



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

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

May 13, 2009

Mr. Jack M. Davis
Senior Vice President and
Chief Nuclear Officer
Detroit Edison Company
Fermi 2 - 210 NOC
6400 North Dixie Highway
Newport, MI 48166

SUBJECT: FERMI POWER PLANT, UNIT 2, INTEGRATED INSPECTION
REPORT 05000341/2009-002

Dear Mr. Davis:

On March 31, 2009, the U.S. Nuclear Regulatory Commission (NRC) completed an integrated inspection at your Fermi Power Plant, Unit 2. The enclosed report documents the inspection findings, which were discussed on March 24, 2009, with you and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and to 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 results of this inspection, one NRC-identified and one self-revealed finding of very low safety significance were identified. The findings each involved a violation of NRC requirements. However, because of their very low safety significance, and because the issues were entered into your corrective action program, the NRC is treating the issues as non-cited violations (NCVs) in accordance with Section VI.A.1 of the NRC Enforcement Policy.

If you contest any NCVs, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with a copy 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 20555-0001; and the Resident Inspector Office at the Fermi 2 Facility. In addition, if you disagree with the characterization of any finding in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region III, and the NRC Resident Inspector at the Fermi 2 facility. The information you provide will be considered in accordance with Inspection Manual Chapter 0305.

J. Davis

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Sincerely,

/RA/

John B. Giessner, Chief
Branch 4
Division of Reactor Projects

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

Enclosure: Inspection Report 05000341/2009-002
w/Attachment: Supplemental Information

cc w/encl: J. Plona, Vice President,
Nuclear Generation
K. Hlavaty, Plant Manager
R. Gaston, Manager, Nuclear Licensing
D. Pettinari, Legal Department
Michigan Department of Environmental Quality
G. Williams, Director, Monroe County
Emergency Management Division
Supervisor - Electric Operators
T. Strong, State Liaison Officer
Wayne County Emergency Management Division

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SUBJECT: FERMIL POWER PLANT, UNIT 2, INTEGRATED INSPECTION
REPORT 05000341/2009/002

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U. S. NUCLEAR REGULATORY COMMISSION

REGION III

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

Report No: 05000341/2009-002

Licensee: Detroit Edison Company

Facility: Fermi Power Plant, Unit 2

Location: Newport, MI

Dates: January 1 through March 31, 2009

Inspectors: R. Morris, Senior Resident Inspector
T. Steadham, P.E., Resident Inspector
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J. Cassidy, Senior Health Physicist
R. Jickling, Senior Emergency Preparedness Inspector
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A. Wilson, Resident Inspector, Davis-Besse

Observer: E. Martinez, General Engineer

Approved by: J. Giessner, Chief
Branch 4
Division of Reactor Projects

Enclosure

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SUMMARY OF FINDINGS

IR 05000341/2009-002; 01/01/2009 – 03/31/2009; Fermi Power Plant, Unit 2; Plant Modifications; and Identification and Resolution of Problems.

This report covers a 3-month period of inspection by resident inspectors and announced baseline inspections by regional inspectors. One Green finding was identified by the inspectors and one Green finding was self-revealed. The findings were considered Non-Cited Violations (NCVs) of NRC regulations. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP). Findings for which the SDP does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

- **NRC-Identified and Self-Revealed Findings**

Cornerstone: Mitigating Systems

- Green. A finding of very low safety significance and an associated NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified by the inspectors for the licensee's failure to include criteria in procedures for evaluation of storage areas and storage racks built in the power block. Licensee procedure MOP11, "Combustible Material," placed controls on the storage areas and storage racks to ensure that combustible loading remained acceptable but failed to incorporate adequate guidance for designating the storage area and constructing the racks to ensure nearby safety-related equipment would not be adversely affected during a plant transient or seismic event. After the issue was raised, modifications to the scaffold storage locations were completed, as needed.

The finding was more than minor because it was associated with the Mitigating Systems Cornerstone attribute of design control (plant modifications) and it adversely impacted the cornerstone objectives. As a result of not evaluating the storage areas, safety-related components, systems or structures could have been affected. This finding was determined to be of very low safety significance because it did not result in loss of operability or functionality. The inspectors determined that the finding had an associated cross-cutting aspect of Problem Identification and Resolution, Corrective Action Program, Corrective Action (P.1 (d)). (Section 1R18.1)

- Green. A finding of very low safety significance (Green) and an associated NCV of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," was self-revealed for the failure to promptly identify and correct an oil leak that subsequently rendered a safety-related pump inoperable. Maintenance staff discovered an oil leak near a safety-related pump and informed Operations staff of the leak but the licensee failed to identify the source of the leak for 5 days and, therefore, failed to take prompt corrective actions. Once identified, the licensee repaired the damaged instrument tube and restored the pump to service.

The finding was determined to be more than minor because the finding was associated with the Mitigating Systems Cornerstone attribute of Equipment Performance and

affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the oil leak ultimately rendered the pump inoperable. The finding was determined to be of very low safety significance because a Phase 2 SDP determined the risk to be very low. This finding had an associated cross-cutting aspect of Problem Identification and Resolution, Corrective Action Program, Issue Identification (P.1 (a)). (Section 4OA2.3)

- **Licensee-Identified Violations**

No violations of significance were identified.

REPORT DETAILS

Summary of Plant Status

Fermi Unit-2 started this inspection period at full power and began coast down to the refueling outage on March 3, 2009, the unit shutdown for the outage on March 27, 2009, and remained shutdown for the rest of the inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Public Radiation Safety, and Emergency Preparedness

1R01 Adverse Weather Protection (71111.01)

.1 Readiness for Impending Adverse Weather Condition – High Wind Conditions

a. Inspection Scope

Since thunderstorms with potential tornados and high winds were forecast in the vicinity of the facility for March 12, 2009, the inspectors reviewed the licensee's overall preparations/protection for the expected weather conditions. On March 11, 2009, the inspectors walked down the perimeter fences of the security system, in addition to the licensee's emergency alternating current (AC) power systems, because their safety-related functions could be affected or required as a result of high winds or tornado-generated missiles or the loss of offsite power. The inspectors evaluated the licensee staff's preparations against the site's procedures and determined the staff's actions were adequate. During the inspection, the inspectors focused on plant-specific design features and the licensee's procedures used to respond to specified adverse weather conditions. The inspectors also toured the plant grounds to look for any loose debris that could become missiles during a tornado. The inspectors evaluated operator staffing and accessibility of controls and indications for those systems required to control the plant. Additionally, the inspectors reviewed the Updated Final Safety Analysis Report (UFSAR) and performance requirements for systems selected for inspection, and verified that operator actions were appropriate as specified by plant-specific procedures. The inspectors also reviewed a sample of corrective action program (CAP) items to verify the licensee identified adverse weather issues at an appropriate threshold and dispositioned them through the CAP in accordance with station corrective action procedures. Specific documents reviewed during this inspection are listed in the Attachment.

This inspection constituted one readiness for impending adverse weather condition sample as defined in Inspection Procedure (IP) 71111.01-05.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment (71111.04)

.1 Quarterly Partial System Walkdowns

a. Inspection Scope

The inspectors performed partial system walkdowns of the following risk-significant systems:

- Standby feedwater following surveillance testing;
- Standby liquid control following surveillance testing;
- High pressure coolant injection (HPCI) during emergency diesel generator (EDG) safety system outage (SSO);
- Division 1 emergency equipment cooling water (EECW) during Division 2 vital AC circuit testing; and
- Division 2 EECW during Division 1 EECW maintenance.

The inspectors selected these systems based on their risk significance relative to the reactor safety cornerstones at the time they were inspected. The inspectors attempted to identify any discrepancies that could impact the function of the system and, therefore, potentially increase risk. The inspectors reviewed applicable operating procedures, system diagrams, UFSAR, Technical Specification (TS) requirements, outstanding work orders, condition reports, and the impact of ongoing work activities on redundant trains of equipment in order to identify conditions that could have rendered the systems incapable of performing their intended functions. The inspectors also walked down accessible portions of the systems to verify system components and support equipment were aligned correctly and operable. The inspectors examined the material condition of the components and observed operating parameters of equipment to verify there were no obvious deficiencies. The inspectors also verified the licensee had properly identified and resolved equipment alignment problems that could cause initiating events or impact the capability of mitigating systems or barriers and entered them into the CAP with the appropriate significance characterization. Documents reviewed are listed in the Attachment.

These activities constituted five partial system walkdown samples as defined in IP 71111.04-05.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05)

.1 Routine Resident Inspector Tours (71111.05Q)

a. Inspection Scope

The inspectors conducted fire protection walkdowns which were focused on availability, accessibility, and the condition of firefighting equipment in the following risk-significant plant areas:

- Main control room;
- Torus room;
- Reactor building, fourth floor, reactor recirculator motor generator set room;
- Turbine building, second floor; and
- Reactor building, first floor.

The inspectors reviewed areas to assess if the licensee had implemented a fire protection program that adequately controlled combustibles and ignition sources within the plant, effectively maintained fire detection and suppression capability, maintained passive fire protection features in good material condition, and implemented adequate compensatory measures for out-of-service, degraded or inoperable fire protection equipment, systems, or features in accordance with the licensee's fire plan. The inspectors selected fire areas based on their overall contribution to internal fire risk as documented in the plant's Individual Plant Examination of External Events with later additional insights, their potential to impact equipment which could initiate or mitigate a plant transient, or their impact on the plant's ability to respond to a security event. Using the documents listed in the Attachment, the inspectors verified fire hoses and extinguishers were in their designated locations and available for immediate use; fire detectors and sprinklers were unobstructed; transient material loading was within the analyzed limits; and fire doors, dampers, and penetration seals appeared to be in satisfactory condition. The inspectors also verified that minor issues identified during the inspection were entered into the licensee's CAP. Documents reviewed are listed in the Attachment to this report.

