UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
2443 WARRENVILLE RD. SUITE 210
LISLE, IL 60532-4352

January 29, 2016

Mr. Paul Fessler
Chief Nuclear Officer
DTE Electric Company
Fermi 2 – 210 NOC
6400 North Dixie Highway
Newport, MI 48166

SUBJECT: FERMI-2 – NRC PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION REPORT 05000341/2015007

Dear Mr. Fessler:

On December 18, 2015, the U.S. Nuclear Regulatory Commission (NRC) completed a Problem Identification and Resolution inspection at your Fermi-2 facility. The enclosed inspection report documents the inspection results, which were discussed at the exit meeting on December 18, 2015, with Mr. M. Philippon 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.

Based on 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 qualitative risk and uncertainty based approach was used to determine the significance of the issues, the priority and the method 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 the corrective action program requirements. The use of operating experience was integrated into daily activities and was generally 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. The assessments and audits reviewed were thorough and effective in identifying site performance deficiencies, programmatic concerns, and improvement opportunities. Based on the interviews conducted, the inspectors did not identify any impediment to the establishment of a safety conscious work environment at Fermi-2. Licensee staff was generally aware of and 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, one NRC identified finding of very low safety significance (Green) was documented in this report. The finding did not involve a violation of NRC requirements.

If you disagree with a cross-cutting aspect assignment or a finding not associated with a regulatory requirement in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region III and the NRC resident inspector at the Fermi-2.

In accordance with Title 10 of the *Code of Federal Regulations* 2.390, “Public Inspections, Exemptions, Requests for Withholding,” 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’s Public Document Room or from the Publicly Available Records (PARS) component of the NRC's Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Billy Dickson, Chief
Branch 5
Division of Reactor Projects

Docket No. 50–341
License No. NPF–43

Enclosure:
Inspection Report No. 05000341/2015007

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos:	50–341
License Nos:	NPF–43
Report No:	05000341/2015007
Licensee:	DTE Electric Company
Facility:	Fermi-2
Location:	Newport, MI
Dates:	November 30, 2015, through December 18, 2015
Team Leader:	R. Ng, Project Engineer
Inspectors:	P. Smagacz, Resident Inspector T. Bilik, Senior Reactor Inspector R. Baker, Operations Engineer
Approved by:	B. Dickson, Chief Branch 5 Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

Inspection Report 05000341/2015007; 11/30/2015–12/18/2015; Fermi-2; Identification and Resolution of Problems.

This inspection was performed by three region-based inspectors and the Fermi Resident Inspector. One Green finding was identified by the inspectors. 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 (SDP)," dated April 29, 2015. Cross-cutting aspects are determined using IMC 0310; "Aspects Within Cross-Cutting Areas," dated December 4, 2014. All violations of the U.S. Nuclear Regulatory Commission (NRC) requirements are dispositioned in accordance with the NRC's Enforcement Policy dated February 4, 2015. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG–1649, "Reactor Oversight Process" Revision 5, dated February 2014.

Identification and Resolution of Problems

Based on 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 qualitative risk and uncertainty based approach was used to determine the significance of the issues, the priority and the method 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 the corrective action program requirements. The use of operating experience was integrated into daily activities and was generally 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. The assessments and audits reviewed were thorough and effective in identifying site performance deficiencies, programmatic concerns, and improvement opportunities. Based on the interviews conducted, the inspectors did not identify any impediment to the establishment of a safety conscious work environment at Fermi-2. Licensee staff was generally aware of and 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 generally, the inspectors identified several issues that were minor violations and/or represented potential weaknesses of the program.

NRC-Identified and Self-Revealed Findings

Cornerstones: Initiating Events

- Green. The inspectors identified a finding of very low safety significance for the licensee's failure to meet American Society of Mechanical Engineers (ASME) Code requirements to perform planned engineering lifts of loads that exceeded a hoist's rated capacity. Specifically, on September 25 and September 26, 2013, the licensee used the Unit 2 turbine building reactor feed pump monorail hoist to perform multiple lifts of floor plugs. The weight of the floor plugs exceeded the rated capacity of the hoist and the licensee did not follow the

requirements of ASME Code B30.16, Section 16-3.4, “Planned Engineered Lifts,” for lifts in excess of the rated load. These requirements include, in part, inspections, calculations, test lifts, distances traveled, and record keeping and retention. The Code also limits the number of lifts to two within any continuous 12-month period without meeting additional requirements. The licensee captured this issue in their CAP as Condition Assessment Resolution Document (CARD) 15-30077. No violation of regulatory requirements was identified.

The performance deficiency was of more than minor safety significance because if left uncorrected, it would have the potential to lead to a more significant safety concern. Specifically, if the hoist failed, and a heavy object were to fall through the turbine building hatch opening, it could cause a loss of condenser vacuum and subsequent plant trip or possibly a steam leak into the turbine building. The finding was of very low safety significance because it did not cause a reactor trip. The inspectors determined this finding affected the cross-cutting aspect of problem identification and resolution, evaluation (P.2) due to the failure of the organization to thoroughly evaluate issues to ensure resolutions address causes and extend of condition commensurate with their safety significance. Specifically, the licensee failed to evaluate thoroughly the causes for not complying with ASME Code requirements once a lift exceeded a hoist’s rated capacity had occurred. Therefore, effective corrective actions and an extent of condition were not identified. (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 were listed in the Attachment to this report.

.1 Corrective Action Program Effectiveness

a. Inspection Scope

The inspectors reviewed the procedures and processes that described the corrective action program (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 Condition Assessment Resolution Document (CARD) Ownership Screening Committee meeting and the Management Review Committee meeting. 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 November of 2013. 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 significant conditions adverse to quality, the inspectors evaluated the licensee's corrective actions to prevent recurrence and for less significant issues, the inspectors reviewed the corrective actions to determine if they were implemented in a timely manner commensurate with their safety significance.

The inspectors selected the preventive maintenance program to review in detail based on input from the resident staff. The preventive maintenance program covered both safety-related and nonsafety related systems and is a risk significant equipment management program. The primary purpose of this review was to determine whether the licensee was monitoring and correcting equipment performance issues at both the system and component levels. The inspectors reviewed the licensee staff's ability to characterize and resolve instances involving equipment unavailability or degradation, identified through operating experience or actual events, by effective revision or augmentation of the preventive maintenance program, as appropriate.

A five year review of the safety-related service water system was undertaken to assess the licensee staff's efforts in monitoring for age-related piping system degradation. 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 identifying and correcting issues. The inspectors performed walkdowns, as needed, to verify the resolution of issues.

The inspectors examined the results of self-assessments of the CAP completed during the review period. The results of the self-assessments were compared to self-revealed and NRC-identified findings. The inspectors also reviewed the licensee's corrective actions associated with previously identified NCVs and findings to determine whether the station properly evaluated and resolved those issues. The inspectors performed walkdowns, as necessary, to verify the resolution of the issues. The inspectors also reviewed the open corrective action items related to the Greater-than-Green security finding that were not completed by the end of the associated 95001 supplemental inspection (Inspection Report 05000341/2014408, ADAMS Accession Number ML15015A739).

b. Assessment

(1) Problem Identification

Based on the results of the inspection, the inspectors concluded that, in general, the station was effective in identifying issues at a low threshold and entering them into the CAP. The inspectors determined that problems were identified and captured in a complete and accurate manner in the CAP. The station was appropriately screening issues from both NRC and industry operating experience at an appropriate level and entering 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 station was generally effective at trending low level issues to prevent larger issues from developing. The licensee also used the CAP to document instances where previous corrective actions were ineffective or were inappropriately closed.

The inspectors performed a five-year review of the safety related service water system. The inspectors interviewed program owner and reviewed corrective action documents, inspection reports, inspection procedures, as well as quarterly NRC Generic Letter 89-13 and buried piping program health reports. The inspectors also reviewed a life-cycle management report prepared by Structural Integrity Associates, which discussed modeling of internal and external corrosion and water chemistry. The inspectors evaluated repair/replacement plans going forward and performed a partial system walkdown of visible parts of the system, including piping recently replaced, and a portion of the cathodic protection system.

