December 16, 2005

Mr. William O'Connor, Jr.
Vice President
Nuclear Generation
Detroit Edison Company
6400 North Dixie Highway
Newport, MI 48166

SUBJECT: ENRICO FERMI, UNIT 2
NRC INSPECTION REPORT 05000341/2005020

Dear Mr. O'Connor:

On November 4, 2004, the U.S. Nuclear Regulatory Commission (NRC) completed a team inspection at the Enrico Fermi, Unit 2 nuclear power station. The enclosed report documents the inspection findings which were discussed during an exit meeting on November 4, 2005, with you and other members of your staff.

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

On the basis of the samples selected for review, the team concluded that in general, problems were properly identified, evaluated, and corrected. There was one finding identified during this inspection associated with the failure to ensure that all actions for a significant condition adverse to quality were complete before the associated condition assessment resolution document (CARD) was closed. This issue was determined to be a violation of NRC requirements. However, because of its very low safety significance, and because it has been entered into your corrective action program, the NRC is treating this finding as a Non-Cited Violation, in accordance with Section VI.A.1 of the NRC's Enforcement Policy. If you deny this Non-Cited Violation, you should provide a response with the basis for your denial, within 30 days of the date of this inspection report, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-001, with copies to the Regional Administrator, U.S. Nuclear Regulatory Commission - Region III, 2443 Warrenville Road, Suite 210, Lisle, IL 60532-4352; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-001; and the Resident Inspector Office at the Enrico Fermi, Unit 2 nuclear power station.

In addition, several examples of minor problems were identified in areas such as procedural use and adherence, CARD evaluation and closure, and independent performance of CARD activities.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Thomas Kozak, Team Leader
Technical Support Services
Division of Reactor Projects

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

Enclosure: Inspection Report 05000341/2005020
w/Attachment: Supplemental Information

cc w/encl: N. Peterson, Manager, Nuclear Licensing
D. Pettinari, Legal Department
Compliance Supervisor
G. White, Michigan Public Service Commission
L. Brandon, Michigan Department of Environmental Quality - Waste and Hazardous Materials Division
Monroe County, Emergency Management Division
Planning Manager, Emergency Management Division
MI Department of State Police

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Thomas Kozak, Team Leader
Technical Support Services
Division of Reactor Projects

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

Enclosure: Inspection Report 05000341/2005020
w/Attachment: Supplemental Information

cc w/encl: N. Peterson, Manager, Nuclear Licensing
D. Pettinari, Legal Department
Compliance Supervisor
G. White, Michigan Public Service Commission
L. Brandon, Michigan Department of Environmental Quality - Waste and Hazardous Materials Division
Monroe County, Emergency Management Division
Planning Manager, Emergency Management Division
MI Department of State Police

DOCUMENT NAME: C:\MyFiles\Roger\ML053530031.wpd
To receive a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure "E" = Copy with attachment/enclosure "N" = No copy

OFFICE	RIII	N	RIII	N				
NAME	TKozak:sls		TKozak for MMorris					
DATE	12/16/2005		12/16/05 per telecom					

OFFICIAL RECORD COPY

ADAMS Distribution:
LXR1
DPB
RidsNrrDirsIrib
GEG
KGO
SJC4
CAA1
C. Pederson, DRS (hard copy - IR's only)
DRPIII
DRSIII
PLB1
JRK1
ROPreports@nrc.gov (inspection reports, final SDP letters, any letter with an IR number)

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No:	50-341
License No:	DPR-43
Report No:	05000341/2005020
Licensee:	Detroit Edison Company
Facility:	Enrico Fermi, Unit 2
Location:	6400 N. Dixie Hwy. Newport, MI 48166
Dates:	October 17 through November 4, 2005
Inspectors:	R. Morris, Senior Resident Inspector T. Steadham, Resident Inspector G. O'Dwyer, Reactor Inspector G Wright, Senior Reactor Engineer
Approved by:	Thomas Kozak, Chief Branch TSS Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

IR 05000341/2005020; 10/17/2005 - 11/04/2005; Fermi Nuclear Power Station, Unit 2; Problem Identification and Resolution.

The inspection was conducted by two Region III inspectors, the resident inspector, and the senior resident inspector. One Green finding of very low safety significance was identified during this inspection and was classified as a Non-Cited Violation. The significance of this finding was evaluated using Inspection Manual Chapter 0609, "Significance Determination Process."

Identification and Resolution of Problems

The team concluded that the licensee was generally effective in the identification, evaluation and resolution of issues. The licensee's effectiveness at problem identification was evidenced by the relatively few deficiencies identified by the NRC that had not already been identified by the licensee. A notable exception to this was the failure of the licensee to recognize a declining trend in human performance prior to it being raised by the NRC as a substantive cross-cutting issue in the 2004 end-of-cycle and 2005 mid-cycle assessment reports. Also, minor procedural use and adherence problems were identified with respect to the initiation of CARDs for issues identified during self-assessments. The licensee effectively prioritized issues in the corrective action program and evaluated technical issues. However, evaluations of the human performance aspects of deficiencies were not normally effectively completed. In addition, deficient condition evaluations were occasionally completed without independence. Corrective actions for identified issues were generally effective in addressing the technical issues associated with deficiencies. The licensee recently implemented a procedure change to allow certain low level CARDs to be closed to other documents or processes prior to completion of all corrective actions without establishing a thorough tracking program to ensure that all specified corrective actions would eventually be completed. On the basis of interviews conducted during this inspection, workers at the site felt free to input safety findings into the PI&R program.

