the issues presented. The inspectors confirmed that none of the potential report input discussed was considered proprietary.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

P. Fessler, Senior VP & Chief Nuclear Officer
M. Caragher, Executive Director – Production
L. Bennett, Director – Operations
E. Kokosky, Director – Organizational Effectiveness
D. Noetzel, Director – Nuclear Engineering
W. Raymer, Director – Maintenance
P. Summers, Director – Nuclear Support
C. Harris, Manager – Performance Improvement
K. Hullum-Lawson, Manager – Plant Support Engineering
S. Maglio, Manager – Licensing
G. Strobel, Manager – Outage & Work Management

U.S Nuclear Regulatory Commission

B. Dickson, Branch Chief
B. Kemker, Senior Resident Inspector

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Open

05000341/2017007-01	NCV	Failure to Correct a Design Deficiency that Mis-Quantified Unidentified Leakage (Section 40A2.1.b.3.ii)
---------------------	-----	---

Closed

05000341/2017007-01	NCV	Failure to Correct a Design Deficiency that Mis-Quantified Unidentified Leakage (Section 40A2.1.b.3.ii)
---------------------	-----	---

Discussed

05000341/2017007-01	NCV	Failure to Correct a Design Deficiency that Mis-Quantified Unidentified Leakage (Section 40A2.1.b.3.ii)
---------------------	-----	---

LIST OF DOCUMENTS REVIEWED

The following is a list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspectors reviewed the documents in their entirety, but rather, that selected sections or portions of the documents were evaluated as part of the overall inspection effort. Inclusion of a document on this list does not imply NRC acceptance of the document or any part of it, unless this is stated in the body of the inspection report.

Condition Reports

CARD 07-20658	Temperature Increase in the DW Equipment Sump	02/03/07
CARD 07-22140	Reactor Recirculation Pump Driver Mount Drain Lines Potentially Direct Unidentified Leak Sources Into the Identified Leak Path	04/19/07
CARD 07-28005	Revise Design Calculations to Support IST Criteria (RHR/LPCI, CCHVAC, EECW MU)	12/13/07
CARD 08-26828	Non-Qualified Support System to Ensure Adequate Post-LOCA Emergency Depressurization	10/15/08
CARD 09-26761	Key Calc Review of DC-5490 Vol. I, 'Ventilation Air Quality for EDG Switchgear Room'	09/01/09
CARD 10-28090	Reactor Building Superstructure Re-Analysis.	09/14/10
CARD 12-24161	Silent Trip of West Offgas Chiller	05/04/12
CARD 12-25502	Offgas Hydrogen Analyzer Channel B Failed Channel Check	06/24/12
CARD 12-29077	Reactor Scram due to H2 Inleakage to Stator Water	11/07/12
CARD 13-20826	Silent Trip of the Center Off Gas Chiller	02/04/13
CARD 13-25627	Spec Sheet for E41K820 (HPCI Test Line Iso) in Loop E51N004-SS (RCIC Pump Discharge) Needs Revision	08/12/13
CARD 13-26139	Repair Cable Fire Rap Inside the Door to the Cable Spreading Room Below the MCR.	09/01/13
CARD 13-26959	Unable to Place Center Offgas Chiller in Service due to Probable Logic Problem (Repeat Issue)	09/29/13
CARD 13-28861	East OG Recombiner Heater #2 Breaker Needs Replacement	12/16/13
CARD 14-20706	D1100 (a)(1) Common Cause GWP	02/03/14
CARD 14-23787	N62-R809, Off Gas Delay Piping Pressure Recorder Failed	05/01/14
CARD 14-24786	'B' Offgas Hydrogen Sensor Drifting High	06/06/14
CARD 14-28452	Silent Trip of Both Offgas Chillers with subsequent Trip of HWC	10/29/14
CARD 15-20154	Pump P4400-C02B Division 2 EECW Makeup Pump Exceeded IST Alert Criteria	01/07/15
CARD 15-20790	2015 Mods & 50.59 Inspection Deficiency – Operation Procedure Deficiencies (CCHVAC)	06/16/15