The inspectors determined that there was an improving trend in the overall health of the program over the last five years. While outer diameter corrosion had been minimal, due in large part to the station's soil characteristics and a well-maintained cathodic protection system, internal corrosion was an ongoing issue. As a result, the licensee had implemented additional monitoring/inspections, water chemistry additions, computer

modeling, cleaning, as well as ongoing repair/replacement of piping and system components. As such, the inspectors concluded that the licensee staff were properly monitoring and evaluating the performance of the system through effective implementation of the monitoring program and that internal corrosion degradation should improve.

i) Observations

Change in Identification Rate

During the previous PI&R inspection, the inspectors identified a negative trend related to self-identification rate compared to the outside identification rate. The licensee implemented a number of corrective actions to address that trend. The inspectors reviewed the licensee's performance indicators during this inspection. The self-identification rate compared to the outside identification rate improved since the last PI&R inspection. The licensee continues to address the issue with training and group discussions, and the inspectors noted that management remains sensitive to the issue.

The inspectors also identified a small decline in CARD generation rates in the last five years. The licensee attributed that partially to process changes in how low level conditions were captured. The licensee continued to monitor the generation rates. Based on a review of the issues reported in the CAP, the inspectors did not identify any issues affecting the overall effectiveness of the program. The licensee needed to be cognizant of this issue and to address the decline before it affected the CAP.

Effectiveness of the Preventative Maintenance Program

The inspectors noted that the licensee recently became aware of, through both external agency assessments and internal self-assessments/equipment failures, shortcomings in their preventive maintenance program effectiveness. For example, CARD 15-22997, "MES51 Does Not Define SPV/Single Point Vulnerabilities," identified a preventive maintenance program deficiency, which had resulted in a missed opportunity to preclude an unidentified single point vulnerability from initiating a significant event that challenged operators and subsequently led to an automatic scram. Also, CARD 15-23217, "Self-Assessment Deficiency: Critical PM Deferral Process," and CARD 15-23701, "NQA Audit Deficiency – MES51 Does Not Provide for Repeat Extension of PMs," were examples of internal processes that identified program deficiencies and led to exacerbate efforts to manage and resolve engineering backlogs.

Lastly, CARD 15-23465, "Trip of RBHVAC, Autostart of Div. 1 SGTS and CCHVAC Auto Swap to Recirc," and CARD 15-23626, "Loss of RPS 'B'," were examples of missed opportunities to incorporate an effective revision or augmentation of the preventive maintenance program, based upon available industry operating experience events, potentially precluding equipment failures.

Additionally, the inspectors noted that external agency evaluations performed in 2015 also characterized the recent equipment failures potentially resulted from maintenance program strategies implemented at the time of the events. The licensee captured the highlights of these assessments in CARDs 15-25138 and 15-25139, and performed investigations to determine the underlying causes and corrective actions appropriate to

resolve identified programmatic issues. The inspectors noted that the planned corrective actions to address programmatic issues would be implemented over the next calendar year. The inspectors considered this an improvement opportunity for the preventative maintenance program.

ii) Findings

No findings were identified.

(2) Problem Prioritization and Evaluation

Based on the results of the inspection, the inspectors concluded that the station was generally effective at prioritizing and evaluating issues commensurate with the safety significance of the identified issue, including an appropriate consideration of risk. In particular, the inspectors observed that the majority of the low level issues were either closed at a level appropriate for a condition evaluation or closed to a trend.

The inspectors determined that the CARD Ownership Screening Committee meetings and the Management Review Committee meetings were generally thorough and maintained a high standard for evaluation quality. Members of the committees discussed selected issues in sufficient detail and challenged each other regarding their conclusions and recommendations. The inspectors did not identify any significant issues with those items assigned an apparent cause evaluation, root cause evaluation, or common cause evaluation.

The inspectors reviewed the licensee's work order backlog and concluded that equipment issues were generally being addressed appropriately. 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. There were no open items identified by the inspectors in operations, emergency preparedness, engineering, or maintenance backlogs that were risk-significant, either individually or collectively.

i) Observations

Classification Error

The inspectors identified that a number of the Level 4 CARDs should have been classified as Level 3 items. These issues were conditions adverse to quality but were classified as enhancements that did not require any corrective action. The inspectors determined these issues were minor procedural errors because no current safety concerns existed. However, these deficiencies had the potential to lead to degraded or inoperable conditions not being recognized. One such example was CARD 14-10011, "Inadequate Margin for Load Shed Action to Preclude Exceeding Design Basis during MPC Movement." In this case, the licensee identified that the current procedure did not take into account for temperature sensor uncertainty and spent fuel cask temperature margin to initiate actions to prevent exceeding the safety analysis temperature input value of the Reactor Building temperature during spent fuel cask loading activities. An evaluation of the spent fuel loading was performed and determined that heat load from

the spent fuel for the loading campaign would not cause the temperature limit to be exceeded. However, an evaluation had to be completed for future loading campaign until the procedure was changed. The inspectors determined that this was a condition adverse to quality and that the CARD should have been classified as Level 3. The licensee entered this issue into the CAP as CARD 15-29884 and re-evaluated the level classification. Since no loading campaign was currently planned, the inspectors considered this classification error issue minor.

Engineering Evaluation

The inspectors noted that the engineering backlog has increased in volume over the inspection period and questioned the licensee on its ability to effectively control the backlog. The increase in backlog could potentially distract the licensee from effectively monitoring the long term safety systems' health and affect proper resource utilization. The licensee provided the inspectors with their plan to reduce the backlog and discussed timelines and the prioritization issues to clear the backlog. The inspectors concluded that the plan could be successful in reducing the engineering backlog. A more detailed discussion on outstanding corrective action items is provided in Section 4OA2.1.b.3 below.

Due Date Extensions

Licensee procedure MQA11, Condition Assessment Resolution Document, requires justification for each due date extension request for corrective actions. However, the inspectors identified in selected CARDs that justification provided for due date extensions appeared to lack details. Normally, the reason for extending the due date, the reason why it was acceptable to extend the due date in terms of the impact to plant safety, and the reason why the due date requested was the best estimate when all the actions could be completed would be documented. However, for a number of the outstanding CARDs, the inspectors could not identify any discussion related to the due date impact to plant safety nor why all the actions could be completed by the requested dates.

For example, in CARD 06-22176, "Additional Penetrations Identified that Require Post LOCA Radiation Shine Evaluation," corrective actions were assigned in 2011 to update the penetrations dose evaluation. In November 2012, the due date was extended to first quarter of 2014 for the work to be incorporated with the power uprate project. In first quarter of 2014, the due date was further extended to December 2015 to obtain a separate contractor engineering service, as it was not incorporated into the power uprate project. The licensee stated at the time that funding for the service had not been obtained and the effort was expected to take approximately seven months. In December of 2015, the due date was extended again to December 2016, citing the need for contractor proposals to be received by the end of first quarter of 2016. The licensee again stated that the project was expected to take approximately seven months. For the most recent extension, the licensee documented the reason why the impact to the plant was minimal.

The inspectors concluded that none of the three extensions documented why the due date could be feasible when the funding for the work had not even been approved. The impact to plant safety for delaying the work was also not documented except for the last

request. Even though the requests were approved by the appropriate licensee management and met the minimum requirements for extension per procedure, the inspectors reasoned that the due dates requested appeared to be arbitrary without the full details documented. The licensee acknowledged this issue and planned to improve the documentation for due date extensions.

ii) Findings

No findings were identified.

(3) Effectiveness of Corrective Action

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.

A five-year review was performed on the licensee's implementation of their preventive maintenance program and the licensee staff's ability to incorporate revisions or augmentations of the program to resolve instances involving equipment unavailability or degradation. The inspectors reviewed issues dated back to January 2011 and assessed the effectiveness of the licensee staff's ability to characterize and resolve issues that were identified through operating experience or actual events.

The inspectors noted several examples where the initial evaluations of operating experience and industry best practices/standards did not identify or proactively address potential improvements to the licensee's preventive maintenance program. However, the licensee's corrective actions to address program deficiencies, once identified as a result of equipment failures, appear generally effective based on the program's procedural revisions the inspectors reviewed.