A. NRC-Identified and Self-Revealed Findings

Cornerstone: Mitigating Systems

- Green. The inspectors identified a Non-Cited Violation (NCV) of 10 CFR 50 Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the failure to follow procedural requirements that all actions specified for two conditions adverse to quality were complete before the associated Level 1 condition assessment resolution documents (CARDs) were closed. Specifically, the licensee did not complete all specified corrective actions for degraded fire penetration seals in the reactor building steam tunnel and for a loose tubing connection on a bulkhead fitting for EDG 12. Upon discovery, the licensee ensured all specified corrective actions for the degraded conditions were addressed and entered this issue into the corrective action program.

The finding was more than minor because, if left uncorrected, the issue may have resulted in a more significant safety concern. Specifically, the failure to complete corrective actions for Level 1 CARDs could result in the failure to correct significant conditions adverse to quality. The finding was of very low safety significance because it did not result in the actual loss of the safety function of the train or system. The finding was a Non-Cited Violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings." (Section 4OA2).

B. Licensee Identified Violations

No findings of significance were identified.

REPORT DETAILS

4. OTHER ACTIVITIES (OA)

4OA2 Problem Identification and Resolution (71152B)

a. Effectiveness of Problem Identification

(1) Inspection Scope

The team reviewed risk-significant issues selected across the seven cornerstones of safety to determine if problems were completely and accurately identified, characterized, and entered into the corrective action program for evaluation and resolution in a timely manner commensurate with their significance. The samples selected included conditions adverse to quality which were in the licensee's corrective action program, conditions that were associated with Non-Cited Violations of regulatory requirements, and issues identified through NRC and industry operating experience. Specifically, the inspectors selected 72 condition assessment resolution documents (CARDs) from approximately 16,000 that had been initiated since October 2003. This review included an evaluation using the criteria in Inspection Procedure 95001 for 11 of the 34 Level 1 CARDs generated during that period, which are the highest licensee corrective action item significance level, and the review of the licencee's evaluation of issues related to 9 Non-Cited Violations. The team expanded the scope of its review to five years for issues associated with the main turbine generator hydrogen system and to seven years for issues associated with fire protection seals. The team reviewed self-assessments and audits, and compared and contrasted the results of those audits and assessments with the results developed through this inspection. The team attempted to identify any trend or patterns in corrective action program issues. The team conducted plant walkdowns to perform field verification of selected corrective action samples. The team reviewed actions taken to address the substantive cross-cutting issue identified in the NRC's 2004 end-of-cycle and 2005 mid-cycle assessment letters for Fermi. The documents used during the review are listed in Attachment 1.

(2) Assessment

The team determined that the licensee was generally effective at identifying problems and entering them into the corrective action system. The licensee maintained a low threshold and ease of initiation for CARDs. This was evidenced by the relatively few deficiencies identified by the NRC that had not already been identified by the licensee. A notable exception to this was the failure of the licensee to identify a declining trend in human performance prior to it being raised by the NRC as a substantive cross-cutting issue in the NRC's 2005 mid-cycle and end-of-cycle assessment reports for Fermi. The team also identified a minor issue associated with the main turbine generator hydrogen supply system that had not been previously identified by the licensee.

Licensee audits and assessments were of good depth and identified issues similar to those that were self-revealing or raised during previous NRC inspections. However, the inspectors identified that the licensee did not always initiate CARDs for issues identified during self-assessments as expected by licensee management.

b. Prioritization and Evaluation of Issues

(1) Inspection Scope

The team reviewed the documents listed in Section 4OA2.(1).a of this report to determine if CARDs had the following attributes: evaluation and disposition of operability/reportability issues; consideration of extent of condition, generic implications, common cause, and previous occurrences; identification of significant negative trends associated with human or equipment performance; classification and prioritization of the resolution of the problem commensurate with its safety significance; and identification of root and contributing causes of the problem for significant conditions adverse to quality.

(2) Assessment

In general, the prioritization and evaluation of CARDs were appropriate. The team did not identify any issues that warranted a higher priority review than was assigned to the CARD. No operability/reportability concerns were identified. The licensee also was generally effective in evaluating the technical issues associated with identified problems, including an appropriate consideration of extent of condition concerns for technical issues. However, the team identified that the documentation of issues and evaluations often lacked detail and completeness and did not meet the licensee's expectations. In addition, the licensee did not routinely address human performance issues during the evaluation of problems, even when human performance was the listed primary or contributing cause.

Licensee expectations were that the individual closing Level 1, 2, and 3 CARDs check to assure actions taken were documented in a factual and complete manner such that an independent reviewer, without conversation with the CARD owner, can read the record and agree with the adequacy of the effort and conclusions. The team determined that this expectation was not met for a majority of the CARDs that were reviewed. Typically, in the CARD evaluation, a cause was identified for an issue and corrective actions were developed. However, there typically lacked an analysis that linked the cause and corrective actions together. The absence of this analysis made it very difficult for an independent reviewer to understand the issues so that they could agree with the adequacy of the effort and conclusions which left the licensee vulnerable to the loss of key information. In most cases, after discussions with the individuals responsible for the CARD, the inspectors were able to determine that appropriate actions were taken. The following CARDs provide examples of this observation:

(a) CARD 05-21474, "Negative Trend in Human Performance." In response to the NRC raising a number of issues involving human performance, the licensee initiated this CARD. There was no analysis connecting the conclusions and corrective actions to the data presented in the CARD. In addition, the CARD did not identify why a root cause analysis was not performed in favor of an apparent

cause assessment. Further, the CARD did not address why the licensee did not identify the problem prior to the NRC identifying a substantive cross-cutting issue in human performance.