CARD 15-22029	RBCCW/EECW Drywell Leak Causes Single Loop Operation and Reactor Scram.	10/29/16
CARD 15-25087	RB Crane South Main Hook Drum Bearing Degraded	07/23/15
CARD 15-25243	Missed Technical Specification (TS) Entry-D2 EECW-UHS SSO July 2015	07/29/15
CARD 15-25570	Potential Issues with the Timing of the RBHVAC Damper Actuators for the East Train of RBHVAC	08/12/15
CARD 15-25888	Time Delay Relay Testing for DC-6480	08/24/15
CARD 15-27004	Broken Crossover Bolts	09/29/15
CARD 15-27392	Unposted High Radiation Area (HRA) Discovered in RB1 Steam Tunnel	10/06/15
CARD 15-28216	Evaluate Moore 535 Controllers Impacted by Part 21 Notice	10/24/15
CARD 15-28469	Clarification of Hi-Com Power Supply(ies)	10/31/15
CARD 15-28528	NQA – Adverse Trend Noted with Preparation and Installation of Raychem During Refueling Outages	11/02/15
CARD 15-29482	Main Turbine Tripped due to High Vibrations	11/29/15
CARD 15-29869	Div 1 Offsite Power Inoperable due to DC6447 (ODE-12) Predicted Threshold for Voltage Drop Exceeded	12/10/15
CARD 15-29869	Div 1 Office Power Inoperable due to DC6447 (ODE-12) Predicted Threshold for Voltage Drop Exceeded	12/10/15
CARD 15-29874	Off Gas Hydrogen Monitoring System Analyzer Channel A Cell Failure	12/11/15
CARD 15-30338	RERP Temporary Storage Go and See	12/30/15
CARD 16-20090	NQA - EP-580 Equipment List Accuracy and Compliance Issues	01/05/16
CARD 16-20156	#1 HP Stop Valve Drifted to 25 Percent Open From 100 Percent Open at Power	01/06/16
CARD 16-20261	QA Audit Deficiency – Compensatory Measure Not Established for the Lack of a Hi-Com in the ISFSI Building	01/11/16
CARD 16-20500	NRC Identified Question Regarding EDG Fuel Oil Storage Room Temperature Below UFSAR Cited Minimum Temperature	01/20/16
CARD 16-20614	E1150F017A Failed to Stroke Open During 24.204.01	01/22/16
CARD 16-20614	E1150F017A Failed to Stroke Open During 24.204.01	01/22/16
CARD 16-20818	Determine Permanent Fix to Eliminate Rework Events	01/29/16
CARD 16-20829	Debris Identified on the Main Trolley Rollers on the Refuel Bridge	01/29/16
CARD 16-21188	NQA Deficiency: Gas Identified in CARDS Closed to Other Implementing Processes	02/08/16
CARD 16-21188	NQA Deficiency: Gaps Identified in CARDS Closed to Other Implementing Processes	02/08/16
CARD 16-21466	MOP12 Violation	02/16/16

CARD 16-21835	Adverse Trend: In Maintenance Work Order Quality	02/26/16
CARD 16-21963	Switch Calibration Drift	03/02/16
CARD 16-22234	RB5 Overhead Crane (ECP Concern/Recommendations)	03/11/16
CARD 16-22361	Gap in Review of 10 CFR Part 21 Reports	03/16/16
CARD 16-22392	Multiple Issues Identified within the Work Planning and Execution Process	03/17/16
CARD 16-22968	A SLC Pump Will Not Develop Required Flow	04/10/16
CARD 16-24909	Incorrect Emergency Classification During June 2016 RERP Drill	06/15/16
CARD 16-25410	Oil Leak on the #4 HPSV Requiring Closure of the Stop Valve	07/06/16
CARD 16-25612	2016 EQ Program Self-Assessment Deficiency: Deviation of Vendor Supplied Activation Energy Values in NAMCO Limit Switch EQ Files	07/14/16
CARD 16-25666	Lube Oil Leak on EDG 12 During Surveillance	07/17/16
CARD 16-25907	Trip of HWC system	07/26/16
CARD 16-26048	Part 21 Furmanite Nuclear Grade Leak Seal Material FSC-N-1B	08/01/16
CARD 16-26102	RB pressure > -.125 " wc During Start of RBHVAC with East Train.	08/02/16
CARD 16-26210	2016 CDBI - Overdutied Safety Related Breakers	08/05/16
CARD 16-26356	NSRG 16-02-3: Engineering Subcommittee Continuing Concern – Identifying and Resolving Single Point Vulnerabilities	08/12/16
CARD 16-26359	NSRG 16-02-5: Engineering Subcommittee Concern – Plant Equipment Issues Not Getting Appropriate Sense of Urgency	08/12/16
CARD 16-26360	NSRG 16-02-6: Engineering Subcommittee Concern – Evidence of Gaps with Use of the Corrective Action Program	08/12/16
CARD 16-26389	2016 CDBI – NRC Identified Issue P5000F403 and P5000F284 NIAS Boundary Valves are Not Leak Tested with a Differential Pressure	08/12/16
CARD 16-26535	2016 CDBI: Potential Discrepancies with EDG LOP/LOCA Acceptance Criteria and R3000 System Monitoring Plan	08/17/16
CARD 16-26586	Unposted High Radiation Area was Discovered while Performing Radiological Survey	08/19/16
CARD 16-26633	2016 CDBI – NRC Concern for Operability Determination Justifications and Timeliness	08/22/16
CARD 16-26762	2016 CDBI – Inadequate Interpretation of TS Related to MDCT Fan Brake System	08/25/16
CARD 16-26876	High Pressure Brake Bottle for MDCT is High ood at 2025 psig	09/01/16