These activities constituted five quarterly fire protection inspection samples as defined in IP 71111.05-05.

b. Findings

No findings of significance were identified.

1R06 Flooding (71111.06)

.1 Internal Flooding

a. Inspection Scope

The inspectors reviewed selected risk important plant design features and licensee procedures intended to protect the plant and its safety-related equipment from internal flooding events. The inspectors reviewed flood analyses and design documents, including the UFSAR, engineering calculations, and abnormal operating procedures to identify licensee commitments. The specific documents reviewed are listed in the Attachment to this report. In addition, the inspectors reviewed licensee drawings to identify areas and equipment that may be affected by internal flooding caused by the failure or misalignment of nearby sources of water, such as the fire suppression or the circulating water systems. The inspectors also reviewed the licensee's corrective action documents with respect to past flood-related items identified in the CAP to verify the adequacy of the corrective actions. The inspectors performed a walkdown of the following plant areas to assess the adequacy of watertight doors, verify drains and sumps were clear of debris and were operable, and verify the licensee complied with its commitments:

- Sub-basement of reactor building; and
- Main control room and auxiliary building, fifth floor.

This inspection constituted two internal flooding samples as defined in IP 71111.06-05.

a. Findings

No findings of significance were identified.

1R07 Annual Heat Sink Performance (71111.07)

.1 Heat Sink Performance

a. Inspection Scope

The inspectors reviewed the licensee's testing of EDG-12 heat exchanger cleaning to verify potential deficiencies did not mask the licensee's ability to detect degraded performance, to identify any common cause issues that had the potential to increase risk, and to ensure the licensee was adequately addressing problems that could result in initiating events that would cause an increase in risk. The inspectors reviewed the licensee's observations as compared against acceptance criteria, the correlation of scheduled testing and the frequency of testing, and the impact of instrument inaccuracies on test results. Inspectors also verified that test acceptance criteria considered differences between test conditions, design conditions, and testing conditions.

This annual heat sink performance inspection constituted one sample as defined in IP 71111.07-05.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Regualification Program (71111.11)

.1 Resident Inspector Quarterly Review (71111.11Q)

a. Inspection Scope

On February 3, 2009, the inspectors observed a crew of licensed operators in the plant's simulator during licensed operator regualification examinations to verify that operator performance was adequate, evaluators were identifying and documenting crew performance problems, and training was being conducted in accordance with licensee procedures. The inspectors evaluated the following areas:

- licensed operator performance;
- crew's clarity and formality of communications;
- ability to take timely actions in the conservative direction;
- prioritization, interpretation, and verification of annunciator alarms;
- correct use and implementation of abnormal and emergency procedures;
- control board manipulations;

- oversight and direction from supervisors; and
- ability to identify and implement appropriate TS actions and Emergency Plan actions and notifications.

The crew's performance in these areas was compared to pre-established operator action expectations and successful critical task completion requirements. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one quarterly licensed operator requalification program sample as defined in IP 71111.11.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12)

.1 Routine Quarterly Evaluations (71111.12Q)

a. Inspection Scope

The inspectors evaluated degraded performance issues involving the following risk-significant systems:

- Process radiation monitoring system (a)(1) to (a)(2) status; and
- Mechanical draft cooling towers.

The inspectors reviewed events such as where ineffective equipment maintenance had resulted in valid or invalid automatic actuations of engineered safeguards systems and independently verified the licensee's actions to address system performance or condition problems in terms of the following:

- implementing appropriate work practices;
- identifying and addressing common cause failures;
- scoping of systems in accordance with 10 CFR 50.65(b) of the maintenance rule;
- characterizing system reliability issues for performance;
- charging unavailability for performance;
- trending key parameters for condition monitoring;
- ensuring 10 CFR 50.65(a)(1) or (a)(2) classification or re-classification; and
- verifying appropriate performance criteria for structures, systems, and components (SSCs)/functions classified as (a)(2) or appropriate and adequate goals and corrective actions for systems classified as (a)(1).

The inspectors assessed performance issues with respect to the reliability, availability, and condition monitoring of the system. In addition, the inspectors verified maintenance effectiveness issues were entered into the CAP with the appropriate significance characterization. Documents reviewed are listed in the Attachment to this report.

This inspection constituted two quarterly maintenance effectiveness samples as defined in IP 71111.12-05.

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13)

.1 Maintenance Risk Assessments and Emergent Work Control

a. Inspection Scope

The inspectors reviewed the licensee's evaluation and management of plant risk for the maintenance and emergent work activities affecting risk-significant and safety-related equipment listed below to verify the appropriate risk assessments were performed prior to removing equipment for work:

- Division 1 EDG/emergency core cooling system, emergency start circuit testing;
- Main generator hydrogen cooler leak;
- EDG-14 SSO;
- Scheduled turbine building heating, ventilation, and air conditioning shutdown;
- Division 2 emergency AC power maintenance.
- Transition to refueling outage (RFO) 13; and
- Division 1 shutdown cooling outage.

These activities were selected based on their potential risk significance relative to the reactor safety cornerstones. As applicable for each activity, the inspectors verified risk assessments were performed as required by 10 CFR 50.65(a)(4) and were accurate and complete. When emergent work was performed, the inspectors verified the plant risk was promptly reassessed and managed. The inspectors reviewed the scope of maintenance work, discussed the results of the assessment with the licensee's probabilistic risk analyst or shift technical advisor, and verified plant conditions were consistent with the risk assessment. The inspectors also reviewed TS requirements and walked down portions of redundant safety systems, when applicable, to verify risk analysis assumptions were valid and applicable requirements were met.

These maintenance risk assessments and emergent work control activities constituted seven samples as defined in IP 71111.13-05.

No findings of significance were identified.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

.1 Operability Evaluations

a. Inspection Scope

The inspectors reviewed the following issues in Condition and Assessment Resolution Documents (CARs):

- CARD 09-20352, "SLC Pump 'A' Relief Valve Lifted Early";
- CARD 09-20540, "DC Fuse Rating Discrepancy";
- CARD 09-20534, "RHRSW Pump 'C' Reached Low DP Alert Threshold";
- CARD 09-20986, "Main Turbine HPCV No. 1 Not Responding";
- CARD 09-20964, "Water Found Under East Inner Rail Road Airlock Door";
- CARD 09-21428, "ECCS Suction Strainer Head Loss Calculation"; and
- CARD 09-21834, "Secondary Containment Door Surveillance Testing."

The inspectors selected these potential operability issues based on the risk significance of the associated components and systems. The inspectors evaluated the technical adequacy of the evaluations to ensure TS operability was properly justified and the subject component or system remained available such that no unrecognized increase in risk occurred. The inspectors compared the operability and design criteria in the appropriate sections of the TS and UFSAR to the licensee's evaluations, to determine whether the components or systems were operable. Where compensatory measures were required to maintain operability, the inspectors determined whether the measures in place would function as intended and were properly controlled. The inspectors determined, where appropriate, compliance with bounding limitations associated with the evaluations. Additionally, the inspectors also reviewed a sampling of corrective action documents to verify the licensee was identifying and correcting any deficiencies associated with operability evaluations. Documents reviewed are listed in the Attachment to this report.

This operability inspection constituted seven samples as defined in IP 71111.15-05

b. Findings

No findings of significance were identified.

1R18 Plant Modifications (71111.18)

.1 Temporary Plant Modifications

a. Inspection Scope

The inspectors reviewed the following temporary modification:

- Pre-outage scaffold inspections.

The inspectors compared the temporary configuration changes and associated 10 CFR 50.59 screening and evaluation information against the design basis, the UFSAR, and the TSs, as applicable, to verify the modification did not affect the operability or availability of the affected system. The inspectors also compared the licensee's information to operating experience information to ensure lessons learned from other utilities had been incorporated into the licensee's decision to implement the temporary modification. The inspectors, as applicable, performed field verifications to ensure the modifications were installed as directed; the modifications operated as expected; modification testing adequately demonstrated continued system operability, availability, and reliability; and operation of the modifications did not impact the operability of any interfacing systems. Lastly, the inspectors discussed the temporary modification with operations, engineering, and training personnel to ensure the

individuals were aware of how extended operation with the temporary modification in place could impact overall plant performance.

This inspection constituted one temporary modification sample as defined in IP 71111.18-05.

b. Findings

(1) Inadequate Procedural Controls Over Construction of Storage Racks and Storage Areas

Introduction: The inspectors identified a finding of very low safety significance (Green) and an associated NCV of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings" for the failure to maintain adequate procedures for constructing storage racks in safety-related areas of the plant. Specifically, licensee procedure MOP11, "Combustible Material," placed controls on the storage areas and storage racks to ensure that combustible loading remained acceptable but failed to incorporate adequate guidance for designating the storage areas and constructing the racks to ensure nearby safety-related equipment would not be adversely affected during a plant transient or seismic event.

Description: On January 12, 2009, the inspectors performed walkdowns of the torus room, RHR complex, auxiliary building, and reactor building and noted several instances where designated storage areas did not have approved evaluations. Various storage areas in the facility contained racks that were being used to store loose scaffold materials such as poles, deck plates, knuckles, etc. The scaffold racks were controlled in accordance with MOP11; however, MOP11 did not require engineering to evaluate structures that were built in the plant to ensure that the designated storage area and storage rack are in compliance with the requirements for modifications inside of the facility. Furthermore, MOP11 contained no provisions to ensure that such racks and storage areas, left in place for extended periods of time, received a proper review consistent with the licensee's plant modification procedures.