(b) CARDs 04-21911 and 05-23009, "Minimum 30 minute RERP Plan response time or staffing requirement for Station Nuclear Engineer position are not being verified and NRC violation," was initiated in response to an NCV for the Station Nuclear Engineer position not being staffed at the site during emergency plan activation. The CARD documentation was not sufficient to understand how the corrective actions addressed the problems. Further, some issues were being addressed in a third CARD, without appropriate cross reference to understand the process.

(c) CARD 05-20824, "Radiation Protection Technicians did not meet response time requirements during ½3/05 ALERT Event - Repeat Issue." The CARD evaluated a situation where radiation protection technicians were not responding to the site within a specific time frame. The CARD did not provide a tie between the proposed corrective actions and the stated problem.

In addition to a lack of detail and completeness in the documentation of issues and evaluations, there was also typically a lack of rigor in evaluating and identifying corrective actions for human performance when this was a contributing or primary cause for identified problems. Evaluations tended to focus on the technical issues associated with the human performance and not the human issues, as was evidenced in the following examples:

(a) CARD 04-25290, "Near Miss for Incorrect Weld Inspection," documented a condition where an examiner did not identify the appropriate section of pipe to inspect. The CARD stated that the examiner indicated that he was unsure of the weld location, but did not want to appear unsure of himself in the presence of the Level III and NRC. The CARD evaluation and corrective actions did not address this issue from either an individual or generic aspect.

(b) CARD 05-20824, "Radiation Protection Technicians did not meet response time requirements during 01/24/05 ALERT Event - Repeat Issue." In addition to the incomplete documentation for this CARD, there was no evaluation or corrective action specified for the human performance issue associated with the technicians failing to meet emergency response times. The CARD indicated that the problem was following instructions/procedure/training; however, there was no assessment that supported the conclusion.

(c) CARD 04-21027, "Nitrogen bottles installed for Division 2 Emergency Equipment Cooling Water (EECW) are incorrect size," addressed a concern that nitrogen bottles installed on division 2 EECW were not the same size as those that were replaced. The question involved whether adequate gas volume existed per design. The CARD did not address why maintenance personnel neither questioned why the work request (WR) failed to specify a bottle size nor why they failed to notice the size difference.

(d) CARD 05-02846, “Missed Emergency Classification during Emergency Operating Procedures (EOP’s),” documented that in response to an actual plant condition warranting classification as a Notice of Unusual Event, the senior reactor operator failed to properly classify the event in accordance with the site’s emergency action levels. The CARD did not discuss why the senior reactor operator who was running the EOP’s failed to identify the note which would have sent him to the emergency action level determination procedure. The inspectors determined that the note was clearly evident on the EOP sheet.

(e) CARD 03-12686, “Loose connection in Lube Oil Pressure Sensing Line of EDG 12," documented a condition where an oil pressure sensing line had a loose fitting internal to a penetration on the emergency diesel generator. Corrective action number three stated, “Create Just-In-Time training of this incident to be discussed during lessons learned training.” This action stated in part, “Included in this training will be the human performance tool to use to ensure configuration control is maintained.” The licensee provided the technical portion of the corrective action via a lesson plan (LG-MM-484-0001; “Tubing and Fittings”) dealing with tubing connections; however, the human performance tools identified in the corrective action were not addressed.

In addition to reviewing CARDs, the team observed a meeting of the licensee’s Site Human Performance Oversight weekly review committee. The objectives of the meeting were to identify trends, performance issues, and lessons learned from significant errors and events and to recommend actions to address identified issues. The specific event discussed during the inspectors’ observation involved a personnel injury documented in CARD 05-25834. While the team considered the committee a useful tool for identifying and responding to human performance issues, the team observed the following:

- The stated objectives of the meeting were to show Fermi staff that management was interested in learning from personnel errors by understanding them and to ensure actions were taken to reduce the number of errors.

- The individual providing the briefing did not clearly understand what was expected of him during the briefing.

- When the meeting concluded, clear standards or goals had not been established.

- It was clear from comments made by committee members that Fermi staff were not aligned with the objectives of the committee. Similarities between this committee and previous management practices has placed the current committee activities in a negative light.

- It appeared that the committee had additional work to do to ensure the staff understood the intent of the meetings.

Based on these observations, it appeared that the Site Human Performance Oversight Review Committee was limited in its effectiveness to address human performance issues.

c. Effectiveness of Corrective Action

(1) Inspection Scope

The team reviewed the documents listed in Section 4OA2.(1).a of this report to determine if corrective actions developed for issues entered into the corrective action program were appropriately focused to correct the problem, to address the root and contributing causes for significant conditions adverse to quality, and that the corrective actions were completed in a timely manner commensurate with the safety significance of the issue. For cases where permanent corrective actions required significant time to implement, the team verified that interim and/or compensatory actions have been identified and implemented to minimize the problem and/or mitigate its effects until permanent actions could be implemented.