CARD 16-27023	Past Instances of High Winds Resulting in Secondary Containment Pressure Exceeding Technical Specification Surveillance Limit	09/16/16
CARD 16-27114	New HFA Relay Spring Missing During Shop Work	09/07/16
CARD 16-27120	Tube leak in Main Condenser South End Identified, Likely SE Quadrant	09/07/16
CARD 16-27476	10 CFR 21 Notification: Target Rock Soft-Seated Solenoid Operated Valve Components	09/21/16
CARD 16-27530	NQA Deficiency – Inadequate Screening Guidance to Flag Potential 10CFR21 Conditions	09/22/16
CARD 16-28575	Unplanned ESF Actuation Following Surveillance Test on Fuel Pool Vent Radiation Monitor	10/27/16
CARD 16-28619	Sodium Pentaborate Concentration Low	10/28/16
CARD 16-28876	Part 21 Notification – ITT Conoflow Models GT25CA1826 and GT25CD1826 Current to Pressure Transducers	11/07/16
CARD 16-29440	NRC Violation – Failure to Verify the Ability to Manually Throttle Safety - Related MOVs During DBA	11/23/16
CARD 16-29957	NRC Violations for SGTs Testing	12/14/16
CARD 16-30023	Nitrogen Bottles for E1156C001A, MDCT Fan 'A', Found to be at Zero Pounds	12/16/16
CARD 16-30073	Charcoal Bed Fire Detection and Mitigation	12/19/16
CARD 16-30109	RERP Drill 12/13/16: Dose Assessment Observation	12/20/16
CARD 17-20537	NQA Audit Deficiency: Station Weaknesses Identified with the Quality of Corrective Actions (CAs) in Level 1 & 2 CARDS	01/18/17
CARD 17-20636	System Monitoring Identified a Slow Leak on MDCT C Nitrogen Supply	01/23/17
CARD 17-20759	EDG 11 Heat Exchanger Bundles Not Oriented Correctly	01/26/17
CARD 17-21070	NQA Audit Deficiency: Fire Protection Program Implementation Gaps	02/06/17
CARD 17-21316	Degrading HP Turbine First Stage Pressure Indication	02/16/17
CARD 17-21682	Past Operability Eval per 24.208.03	02/28/17
CARD 17-21706	Requirement in UFSAR Section 9.1.4.2.2 Not Implemented in Plant Procedures	03/01/17
CARD 17-21946	DC-6482 – Electrical Penetration Protection Not Properly Analyzed Per UFSAR	03/10/17
CARD 17-22068	Evaluate ETAP Error Report ERCA-17-003 in Accordance with 10 CFR Part 21	03/15/17
CARD 17-22084	Elevated Vibrations on RBHVAC Supply East Fan	03/15/17
CARD 17-22132	Evaluate ETAP Error Report ERCA-17-002 in Accordance with 10 CFR Part 21	03/17/17
CARD 17-22292	Div-1 MDCT C	03/21/17
CARD 17-23819	NRC IN 2015-12: Unaccounted for Error Terms Associated with the Irradiation Testing for EQ	04/21/17