The inspectors' review of the previous five years of the licensee's efforts to address issues with the safety-related service water system did not identify any negative trends or inability by the licensee to address long term degradation issues. The inspectors' review of the previous five years of the licensee's efforts to address issues identified with the preventive maintenance program's implementation and the licensee staff's ability to incorporate revisions or augmentation of the program to resolve instances involving equipment unavailability or degradation, did not identify any negative trends or inability by the licensee to address long-term issues.

i) Observations

Outstanding Correction Action Items

During this inspection, the inspectors recognized 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. About 13 percent of these items (68) were greater than 2 years old. There were also seven Level 1 CARDs, which were considered significant conditions adverse to quality by the licensee, and five of these were over 1000 days old.

The inspectors verified a sample of these CARDs were evaluated and actions assigned appropriately. In general, these open CARDs were being tracked by the responsible department. The inspectors reviewed a sample of the corrective action items and determined that most of the remaining actions were design non-conformances, which required updating design calculation or performing modification to restore compliance. The due dates for these action items had been extended a number of times due to resource limitations or other emergent issues. For those corrective actions that were safety significant, the inspectors evaluated whether the due dates were reasonable and whether the licensee had appropriate compensatory actions in place.

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. While the total number of outstanding actions was still manageable, they 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 was working on a plan to reduce the backlog.

Effectiveness Review

The inspectors noticed several examples where the effectiveness review only measured success of corrective actions by the absence of a recurring event. In one example, CARD 15-21792, “72CF Failed to Throwover,” the issue was the result of an increase resistance across a contact that had accumulated over many years. The effectiveness review only called for noting the absence of trips over an 18-month span to demonstrate effectiveness of the corrective actions. Since this was a long developing issue, an 18-month span would not allow sufficient time for the problem to recur. Licensee procedure MQA-11, “Condition Assessment Resolution Document,” Section 7, addresses effectiveness reviews and denotes that effectiveness reviews should include, where possible, specific and measurable criteria. The inspectors questioned whether a quantitative approach was plausible by measuring resistances during the monthly surveillance test. The licensee initiated CARD 15-30098 to document the inspectors’ observations and to evaluate future effectiveness reviews for including quantitative results vice the absence of failure.

ii) Findings

Failure to Comply with ASME B30.16 for Planned Engineered Lifts

Introduction: The inspectors identified a finding of very low safety significance for the licensee's failure to meet the American Society of Mechanical Engineers (ASME) Code requirements to perform planned engineered lifts of loads that exceeded a hoist's rated capacity. Specifically, on September 25 and 26, 2013, the licensee used the Unit 2 turbine building reactor feed pump (RFP) monorail hoist to perform multiple lifts of floor plugs without meeting the requirements of ASME Code B30.16, Section 16-3.4, "Planned Engineered Lifts." The weight of the floor plugs exceeded the rated capacity of the hoist. No violation of regulatory requirements was identified.

Description: While reviewing CARD 13-26948, "Underhung Hoist used Over "Rated Capacity" Without Meeting ASME B30.16," as part of the biennial PI&R team inspection, the inspectors noted that the licensee failed to comply with the requirements of ASME B30.16, Section 16-3.4, for "Planned Engineered Lifts" when performing lifts of RFP floor plugs.

Discussions with the licensee revealed that on September 25 and 26, 2013, the licensee conducted multiple lifts of the Unit 2 south turbine building RFP floor plugs using underhung hoist U3100-E031B, which had a rated capacity of 30,000 lbs. At one point, personnel performing the lifts questioned the capacity of the hoist versus the weight of the plugs being moved. They reported that the weight (32,000 lbs.) of one of the blocks dyno tested during the plug movements was in excess of the hoist's rated capacity. ASME Code B30.16 permits lifts that exceed the rated capacity of the hoist if the requirements of Section 16-3.4, "Planned Engineered Lifts" are met. Licensee personnel, without verifying, mistakenly believed that an evaluation of the hoist capacity had been performed in CARD 12-22088, "Weight of Floor Plugs above the South RFPT may Exceed Capacity of Installed Overhead Hoist and deemed adequate. Therefore, instead of stopping and performing the Code required actions before proceeding, licensee personnel continued to complete the plug lifts. Subsequent to the lifts, CARD 13-26948 was initiated to document the non-conformance and to take corrective actions to restore compliance with the Code.

As noted above, the inspectors reviewed CARD 13-26948 and identified that the corrective actions taken were inadequate to restore compliance with the Code. Specifically, the licensee limited corrective action just to a visual examination of the hoist. Additional Code requirements included in part, inspections, calculations, test lifts, distances traveled, and record keeping and retention. The Code also limits the number of lifts to two within any continuous 12-month period without meeting additional requirements. The licensee also failed to evaluate the north turbine building hoist, as the same conditions existed for the hoist previously. The inspectors determined that the hoists were never in compliance with the Code requirements even though multiple lifts exceeding the hoists' rated capacity had been completed. If the hoist failed, and a heavy object were to fall through the turbine building hatch opening, it could have resulted in a loss of condenser vacuum and subsequent plant trip or possibly a steam leak into the turbine building.

Analysis: The inspectors determined the licensee's failure to comply with the requirements of ASME B30.16 for "Planned Engineered Lifts" to life RFP floor plugs was a performance deficiency warranting a significance evaluation. The inspectors 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. Consistent with the guidance in IMC 0612, Appendix B, "Issue Screening," dated September 7, 2012, the inspectors determined the performance deficiency was of more than minor safety significance because if left uncorrected, the performance deficiency has the potential to lead to a more significant safety concern. Specifically, if the hoist failed, and a heavy object were to fall through the turbine building hatch opening, it could have resulted in a loss of condenser vacuum and subsequent plant trip or possibly a steam leak into the turbine building.

In accordance with IMC 0609, "Significance Determination Process," Attachment 0609.04, "Initial Characterization of Findings," Table 3, "SDP Appendix Router," the inspectors determined this finding affected the Initiating Events Cornerstone, specifically the Transient Initiator contributor, and would require review using IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012. The inspectors performed a Phase 1 SDP review of this finding using the guidance provided in IMC 0609, Appendix A, Exhibit 1, "Initiating Events Screening Questions," and determined this finding was a licensee performance deficiency of very low safety significance (Green) because it did not cause a reactor trip.

The inspectors determined this finding affected the cross-cutting area of problem identification and resolution, evaluation (P.2) due to the failure of the organization to thoroughly evaluate issues to ensure resolutions address causes and extend of condition commensurate with their safety significance. Specifically, the licensee failed to evaluate thoroughly the causes for not complying with Code requirements once a lift that exceeded a hoist's rated capacity had occurred. Therefore, effective corrective actions and an extent of condition were not identified.

Enforcement: The licensee's failure to comply with ASME Code requirements to conduct planned engineered lifts of RFP floor plugs did not affect 10 CFR 50, Appendix B, components; therefore, no violation of regulatory requirements occurred. The licensee entered this finding into its corrective action program as CARD 15-30077. **(FIN 05000341/2015007-01, Failure to Comply with ASME B30.16 for Planned Engineered Lifts)**

.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 operating experience program implementing procedures, and completed evaluations of operating experience issues and events. The inspectors also attended the weekly operating experience meeting to observe the screening of OE information and reviewed selected monthly assessments of the OE performance indicators. The inspectors discussed OE program activities with the facility's OE coordinator, and observed daily activities such as pre-job briefs for the use of operating experience information. The intent was to

determine if the licensee was effectively integrating experience into the performance of daily activities, whether evaluations of issues were proper and conducted by qualified personnel, 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 operating experience experience, were identified and implemented effectively and in a timely manner.

b. Assessment

Based on the results of the inspection, the inspectors concluded that in general, operating experience was effectively utilized at the station. Both internal and external operating experience was being incorporated into station activities. The inspectors observed that operating experience was discussed as part of the daily and pre-job briefings. Industry operating experience was effectively disseminated across plant departments and was used to assist with resolving equipment issues. 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 (NQA) 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 self-assessments and audits reviewed, the inspectors concluded that self-assessments and audits were typically accurate, thorough, and effective at identifying issues and enhancement opportunities at an appropriate threshold. These audits and self-assessments were completed by personnel knowledgeable in the subject area. The inspectors concluded that the NQA audits were generally thorough and critical based on the number and nature of issues identified as well as the recommendations proposed. The inspectors observed that CARD items had been initiated for issues identified through NQA audits and self-assessments. Corrective actions developed from these assessments were tracked for resolution in the CAP and enhancement actions were assigned in the Action Item Management System. The inspectors reviewed the self-assessment performed on the CAP itself and generally agreed with the overall results and conclusions drawn.

c. Findings

No findings were identified.