(2) Assessment

In general, the inspectors found that corrective actions developed to address identified issues were generally appropriate and effective. A notable exception to this was the repeat failure of a drywell cooler gasket which led to a second unit shutdown early in 2005. The inspectors also identified a Green finding associated with a Non-Cited Violation for the failure to complete all corrective actions associated with a Level 1 CARD prior to its closure which was contrary to procedural requirements. This NCV is discussed below.

The team identified weaknesses in three areas that could affect the effectiveness of corrective actions developed to address known deficiencies. These areas of concern included independent performance of CARD activities, closure of CARDs to other documents or processes, and follow-up evaluations.

Independent Performance of CARD Activities

There were some instances of personnel performing CARD evaluations who were integral to the CARD being generated, (e.g., their error caused the CARD to be generated). While this situation may be unavoidable at times, the condition raises a concern of independence and objectivity especially when human performance is involved. For example:

(a) CARD 04-24751, “Penetration Sealed on one side only.” The CARD documented a condition where fire barrier penetrations were sealed on only one side of the penetration. The CARD stated that the maintenance supervisor, relying on memory of Updated Final Safety Analysis Report section 9A.2.3.1.1, erroneously determined “it was not breached.” The individual who made the erroneous decision was the individual who wrote the response to the CARD. While this may enhance the technical discussion of the subject, it draws into question the independence and objectivity of the review. The inspectors determined that the review did not adequately address the human performance aspects of the issue.

(b) The licensee identified that CARD 03-12686 was closed prior to the completion of the action plan and documented the concern as CARD 05-20328 (subject of the NCV discussed below). The individual who was responsible for resolving the concern was the same person who was responsible for CARD 04-25463. Consequently, the concern was not independently evaluated. The response to CARD 05-20328 stated that the actions yet to be completed for CARD 04-25463 would be tracked under the effectiveness review. An independent review may have identified that it was against procedural requirements to close a Level 1 CARD to another document, including an effectiveness review.

Closure of CARDs to Other Documents or Processes

A recent change to the corrective action program was implemented which allows lower level CARDs to be closed to other CARDs and/or work orders. This practice can lead to the failure to complete specified corrective actions for deficient conditions if it is not rigorously implemented. It did not appear to the inspectors that tracking mechanisms were put in place to ensure the second CARD or work order was eventually completed so that the originally specified corrective actions were accomplished. The team identified several lower level CARDs that were closed to other documents/processes without having the corresponding corrective actions completed.

Follow-up Evaluations

The team determined that the licensee did not routinely evaluate why previously specified corrective actions were ineffective when repetitive issues occurred. The following examples support this observation:

(a) CARD 04-24132, "CARD 04-20600 Fails to Correct Preventative Maintenance (PM) Task C879020100 and Previously Deactivated Work Package - Work Control Review Process." This CARD documented the failure of a previous CARD to evaluate potential interactions with other processes when calibrating a third instrument. CARD 04-20600 documented the potential problem following a modification on the system and CARD 04-24132 addressed the mechanics of calibrating the instrument; however, CARD 04-24132 did not evaluate why the corrective actions specified in CARD 04-20600 were ineffective.

(b) CARD 05-24605, "Incorrect procedure and drawing revision in WR." This CARD documented that a WR contained an incorrect procedure and drawing revision and that the condition had been previously documented in CARD 05-24469. However, the licensee failed to determine why CARD 05-24469 did not correct the problem.

(c) CARD 04-21073, "Broken and Bent hangers." This CARD addressed hangers on a line used for resin transfers to liners. The CARD stated, "CARD 03-00297 was previously written to address these hangers. The investigation for that CARD erroneously determined that the affected piping was abandoned in place." CARD 05-24605 did not address why the individual(s) associated with CARD 03-00297 had erroneously determined the line was abandoned.

(d) CARD 03-19199, "Corrective Actions to Level 1 CARD 01-21316 were not fully implemented." The CARD was written to document that corrective actions to address why non-compliance with Technical Requirements TRLCO 3.12.1 had not been fully implemented. The "Recommendations" section stated, "Determine how a level 1 CARD corrective actions to prevent recurrence...could be closed without updating the PM event to implement the commitments to change all diesel fire pump flexible hoses." This is a good example of the type of questions that inadequate, ineffective or non-performed corrective actions should elicit. However, while the question was good, the response was inadequate.

(3) Findings

Introduction: The inspectors identified a Non-Cited Violation (NCV) of 10 CFR 50, Appendix B, Criterion V (Procedures), for the failure to follow procedural requirements that all actions specified for two significant conditions adverse to quality were complete before the CARDs were closed. Specifically, the licensee did not complete all specified corrective actions for degraded fire penetration seals in the reactor building steam tunnel and for a loose tubing connection on a bulkhead fitting for EDG 12.

Description: Licensee Procedure MQA11 required all actions for Level 1 CARDs be complete prior to closing the CARD.

On November 12, 2004, the licensee inspected fire penetration seals in the reactor building steam tunnel in accordance with procedure 28.507.05, "Inspection of Penetration Fire Stops." The licensee noted that seals P-8650, P-8636, P-8635, P-8633, and P-8632 were bad due to cracks in the elastomer, documented the degraded seals in Level 1 CARD 04-25463, and issued WR I098040100 to repair all five seals.