CARD 17-23938	Adverse Trend in Closure Quality of Corrective Actions	04/26/17
CARD 17-24084	Inadequate Quality Involving Apparent Cause Evaluation (ACE) for CARD 16-26255	05/02/16
CARD 17-24116	2017 PI&R FSA Deficiency – Degraded & Non-Conforming Conditions CARDS Closed without Concurrence from Operations	05/03/17
CARD 17-24147	NQA Audit 17-0106 Deficiency – Degraded Performance Standards and Behaviors for Operability Testing	05/03/17
CARD 17-24758	NQA Audit 17-0105 Finding – Repeat Finding on Improper Controls of Safety-Related (QA1) and Non-Safety (QA2) Material	05/23/17
CARD 17-25050	Part 21 – Columbia Generating Station, Docket No. 50-397	06/05/17

Apparent Cause Evaluation

ACE 15-26521	Level 3 Actuation While Maintaining RPV Level/Pressure with RCIC and SRVs	09/15/15
ACE 16-21835	Adverse Trend: Maintenance Work Package Quality	02/26/16
ACE 16-21857	Adverse Trend in Reportability Related Issues	02/27/16
ACE 16-22968	SLC Pump A Will Not Develop Required Flow	05/20/16
ACE 16-23185	Instabilities in the #5N & #5S Feed Water Heater Levels	06/14/16
ACE 16-25410	#4 High Pressure Stop Valve Servo Oil Leak	09/12/16
ACE 16-28619	Sodium Pentaborate Concentration Low Identified in Standby Liquid Control Tank	12/09/16
ACE 17-20759	New Tube Bundles Incorrectly Oriented within Jacket Coolant, Lube Oil, and Air Coolant Heat Exchangers on EDG 11	01/26/17

Common Cause Evaluation

CCA 15-28585	Explosive Detector Performance Indicate Adverse Trend	12/14/14
CCA 15-29359	RF17 Trend: Equipment Issues with Switchgears, Breakers, and Motor Control Centers	11/25/15
CCA 16-20669	T3100 Evaluated by the MREP as (a)(1)	01/25/16
CCA 16-26267	Adverse Trend of Events Associated with the HPSVs, LPSVs, and LPIVs	09/29/16
CCA 16-26267	Adverse Trend of Events Associated with the HPSVs, LPSVs and LPIVs.	08/09/16
CCA 17-22236	Trend in Radiation Protection TPE failures	03/20/17

Audit, Assessment and Self-Assessments

16-0101	Quality Assurance Audit of the Radiological Emergency Response Preparedness Program	01/25/16
16-0112	Quality Assurance Audit of Emergency Preparedness Program	10/03/16
CARD 17-24116	2017 PI&R FSA Deficiency – Degraded & Non-Conforming Conditions CARDS Closed without Concurrence from Operations	05/03/17
NANL-17-0021	Quick Hit Self-Assessment of the 10 CFR 50.59 Program Effectiveness	04/13/17
NAPI-16-0008	2016 Operating Experience Program Focused Self-Assessment	05/04/16
NAPI-17-002	2017 PI&R Formal Self-Assessment Report	05/11/17
NPMA-16-0090	Focused Self-Assessment Report – Maintenance Planning	11/22/16
NPOP-17-0021	Quick Hit Self-Assessment – Operations Card Quality	03/21/17
NQA 17-0101	Corrective Action and Operating Experience Programs	02/06/17
NSSC-17-0006	Quick Hit Self-Assessment of Material Storage/Staging	04/27/17
NSSE-16-0066	Quick Hit Self-Assessment – Testing and Maintenance	06/30/16
NSSE-17-0033	QHSA – Access Controls	04/04/17
TMTE-12-0102	Quick Hit Self-Assessment – Off Gas NUMA Logic	11/17/12

Miscellaneous

G1100 System Performance Monitoring Plan	08/01/16
Nuclear Safety Culture Assessment	July 2016
OERC Meeting Agenda	06/19/17
Overall Report – Know/Feel/Do Third Pulse Results for Fermi	November 2016
System Health Reports – Off Gas System	Various 2012 - 2016
T3100, Reactor Building Cranes, Hoists, and Elevators Get Well Plan	Revision 0
Trending Guide – CAP Process Help	Revision 15

16-0262	50.59 Screen, SCR 37770	12/07/16
6M721-5357	Emergency Equipment Cooling Water Div II	Revision BR
BC-1004 sh. 5	HPCI Relay Scheme	Revision AF
ECP-16-0002	2016 First Quarter Report – Employee Concerns Program	05/02/16