In CARD 08-20945, dated February 8, 2008, engineering determined a scaffold storage area in the torus room needed to be removed. The CARD was closed later the following month without the scaffold being removed. The inspectors learned that the maintenance department wanted to use the scaffold for the upcoming outage starting on March 28, 2009, and initiated WO 26900703 to remove the material after the outage. The storage racks were built near electrical conduits for the high pressure safety injection suppression pool inboard isolation valve, E4150F042, and the core spray pump 'B' suppression pool suction valve, E2150F036B. The inspectors learned that storage area had been in place under the controls of MOP11 for approximately 3 to 6 years without a design configuration review.

In the RHR complex, the designated storage areas were not well-defined and licensee personnel continued to store material outside of the designated storage areas. The resident inspectors noted during several walkdowns, that after the area was returned to the evaluated configuration, material would again be stored outside of the designated storage location.

The inspectors also noticed a scaffold storage area in the auxiliary building fifth floor stairway. This area was controlled by MOP11 and was in place for several years with no approved engineering evaluation. The inspectors questioned why materials were stored outside the storage area given the proximity to nearby non-interruptible air supply system small bore tubing. Engineering reviewed the storage area, determined that it posed an unnecessary risk to the nearby safety-related tubing, and concluded that the storage area needed to be removed which was subsequently done.

The licensee entered this issue into their corrective action program as CARD 09-20450 and inspected all storage locations in the plant to ensure the integrity of nearby plant equipment. Modifications to the scaffold storage locations were completed, as needed, although later evaluations determined that no safety-related components were rendered inoperable due to scaffold storage racks constructed under MOP11.

Analysis: The inspectors determined the failure to have an adequate procedure resulted in failure to perform plant modification evaluations for the storage areas and scaffold storage racks in safety-related areas of the plant and was a performance deficiency.

This finding is similar to IMC 0612, Appendix E, example 4.a (not minor if:) because the licensee routinely failed to perform engineering evaluations on storage areas and scaffold storage racks that were built inside the plant. The finding was determined to be more than minor because the performance deficiency was associated with the reactor safety cornerstone attributes of Reactor Safety- Mitigating Systems and adversely affected the cornerstone attribute of design control (plant modifications).

The inspectors determined the finding could be evaluated using the SDP in accordance with IMC 0609, "Significance Determination Process," Attachment 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," Table 4a, for the Mitigating System Cornerstone, because the finding is a design control deficiency in rooms and buildings containing safety-related mitigating equipment, but did result in loss of operability or functionality. The answer to the first question was "yes, screen as Green."

This finding has a cross-cutting aspect in the area of problem identification and resolution, corrective actions timeliness, because the licensee did not ensure non-approved storage areas were removed in a timely manner. Specifically, the licensee failed to properly follow-up and conform to information in 2004 (CARD 04-24282) and 2008 (CARD 08-20945) pertaining to storage areas in the plant that had not been properly evaluated, failed to correct the procedures or remove the material from the storage areas (P.1 (d)).

Enforcement: 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," requires, in part, that "Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances..."

Contrary to the above, between February 2008 and January 2009, the licensee failed to maintain adequate procedures for building storage racks in safety-related areas of the plant. Specifically, licensee procedure MOP11 failed to contain adequate instructions on constructing storage racks such that nearby safety-related equipment would not be adversely affected. Because this violation was of very low safety significance and it was entered into the licensee's CAP as CARD 09-20450, this violation is being treated as an

NCV, consistent with Section VI.A.1 of the NRC Enforcement Policy (NCV 5000341/2009002-01).

1R19 Post-Maintenance Testing (71111.19)

.1 Post-Maintenance Testing

a. Inspection Scope

The inspectors reviewed the following post-maintenance activities to verify procedures and test activities were adequate to ensure system operability and functional capability:

- EDG-14 post-maintenance testing (PMT) following turbo maintenance;
- WO 27096924, "Calibrate Division 2 Core Spray Pump Discharge Flow Switch";
- WO 29446226, "Clean and Lubricate No. 1 High Pressure Control Valve Closing Spindle";
- WO A5000070100, "Inspect/Test Motor Control Center Cubicle for E4150F029";
- WO F248060100, "Replace Division 1 Non-Interruptible Air Supply Control Air Compressor Motor"; and
- WO 00Z060096, "Replace EDG-13 Service Water Pump."

These activities were selected based upon the structure, system, or component's ability to impact risk. The inspectors evaluated these activities for the following (as applicable): the effect of testing on the plant had been adequately addressed; testing was adequate for the maintenance performed; acceptance criteria were clear and demonstrated operational readiness; test instrumentation was appropriate; tests were performed as written in accordance with properly reviewed and approved procedures; equipment was returned to its operational status following testing (temporary modifications or jumpers required for test performance were properly removed after test completion), and test documentation was properly evaluated. The inspectors evaluated the activities against TS, the UFSAR, 10 CFR Part 50 requirements, licensee procedures, and various NRC generic communications to ensure the test results adequately ensured the equipment met the licensing basis and design requirements. In addition, the inspectors reviewed corrective action documents associated with post-maintenance tests to determine whether the licensee was identifying problems and entering them in the CAP and that the problems were being corrected commensurate with their importance to safety. Documents reviewed are listed in the Attachment to this report.

This inspection constituted six post-maintenance testing samples as defined in IP 71111.19-05.

b. Findings

No findings of significance were identified.

1R20 Outage Activities (71111.20)

.1 Refueling Outage Activities

a. Inspection Scope

The inspectors reviewed the Outage Safety Plan (OSP) and contingency plans for the Unit 2 RFO-13, conducted beginning March 27, 2009, to confirm the licensee had appropriately considered risk, industry experience, and previous site-specific problems in developing and implementing a plan that assured maintenance of defense-in-depth. During the RFO, the inspectors observed portions of the shutdown and cooldown processes and monitored licensee controls over the outage activities listed below:

- licensee configuration management, including maintenance of defense-in-depth commensurate with the OSP for key safety functions and compliance with the applicable TSs when taking equipment out of service;
- implementation of clearance activities and confirmation that tags were properly hung and equipment appropriately configured to safely support the work or testing;
- installation and configuration of reactor coolant pressure, level, and temperature instruments to provide accurate indication, accounting for instrument error;
- controls over the status and configuration of electrical systems to ensure that TS and OSP requirements were met, and controls over switchyard activities;
- monitoring of decay heat removal processes, systems, and components;
- controls to ensure that outage work was not impacting the ability of the operators to operate the spent fuel pool cooling system;
- reactor water inventory controls including flow paths, configurations, alternative means for inventory addition, and controls to prevent inventory loss;
- controls over activities that could affect reactivity;
- maintenance of secondary containment as required by TS; and
- licensee identification and resolution of problems related to RFO activities.

Documents reviewed during the inspection are listed in the Attachment to this report.

The RFO inspection sample will be counted in the second quarter Inspection Report 05000341/2009-003.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

.1 Surveillance Testing

a. Inspection Scope

The inspectors reviewed the test results for the following activities to determine whether risk-significant systems and equipment were capable of performing their intended safety function and to verify testing was conducted in accordance with applicable procedural and TS requirements:

- Division 1 EDG ECCS emergency start circuit surveillance testing;
- Procedure 24.204.01, "LPCI and Torus Spray Pump and Valve Testing";
- Procedure 74.000.19, "Monthly Standby Liquid Control Sodium Pentaborate Volume and Concentration Verification";
- Procedure 42.302.04, "Division 2, Bus 65E/13EC 4160V Undervoltage Logic";
- WO 27038261, "EDG-13 Start and Load Test";
- WO 25800440, "Perform 24.402.06 Drywell-to-Torus Bypass Leak Test"; and
- Main steam isolation valve, local leak-rate test surveillance.

The inspectors observed in-plant activities and reviewed procedures and associated records to determine the following:

- preconditioning did occur;
- the effects of the testing were adequately addressed by control room personnel or engineers prior to the commencement of the testing;
- acceptance criteria were clearly stated, demonstrated operational readiness, and were consistent with the system design basis;
- plant equipment calibration was correct, accurate, and properly documented;
- as-left setpoints were within required ranges and the calibration frequency was in accordance with TSs, the UFSAR, procedures, and applicable commitments;
- measuring and test equipment calibration was current;
- test equipment was used within the required range and accuracy, applicable prerequisites described in the test procedures were satisfied;
- test frequencies met TS requirements to demonstrate operability and reliability, tests were performed in accordance with the test procedures and other applicable procedures, jumpers and lifted leads were controlled and restored where used;
- test data and results were accurate, complete, within limits, and valid;
- test equipment was removed after testing;
- where applicable for inservice testing activities, testing was performed in accordance with the applicable version of Section XI, American Society of Mechanical Engineers code, and reference values were consistent with the system design basis;
- where applicable for safety-related instrument control surveillance tests, reference setting data were accurately incorporated in the test procedure;
- prior procedure changes had not provided an opportunity to identify problems encountered during the performance of the surveillance or calibration test;
- equipment was returned to a position or status required to support the performance of its safety functions; and
- all problems identified during the testing were appropriately documented and dispositioned in the CAP.

Documents reviewed are listed in the Attachment to this report.

This inspection constituted five routine surveillance testing samples, one inservice testing sample, and one containment isolation valve sample as defined in IP 71111.22, Sections -02 and -05.

b. Findings

No findings of significance were identified.

1EP2 Alert and Notification System Evaluation (71114.02)

.1 Alert and Notification System Evaluation

a. Inspection Scope

The inspectors reviewed documents and conducted discussions with Emergency Preparedness (EP) staff regarding the operation, maintenance, and periodic testing of the Alert and Notification System (ANS) in the Fermi Power Plant's plume pathway Emergency Planning Zone. The inspectors reviewed monthly trend reports and siren test failure records from March 2007 through January 2009. Information gathered during document reviews and discussions was used to determine whether the ANS equipment was maintained and tested in accordance with Emergency Plan commitments and procedures. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one sample as defined in IP 71114.02-05.

b. Findings

No findings of significance were identified.