The WR instructed maintenance personnel to remove and replace the damaged silicone foam from the five seals; however, the personnel performing the work determined the silicone foam for seal P-8633 was not damaged and, therefore, neither removed nor replaced the foam. Furthermore, they did not consult a qualified fire protection inspector to validate their conclusion that repairing P-8633 was unnecessary. Consequently, the seal was not repaired in accordance with either the required actions specified in the CARD or the instructions in the WR prior to the closure of CARD 04-25463. Neither the CARD nor the WR were revised to reflect the as-found condition or to modify the recommended corrective actions. The licensee entered this issue into their corrective action program as CARD 05-25952.

The inspectors reviewed the licensee's evaluation of the acceptability of the degraded seal and discussed it with region-based fire protection specialists who determined the licensee's evaluation was adequate. In reviewing this issue, the inspectors learned that the seals in the steam tunnel floor have historically been found degraded during each outage; therefore, the inspectors expanded the scope of this issue to a seven year period. The inspectors found no other instances where a degraded seal was not subsequently repaired in accordance with the corrective action plan.

The licensee discovered a loose tubing connection on a bulkhead fitting for EDG 12 on November 7, 2003, as described in Inspection Report 05000341/2004005, and

documented the issue in CARD 03-12686. The licensee later elevated the significance of the CARD to a Level 1. Action item number six from this CARD was to ensure that all internal fittings for all four EDGs were tight. The licensee then issued four WRs to complete the necessary inspections.

The licensee completed the inspections on EDGs 11 and 12 in June and August of 2004, respectively. Because WRs were scheduled for EDGs 13 and 14, the licensee concluded that the completion of the internal fitting inspections would be tracked by the effectiveness review for CARD 03-12686 and closed CARD 03-12686 on December 4, 2004.

On January 19, 2005, the licensee initiated CARD 05-20328 to document a concern with the closure of CARD 03-12686 before the WRs for EDGs 13 and 14 were completed. However, the licensee again determined that the effectiveness review for CARD 03-12686 was an appropriate mechanism to track the completion of the actions specified in that CARD and inappropriately closed CARD 05-20328 on February 4, 2005. The effectiveness review was a mechanism to ensure the corrective actions were successful in achieving their intended goal. It was not a mechanism to ensure required actions were completed. The licensee completed the final bulkhead fitting inspection on February 15, 2005. One additional bulkhead fitting was found to be loose; however, this did not affect EDG operability.

Analysis: The inspectors determined that the licensee's failure to follow MQA11 and complete specified corrective actions prior to closure of Level 1 CARDs was a performance deficiency warranting a significance evaluation. The inspectors determined that the finding was more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Disposition," because, if left uncorrected, the issue may have resulted in a more significant safety concern. Specifically, the failure to complete corrective actions for Level 1 CARDs could result in the failure to correct significant conditions adverse to quality. The finding was of very low safety significance because it did not result in the actual loss of the safety function of the train or system.

Enforcement: 10 CFR 50 Appendix B, Criterion V, "Instructions, Procedures, and Drawings," required that activities affecting quality be prescribed by documented instructions, procedures, or drawings, and that activities be accomplished in accordance with these instructions, procedures, or drawings. Licensee Procedure MQA11, "Condition Assessment Resolution Document," was a procedure that the licensee used to comply with 10 CFR 50, Appendix B. MQA11, step 5.4.1.23.e, allows the licensee to close a Level 1 CARD only after the action plan is complete. Contrary to the above, on December 4, 2004, the licensee closed Level 1 CARDs 03-12686 and 04-25463 prior to the completion of the action plan. As corrective actions, the licensee ensured all corrective actions were completed for the specific conditions and entered this issue into the corrective action program as CARD 05-26199. Because this violation was of very low safety significance (Green) and documented in the licensee's corrective action program, this finding is being treated as an NCV, consistent with Section VI.A of the NRC Enforcement Policy (05000341/2005020-01).

d. Assessment of Safety-Conscious Work Environment

(1) Inspection Scope

During the inspection, the inspectors asked plant staff the type of questions that might indicate any unwillingness to raise safety questions. The types of questions that were asked are listed in Appendix 1 to Inspection Procedure 71152, "Suggested Questions for Use in Discussions with Licensee Individuals Concerning PI&R Issues." The inspectors also discussed the implementation of the Employee Concerns Program with the plant's Ombudsman and reviewed the types of issues being brought to the program.

(2) Assessment

Based on discussions with station personnel, there was no indication of reluctance to raise issues or lack of knowledge of the availability of the corrective action process. Both a review of the list of issues brought through the Ombudsman and interviews with licensee staff indicated that the Ombudsman Program was a viable outlet for concerns. The Ombudsman Program was widely advertised and any safety concerns brought to the Ombudsman were placed in the corrective action program as appropriate.

The completion of assessments of problem identification and resolution, prioritization and evaluation of issues, effectiveness of corrective actions, and safety-conscious work environment constituted the completion of one inspection sample for IP 71152B.