ECP-16-0003	2016 Second Quarter Report – Employee Concerns Program	08/01/16
ECP-16-0004	2016 Third Quarter Report – Employee Concerns Program	11/03/16
ECP-17-0001	2016 Fourth Quarter Report – Employee Concerns Program	02/01/17
ECP-17-0002	2017 First Quarter Report – Employee Concerns Program	05/02/16
EED 17990	Programmable Controller Software Verification and Validation Needs Clarification	06/06/17
EED 18046	Flow Indicator Part Number Discrepancy	05/26/17
EED 18079	Viton Sheet Gasket Material Verification	05/03/17
EED 18088	ABB Circuit Board Part Number Discrepancy	06/01/17
EED 18098	Purchase Order Requirement Not Met	06/06/17
EQ1-EF2-002-007	Environmental Qualification Assessment	Revision 0
EQ1-EF2-010-002	Environmental Qualification Assessment	Revision 0
EQ1-EF2-320-002	Environmental Qualification Assessment	Revision 0
EQ1-EF2-321-002	Environmental Qualification Assessment	Revision 0
ODMI-07-002	DWED Sump Temp Increase Limitations	Revision 3
SCR-37770	Revision to Programming of T41R800A/B Recorders	12/09/16
TE-T49-08-084	Ability of Division 2 PCPS to Accomplish Emergency Depressurization	Revision 0
WO 47341829	“C” MDCT Fan – Low N2 Bottle Press.	03/22/17
WO 47540776	Perform Valve Actuator Overhaul and AOV Diagnostic Testing	04/21/17

Operating Experience

CARD 15-27246	NRC Issues IN 2015-09, “Mechanical Dynamic Restraint (Snubber) Lubricant Degradation Not Identified due to Insufficient Service Life Monitoring”	07/16/15
CARD 16-21418	Evaluate NRC Enforcement Guidance Memorandum (EGM) 15-003 and Regulatory Information Summary (RIS) 2015-14	02/15/16
CARD 16-21785	Evaluation of NRC RIS 2015-17 Review and Submission of FSAR, EP, and FP Updates	02/25/16
CARD 16-22204	Investigate OE from 2016 Winter Buried Piping Meeting	03/10/16
CARD 16-22653	Evaluate OE 2016-0065 for Lessons Learned and Applicability to Fermi 2	03/29/16
CARD 16-22794	Evaluation of OE 2016-0072, Quad Cities Core Spray Pipe Flaws Result in Outage Extension	04/04/16

CARD 16-23005	Review of CGI Dedication Program Based on IN 2016-01	04/12/16
CARD 16-23710	Information Notice 2016-04 on ANSI N14.5-2014 Revision and Leakage Rate Testing Considerations	05/05/16
CARD 16-25785	Waterford Unit 3 OE with Potential Applicability to Fermi (ICES#323431)	07/21/16
CARD 16-26117	NRC IN 2013-13 Rev.1 Deficiencies with Effluent Radiation Monitoring System Instrumentation	08/03/16
CARD 16-28570	NRC Information Notice OE - Enhancement	10/27/16
CARD 16-28747	EDG Inoperability at River Bend – OE 323724	11/02/16
CARD 16-30070	OE 2016-0353; Evaluate NRC Preliminary White Finding at Wolf Creek for Applicability to Fermi	12/19/16
CARD 17-22342	RIS 17-02, Applicability of Title 10 of the <i>Code Of Federal Regulations</i> Part 37 to Non-Manufacturing and Distribution Service Provider Licensees	03/22/17

Procedures

35.000.225	Mechanical Snubber Maintenance	Revision 43A
35.306.005	MCC Bus and Compartment General Inspection and Maintenance	Revision 35
35.306.008	ITE Gould Motor Control Center Load Compartment	Revision 52
35.306.017	Spectrum Technology Motor Control Center Load Compartment Receipt Inspection	Revision 7
35.306.018	Spectrum Technology Motor Control Center Load Compartment	Revision 14
AOP 20.000.01	Acts of Nature	Revision 51
ARP 1D88	Div I EECW HX Outlet Temperature High/Low	Revision 19
ARP 2D14	Div II EECW HX Outlet Temperature High/Low	Revision 19
FBP-59	Self-Evaluation Program	Revision 11
FBP-68	System Health Program	Revision 19
MES 21	Incorporation of Changes into Design Documentation	Revision 22
MGA12	Fermi Employee Concerns Program	Revision 4
MLS04	Operating Experience Program	Revision 30
MMA07	Hoisting, Rigging and Load Handling	Revision 23
MMM02	Procurement Process	Revision 18A
MMM03	Technical Evaluation of Procurement Documents	Revision 32A