1EP3 Emergency Response Organization Augmentation Testing (71114.03)

.1 Emergency Response Organization Augmentation Testing

a. Inspection Scope

The inspectors reviewed and discussed with plant EP management and staff the emergency plan commitments and procedures that addressed the primary and alternate methods of initiating an Emergency Response Organization (ERO) activation to augment the on-shift ERO as well as the provisions for maintaining the plant's qualified ERO list. The inspectors also reviewed reports and a sample of CAP records of unannounced off-hour augmentation tests, which were conducted from March 2007 through January 2009, to determine the adequacy of the testing and associated corrective actions. The inspectors also reviewed a sample of the EP training records, approximately 49 records for ERO personnel who were assigned to key and support positions, to determine the status of their training as it related to their assigned ERO positions.

Documents reviewed are listed in the Attachment to this report.

This inspection constituted one sample as defined in IP 71114.03-05.

b. Findings

No findings of significance were identified.

1EP5 Correction of Emergency Preparedness Weaknesses and Deficiencies (71114.05)

.1 Correction of Emergency Preparedness Weaknesses and Deficiencies

a. Inspection Scope

The inspectors reviewed a sample of the nuclear quality assurance staff's 2007 and 2008 annual audits of the Fermi Power Plant EP program to determine that these independent assessments met the requirements of 10 CFR 50.54(t). The inspectors also reviewed critique reports and samples of CAP records associated with the 2008 biennial exercise, as well as various EP drills conducted in 2007 and 2008, in order to determine that the licensee fulfilled its drill commitments and to evaluate the licensee's efforts to identify, track, and resolve concerns identified during these activities. Additionally, the inspectors reviewed a sample of EP items and corrective actions related to the facility's EP program and activities to determine whether corrective actions were completed in accordance with the sites CAP. Also, the inspectors conducted walkdowns of the technical support center, operations support center, and emergency operations facility to evaluate material condition and readiness of the facilities and equipment. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one sample as defined in IP 71114.05-05.

b. Findings

No findings of significance were identified

1EP6 Drill Evaluation (71114.06)

.1 Emergency Preparedness Drill Observation

a. Inspection Scope

The inspectors evaluated the conduct of a routine licensee emergency drill on March 6, 2009, to identify any weaknesses and deficiencies in classification, notification, and protective action recommendation development activities. The inspectors observed emergency response operations in the simulator and Technical Support Center to determine whether the event classification, notifications, and protective action recommendations were performed in accordance with procedures. The inspectors also attended the licensee drill critique to compare any inspector-observed weakness with those identified by the licensee staff in order to evaluate the critique and to verify whether the licensee staff was properly identifying weaknesses and entering them into the corrective action program. As part of the inspection, the inspectors reviewed the drill package and other documents listed in the Attachment to this report.

This emergency preparedness drill inspection constituted one sample as defined in IP 71114.06-05.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstone: Public Radiation Safety

2PS1 Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems (71122.01)

.1 Inspection Planning

a. Inspection Scope

The inspectors reviewed the configuration of the licensee's gaseous and liquid effluent processing systems to confirm that radiological discharges were properly mitigated, monitored, and evaluated with respect to public exposure. The inspectors reviewed the performance requirements contained in General Design Criteria 60 and 64 of Appendix A to 10 CFR Part 50 and in the licensee's Radiological Effluent Technical Specifications (RETS) and Offsite Dose Calculation Manual (ODCM). The inspectors also reviewed any abnormal radioactive gaseous or liquid discharges and any conditions since the last inspection when effluent radiation monitors were out of service to verify that the required compensatory measures were implemented. Additionally, the inspectors reviewed the licensee's quality control program to verify that the radioactive effluent sampling and analysis requirements were satisfied and discharges of radioactive materials were adequately quantified and evaluated.

The inspectors reviewed each of the radiological effluent controls program requirements to verify that the requirements were implemented as described in the licensee's RETS. For selected system modification (since the last inspection), the inspectors reviewed changes to the liquid or gaseous radioactive waste system design, procedures, or operation, as described in the UFSAR and plant procedures.

The inspectors reviewed changes to the ODCM made by the licensee since the last inspection to ensure consistency was maintained with respect to guidance in NUREG-1302 and 0133 and Regulatory Guides 1.109, 1.21 and 4.1. If differences were identified, the inspectors reviewed the licensee's technical basis or evaluations to verify that the changes were technically justified and documented.

The inspectors reviewed the radiological effluent release reports for 2006 and 2007 in order to determine if anomalous or unexpected results were identified by the licensee, entered in the CAP, and adequately resolved.

The inspectors reviewed any significant changes in reported dose values from the previous radiological effluent release report, and the inspectors evaluated the factors which may have resulted in the change. If the change was not explained as being influenced by an operational issue (e.g., fuel integrity, extended outage, or major decontamination efforts), the inspectors independently assessed the licensee's offsite dose calculations to verify that the licensee's calculations were adequately performed and were consistent with regulatory requirements.

The inspectors reviewed the licensee's correlation between the effluent release reports and the environmental monitoring results as provided in Section IV.B.2 of Appendix I to 10 CFR Part 50.

This inspection constituted one sample as defined by IP 71122.01-5.

b. Findings

No findings of significance were identified.

.2 Onsite Inspection

a. Inspection Scope

The inspectors performed a walkdown of selected components of the gaseous and liquid discharge systems (e.g., gas compressors, demineralizers and filters, tanks, and vessels) and reviewed current system configuration with respect to the description in the UFSAR. The inspectors evaluated temporary waste processing activities, system modifications, and the equipment material condition. For radwaste equipment areas that were not readily accessible, the inspectors reviewed the licensee's material condition surveillance records, as applicable. The inspectors reviewed any changes that were made to the liquid or gaseous waste systems to verify that the licensee adequately evaluated the changes and maintained effluent releases as low as reasonable achievable.

During system walkdowns, the inspectors assessed the operability of selected point-of-discharge effluent radiation monitoring instruments and flow measurement devices. The effluent radiation monitor alarm set-point values were reviewed to verify that the set-points were consistent with RETS/ODCM requirements.

For effluent monitoring instrumentation, the inspectors reviewed documentation to verify the adequacy of methods and monitoring of effluents, including any changes to effluent radiation monitor set-points. The inspectors evaluated the calculation methodology and the basis for the changes to verify the adequacy of the licensee's justification.

The inspectors observed the licensee's sampling of gaseous radioactive waste (e.g., sampling of waste steams). Additionally, the inspectors reviewed several radioactive liquid and gaseous waste effluent discharge permits, assessed whether the appropriate treatment equipment was used and whether the radioactive effluent was processed and discharged in accordance with RETS/ODCM requirements, including the projected doses to members of the public. No liquid radioactive releases occurred during the inspection cycle.

The inspectors interviewed staff concerning effluent discharges made with inoperable (declared out-of-service) effluent radiation monitors to determine if appropriate compensatory sampling and radiological analyses were conducted at the frequency specified in the RETS/ODCM. For compensatory sampling methods, the inspectors reviewed the licensee's practices to determine if representative samples were obtained and if the licensee routinely relied on the use of compensatory sampling in lieu of adequate system maintenance or calibration of effluent monitors.

The inspectors reviewed surveillance test results for effluent-related ventilation and gaseous discharge systems (high efficiency particulate air and charcoal filtration) to verify that the systems were operating within the specified acceptance criteria. In

addition, the inspectors assessed the methodology the licensee used to determine the stack/vent flow rates to verify that the flow rates were consistent with the RETS/ODCM.

The inspectors reviewed the licensee's program for identifying any normally non-radioactive systems that may have become radioactively contaminated to determine if evaluations (e.g., 10 CFR 50.59 evaluations) were performed per IE Bulletin 80-10.

The inspectors reviewed instrument maintenance and calibration records (i.e., both installed and counting room equipment) associated with effluent monitoring and reviewed quality control records for the radiation measurement instruments. The inspectors performed this review to identify any degraded equipment performance and to assess corrective actions, as applicable.

The inspectors reviewed the radionuclides that were included by the licensee in its effluent source term to determine if all applicable radionuclides were included (within detectability standards) in the licensee's evaluation of effluents. The inspectors reviewed waste stream analyses (10 CFR Part 61 analyses) to determine if hard-to-detect radionuclides were also included in the source term analysis.

The inspectors reviewed a selection of monthly, quarterly, and annual dose calculations to ensure that the licensee had properly demonstrated compliance with 10 CFR Part 50, Appendix I, and RETS dose criteria.

The inspectors reviewed licensee records to identify any abnormal gaseous or liquid tank discharges (e.g., discharges resulting from misaligned valves, valve leak-by, etc.) to determine if the licensee had implemented the required actions. The inspectors determined if abnormal discharges were assessed and reported as part of the Annual Radioactive Effluent Release Report consistent with Regulatory Guide 1.21.

The inspectors reviewed the licensee's effluent sampling records (sampling locations, sample analyses results, flow rates, and source term) for radioactive liquid and gaseous effluents to verify that the licensee's information satisfied the requirements of 10 CFR 20.1501.

This inspection constituted one sample as defined by IP 71122.01-5.

b. Findings

No findings of significance were identified.

.3 Identification and Resolution of Problems

a. Inspection Scope

The inspectors reviewed the licensee's self-assessments, audits, LERs, and Special Reports related to the radioactive effluent treatment and monitoring program since the last inspection to determine if identified problems were entered into the CAP for resolution. The inspectors also assessed whether the licensee's self-assessment program was capable of identifying repetitive deficiencies or significant individual deficiencies in problem identification and resolution.