4OA3 Event Follow-up (71153)

(1) (Closed) Licensee Event Report (LER) 05000341/2005-003: Design and Operating Procedure Deficiencies Related to Appendix R Events

On May 18, 2005, the licensee reported in this LER that they identified an unanalyzed condition related to design and operating procedure deficiencies that resulted in the failure to meet the requirements of 10 CFR 50, Appendix R, Sections III.G.3 and III.L. The deficiencies involved a condition where the standby feedwater system would not function properly after battery depletion because required chargers would be affected by the postulated fire. This condition was a violation of 10 CFR 50, Appendix R, Sections III.G.3 and III.L. At the time, findings involving main control room abandonment and use of the alternate shutdown system could not be evaluated with the Fire Protection Significance Determination Process. Therefore, a Region III Senior Risk Analyst performed a phase 3 SDP analysis and determined this condition was of very low risk significance (Green). This condition was considered to be a licensee-identified Non-Cited Violation of 10 CFR 50, Appendix R, Sections III.G.3 and III.L and is documented in Section 4OA7 of Inspection Report 05000341/2005006. This LER is closed. The closure of this LER constituted one inspection sample for IP 71153.

(2) (Closed) LER 05000341/2005-005: Potential Loss of Standby Feedwater Pumps Due to Lack of Fuse Coordination

During a recent NRC triennial fire protection inspection, the inspectors identified a lack of adequate electrical coordination between the 130 Vdc breaker control power supply fuses (upstream) and the breaker trip control circuit fuses (downstream) for the 4.16 kV standby feedwater pumps A & B. The licensee reported that condition in this LER. The

condition was determined to be a violation of 10 CFR 50, Appendix R, Sections III.G.3 and III.L. Inspection Manual Chapter 0609, Appendix F, "Fire Protection SDP," does not currently include explicit treatment of fires leading to main control room abandonment, either due to fire in the main control room or due to fires in other fire areas. Therefore, a Region III Senior Risk Analyst performed a phase 3 SDP analysis and determined this condition was of very low risk significance (Green). This condition was considered to be a licensee-identified Non-Cited Violation of 10 CFR 50, Appendix R, Sections III.G.3 and III.L This NCV was documented in Section 1RO5.3.b of Inspection Report 05000341/2005006. This LER is closed. The closure of this LER constituted one inspection sample for IP 71153.

4OA6 Meetings

Exit Meeting

The inspectors presented the inspection results to Mr. W. O'Conner, Jr., and other members of licensee management in an exit meeting on November 4, 2005. Licensee management acknowledged the finding presented and indicated that no proprietary information was provided to the inspectors.

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

W. O'Connor, Jr., Vice President Nuclear Generation
D. Cobb, Station Director
D. Bermooser, Manager, Maintenance
L. Bugoci, Manager, Nuclear Engineering
M. Caragher, Manager, Nuclear Engineering
D. Craine, General Supervisor, Radiological Engineering
R. Gaston, Manager, Nuclear Licensing
K. Hlavaty, Plant Manager
H. Higgins, Manager, Radiation Protection
J. Korte, Manager, Nuclear Security
R. Libra, Director, Nuclear Engineering
N. Peterson, Manager, Nuclear Corrective Action/Performance Assessment
M. Philippon, Manager, Operations
T. Vandermey, Principal Engineer
R. Zyduck, Manager, Nuclear System Engineering

NRC

T. Kozak, Chief, Division of Reactor Projects, Branch TSS

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened and Closed

05000341/2005020-01	NCV	Failure to Follow Corrective Action Program Procedure

Closed

05000341/2005-003	LER	Design and Operating Procedure Deficiencies Related to Appendix R Events
05000341/2005-005	LER	Potential Loss of Standby Feedwater Pumps Due to Lack of Fuse Coordination

Discussed

None.

LIST OF DOCUMENTS REVIEWED

The following documents were selected and reviewed by the inspectors to accomplish the objectives and scope of the inspection and to support any findings.

Procedures

Table B-2; RERP Plan; Revision 30

EP-110; RERP Plan Implementing Procedure, Organization and Responsibilities; Revision 13

FBP-26, Self-Assessment Process, Revision 8

MLS-04, Licensing/Safety Engineering Conduct Manual Operation Experience Program, Revision 14

MDI-002; Pre-job Briefing; Revision 7

MQA-02, Quality Assurance Conduct Manual Internal Audits and Surveillances, Revision 10

MQA-11, Quality Assurance Conduct Manual Condition Assessment Resolution Document, Revision 12

MQA-11, Quality Assurance Conduct Manual Condition Assessment Resolution Document, Revision 13

MQA-12, Quality Assurance Conduct Manual Cause Analysis and Corrective Action Determination, Revision 7

MWC-10; Work Package Preparation; Revision 1

General Administration Conduct Manual, MGA 12; Fermi 2 Ombudsman; Revision 1

ODE-4 Rev 6, Organizational Improvement; dated October 26, 2005

35.307.008, Rev. 33; Emergency Diesel Generator - Engine General Maintenance

35.307.008, Rev. 30; Emergency Diesel Generator - Engine General Maintenance

35.307.001, Rev. 57; Emergency Diesel Generator - Inspection and Preventive Maintenance

28.507.05, Rev. 13; Inspection of Penetration Fire Stops

23.122, Rev. 46; Turbine Generator Gas System

ODE-3; Operations Department Expectation; Rev. 16

ODE-5; Operations Department Expectation; Rev. 3

ODE-5; Operations Department Expectation; Rev. 4

Operations Department Expectation ODE-10, Rev. 11

16D3; Annunciator Response Procedure; Rev. 9

16D5; Annunciator Response Procedure; Rev. 19

16D6; Annunciator Response Procedure; Rev. 15

47.205.01; Residual Heat Removal Division 1 (North) Heat Exchanger Performance Test Accomplished November 6, 2004; Rev 10

47.205.01; Residual Heat Removal Division 1 (North) Heat Exchanger Performance Test; Rev 9