.4 Assessment of Safety Conscious Work Environment

a. Inspection Scope

The inspectors interviewed selected Fermi personnel to determine if there were any indications that licensee personnel were reluctant to raise safety concerns to either their management or the NRC due to fear of retaliation. The inspectors reviewed selected employee concern program (ECP) case files to identify any emergent issues or potential trends. The inspectors also assessed the licensee's safety conscious work environment through a review of ECP implementing procedures, discussions with the Fermi ECP coordinator, interviews with personnel from various departments, and reviews of corrective action documents. The inspectors reviewed licensee's self-assessments and assessments by external organizations of safety culture to determine if there were any organizational issues or trends that could affect the licensee's safety performance.

b. Assessment

The inspectors did not identify any issues that suggested conditions were not conducive to the establishment and existence of a safety conscious work environment at Fermi-2. Licensee staff members were aware of and generally familiar with the CAP and other station processes, including the ECP, 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 licensee staff also indicated that management had been supportive of the CAP by providing time and resources for employee to generate their CARDs.

The staff generally expressed a willingness to challenge actions or decisions that they believed were unsafe. All employees interviewed noted that any safety issue could be communicated to supervision and safety significant issues were being corrected. Some employees indicated that training and retraining of the CAP process were not performed and they lacked the proficiency to navigate the computerized CAP efficiently. The inspectors considered that an improvement opportunity for the CAP implementation.

Since the beginning of 2014, two major safety culture assessments had been performed by the licensee's staff, and a nuclear plant owner/operators organization. The results indicated that there were no impediments to the identification of nuclear safety issues. However, the inspectors reviewed these surveys and identified that there was a slight disconnect on a number of issues between staff and management. These issues were related to resource utilization and corrective action effectiveness. The inspectors determined that these issues did not result in a chilled environment as the staff still exhibited and expressed a willingness to bring up safety issues. The licensee acknowledged the discrepancies and was developing a plan to address the issues.

c. Findings

No findings were identified.

4OA6 Management Meetings

Exit Meeting

On December 18, 2015, the inspectors presented the inspection result to Mr. M. Philippon 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

M. Philippon, Plant Manager
L. Peterson, Engineering Director
J. Davis, Training Manager
M. O'Connor, Security Manager
W. Colonnello, Work Management Director
E. Kokosky, Organizational Effectiveness Director
W. Raymer, Maintenance Manager
J. Louwers, Quality Assurance Manager
R. Laburn, Radiation Protection Manager
C. Harris, Performance Improvement Manager
A. Hassoun, Licensing Manager

NRC

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

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

05000341/2015007–01	FIN	Failure to Comply with ASME B30.16 for Planned Engineered Lifts (Section 4OA2.1.b.3.ii)

Closed

05000341/2015007–01	FIN	Failure to Comply with ASME B30.16 for Planned Engineered Lifts (Section 4OA2.1.b.3.ii)

Discussed

None

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 06-20273	General Electric Safety Information Communication: SC06-01 - Non-Conservative Single Failure Assumption in GE Analysis for Post-LOCA Long-Term Suppression Pool Temperature	January 20, 2006
CARD 06-22179	Additional Penetrations Identified that Require Post-LOCA Radiation Shine Evaluation	April 11, 2006
CARD 06-26469	000Z051404 Did Not Obtain Desired Results for EDG 13 Voltage Droop	October 5, 2006
CARD 08-20821	NRC Concern: Review of Tornado Missile Hazard Analysis	February 5, 2008
CARD 08-26828	Non-Qualified Support System to Ensure Adequate Post-LOCA Emergency Depressurization	October 15, 2008
CARD 09-27724	CSCCD-N30R827 Needs Revision	October 4, 2009
CARD 09-27876	2009 Configuration Design Basis Inspection (CDBI) Self-Assessment – Additional Unanalyzed HPCI/RCIC and Room LOCA Heat Load	October 8, 2009
CARD 09-28785	Design Modifications are Needed for the Cables Routed Outside the Raceways	November 12, 2009
CARD 10-22001	Failure of Center TBHVAC Exhaust Fan	March 7, 2010
CARD 10-23191	Need to Establish Band for EDG Standby Lube Oil Level	April 15, 2010
CARD 10-28090	Reactor Building Superstructure Re-analysis	September 14, 2010
CARD 10-28232	2010 FPSA Concern – Fire Suppression Effects Analysis	September 17, 2010
CARD 10-29525	Request Evaluation of Specific Core Spray/RHR Alignment Impact on EDG Operability	October 26, 2010
CARD 10-31273	Review PM Maintenance Strategy for RPS Reactor Auto SCRAM Trip Logic Relays K14A – K14H	November 28, 2010
CARD 11-20548	Effectiveness Review of CARD 09-23344, INPO Identified ER.2-1 – Preventive Maintenance Strategies Effectiveness Measures Not Met	January 18, 2011
CARD 11-20883	Critical PM Coding – CTGs	January 27, 2011
CARD 11-21479	Core Spray Pump Interactions Affecting Minimum Flow Line Effectiveness	February 8, 2011
CARD 11-22539	Actions Credited in CARD 10-29668 Have Not Occurred to Date	March 9, 2011

CARD 11-25162	Revise PM Frequencies for Non-Critical MOVs to Align with Industry Standards	May 20, 2011
CARD 11-25492	MES51 PM Changes Revision Needed (NRC Identified)	May 31, 2011
CARD 11-28413	Establish PM for EDG Flexible Pipe Couplings	September 13, 2011
CARD 11-30644	Technical Specification Curves for Pressure / Temperature for Core Critical and Core Not Critical Determined to be Non Conservative	December 1, 2011
CARD 12-20055	Clarification Required for Scheduling of RM-Repetitive and SM-Scheduled Type PMs by Maintenance	January 4, 2012
CARD 12-20586	MES51 (PM Program) Changes to PM Event Technical Requirements	January 24, 2012
CARD 12-20969	Due to PM Program Frequency Changes, Managing 50% of Grace is Driving Higher Unavailability of Safety Systems	February 6, 2012
CARD 12-21817	Scheduling of Preventive Maintenance (PM) Work on Fuel Pool Cooling and Clean Up (FPCCU) and Recommendation 2 of IER-1-11-2	March 6, 2012
CARD 12-22088	Weight of Floor Plugs Above the South RFPT may Exceed Capacity of Installed Overhead Hoist	March 19, 2012
CARD 12-22833	Two Individuals Enter a High Radiation Area Without being Briefed on Radiological Conditions	April 6, 2012
CARD 12-23041	No Clearly Defined Process Governing Repetitive Maintenance Work	April 10, 2012
CARD 12-23649	Develop PMs for GE HFA Relays	April 23, 2012
CARD 12-24409	NQA-Recirculation Pump Seal PM Extension Lacks Technical Justification	May 11, 2012
CARD 12-24725	Design Calculation (DC-6447) Voltage Requirement for EDGs (CDBISA Questions 047 & 056)	May 25, 2012
CARD 12-26184	Blown Fuses for E4150F002 While Placing HPCI in STBY IAW 23.202 and 22.000.02	July 23, 2012
CARD 12-27397	MES51 (Preventive Maintenance Program) Recommended Enhancements	September 6, 2012
CARD 12-28553	Replace EDG Thermometer R30RA25A	October 17, 2012
CARD 12-29498	Contamination Buildup in Max Air Hood	November 26, 2012
CARD 12-29724	Determine if EPA Testing Has Missed Performing Required Activities Per Commitment	December 4, 2012
CARD 12-30168	Maintenance Rule Expert Panel Has Determined the A7100 System is a(1) Under Maintenance Rule	December 21, 2012
CARD 13-10103	Main Steam Piping Support Exceeds Design Load	June 7, 2013
CARD 13-20462	GE Calculation for RPV Head Strongback	January 17, 2013
CARD 13-20522	Unusual RBHVAC Damper Alignment Caused Entry into EOPs	January 22, 2013