MMM04	Engineering Evaluation Disposition	Revision 18
MMM11	Dedication of Commercial Grade Items	Revision 16A
MMM12	Receipt and Source Inspections	Revision 26
MMR02	Maintenance Rule Program Description	Revision 6
MOP12	Tagging and Protective Barrier System	Revision 30
MQA11	Condition Assessment Resolution Document	Revision 43
MQA11	Condition Assessment Resolution Document	Revision 43
MQA12	Root Cause Evaluations	Revision 19
MQA15	Apparent Cause Evaluations	Revision 18
MQA15	Apparent Cause Evaluations	Revision 18
MQA16	Quality Assurance Conduct Manual	Revision 12
MQA18	Common Cause Analysis	Revision 2
ODE-12	Operation Department Expectation	Revision 40
SOP 23.127	Reactor Building Closed Cooling Water/Emergency Equipment Cooling Water System	Revision 142

Root Cause Evaluations

RCE 15-26472	Total Loss of TBCCW Following Heat Exchanger Swap	01/15/16
RCE 16-21466	MOP12 Violation During South Security Diesel Generator Maintenance	02/16/16
REC 16-21883	Unplanned Power Change from 90-58 Percent Reactor Power	02/29/16

Issue Reports Generated As a Result of the NRC Inspection

CARD 17-25106	2017 PI&R Inspection, ACE Revision Attached to CARD Not Signed	06/06/17
CARD 17-25108	2017 PI&R - Work Orders Created with No Associated Priority Level in Maximo	06/06/17
CARD 17-25158	2017 PI&R Inspection, NRC Identified CARD Document Quality	06/08/17
CARD 17-25245	2017 NRC PI&R - Information Request for Materials Receipt & Inspection	06/12/17
CARD 17-25330	2017 PI&R Inspection: NRC Identified - Incorrect CARD Action Item Category Assigned in eCARD	06/14/17
CARD 17-25394	NRC Identified: 2017 NRC PI&R Identification of Admin Errors in CARD 16-28575	06/16/17

CARD 17-25395	2017 NRC PI&R - Emerging Trend in CARD Action Item Assignment in eCARD	06/16/17
CARD 17-25433	2017 PI&R Inspection, 35.306.017 Revision 7 Did Not Add Commitment From RCE for CARD 16-20614	06/19/17
CARD 17-25469	2017 PI&R Inspection: NRC Identified - CARD Action Closure Sequence	06/20/17
CARD 17-25471	2017 PI&R Inspection NRC Identified CARD Action Categorization Issue in 15-27392	06/20/17
CARD 17-25483	NRC Identified: 2017 NRC PI&R Inspection - Low Visibility of Employee Concerns Program (ECP)	06/21/17
CARD 17-25489	2017 PI&R: CARD Action 07-22140-02 Closed Without a Link to Implementing Documents	06/21/17
CARD 17-25499	2017 PI&R: Modification Incorrectly Posted Against Calculation NS-E1-BCRF Vol I	06/21/17
CARD 17-25506	2017 NRC PI&R - NRC Observation on Extension Processed for CARD 14-20706	06/21/17
CARD 17-25520	2017 PI&R: CARD 17-20636 Found Closed with Operability Status of "Operable but Degraded", No CARD Initiated to Document Correction of Issue	06/22/17
CARD 17-25538	2017 PI&R: Evaluate for Improvements for Calculation Incorporations	06/22/17

LIST OF ACRONYMS

CFR	<i>Code of Federal Regulations</i>
ADAMS	Agencywide Documents Access and Management System
CAP	Corrective Action Program
CARD	Condition Assessment and Resolution Document
ECP	Employee Concerns Program
gpm	Gallon per Minutes
IMC	Inspection Manual Chapter
NCV	Non-Cited Violation
NRC	Nuclear Regulatory Commission
ODMI	Operational Decision Making Issue
OE	Operating Experience
PI&R	Problem Identification and Resolution
RCS	Reactor Coolant System
SCWE	Safety Conscious Work Environment