47.205.02; Residual Heat Removal Division 2 (South) Heat Exchanger Performance Test; Rev 9

Corrective Action Resolution Documents (CARDs) and LERs

CARD 03-12686; Loose connection in lube oil pressure sensing line of EDG 12

CARD 03-19199; Corrective Actions to Level 1 CARD 01-21316 were not fully implemented (flexible hoses on DFP not replaced)

CARD 03-19496; Wrong parts ordered caused failure of PM completion and an unnecessary challenge to the organization

CARD 04-20630; EDG 14 Unplanned/Unintended Inoperability - (due to fuel oil transfer pumps being inoperable)

CARD 04-21027; N2 bottles installed for Div 2 EECW are incorrect size

CARD 04-21073; Broken and Bent hangers

CARD 04-21186; CARD Corrective Actions not Properly Implemented - Joint inspection of assigned vehicle

CARD 04-21522 Untimely identification and classification of CAQs due to inadequate communication

CARD 04-21539; Ineffective Corrective Action from Level 2 CARD 01-13956

CARD 04-21816; Inadequate Closure of CARD 03-19098

CARD 04-21911; Minimum 30-minute RERP Plan response time or staffing requirement for Station Nuclear Engineer position are not being verified

CARD 04-24132; Fails to Correct PM C879020100

CARD 04-20600; Previously Deactivated Work Package - Work Control Review Process

CARD 04-24490; Less than Adequate Quarantining of Parts

CARD 04-24751; Penetration Sealed on one side only

CARD 04-25290; Near Miss for Incorrect Weld Inspection

CARD 04-25319; Fuel bundle assembly JLG818 dragged on cattle chute

CARD 04-25518; Cooling Tower, near miss, ignition of fuel vapors during refueling

CARD 04-26756; Gland Stm H2O Sep

CARD 05-20824; Radiation Protection Technicians did not meet response time requirements during 1/23/05 ALERT Event - Repeat Issue

CARD 05-21433; Shipping survey not performed in accordance with 67.000.103 for shipment 05-006

CARD 05-21474; Negative Trend in Human Performance

CARD 05-21810; EDG 14 Hunts at Idle

CARD 05-22063; Level 1 CARD 04-21087 corrective actions 11 and 15 not completed

CARD 05-22542; Very Limited Alternative for Storing Flammables, leading to storage in a non-permitted cabinet

CARD 05-23533; Untimely Corrective Action for Out of Service Safety Related Component (EECW Nx)

CARD 05-24605; Incorrect procedure and drawing revisions in work request

CARD 05-24666; Effectiveness Review CARD 02-160609 - Contributing Causes - Cold shutdown justifications

CARD 01-13239; NRC Identified Incorrect LMTD Correction Factor Used in RHR Heat Exchanger Test Analysis; 7/16/01

CARD 01-13240, NRC Identified RHR Heat Exchanger Test Acceptance Criteria Incorrect, 8/2/01

CARD 01-13241, NRC Identified RHR Heat Exchanger Design Fouling Less than Fouling Allowed in the RHR Heat Exchanger Test, 8/2/01

CARD 98-16697; Lost a Design Calculation During its issuing Process; 9/14/98

CARD 05-25615; #1 HPSV Closed During Power Operations; 10/4/05

CARD 04-22169; Closure of HPSV #2 at power; 5/15/05

CARD 03-23257; N3021 Turbine Valve Actuators System Maintenance Rule (a)1 status; 12/10/03

CARD 03-21588; #3 HPSV shut at 100% power; 10/11/03

N3021 Get Well Plan, Revision A, CARD 03-23257, June 2004

CARD 04-26276; N. HDP Mechanical Seal Leaking (PMT Failure); 11/30/04

LER 2003-003, Non-Conservative Setpoints for Stability Option III (OPRM) Period Based Detection Algorithm, Period Confirmation Adjustable Variables

CARD 03-22220; OPRM Tunable Parameters Not Set Correctly Based On GENE Analysis of NMP2 Instability Event; 10/2/03

LER 2004-003; Standby Liquid Control Pump Inoperable due to Inadequate Lubrication; 12/21/04

CARD 04-25097; Low oil level found in gear reducer for SLC pump B; 11/2/04

LER 2004-004; Automatic Reactor Shutdown due to Automatic Voltage Regulator Failure, January 25, 2005

CARD 04-26443; Automatic Reactor Shutdown due to Automatic Voltage Regulator Failure, January 25, 2005

LER 2005-003; Design and Operating Procedure Deficiencies Related to Appendix R Events

CARD 05-23111; Possible Design and Operating Procedure Deficiencies Affecting the Dedicated Shutdown Scenario Investigation; May 18, 2005

LER 2005-004; Both Residual Heat Removal Low Pressure Coolant Injection Divisions Inoperable Due to Valve Failure

CARD 05-23618; While performing 24.204.06, E1150-F017B would not re-open; June 16, 2005

LER 2005-005; Potential Loss of Standby Feedwater Pumps Due to Lack of Fuse Coordination

CARD 05-23959; Potential Inadequate Coordination in Equipment Used in the Dedicated Shutdown Scenario; June 30, 2005

CARD 04-21544; Level 1 Significant Conditions Adverse to Quality are not evaluated in a timely manner. CRB oversight is not fully effective; 4/6/04