The inspectors reviewed corrective action reports from the radioactive effluent treatment and monitoring program since the previous inspection, interviewed staff, and reviewed documents to determine if the following activities were conducted in an effective and timely manner commensurate with their importance to safety and risk:

- initial problem identification, characterization, and tracking;
- disposition of operability/reportability issues;
- evaluation of safety significance/risk and priority for resolution;
- identification of repetitive problems;
- identification of contributing causes;
- identification and implementation of effective corrective actions;
- resolution of NCVs tracked in the corrective action system;
- implementation/consideration of risk-significant operational experience feedback; and
- ensuring problems were identified, characterized, prioritized, entered into a corrective action, and resolved.

This inspection constituted one sample as defined by IP 71122.01-5.

b. Findings

No findings of significance were identified.

4OA1 Performance Indicator Verification (71151)

.1 Drill/Exercise Performance

a. Inspection Scope

The inspectors sampled licensee submittals for the Drill/Exercise Performance (DEP) performance indicator (PI) for the period from the second quarter 2008 through the fourth quarter 2008. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in the Nuclear Energy Institute (NEI) Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 5, were used. The inspectors reviewed the licensee's records associated with the PI to verify the licensee accurately reported the DEP indicator in accordance with relevant procedures and the NEI guidance. Specifically, the inspectors reviewed licensee records and processes including procedural guidance on assessing opportunities for the PI; assessments of PI opportunities during predesignated control room simulator training sessions, performance during the 2008 biennial exercise, and performance during other drills. Specific documents reviewed are described in the Attachment to this report.

This inspection constituted one drill/exercise performance sample as defined in IP 71151-05.

b. Findings

No findings of significance were identified.

.2 Emergency Response Organization Drill Participation

a. Inspection Scope

The inspectors sampled licensee submittals for the ERO Drill Participation PI for the period from the second quarter 2008 through fourth quarter 2008. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in the NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 5, were used. The inspectors reviewed the licensee's records associated with the PI to verify the licensee accurately reported the indicator in accordance with relevant procedures and the NEI guidance. Specifically, the inspectors reviewed licensee records and processes including procedural guidance on assessing opportunities for the PI; performance during the 2008 biennial exercise and other drills; and revisions of the roster of personnel assigned to key emergency response organization positions. Specific documents reviewed are described in the Attachment to this report.

This inspection constituted one ERO drill participation sample as defined in IP 71151-05.

b. Findings

No findings of significance were identified.

.3 Alert and Notification System

a. Inspection Scope

The inspectors sampled licensee submittals for the Alert and Notification System PI for the period from the second quarter 2008 through the fourth quarter 2008. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in the NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 5, were used. The inspectors reviewed the licensee's records associated with the PI to verify the licensee accurately reported the indicator in accordance with relevant procedures and the NEI guidance. Specifically, the inspectors reviewed licensee records and processes including procedural guidance on assessing opportunities for the PI and results of periodic alert and notification system operability tests. Specific documents reviewed are described in the Attachment to this report.

This inspection constituted one alert and notification system sample as defined in IP 71151-05.

b. Findings

No findings of significance were identified.

.4 Mitigating Systems Performance Index - Heat Removal System

a. Inspection Scope

The inspectors sampled licensee submittals for the Mitigating Systems Performance Index - Heat Removal System performance indicator. To determine the accuracy of the

PI data reported during those periods, PI definitions and guidance contained in the Nuclear Energy Institute (NEI) Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 5, were used. The inspectors reviewed the licensee's operator narrative logs, issue reports, event reports, MSPI derivation reports, and NRC Integrated Inspection Reports for the period of June 2008 through March 2009, to validate the accuracy of the submittals. The inspectors reviewed the MSPI component risk coefficient to determine if it had changed by more than 25 percent in value since the previous inspection, and if so, that the change was in accordance with applicable NEI guidance. The inspectors also reviewed the licensee's issue report database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one MSPI heat removal system sample as defined in IP 71151-05.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems (71152)

Cornerstones: Mitigating Systems

.1 Routine Review of Items Entered into the Corrective Action Program

a. Inspection Scope

The inspectors routinely reviewed issues during baseline inspection activities and plant status reviews to verify they were being entered into the licensee's CAP at an appropriate threshold, adequate attention was being given to timely corrective actions, and adverse trends were identified and addressed. Attributes reviewed included: identification of the problem was complete and accurate; timeliness was commensurate with the safety significance; evaluation and disposition of performance issues, generic implications, common causes, contributing factors, root causes, extent-of-condition reviews, and previous occurrences reviews were proper and adequate; and the classification, prioritization, focus, and timeliness of corrective actions were commensurate with safety and sufficient to prevent recurrence of the issue. Minor issues entered into the licensee's CAP as a result of the inspectors' observations are included in the Attachment to this report.

These routine reviews for the identification and resolution of problems did not constitute any additional inspection samples. Instead, by procedure they were considered an integral part of the inspections performed during the quarter and documented in Section 1 of this report.

b. Findings

No findings of significance were identified.

.2 Daily Corrective Action Program Reviews

a. Inspection Scope

In order to assist with the identification of repetitive equipment failures and specific human performance issues for follow-up, the inspectors performed a daily screening of items entered into the licensee's CAP. This review was accomplished through inspection of the station's daily condition report packages.

These daily reviews were performed by procedure as part of the inspectors' daily plant status monitoring activities and, as such, did not constitute any separate inspection samples.

b. Findings

No findings of significance were identified.

.3 Core Spray Pump Motor Oil Leak Not Promptly Identified and Corrected

a. Inspection Scope

The inspectors reviewed the events and circumstances surrounding a damaged instrument tube and related oil leak from the lower motor bearing reservoir on the 'A' core spray pump. The inspectors performed field walkdowns, interviewed personnel, and reviewed the licensee's subsequent apparent cause evaluation. The inspectors evaluated the licensee's response to the oil leak to ensure that the applicable TS action statements were followed, maintenance was performed in accordance with documented work instructions, and the equipment was properly returned to service in accordance with applicable licensee procedures. The inspectors reviewed the subsequent apparent cause evaluation to determine if the identified apparent cause and corrective actions taken or planned were appropriate and commensurate with the safety significance of the issue.

This inspection constituted one in-depth problem identification and resolution sample as defined in IP 71152.

b. Findings

Introduction: A finding of very low safety significance (Green) and an associated NCV of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," was self-revealed for the failure to promptly identify and correct an oil leak that subsequently rendered a safety-related pump inoperable. This issue was considered to be self-revealed because the oil leak, damaged thermocouple tube, and low motor oil level all represented a readily detectable degradation in the material condition and capability of equipment and an obvious failure of plant equipment.

Description: On February 3, 2009, Operations personnel noticed a puddle of oil beneath a bent thermocouple housing for the 'A' core spray pump motor. The lower motor bearing thermocouple tubing connection to the motor housing was bent approximately 60 degrees down from its normal horizontal position and was leaking from a threaded

fitting. Operators attempted to add oil to the affected bearing reservoir which subsequently leaked from the damaged tube.

Operators in the control room declared the pump inoperable and placed the pump controller in the "off" position. At the time, a Division 2 EDG was inoperable for planned maintenance. Consequently, TS 3.8.1, Condition A.2, required operators to declare the Division 2 core spray pumps inoperable within 4 hours from the discovery of the condition that rendered the 'A' core spray pump, a division I component, inoperable. Maintenance replaced the damaged tubes and fittings with new parts and filled the oil reservoir. Operations restored the 'A' core spray pump to operable within the four-hour time requirement to declare Division 2 core spray inoperable.

The inspectors performed a field walkdown of the affected pump while the oil leak was active and after the leak was repaired. The inspectors noticed a scaffold built in proximity to the thermocouple housing that was erected on January 29, 2009. The inspectors interviewed the scaffold crew and learned that one of the scaffold builders discovered an oil leak from the tube at the start of their job on January 29 and informed a nearby operator performing rounds. However, the Operator later returned, performed a less-than-thorough walkdown of the pump and consequently did not identify the damaged thermocouple tube. The following day, the scaffold builder mentioned the oil leak to the on-duty Operations shift engineer who also failed to adequately follow-up on the issue. Specifically, neither operator informed their supervision of the concern, turned over the information to the oncoming shift for further review, or initiated a CARD to document the concern. Additionally, the scaffold crew failed to identify the leak to their supervision and failed to initiate a CARD to document the concern.

Consequently, on-shift operators were unaware of the reported oil leak and damaged thermocouple tube until the morning of February 2, 2009, when an operator wiped up approximately 250 to 500 ml of oil from the floor underneath the damaged thermocouple tube; however, the operator did not identify the bent tube. Although the operator reported the oil puddle to the control room, the communication was less than adequate because control room operators understood the oil leak was from the nearby RCIC pump. The bent tube was found the following day, and a CARD was initiated, when control room staff requested a more thorough walkdown of nearby equipment to identify the source of the leak.

Analysis: The inspectors determined the failure to follow up and investigate several notifications of the oil leak from the 'A' core spray pump was a performance deficiency. Failure to take timely corrective actions for a condition adverse to quality was contrary to regulatory requirements.

The finding was determined to be more than minor because the finding was associated with the Mitigating Systems Cornerstone attribute of Equipment Performance and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the damaged thermocouple tube caused an oil leak on a safety-related pump motor that ultimately rendered it inoperable.