CARD 13-20758	Self-Assessment Recommendations for 2013 Preventive Maintenance Program Self-Assessment	January 31, 2013
CARD 13-21183	Evaluate Additional Relays to Be Included in PM F879	February 16, 2013
CARD 13-23039	NQA Identified – Issues with Reassembly of P4400B001B (Div. 2 EECW Heat Exchanger)	April 30, 2013
CARD 13-24461	NQA Audit Recommendation-Evaluate the PM Deferral Review and Approval Period	June 21, 2013
CARD 13-24513	EDG 13 Overspeed Trip Alarm During Standby Checks	June 24, 2013
CARD 13-24841	EDG Steady State Voltage and Frequency Tech Spec Ranges	July 10, 2013
CARD 13-24868	2013 CDBI: Re-evaluation of Classification and Maintenance Strategies of RHR Heat Exchangers	July 11, 2013
CARD 13-25347	Station Air to IAS Bypass Valve P5000F1041C Change to Normally Open Per EDP-37169	July 31, 2013
CARD 13-25348	E1100F069A, the Div 1 RHR Heat Exchanger Service Water Supply Drain Isolation Valve has Seat Leakage	July 31, 2013
CARD 13-26090	Verify and Create PMs to Replace Station Batteries at End of Life	August 29, 2013
CARD 13-26123	Deficiencies with Canberra 5XLB TENNELEC	August 30, 2013
CARD 13-26398	Potential Unattended Pathway Discovered	September 11, 2013
CARD 13-26771	Written PM Feedback Program Outlined in MWC14 Has Stalled	September 22, 2013
CARD 13-26923	NRC Issue-Radiation Monitor Ranges Do Not Support EAL and EOP Prompt Actions	September 26, 2013
CARD 13-26948	Underhung Hoist used Over “Rated Capacity” Without Meeting ASME B30.16	September 27, 2013
CARD 13-27100	Security Concern Storm Drain System	October 4, 2013
CARD 13-27397	Fire Protection Detectors Not Able to be Tested Due to Being Inaccessible	October 16, 2013
CARD 13-28406	ED Set-points for HPCI Run were Inadequate	November 26, 2013
CARD 13-28624	UHS Level and Temperature Instrument Inaccuracies Not accounted for in 24.000.02	December 5, 2013
CARD 13-28993	Lead Blankets Dropped from RB2 – (Near Miss)	December 21, 2013
CARD 14-10011	Inadequate Margin for Load Shed Actions to Preclude Exceeding Design Basis During MPC Movement	October 12, 2014
CARD 14-20250	Reactor Building Crane Cab Lost Power	January 14, 2014
CARD 14-20458	Dose Rates Higher Than Expected	January 23, 2014
CARD 14-20673	NRC Identified-HPCI and RCIC Drain Pot Valves Must Be Included in IST Program	January 31, 2014

CARD 14-20779	Formalize a Process for Reopening of a PM Deferral	February 4, 2014
CARD 14-20833	Mispositioned Component Event-Div. 2 EECW Isolation Override Switch	February 6, 2014
CARD 14-20886	Personnel Contamination Event (PCE #9)	February 8, 2014
CARD 14-21183	Personnel Contamination <100 CCPM – Non-Reportable of Worker Performing IVVI in RCWP	February 16, 2014
CARD 14-21191	72E Bus Voltage Reading 128 Volts	February 16, 2014
CARD 14-21215	Unexpected Electronic Dosimeter Dose Rate Alarm – Bumped ED	February 16, 2014
CARD 14-21352	Worker Received Electronic Dosimeter Dose Alarm	February 19, 2014
CARD 14-21455	Increasing Dose Rates on Fuel Pool Demin Inlet Piping Initiates High Radiation Area Controls	February 20, 2014
CARD 14-21591	ED Dose Rate Alarm RB-1 Steam Tunnel	February 23, 2014
CARD 14-21778	Mispositioned Component: Valve Repositioned by MOV Group Without Notifying OPS	February 27, 2014
CARD 14-21795	Delta Suit Process Improvements	February 28, 2014
CARD 14-21867	Worker in Containment Area without Protective Clothing	March 1, 2014
CARD 14-21881	Recirc Seal Does not Meet Acceptance Criteria	March 2, 2014
CARD 14-21892	Unsatisfactory Pee-Check for HEPA Unit	March 2, 2014
CARD 14-21948	SSPV Appears to be Wired Incorrectly	March 4, 2014
CARD 14-22256	PMs Completed in 2nd Half of Grace	March 11, 2014
CARD 14-22547	Blown Fuse Causes Loss of RPS B	March 18, 2014
CARD 14-22610	Repetitive Failures of RPS Relay K17B	March 20, 2014
CARD 14-22612	EDG 11 Manually Tripped During Surveillance Test Due to Fire From Turbo Lagging	March 20, 2014
CARD 14-22855	DC Procedures Do Not Meet SR Requirements	March 26, 2014
CARD 14-22932	Need to revise 24.206.04 RCIC System Automatic Actuation and Flow Test Temperature Correction Table	March 29, 2014
CARD 14-23141	DOSE Alarm Received While Performing S/U Walkdowns	April 5, 2014
CARD 14-23220	NRC Concern: Request PSE Review Adequacy of Fermi 2 Programmatic Implementation of IMC 0326 Timing of Corrective Actions Reviews	April 9, 2014
CARD 14-23444	Enhancement – Pursue a Modification of the RBHVAC Trip Function	April 17, 2014
CARD 14-23574	Latent PADS Data Entry Error	April 23, 2014

CARD 14-23680	RERP Drill April 15th 2014: Failed Objective E1 for Timely Initial Notifications	April 27, 2014
CARD 14-23894	Revise3 MES51 to Address MR Impact for PMs Past Critical Date	May 5, 2014
CARD 14-23972	FERMEX 2014: Drill Control Issues-Internal-TREND	May 8, 2014
CARD 14-24066	Failed Upper Main Bearings	May 12, 2014
CARD 14-24187	Potential Emerging Trend: Human Performance-Avoid Complacency	May 15, 2014
CARD 14-24357	NQA Identified: Proposed New Emergency Action Level Electrical Scheme Would Drive Inappropriate Classifications	May 22, 2014
CARD 14-24717	Tracking CARD for ISFSI Procedural Requirements	November 7, 2014
CARD 14-25103	IST Program Self-Assessment Deficiencies	June 19, 2014
CARD 14-25242	NRC Finding-Application of SR 3.0.3	June 26, 2014
CARD 14-25468	Request Changing the P4400F606A and F606B to Throttle Open Valves	July 3, 2014
CARD 14-25576	NRC Non-Cited Violation Cross Cutting Aspect Evaluation	July 10, 2014
CARD 14-25659	CAP Program Behavior Changes	July 11, 2014
CARD 14-25665	Self-Assessment Deficiency: Establish PMs on the EDG Load Sequencer Components	July 11, 2014
CARD 14-25679	OE309283 Enhancement for Dry-Type Transformers	July 11, 2014
CARD 14-25823	Jumper Contact with Unintended Terminal	July 17, 2014
CARD 14-26326	First Time PMs Not Being Flagged and Managed As Intended	August 8, 2014
CARD 14-27157	NRC Identified Safety Concern About Storage of ISFSI-related Material Near 345kV Mat	September 10, 2014
CARD 14-27160	NRC Identified Safety Concern About Storage of Material Near 120kV Mat	September 10, 2014
CARD 14-27420	NQA – Radiological Control Boundaries and Posting Issues Identified on the Refuel Floor	September 18, 2014
CARD 14-28232	NRC Issue-Failure to Perform Immediate Operability Review	October 21, 2014
CARD 14-28301	2014 NRC Triennial FP Green Non-Cited Violation on Valve Location	October 23, 2014
CARD 14-28567	NRC Cross-Cutting Aspect Review OE (RPS Blown Fuse Finding 3Q2014)	November 3, 2014
CARD 14-28568	NRC Cross-Cutting Aspect Review Work Management (EDG 11 Fire Finding 3Q2014)	November 3, 2014
CARD 14-29030	Green Finding for Dose Overage on RWP 14-5002	November 25, 2014
CARD 14-29223	Total Number of PMs Deferred at 4th Quartile When Compared to PIC Data	December 5, 2014