Root Cause Determination for Level 1 Significant Conditions Adverse to Quality are not evaluated in a timely manner, CRB Oversight is not fully effective (for CARD 04-21544); 7/16/04

CARD 05-24834, 10 CFR 21 on Struthers-Dunn Series 219 Relays; August 19, 2005

CARD 03-11772, OE 15958 - Over Pressure Protection Channel Output Relay Failure; April 14, 2003

CARD 03-18649, NRC Generic Letter 2003-01 - Control Room Habitability; June 16, 2003

CARD 04-20924; EDG work practice / procedure improvements; March 6, 2004

CARD 04-22263; Error likely condition present in EDG procedures 35.307.004 and 23.307; May 21, 2004

CARD 04-22821; Configuration control of air coolant system / jacket coolant system cross connect valves; June 24, 2004

CARD 04-21800; EDG 11 governor oil fill cover left off; April 23, 2004

CARD 04-23551; EDG 12 governor oil cap not replaced; August 2004

CARD 04-25463; Fire penetration in reactor building steam tunnel need repairing; November 12, 2004

CARD 98-15387; Penetration Fire Stops; September 6, 1998

CARD 00-25089; Procedure 23.122 Enhancement; November 12, 2000

CARD 05-20328; Level 1 CARD 03-12686 closed before all associated actions complete; January 19, 2005

CARD 04-21307; Ensure internal lube oil tubing fitting is tight; March 25, 2004

CARD 05-00004; Loose bulkhead fitting; January 27, 2005

CARD 05-20846; Missed classification during emergency operating procedures; February 7, 2005

Work Requests

FS86040601; Perform 28.507.05 Attachment 3 & 9 - Survey Group 6 Inspection of Penetration Fire Stops; June 2, 2004

FS85021201; Perform 28.507.05 Attachment 3 & 8 - Survey Group 5 Inspection of Penetration Fire Stops; December 2, 2002

FS84011124; Perform 28.507.05 Attachment 3 & 7 - Survey Group 4 Inspection of Penetration Fire Stops; June 1, 2001

FS83991201; Perform 28.507.05 Attachment 3 & 6 - Survey Group 3 Inspection of Penetration Fire Stops; December 1, 1999

FS82980601; Perform 28.507.05 Attachment 3 & 5 - Survey Group 2 Inspection of Penetration Fire Stops; June 1, 1998

FS81960723; Perform 28.507.05 Attachment 3 & 4 - Survey Group 1 Inspection of Penetration Fire Stops; September 17, 1996

I098040100; Repair Steam Tunnel Penetration Seals; November 13, 2005

000Z040951; Ensure internal lube oil tubing fitting is tight for EDG-11; June 23, 2004

000Z041509; Ensure internal lube oil tubing fitting is tight for EDG-12; August 3, 2004

000Z040987; Ensure internal lube oil tubing fitting is tight for EDG-13; January 27, 2005

000Z040988; Ensure internal lube oil tubing fitting is tight for EDG-14; February 15, 2005

000Z050300; Loose bulkhead fitting; August 17, 2005

Miscellaneous Documents

Restricted Engineering Components Input Sheet, Rev. 39

Division 2 emergency equipment cooling water August 2004 safety system outage critique

EDG 14 February 2005 safety system outage critique

EDG 11 June 2004 safety system outage critique

EDG 12 August 2004 safety system outage critique

Fire Protection Engineering Evaluation 02-0020; Fire Barrier Evaluation for Turbine Building Steam Tunnel Penetration Seals to the Torus Room Ceiling

Temporary Modification 05-0015; Relocate Main Generator Hydrogen Mobile Trailer

Document Change Request 01-1099; Revise 23.122; July 11, 2001

Effectiveness review for CARD 03-12686; July 27, 2005

Radiological Emergency Response Program training attendance form for lesson 0002 - JIT

DC-6121, Volume Number 1, Revision A, Design Basis for Inservice Performance Testing of the RHR Heat Exchanger

TMPE-02-0214; RHR Heat Exchanger Performance Requirements in Support of Dedicated Shutdown; July 5, 2002

TPMMGA, MGS02010; Training and Qualification Review; Revision 3

Nuclear Engineering CARD Routing/Review; Revision 2

05-0103; Nuclear Quality Assurance Audit Report; File Number 0908

Self Assessment of Radiation Protection's Closed CARDs; dated December 23, 2003

Self Assessment of Radiation Protection's Closed CARDs; dated December 13, 2004

Focused Self-Assessment on CARD Quality; Security; dated January 06, 2004

Focused Self-Assessment on CARD Quality; Security; dated January 04, 2005

2003 Engineering CARD Effectiveness Review Self Assessment; dated October 27, 2003

Nuclear Training CARD Quality and Trend Quick Hit Assessment; dated February 2, 2004

Focused Self-Assessment of Department CARD Quality in 2003; Engineer - Nuclear Licensing; dated December 30, 2003

Follow-up to USA/STARS QA Management Audit and to NQA Self-Assessment Report 01-0083; dated September 12, 2003

Quick Hit Self-Assessment: CARDs Resulting from Drills; June 3, 2005

LIST OF ACRONYMS USED

CARD	Condition Assessment Resolution Document
DRP	Division of Reactor Projects
EDG	Emergency Diesel Generator
EECW	Emergency Equipment Cooling Water
EOP	Emergency Operating Procedure
NCV	Non-Cited Violation
NRC	Nuclear Regulatory Commission
WR	Work Request