The inspectors determined the finding could be evaluated using the SDP in accordance with IMC 0609, "Significance Determination Process," Attachment 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," Table 4a, for the Mitigation Systems

Cornerstone. Because the Division 2 emergency AC power source was inoperable at the time (EDG-14), the inspectors concluded that the inoperability of a Division 1 core spray pump represented a loss-of-system safety function. Therefore, the inspectors utilized IMC 0609, Appendix A, "Determining the Significance of Reactor Inspection Findings for At-Power Situations."

For the purposes of the Phase 2 spreadsheet, the inspectors considered both the 'A' core spray pump and EDG-14 to be unavailable and provided no credit for operator recovery. The inspectors concluded the most limiting accident sequence was the transients-without-power conversion system, containment heat removal, and late injection with a resulting risk value for delta core damage frequency of 1E-8. The inspectors assigned full mitigation credit because the 'C' core spray pump remained available which limited the subsequent risk impact.

This finding had a cross-cutting aspect in the area of problem identification and resolution, Corrective Action Program issue identification, because the licensee staff did not have a low threshold for identifying the oil leak. Specifically, given several opportunities, licensee staff failed to initiate a CARD to identify an oil leak on safety-related equipment completely, accurately, and in a timely manner commensurate with its safety significance (P.1(a)).

Enforcement: 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," requires, in part, that measures shall be established to assure conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances, are promptly identified and corrected.

Contrary to the above, between January 29 and February 3, 2009, the licensee failed to promptly identify and correct a condition adverse to quality regarding an oil leak from the core spray Pump 'A' lower motor bearing, a safety-related component. Specifically, the oil leak was communicated to Operations staff on two separate occasions, Operations staff cleaned up oil from below the damaged thermocouple tube, and the damage to the thermocouple tube was readily visible; however, the cause of the oil leak was not investigated, and the bent tube was not identified and fixed, and no CARD was written until February 3, 2009. Because this violation was of very low safety significance and it was entered into the licensee's CAP as CARD 09-20694, this violation is being treated as an NCV, consistent with Section VI.A.1 of the NRC Enforcement Policy (NCV 5000341/2009002-02).

4OA3 Follow-Up of Events and Notices of Enforcement Discretion (71153)

.4 Unplanned HPCI Inoperability due to Cooling Water Valve Failure

a. Inspection Scope

The inspectors reviewed the licensee's response to a condition that resulted in an unplanned inoperability of HPCI and Division II EECW. On January 28, 2009, during shift turnover, operators identified neither the open nor the closed valve position indicating lights for the Division II EECW Control Rod Drive Isolation valve, P4400F604, were illuminated. Upon investigation, the licensee determined that the main control power fuse had opened. P4400F604 is required to close on EECW initiation to prevent diverting cooling water flow from the HPCI room cooler to the CRD room cooler.

Consequently, Operators declared both Division 2 EECW and HPCI inoperable. In addition, the licensee completed a 50.72 notification on the unplanned HPCI inoperability.

The inspectors responded to the control room to assess the licensee's response to the condition, to evaluate the significance of the issue, and to ensure that the licensee was complying with the applicable Technical Specification requirements. The licensee replaced the control power fuse, entered the issue into their CAP as CARD 09-20559, and performed an apparent cause evaluation. No direct cause of the fuse failure was identified other than a random failure; there was no evidence of overheating or overload condition and the correct fuse was installed. Post maintenance testing was successfully completed and both Division 2 EECW and HPCI were declared operable.

The licensee completed an evaluation of the impact on HPCI room cooling with the reduced EECW flow to the room cooler and determined that sufficient cooling capacity remained to ensure HPCI operability. As a result, the licensee retracted the original 50.72 notification. The inspectors reviewed the licensee's evaluation and agreed with the licensee's conclusions.

Documents reviewed in this inspection are listed in the Attachment.

This event follow-up review constituted one sample as defined in Inspection Procedure 71153-05.

b. Findings

No findings of significance were identified.

4OA5 Other Activities

.1 Quarterly Resident Inspector Observations of Security Personnel and Activities

a. Inspection Scope

During the inspection period, the inspectors conducted observations of security force personnel and activities to ensure the activities were consistent with licensee security procedures and regulatory requirements relating to nuclear plant security. These observations took place during both normal and off-normal plant working hours.

These quarterly resident inspector observations of security force personnel and activities did not constitute any additional inspection samples. Rather, they were considered an integral part of the inspectors' normal plant status review and inspection activities.

b. Findings

No findings of significance were identified.

.2 (Closed) NRC Temporary Instruction 2515/173 Review of the Industry Ground Water Protection Voluntary Initiative

a. Inspection Scope

An NRC assessment was performed of the licensee's implementation at Fermi 2 of the NEI – Ground Water Protection Initiative (dated August 2007 (ML072610036)). The inspectors verified that the licensee evaluated work practices that could lead to leaks and spills and performed an evaluation of systems, structures, and components that contain licensed radioactive material to determine potential leak or spill mechanisms.

The inspectors verified that the licensee completed a site characterization of geology and hydrology to determine the predominant ground water gradients and potential pathways for ground water migration from onsite locations to off-site locations. The inspectors also verified that an onsite ground water monitoring program had been implemented to monitor for potential licensed radioactive leakage into groundwater and that the licensee had provisions for the reporting of its ground water monitoring results (2008 annual effluent report). (See <http://www.nrc.gov/reactors/operating/ops-experience/tritium/plant-info.html>)

The inspectors reviewed the licensee's procedures for the decision-making process for potential remediation of leaks and spills, including consideration of the long-term decommissioning impacts. The inspectors also verified that records of leaks and spills were being recorded in the licensee's decommissioning files in accordance with 10 CFR 50.75(g).

The inspectors reviewed the licensee's notification protocols to determine whether they were consistent with the Groundwater Protection Initiative. The inspectors assessed whether the licensee identified the appropriate local and state officials and conducted briefings on the licensee's ground water protection initiative. The inspectors also verified that protocols were established for notification of the applicable local and state officials regarding detection of leaks and spills.

b. Findings

No findings of significance were identified.

.3 (Closed) NRC Temporary Instruction 2515/175 "Emergency Response Organization, Drill/Exercise Performance Indicator, Program Review"

The inspectors performed Temporary Instruction 2515/175, ensured the completeness of the Temporary Instruction's Attachment 1, and then forwarded the data to NRC Headquarters for evaluation.

4OA6 Management Meetings

.1 Exit Meeting Summary

On March 24, 2009, the inspectors presented the inspection results to Mr. J. Davis 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. A phone exit was conducted on May 6, 2009, to convey a revision to the cross cutting aspect for NCV 05000341/2009002-02, Core Spray Pump Motor Oil Leak Not Promptly Identified and Corrected.

.2 Interim Exit Meetings

Interim exits were conducted for:

- The results of the Radiation Monitoring Instrumentation and Protective Equipment program inspection with the Site Vice President, Mr. J. Plona, on February 12, 2009; and
- EP inspection with Mr. J. Plona, on February 13, 2009.

The inspectors confirmed that none of the potential report input discussed was considered proprietary.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

J. Plona, Site Vice President
K. Hlavaty, Plant Manager
T. Bergner, Nuclear Quality Assurance
R. Brown, Supervisor, Human Performance
M. Caragher, Director, Nuclear Engineering
M. Findlay, Manager, Security
G. Garber, Specialist, Radiological Emergency Response Planning
S. Hassoun, Supervisor, Licensing
G. Henscheid, Specialist, Radiological Emergency Response Planning
K. Howard, Manager, Plant Support Engineering
R. Johnson, Manager, Nuclear Licensing
E. Kokosky, Manager, Performance Improvement
M. Lawson, Radiation Protection Manager
C. Monday, Specialist, Radiological Emergency Response Planning
B. Muller, Radiological Engineer
G. Ohlemacher, Supervisor, Licensing
R. Salmon, Principal Engineer, Licensing
L. Schuster, Director, Nuclear Core Services
K. Scott, Manager, Maintenance
S. Stasek, Director, Nuclear Projects
G. Strobel, Manager, Operations
C. Walker, Director, Organization Effectiveness
R. Zipfel, Supervisor, Radiological Emergency Response Planning
T. VanderMey, Radiological Engineer

Nuclear Regulatory Commission

J. Giessner, Branch Chief, Branch 4, Division of Reactor Projects

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

Opened and Closed

05000341/2009002-01	NCV	Inadequate Procedural Controls Over Construction of Storage Racks and Storage Areas (Section R18.1)
05000341/2009002-02	NCV	Core Spray Pump Motor Oil Leak Not Promptly Identified and Corrected (Section 4OA2.3)

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 of 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.