CARD 15-10052	Investigate Why Security Personnel that have Left the Access Portal are Allowed to Pass Metal Detectors Armed	March 3, 2015
CARD 15-20207	NQA Audit Deficiency-2014 Audit Deficiency CARD Closed Without Correcting the Identified Condition	January 9, 2015
CARD 15-20234	Request Removal of Material Near 345 kV Mat	January 11, 2015
CARD 15-20637	2014 LOR Annual Operating Exam Opportunities	January 27, 2015
CARD 15-20847	Evaluate the Root Cause Evaluation (RCE) Process Requirement to Assign CATPRs for all RCEs	February 2, 2015
CARD 15-20848	NRC Identified Concern with Floor Drain 75-29 History	February 2, 2015
CARD 15-20962	NRC Green Violation Cross Cutting Aspect Review for CARD 14-28232	February 5, 2015
CARD 15-21129	2015 Modification and 50.59 NRC Inspection-Review CPTs (150VA & 250VA) Test Requirements	February 12, 2015
CARD 15-21179	NQA Recommendation: Upgrade CARD 14-25625 to Level 3 and Enhance it to Indicate the Actions Being Taken to Address the Ineffective Actions Identified in Level 3 CARD 14-20082	February 13, 2015
CARD 15-21186	Degraded OREX Coveralls	February 13, 2015
CARD 15-21326	NQA Deficiency: Untimely Processing of Newly Initiated CARDs	February 18, 2015
CARD 15-21350	RBHVAC Tripped from Freezestat H	February 19, 2015
CARD 15-21354	Additional Barrier Preventing Timely Reviews	February 19, 2015
CARD 15-21792	72CF Failed to Throwover	March 9, 2015
CARD 15-21796	Revision to the NRC Branch Technical Position on Waste Classification	March 10, 2015
CARD 15-21797	NRC RIS 2015-02	March 10, 2015
CARD 15-21824	Crew Learning Opportunity, CTP 10 Min Avg Exceeded Following Power Ascension	March 11, 2015
CARD 15-22029	RBCCW/EECW Drywell Leak Causes Single Loop Operation and Reactor Scram	March 19, 2015
CARD 15-22090	Evaluate Reactor Scram from OPRM Upscale During Single Loop Operation	March 21, 2015
CARD 15-22231	Surveillance PT: RW07 not Completed by Critical Date	March 26, 2015
CARD 15-22419	Inconsistent Implementation of Actions from Assessment of EP Qualification Process Weakness	April 2, 2015
CARD 15-22559	NRC Green Violation Cross Cutting Aspect Review for CARD 15-21129	April 8, 2015
CARD 15-22778	Issued Parts not Returned to the Warehouse Resulting in Improper Storage and Controls of Safety Related QA Level 1 (Q) Parts	June 15, 2015

CARD 15-22997	MES51 Does Not Define SPV/Single Point Vulnerabilities	April 27, 2015
CARD 15-23051	Request Clarification: Application of 10CFR50.54x and 50.54y	April 29, 2015
CARD 15-23062	NRC Region 3 LRA Inspection Recommendation: PM Program Procedure Update	April 29, 2015
CARD 15-23111	Safety Incidents Not Reported in a Timely Manner at Fermi Leading to a Lack of Safety Culture	April 30, 2015
CARD 15-23159	2015 License Renewal Inspection NRC Identified Discrepancy-Spring Can Setting	May 1, 2015
CARD 15-23217	Self-Assessment Deficiency: Critical PM Deferral Process	May 5, 2015
CARD 15-23459	NQA Audit Trend Only – QA Hold Point N/A'ed and Signed off by Maintenance	May 15, 2015
CARD 15-23465	Trip of RBHVAC, Autostart of Div. 1 SGTS and CCHVAC Auto Swap to Recirc	May 16, 2015
CARD 15-23510	Overdue Rebuild Requirement on Spare Regulators	May 19, 2015
CARD 15-23598	Upgrade Simulator to Show THI Without Instructor Manual Input	May 22, 2015
CARD 15-23626	Loss of RPS B	May 25, 2015
CARD 15-23701	NQA Audit Deficiency-MES51 Does Not Provide for Repeat Extension of PMs	May 28, 2015
CARD 15-24418	Need PM Events / Work Orders for Disassembly and Inspection of Chilled Water Pump Discharge Checks	June 25, 2014
CARD 15-24451	Oil Leaking from Primary Disconnect	June 26, 2015
CARD 15-24660	Loss of Secondary Containment during PMT	July 7, 2015
CARD 15-24840	Tele-Pole Failed after Use Response Checks	July 14, 2015
CARD 15-25138	INPO 2015 Plant Evaluation AFI ER.2-1, Engineers are not Actively Identifying Single-Point Vulnerabilities (SPV) and Developing Commensurate Mitigating Strategies to Prevent Equipment Failures	July 24, 2015
CARD 15-25138	INPO 2015 Plant Evaluation AFI ER.2-1, Engineers Are Not Actively Identifying Single-Point Vulnerabilities (SVP) and Developing Commensurate Mitigating Strategies to Prevent Equipment Failures	July 24, 2015
CARD 15-25139	INPO 2015 Plant Evaluation AFI ER 3-2, Aging Management Strategies for Many Circuit Cards and Relays that Support Equipment with Operational Impact are not Adequate to Preclude Failures	July 24, 2015
CARD 15-25139	INPO 2015 Plant Evaluation AFI ER.3-2, Aging Management Strategies for Many Circuit Cards and Relays That Support Equipment with Operational Impact Are Not Adequate to Preclude Failures	July 24, 2015

CARD 15-25224	NQA – QA Inspections Could not be Performed due to Inaccessibility	July 28, 2015
CARD 15-25228	NQA – Missed QA Hold Point for EDP 37122 – FLEX Back-Up Power	July 28, 2015
CARD 15-25299	RHRSW Supply Pipe Wall Thinning Re-Inspection Results	July 30, 2015
CARD 15-25544	Why Are We Not Submitting Cards for Low Level Issues	August 12, 2015
CARD 15-25570	Potential Issues with the Timing of the RBHVAC Damper Actuations for the East Train of RBHVAC	August 12, 2015
CARD 15-26003	Hard Card Found Marked Up in Simulator During 2015 ILO Exam	August 27, 2015
CARD 15-26093	Unsat Specific Gravity in Two Stored Batteries at the NOC	August 28, 2015
CARD 15-26238	2015 PI&R FSA Deficiency: Ineffective NSCA CARD 14-27165 Resolution	September 3, 2015
CARD 15-26240	2015 PI&R FSA Deficiency: Weaknesses in Manager/Supervisor CAP Oversight	September 3, 2015
CARD 15-26299	New Modification Interferes with Nitrogen Cabinet Door	September 5, 2015
CARD 15-27174	Concern Related to Issue Reporting and Documentation in CAP	October 2, 2015
CARD 15-27334	NQA-FLEX Building Door Chugger Modification	October 5, 2015
CARD 15-27552	Perform NQA Missed Opportunity Assessment on NRC Finding Concerning MSA Ultralite SCBAs	October 9, 2015
CARD 15-27584	NRC Residents 3Q15 Exit Observation – Common Cause Evaluations Performed Less Frequently	October 10, 2015
CARD 15-27661	NRC Severity Level IV NCV for Integrity of Exams and Tests at Fermi 2	October 12, 2015
CARD 15-27861	Safety Conscious Work Environment Concern	October 16, 2015
CARD 15-28065	Wrong Oil Used in Recirc Pump A Lower Bearing	October 21, 2015
CARD 15-28156	Added Dose Due to Extended Scope and Failed Inspection	October 23, 2015
CARD 15-28405	NDE Hold Point Missed	October 29, 2015
CARD 15-28439	NQA Audit Deficiency: Technical Requirements Have Not Been Revised in the PM Program for MOVs	October 30, 2015
CARD 15-28711	USA KPI-OWM-TECH-PMP1 – Total PMs Delinquent Performance	November 6, 2015
CARD 15-28719	Actual Test Uncertainty Exceeds the Acceptable Test Uncertainty of 47.205.01 from RFO-17 for Case 2 Evaluation	November 6, 2015
CARD 15-29126	Revise MQA11 to Provide Vulnerability Assessment Guidance When Processing CARD Extensions	November 19, 2015
CARD 15-29322	Decline in Condition Identification	November 25, 2015

CARD 15-29392	Previous CARD Disposition Without Adequate Investigation	November 26, 2015
DER 90-0223	VEN SIL 508 Scram Contactor Coil Life and Maintenance	March 20, 1990