1R01 – Adverse Weather Protection

- CARD 09-21520; MDCT Fan B Nitrogen High Pressure Lowering; dated 03/11/2009
- CARD 09-21631; NRC Concern 345 KV Mat Breakers CF & CM Blowdown Buckets; dated 03/17/2009

1R04 – Equipment Alignment

- CARD 07-21405; E4100F026 Valve Position Indicator Misaligned
- CARD 07-21410; E41-F502 Excess Flow Check Valve Loss of Indication
- CARD 07-21529; 44.020.214 Surveillance Needs Change to Acceptance Criteria Step
- CARD 07-21731; Replacement of Tin Whisker Susceptible Rosemount 710DU MTUs
- CARD 07-24543; Flange Bolt Thread Engagement Doesn't Meet 3071-031 Requirement
- CARD 07-24665; HPCI System Indicated Flow During Run of RCIC System
- CARD 07-27379; Print Does Not Match Equipment in the Field
- CARD 08-23654; Check Valve As-found Condition – Stuck Open
- CARD 08-28251; Configuration Control
- CARD 08-27961; E4150F042 HPCI Torus Suction In-bound Isolation Valve Will Not Close from the Control Room
- CARD 08-28129; E4150F600 Valve Lost Indication
- CARD 09-00198; NRC Concern – Leaking Fitting Downstream of West SBFW Pump Low Suction Pressure Source Valve; dated 01/23/2009
- CARD 09-20045; NRC Identified Concern – Failed Relays During Bench Testing
- Drawing 6M721-5708-01; HPCI Functional Operating Sketch; Revision AK
- Drawing 6M721-5708-2; HPCI Turbine Lube Oil/Control Oil Functional Operating Sketch; Revision L
- Drawing 6M721-5715-3; Standby Feedwater System Functional Operating Sketch; Revision M
- Drawing 6M721-5729-2; Emergency Equipment Cooling Water, Division II; Revision AT
- Procedure 20.000.18; Control of the Plant from the Dedicated Shutdown Panel; Revision 43
- Procedure 23.107.01; Standby Feedwater System; Revision 36
- Procedure 23.127; EECW Alignment; Revision 113
- Procedure 23.202; High Pressure Coolant Injection System; Revision 95
- Procedure 24.139.02; SLC Pump and Check Valve Operability Test; Revision 41
- Procedure 29.ESP.02; Alternate Boron Injection; Revision 10
- Vendor Manual Number VMS23-1; Ingersoll-Rand Company, Standby Feed Water Pumps, Motor & Lubricating Oil System; Revision B
- WO A407070100; Perform ASME As-Found & As-Left Relief Valve Testing Per 43.000.020
- WO 26724779; Perform 24.139.02 SLC Pump and Check Valve Operability Test
- WR 000Z063602; SLC Pump C4103C001A Discharge Pressure Relief Valve

1R05 – Fire Protection

- Applicability Determination, EDP-33415; The physical modifications encompassed by this package converts an existing storage area to support the subsequent establishment of a new Central Alarm Station complex; Revision 0
- Design Verification Record EDP 33415; Revision 0

1R06 – Flood Protection

- CARD 09-21217; NRC Concern – Division 1 EECW Pipe 6WM-P44-5233-1 Routed in Vicinity of Division 2 CCHVAC and SGTS Equipment; dated 02/25/2009
- RERP Drill Package; March 4, 2009

1R07 – Annual Heat Sink Performance

- CARD 09-21685; Emergency Diesel Generator Heat Exchanger Evaluations; March 19, 2009
- Heat Exchanger Inspection Report: EDG-12 – Air Coolant Hx, PIS R3001B027; 02/25/2009
- Heat Exchanger Inspection Report: EDG-12 – Jacket Coolant Hx, Pis R3001B018; 02/25/2009
- Heat Exchanger Inspection Report: EDG-12 – Lube Oil Hx, Pis R3001B001; 02/25/2009

1R11 – Licensed Operator Requalification Program

- Evaluation Scenario SS-OP-904-1064; 64B Bus Trip, RR Pump B Seal Failure, HPCI Start Failure, LOCA; Revision 1, dated 21 November 2008

1R12 – Maintenance Effectiveness

- CARD 09-21520; MDCT Fan B Nitrogen High Pressure Lowering; 03/11/2009
- D1100, Process Radiation Monitoring System (a)(1) to (a)(2) status
- Letter TMIS-08-0134; Summary of Expert Panel Meeting 203, Conducted December 22, 2008

1R13 – Maintenance Risk Assessments and Emergent Work Control

- CARD 09-20221; NRC Question – Risk Evaluations; 01/13/2009
- Maintenance Conduct Manual MMA08; Scaffolding; Revision 12
- Plan of the Day; Wednesday, January 28, 2009
- Plan of the Day; Wednesday, February 04, 2009
- Plan of the Day; Friday, February 13, 2009
- Plan of the Day; Monday, March 09, 2009
- Plan of the Day; Thursday, March 12, 2009
- Profile Summary, Actual Risk; Week of 01/12/2009
- Profile Summary, Scheduled Risk; Week of 01/12/2009
- Risk Management Plan; TBHVAC Shutdown for Perform Maintenance (South Supply Fan Back Draft Damper, Center Exhaust Fan Replacement, and Various PM's; dated 02/17/2008
- Scheduler's Evaluations for Fermi 2; 01/11/2009, 01/12/2009, 01/14/2009, 01/15/2009, and 01/16/2009
- WO 29399090; Core Spray Pump 'A' Lower Motor Bearing Oil Leak; 02/03/2009

1R15 – Operability Evaluations

- CARD 09-20352; SLC Pump 'A' Relief Valve Lifted Early
- CARD 09-20534; RHRSW Pump C Reached Low DP Alert Threshold; 01/27/2009
- CARD 09-20540; WGI (URS) Review of the Design Calculation DC-0214; 01/27/2009
- CARD 09-20540 – Additional Information Regarding Reportability – CARD 09-20540
- CARD 09-20964; Water Found Under East Inner Rail Road Airlock Door; dated 02/12/2009
- CARD 09-20986; Main Turbine High Pressure Control Valve #1 Not Responding; dated 02/15/2009
- CARD 09-21428; Additional Errors Identified in GE Implementation of ECCS Suction Strainer Head Loss Calculation; dated 03/06/2009
- CARD 09-21834; Secondary Containment Door Surveillance Testing; dated 03/25/2009
- Design Calculation DC-5803; RHRSW Design Basis Requirements; Revision B
- Log No. 05-038; Baseline Testing / Acceptance Criteria for RHRSW Pump A Replacement; Revision 0
- Log No. 99-071; Evaluation of Division 1 RHR Comple Service Water Pumps: E1151C001A/C, P4500C002A, and R3001C005(A) Reference Values After Installation of the Cold Weather Orifice (EDP-29475); dated September 13, 1999
- Log No. 99-088; ASME Pump Performance Acceptance Criteria, Second Ten Year Interval; dated December 9, 1999
- Procedure 23.109; Turbine Operating Procedure; Revision 71
- Procedure 24.205.05; Division 1 RHRSW Pump and Valve Operability Test; Revision 45
- Procedure 24.405.03; Secondary Containment Operability Test; Revision 35
- WO 26296138; Perform 24.110.05 RPS-TCV/TSV Channel Function; dated 11/09/2008
- WO 26989281; Perform 24.205.05 Division 1 RHRSW Pump & Valve Operability

1R18 – Plant Modifications

- CARD 04-24282; Scaffolding Touching the Torus; 09/17/2004
- CARD 08-20511; NRC Questions on Scaffold Material Storage Areas; 01/27/2009
- CARD 08-20945; Scaffold Storage; 02/08/2008
- Drawing 6E7212838-ION; Class I Conduit As-built Installation Reactor Bldg EL 540'0" Torus S.E.
- Drawing 6I721-2209-1; ECCS Suction Leak Detection System Reactor Building Sub Basement – Unit #2; Revision E
- Drawing 6I721-2211-05; Suppression Pool to Core Spray Pump Inlet Valves A & B E2140F036A & F036B; Revision L
- Drawing 6I721-2221-08; HPCI System Suppression Pool Isolation Valves E4150F041 & E4150F042; Revision Z
- Engineering Functional Analysis EFA-E11-07-005; Non-Qualified, Tefzel Ty-Wraps Inside Primary Containment; Revision B

1R19 – Post-Maintenance Testing

- CARD 09-21188; Keyway on Replacement Control Air Compressor Motor Shorter Than Keyway on Old Motor; 02/24/2009
- Design Instruction Thermal Overload Heater Sizing; Specification 3071-128-EZ-03; Revision D
- Equivalent Replacement Evaluation ERE 34776; Replacement CAC Motors; Revision 0
- Procedure 24.129.04; Control Air Valve Operability/Position Indication Verification/Isolation Integrity Test; Revision 41
- WO F248060100; PMT – Vibration Check; dated 02/23/2009

- WO 27096924; Calibrate Division 2 Core Spray Pump Discharge Flow Switch; dated 02/28/2008
- WO 29424727; Perform Partial 24.203.03 for PMT's – E2150F015B & F031B
- WO 29446226; Clean and Lubricate #1 HPCV Closing Spindle; dated 02/17/2009
- WO 000Z060096; Replace Motor on DGSW #13 Pump; dated 01/12/2006

1R20 - Outage Activities

- WO 26986647; Perform 24.204.01 Division 1 LPCI & Torus Cooling/Spray Pump and Valve Operator Test; dated 02/01/2009

1R22 – Surveillance Testing

- CARD 09-20661; Chemistry Surveillance Procedures 74.000.18 and 74.000.19 Enhancements; dated 02/02/2009
- CARD 09-21960; B MSIV's Failed LLRT Test 43.401.500; dated 03/29/2009
- Procedure 42.302.04; Logic System Functional Test of Division 2 4160 Volt Emergency Bus 65E and 13EC Undervoltage Circuits; Revision 40
- Procedure 42.307.01; Logic System Functional Test of Division 1 EDG ECCS Emergency Start Circuits and Auto Trip/Bypass Circuits; Revision 34
- Procedure 73.713.02; Plant Process System Sampling of Satellite Sample Sinks and Miscellaneous Sample Points; Revision 13
- Procedure 74.000.19; Chemistry Routine Surveillances; Revision 21
- Procedure MGA-24; Human Performance Program and Field Worker Tools; Revision 1
- Procedure MGA 24, Enclosure F; Worker Human Performance Tools; Revision 1
- WO 0071080117; Perform 74.000.19 ATT. 8 SLC Chemistry
- WO 0071080214; Perform 74.000.19 ATT. 8 SLC Chemistry
- WO 0071080313; Perform 74.000.19 ATT.8 SLC Chemistry
- WO 25226096; Perform 42.302.04 Division 2 Bus 65E/12EC 4160V Undervoltage Logic Functional; dated 03/03/2009
- WO 25747170; Perform 43.401.500 LLRT for X-7A B2103F022A & F028A; 03/28/2009
- WO 26986647; Perform 24.204.01, Division 1 LPCI & Torus Cooling/Spray Pump & Valve Operability Test
- WO 26987007; Perform 74.000.19 ATT. 8 SLC Chemistry
- WO 27038261; Perform 24.307.16 Sec 5.1 EDG-12 Start and Load Test – Slow Start; dated 03/06/2009

1EP2 Alert and Notification System Evaluation

- CARD 09-20406; Operating Experience on Potential Impact of Cold Weather on Siren Operation; dated 01/22/2009
- CARD 08-27758; Review and Revise EP-560, Alert Notification System Procedure; dated 11/19/2008
- CARD 08-23599; ANS Siren Number 72 Vandalism; dated 05/30/2008
- CARD 08-23374; ANS Siren Number 48 Intentionally Turned Off; dated 05/19/2008
- FEMA Region V Public Alert and Notification System Letter; dated January 21, 2003
- EP-560; Alert Notification System - Siren Operation and Maintenance; Revision 2
- Alert Notification System Maintenance Records; dated March 23, 2007 - January 28, 2009
- West Shore Service Annual Preventative Maintenance Tracking Checklists; dated October 13 - 17, 2008

1EP3 Emergency Response Organization Staffing and Augmentation

- CARD 08-28108; November 20, 2008 and November 25, 2008 ECOS Test Results Did Not Meet Test Requirements; dated 12/04/2008
- CARD 08-27905; Lapsed Qualification for RERP Off-Site RET Samplers; dated 11/25/2008
- CARD 08-23093; Emergency Call Out System Failure; dated 05/08/2008
- EP-101; Classification of Emergencies; Revision 35
- EP-570; Emergency Call Out System - Testing and Maintenance; Revision 1
- Emergency Response Organization Augmentation Call Out Test Records; dated March 2007 - January 2009
- Fermi 2 Radiological Emergency Response Preparedness Plan, Section B; Revision 35
- QP-ER-665; Training and Qualification Program Description; Revision 30
- Qualified Emergency Response Organization List; dated February 2, 2009

1EP5 Correction of Emergency Preparedness Weaknesses

- Audit Report 08-0102; NQA Report of Emergency Preparedness Program; dated April 14, 2008
- Audit Report 07-0101; NQA Report of Emergency Preparedness Program; dated March 26, 2007
- CARD 08-28567; Self-Assessment Recommendation: Lack of Strong Line Ownership for RERP; 12/03/2008
- CARD 08-27508; Evaluate the Applicability/Vulnerability of Kewaunee EP White Finding; dated 11/11/2008
- CARD 08-27232; Incorrect Revisions of Controlled Documents Found in TSC and EOF; dated 10/30/2008
- CARD 08-23756; Enhancement to EP-101, Classification of Emergencies, AU2; dated 06/06/2008
- CARD 08-23548; Evaluated Exercise April 20, 2008, Enhancement to the Dose Assessment Report; dated 05/28/2008
- CARD 08-23441; Evaluated Exercise April 20, 2008, Scenario Deficiency Related to Core Damage Calculations; dated 05/22/2008
- CARD 08-23428; Evaluated Exercise April 20, 2008, Inaccurate Documentation of Respirator Qualification Date; dated 05/21/2008
- CARD 08-22766; Evaluated Exercise April 20, 2008, Failed Objective for Classification of Emergency Condition; dated 05/25/2008
- CARD 08-21911; Investigate Need for SCBA Qualification for Damage Control and Rescue Team Members; dated 03/19/2008
- CARD 08-21621; Back Up ECOS Improvements Investigation; dated 03/06/2008
- CARD 07-26246; October 11, 2007, HU4, UE Declaration Timeliness; dated 10/16/2007
- NARP-08-0065; June 13, 2008, Loss of Annunciators Unusual Event; dated June 27, 2008
- NARP-08-0111; October 11, 2007, Confirmed Security Event of Potential Degradation of the Level of Safety of the Plant; dated October 29, 2007
- NARP-09-0041; 2008 RERP Focused Self-Assessment; dated February 2, 2009
- NARP-08-0029; Focused Self-Assessment - NRC Emergency Preparedness Inspection Readiness; dated April 17, 2008
- Nuclear Plant Event Notification Form; dated October 11, 2007

2PS1 - Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems

- Audit Number 06-0114; Quality Assurance Audit of the Radiation Protection, Environmental Protection (Non-REMP), and Radiological Effluents (REMP and Offsite Dose Calculation Manual) Programs; dated November 30, 2006
- Audit Report 08-0110; Radiation Protection, Radiological Effluents (REMP and Offsite Dose Calculation Manual) and Environmental Protection (Non-REMP) Programs; dated December 22, 2008
- Audit No. SA06-014; NUPIC Joint Audit Report of AREAVA NP, Inc. Environmental Laboratories; dated November 29, 2006
- CARD 08-25503; Groundwater Protection Program evaluate MRP30 after SSC Risk Evaluation; dated 09/21/2008
- CARD 08-26616; Evaluate Adequacy of Managing 50.75(g) Files; dated 10/16/2008
- Fermi 2 2006 Radioactive Effluent Release and Radiological Environmental Operating Report; not dated
- Fermi 2 2007 Radioactive Effluent Release and Radiological Environmental Operating Report; not dated
- NPRP-08-0226; Self-Assessment of the Fermi 2 Radioactive Effluent Program; dated December 4, 2008
- Offsite Dose Calculation Manual; Revision 19
- WO 25999000; Perform 64.080.206 Rx Bldg Exhaust Plenum PRM Calibration; dated 11/26/2008
- WO 27008535; Perform 64.713.019 Att 1 Rx Bldg SPING Effluents; dated 02/10/2009

4OA1 – Performance Indicator Verification

- CARD 08-28433; ANS Siren Number 43 Indicated a Failure to Sound and Rotate; dated 12/17/2008
- CARD 09-20438; ERO Drill Participation Performance Indicator Has Declined Since July 2008; dated 01/23/2009
- EP-540015; Monthly Performance Indicator Results for ANS Reliability; dated April - December 2008
- EP-540015; Emergency Response Organization Drill Participation; dated June - December 2008
- EP-560; Monthly Siren Test Results; dated April - December 2008
- EP-54008; Quarterly Performance Indicator Results for ERO Drill Participation; dated June - December 2008
- EP-54008; Quarterly Performance Indicator Results for Drill and Exercise Performance; dated April - December 2008
- Nuclear Plant Event Notification; Message 1-10
- Nuclear Plant Event Notification Forms; dated April - December 2008

4OA2 – Identification and Resolution of Problems

- CARD 08-28491; P4400F603A (Division 1 EECW Supply Isolation Valve) Did Not Stroke Closed When Pushbutton Was Pressed During Performance of 24.207.05; dated 12/19/2008
- CARD 09-20637; E1150F004A Would Not Stroke During the Division 1 LPCI Pump and Valve Surveillance; dated 02/01/2009
- CARD 09-20694; Core Spray Pump 'A' Lower Motor Bearing Oil Leak; dated 02/12/2009
- Drawing MI721-2201-79; Suppression Pool to Pump a Valve E1150F004A; Revision G

- WR 000Z973436; Replace MCC Bucket 72B-3A Position 3A-R; dated 07/22/1999
- WR F079060100; Inspect/Test 480 Vac MCC 72B-3A; dated 01/18/2007

4OA3 - Follow-Up of Events and Notices of Enforcement Discretion

- CARD 09-20559; Loss of Indication for D2 EECW CRD Isolation Valve; dated January 28, 2009

4OA5 - Other Activities

- CARD 08-25503; Groundwater Protection Program Recommendation (Monitor Well Locations); dated 10/21/2008
- General Regulatory Reporting Requirements List; Revision 4
- Hydrogeologic Investigation Report; DTE Energy – Fermi 2 Power Plant; Revision 0
- MES68; Groundwater Protection Program Structures, Systems, and Components Review; Revision 0
- MRP30; Integrated Ground-Water Protection Program; Revision 0
- NPRP-08-0218; Focused Self Assessment on Fermi Compliance with NEI 07007 “Ground Water Protection Initiative”; dated October 30, 2008
- Protection Voluntary Initiative

LIST OF ACRONYMS USED

AC	Alternating Current
ADAMS	Agencywide Document Access Management System
ANS	Alert Notification System
ASME	American Society of Mechanical Engineers
CAP	Corrective Action Program
CARD	Condition and Assessment Resolution Document
CFR	Code of Federal Regulations
DEP	Drill/Exercise Performance
DRP	Division of Reactor Projects
ECCS	Emergency Core Cooling System
EDG	Emergency Diesel Generator
EECW	Emergency Equipment Cooling Water
EP	Emergency Preparedness
ERO	Emergency Response Organization
HPCI	High Pressure Coolant Injection
IMC	Inspection Manual Chapter
IP	Inspection Procedure
IR	Inspection Report
LER	Licensee Event Report
LPCI	Low Pressure Coolant Injection
MCC	Motor Control Center
NCV	Non-Cited Violation
NEI	Nuclear Energy Institute
NRC	U.S. Nuclear Regulatory Commission
ODCM	Offsite Dose Calculation Manual
OSP	Outage Safety Plan
PARS	Publicly Available Records
PI	Performance Indicator
PMT	Post-Maintenance Testing
RCIC	Reactor Core Isolation Cooling
RETS	Radiological Effluent Technical Specifications
RFO	Refueling Outage
RHR	Residual Heat Removal
SDP	Significance Determination Process
SSC	Structures, Systems, and Components
SW	Service Water
TS	Technical Specification
UFSAR	Updated Final Safety Analysis Report
WO	Work Order