Apparent Cause Evaluation

ACE 13-28993	Lead Blankets Dropped from RB2	December 21, 2013
ACE 14-20833	Mispositioned Component Event – Div. 2 EECW Isolation Override Switch	March 8, 2014
ACE 14-24066	EDG-11 Flashed #2 and #3 Upper Main Bearings	July 10, 2014
ACE 14-27086	Safety Tagging Issue Encountered While Performing Work	September 8, 2014
ACE 15-21742	NQA Audit Finding: Operations Procedure Implementation Requirements and Commitments Contained in Operations Department Expectations (ODEs) is Contrary to the Quality Assurance Program	April 9, 2015
ACE 15-21792	72CF Failed to Throwover	April 7, 2015
ACE 15-24660	Loss of Secondary Containment During PMT	July 7, 2015

Common Cause Evaluation

CCA 14-20706	D1100 (a)(1) Common Cause GWP	February 20, 2014
CCA 14-23428	First Quarter 2014 Aggregate Industrial Safety Review	April 17, 2014
CCA 14-23428	First Quarter Industrial Safety Aggregate Review	June 9, 2014
CCA 14-23509	Plant Status Control Behaviors	April 21, 2014
CCA 14-24143	Safety Tagging and Clearance Behaviors	May 14, 2014
CCA 14-29107	NQA – QA Step/Hold Point N/A'd by Work Group	December 1, 2014
CCA 15-23909	Perform Common Cause Analysis on 2015 Consequential Failure Events	June 3, 2015
CCA 15-25324	Operations Trend Less Than Adequate	July 31, 2015
CCA 15-25825	Adverse Trend in Foreign Material Exclusion	August 21, 2015

Audit, Assessment and Self-Assessments

NAPI 15-0012	2015 PI&R focused Self-Assessment	September 3, 2015

NPOP 15-0047	Focused Self-Assessment – Station Blackout and Extreme Damage Mitigation	August 12, 2015
NQA 14-0101	Quality Assurance Audit of the Emergency Preparedness (EP) Program	January 27, 2014
NQA 14-0102	Quality Assurance Audit of the Evaluation & Corrective Action and Operating Experience Programs	February 7, 2014
NQA 14-0111	Audit of the Radiological Effluents Program and the Radiological Material Transfer & Disposal Program	August 4, 2014
NQA 14-0112	Audit of the Radiological Protection Program	October 6, 2014
NQA 15-0101	Quality Assurance Audit of the Radiological Emergency Response Preparedness Program	January 27, 2015
NQA 15-0102	Quality Assurance Audit of the Evaluation & Corrective Action and Operating Experience Programs	February 16, 2015
NQA 15-0103	Quality Assurance Audit of the Operations Program and Emergency Operating Procedures	March 9, 2015
NQA 15-0106	Quality Assurance Audit of the Maintenance, M&TE, and Work Control Programs	June 22, 2015
Report Number: 1000128.405	Life Cycle Management and Buried Piping Evaluation Report for Fermi-2 Nuclear Generating Station	Revision 1
TMFT 15-0072	Quick Hit Self-Assessment on Declining Trend in ERE Quality	April 16, 2015
TMIS 14-0064	2014 IST Program Self Assessment	July 7, 2014
TMIS 15-0033	2015 Flow Accelerated Corrosion (FAC) Program Focused Self-Assessment Report	March 21, 2015
TMTE 13-0029	Focused Self-Assessment – Preventive Maintenance Program	February 28, 2013

Miscellaneous

ASME B30.16	Overhead Hoists (Underhung)	2012
Report Number 1401176.401	gPIMS Re-Inspection and SHM at Enrico Fermi Power Plant 2	September 23, 2015
Work Order C421130100	Replace SSPV's with New Pretested Valves	January 27, 2014
Work Order 34683126	Remove/Reinstall TB2 Floor Support for WO 34682823	June 29, 2012
Work Order 37607773	Underhung Hoist Used Over "Rated Capacity" without Meeting ASME B30.16	February 7, 2014
Work Order 37662167	Implement Mounting Configuration Change for EDG 11 Emergency Overspeed Switch (EOS)	November 25, 2014
Work Order 37662214	Implement Mounting Configuration Change for EDG 12 Emergency Overspeed Switch (EOS)	October 4, 2015

Work Order 37662340	Implement Mounting Configuration Change for EDG 14 Emergency Overspeed Switch (EOS)	May 8, 2015
Buried Pipe Inspection Program Report		Fourth Quarter 2014
Buried Pipe Inspection Program Report		First Quarter 2015
LER 2013-003-00 – Loss of Secondary Containment Function Due to Exceedance of Technical Specification Required Vacuum Pressure		November 24, 203
LER 2013-004-00 – Condition Prohibited by Technical Specifications for 480 Volt Bus Inoperable due to Failed Voltage Regulator		December 14, 2013
LER 2015-001-01 – Secondary Containment Declared Inoperable After Loss of Reactor Building Ventilation and Freeze Protection Actuation		February 19, 2015
LER 2015-002-00 – Loss of Both Divisions of the Residual Heat Removal Low Pressure Coolant Injection Functions due to 480 Volt Swing Bus Inoperable		March 9, 2015
LER 2015-003-00 – Oscillation Power Range Monitor Upscale Reactor Scram During Single Loop Operation		March 19, 2015
LER 2015-004-00 – Secondary Containment Declared Inoperable due to Reverse Rotation of Normal Exhaust Fan During Post-Maintenance Testing		July 7, 2015
LER 2015-005-00 – Secondary Containment Declared Inoperable due to RBHVAC Damper Malfunction		August 12, 2015
Maintenance Strategy: Contactor – RPS AB PWR Distribution Cabinet		August 8, 2014
Management Review Committee (MRC) Checklist and Grade Sheet		Revision 1
Management Review Committee (MRC) Job Aid – Root Cause Evaluation Report Key Concepts to Review		Revision 1
Management Review Committee Agenda		Various Dates
Nuclear Safety Culture Assessment		July 2014
Operating Experience Review Committee Agenda		December 14, 2015
Organizational Effectiveness Survey Results		April 2015
Ownership Screening Committee Agenda		Various Dates
Program Health Report, GL 89-13 Safety Related Service Water (SRSW) Program		First Quarter 2015
Program Health Report, GL 89-13 Safety Related Service Water (SRSW) Program		Second Quarter 2015

Operating Experience

CARD 14-20973	NRC Regulator Issue Summary (RIS) 2014-01 Received – Review Against MGA30 Process	February 11, 2014
CARD 14-22648	NRC Regulatory Issue Summary (RIS) 2014-03 Received – Review Against Part 37 Implementation	March 21, 2014

CARD 14-23101	IER L3-14-8 Airborne Contamination on the Refuel Floor	April 4, 2014
CARD 14-23102	IER L4-14-10 Improper Setting of Electronic Alarming Dosimeters	April 4, 2014
CARD 14-24809	NRC RIS 2014-06 Consideration of Current Operating Issues and Licensing Actions in License Renewal	June 9, 2014
CARD 14-25114	GL 89-13 Program Enhancement from 2014 EPRI Heat Exchanger Performance Users Group	June 20, 2014
CARD 14-25187	NRC – IAT Advisory IA-14-01 “Situational Awareness – Cyber Security Event at NRC Licensed Facility”	June 24, 2014
CARD 14-25200	Revise Licensing Work Instruction to Include Guidance on Proprietary Information (RIS 2014-01)	June 24, 2014
CARD 14-26115	NRC Regulatory Issue Summary (RIS) 2014-02 Received	July 29, 2014
CARD 14-26776	Applicability of NRC Regulatory Issue Summary (RIS) 2014-09 Regarding License Renewal	August 27, 2014
CARD 14-27535	NRC Information Advisory (IA) 14-02 – “Situational Awareness – Returning Foreign Fighters Pose Potential Threat”	September 24, 2014
CARD 14-27693	Review NUREG-1022 Revision 3 Supplement 1 for Impact	September 30, 2014
CARD 14-28478	IN 2014-11: Recent Issues Related to the Qualification of Safety-Related Components	October 30, 2014
CARD 14-28825	IER L3-14-49 Highly Radioactive Components Inadvertently Left on Fuel Transfer Canal Floor not Identified Until Drain-Down	November 14, 2014
CARD 14-28942	NRC Information Notice 2014-12: Crane Heavy Lift Issues Identified During NRC Inspections	November 20, 2014
CARD 14-29336	NRC Withdrawal of Regulatory Guide 1.56 “Maintenance of Water Purity in Boiling Water Reactors”	December 11, 2014
CARD 15-20551	NRC – Regulatory Issue Summary 2009-10 Communications Between NRC & Reactor Licensees During Emergency & Significant Incidents	January 22, 2015
CARD 15-20552	Receipt of NUREG 2155, Revision 1 – Implementation Guidance for 10 CFR Part 37	January 22, 2015
CARD 15-21044	NRC Regulatory Issue Summary 2015-01 Enforcement Guidance Memorandum EGM 14-003 Against the EPRI PDI Bolting Qualification Program	February 9, 2015
CARD 15-21796	Revision to the NRC Branch Technical Position on Waste Classification	March 10, 2015
CARD 15-21797	Nuclear Regulatory Commission Regulatory Issue Summary (RIS) 2015-02	March 10, 2015
CARD 15-21935	NRC Regulatory Issue Summary 2015-03 “Identifying & Reporting Security Incidents Under Part 37”	March 16, 2015
CARD 15-22704	NRC Letter to Licensees on Proposed Director’s Decision Regarding 2.206 Petition	April 14, 2015
CARD 15-22916	Evaluate NUREG/CR-6726 for Applicability to Fermi 2 IWE-Program	April 23, 2015

CARD 15-24149	Receipt of NRC RIS 2015-06 Tornado Missile Protection	June 11, 2015
CARD 15-27246	NRC Issues IN 2015-09, “Mechanical Dynamic Restraint (Snubber) Lubricant Degradation not Identified due to Insufficient Service Life Monitoring”	October 4, 2015
CARD 15-28363	NRC Security Advisory SA-2015-11: Situation Awareness – Security Concerns Related to Geocaching and Other Similar Geolocating Game Activity Near Critical Infrastructure Facilities	October 28, 2015
MFN 15-042 R2	Closure of Part 21 60-Day Interim Report Notification: Potential Failure of Electromatic Relief Valve Cutout Switch	September 10, 2015
OE 2014-0100	IER L3-14-5, Flashover During Pressure Washing of 500-kV Insulators by Supplemental Personnel	February 6, 2014
OE 2014-0166	IER L3-14-11, Inadequate Communications Resulted in Cable Support Structure Damage	March 6, 2014
OE 2014-0179	IER L3-14-12, Water Intrusion into Relay Box Causes Main Feedwater Isolation Valve Closrue and Manual Scram	March 18, 2014
OE 2014-0577	IER L3-14-29, Incorrect Valve Stroke Setting Contributes to an Uncontrolled Dilution Event	July 24, 2014
OE 2015-0133	IER L3-15-5, Foreign Material Damages Steam Generator Tube Sheet	March 12, 2015
OE 2015-0279	IER L3-15-19, Work in Switchyard Causes Dual-Unit Power Outage	May 21, 2015
PART 21 Report Event # 51458	Electromatic Relief Valve (EMRV) Cutout Switch	October 6, 2015

Procedures

35.CON.027	Raychem Installation and Removal	Revision 2
20.300.SBO	Loss of Offsite and Onsite Power	Revision 22
29.ESP.08	Drywell Cooling Water Restoration	Revision 13
35.RIG.012	Trolley and Trolley Beam Inspection	Revision 30
47.205.01	Residual Heat Removal Division 1 (North) Heat Exchanger Performance Test	Revision 21, Revision 12
65.000.146	Operation of the Canberra Series 5XLB TENNELEC	Revision 3
AOP 20.107.02	Loss of Feedwater Heating	Revision 25
AOP 20.138.01	Recirculation Pump Trip	Revision 47
AOP 20.138.02	Jet Pump Failure	Revision 27
AOP 20.138.03	Uncontrolled Recirculation Flow Change	Revision 16
MES 51	Preventive Maintenance Program	Revision 16

MGA12	Fermi Employee Concerns Program	Revision 3
MLS04	Operating Experience Program	Revision 28
MMA07	Maintenance Conduct Manual, Chapter 7- Hoisting, Rigging and Load Handling	Revision 20
MMR12	Equipment Out of Service Management	Revision 17
MMR02	Maintenance Rule Conduct Manual	Revision 5
MQA11	Condition Assessment Resolution Document	Revision 39
MQA12	Root Cause Evaluations	Revision 19
MQA13	Trending	Revision 11
MQA13-100	CARD Trending Coding and Analysis	Revision 0
MQA15	Apparent Cause Evaluations	Revision 17 Revision 15
MQA18	Common Cause Analysis	Revision 2
ODE11	CARD Operability/Reportability Determination Expectations	Revision 17 Revision 16
ODE6	Operator Challenges	Revision 14

Root Cause Evaluations

RCE 13-26398	Potential Unattended Pathway Discovered	November 19, 2014
RCE 14-23163	Electricians Informed RTC of Oil Leak on Center Phase of Transformer 2B at 90% Power	November 24, 2014
RCE 15-20129	2014 OSHA Injury Analysis	March 10, 2015
RCE 15-20298	2015 Operations Training Assignment Tracking	January 13, 2015
RCE 15-22090	Evaluate Reactor Scram from OPRM Upscale during Single Loop Operations	March 21, 2015
RCE 15-24129	INPO Identified – Incomplete Alignment Between Root Cause and Effectiveness	June 11, 2015

Condition Reports Generated for this Inspection

CARD 15-29683	E1100F012B Packing Leakage Identified During 2015 NRC PI&R Walkdown	December 4, 2015
CARD 15-29729	2015 NRC PI&R Inspection Recommendations for ECP (Employee Concerns Program)	December 7, 2015

CARD 15-29884	2015 NRC PI&R Inspection NRC Identified Issue: Initial CARD 14-10011 Level Classification was Inappropriately Assigned	December 11, 2015
CARD 15-29971	2015 NRC PI&R Inspection NRC Observation from SCWE Interviews	December 15, 2015
CARD 15-30009	2015 PI&R Inspection Observation – Ops CARD Closed Without Procedure Change	December 15, 2015
CARD 15-30054	2015 NRC PI&R Inspection Recommendations for ECP (Employee Concern Program)	December 17, 2015
CARD 15-30075	Minor Revision to CARD 12-24725 Action Item 02	December 17, 2015
CARD 15-30077	2015 NRC PI&R Inspection Issue – Floor Plug Lift Not in Compliance with ASME B30.16 for Planned Engineered Lifts	December 17, 2015
CARD 15-30098	2015 NRC PI&R Observation	December 18, 2015
CARD 15-30125	2015 NRC PI&R Inspection Observation on Fermi Threshold for Generating Outgoing OE	December 18, 2015
CARD 15-30220	10CFR50.65(a)(3) Assessment Recommendation: Evaluate Gaps in Incorporating OE into the PM Program	December 23, 2015

LIST OF ACRONYMS

ADAMS	Agencywide Documents Access and Management System
ASME	American Society of Mechanical Engineers
CAP	Corrective Action Program
CFR	Code of Federal Regulations
CARD	Condition Assessment Resolution Document
ECP	Employee Concern Program
IMC	Inspection Manual Chapter
NQA	Nuclear Quality Assurance
NRC	Nuclear Regulatory Commission
OE	Operating Experience
PARS	Publicly Available Records
RFP	Reactor Feed Pump
PI&R	Problem Identification and Resolution
SDP	Significance Determination Process

Based on the results of this inspection, one NRC identified finding of very low safety significance (Green) was documented in this report. The finding did not involve a violation of NRC requirements.

If you disagree with a cross-cutting aspect assignment or a finding not associated with a regulatory requirement in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region III and the NRC resident inspector at the Fermi-2.

In accordance with Title 10 of the *Code of Federal Regulations* 2.390, “Public Inspections, Exemptions, Requests for Withholding,” 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’s Public Document Room or from the Publicly Available Records (PARS) component of the NRC's Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Billy Dickson, Chief
Branch 5
Division of Reactor Projects

Docket No. 50–341
License No. NPF–43

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NAME	RNg:bw	BDickson			
DATE	01/26/16	01/29/16			

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Letter to Paul Fessler from Billy Dickson dated January 29, 2016

SUBJECT: FERMI-2 – NRC PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION REPORT 05000341/2015007

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