#### November 4, 2001

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

SUBJECT: FERMI 2

NRC INSPECTION REPORT 50-341/01-16(DRP)

Dear Mr. O'Connor:

On October 5, 2001, the NRC completed an inspection at your Fermi 2 Nuclear Power Station. The enclosed report documents inspection findings which were discussed on October 5, 2001, with you and other members of your staff.

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

On the basis of the sample selected for review, the inspectors concluded that in general, problems were identified, evaluated, and corrected. There was one No Color finding identified during this inspection. This was a cross-cutting issue with several examples. One example was determined to be a violation of NRC requirements. However, because of the very low safety significance and because it has been entered into your corrective action program, the NRC is treating this issue as a Non-Cited Violation, consistent with Section VI.A.1, of the NRC's Enforcement Policy. If you deny this Non-Cited Violation, you should provide a response with the basis for your denial, within 30 days of the date of this inspection report, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region III; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspectors at the Fermi 2 Nuclear Power Station.

In addition, since September 11, 2001, Fermi 2 has assumed a heightened level of security based on a series of threat advisories issued by the NRC. Although the NRC is not aware of any specific threat against nuclear facilities, the heightened level of security was recommended for all nuclear power plants and is being maintained due to the uncertainty about the possibility of additional terrorist attacks. The steps recommended by the NRC include increased patrols, augmented security forces and capabilities, additional security posts, heightened coordination with local law enforcement and military authorities, and limited access of personnel and vehicles to the site.

The NRC continues to interact with the Intelligence Community and to communicate information to Nuclear Generation. In addition, the NRC has monitored maintenance and other activities which could relate to the site's security posture.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <a href="http://www.nrc.gov/NRC/ADAMS/index.html">http://www.nrc.gov/NRC/ADAMS/index.html</a> (the Public Electronic Reading Room).

Sincerely,

/RA/

Mark A. Ring, Chief Branch 1 Division of Reactor Projects

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

Enclosure: Inspection Report 50-341/01-16(DRP)

cc w/encl: N. Peterson, Director, Nuclear Licensing

P. Marquardt, Corporate Legal Department

Compliance Supervisor

R. Whale, Michigan Public Service Commission Michigan Department of Environmental Quality Monroe County, Emergency Management Division

Emergency Management Division MI Department of State Police

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# U.S. NUCLEAR REGULATORY COMMISSION REGION III

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

Report No: 50-341/01-16(DRP)

Licensee: Detroit Edison Company

Facility: Enrico Fermi, Unit 2

Location: 6400 N. Dixie Hwy.

Newport, MI 48166

Dates: September 24 through October 5, 2001

Inspectors: R. Lerch, Team Leader

J. Larizza, Resident Inspector R. Winter, Reactor Engineer

Approved by: Mark Ring, Chief

Branch 1

Division of Reactor Projects

#### **SUMMARY OF FINDINGS**

IR 05000341-01-16, on 09/24-10/05/01; Detroit Edison Company. Fermi 2 Nuclear Power Station; Identification and Resolution of Problems.

The inspection was conducted by one resident inspector and two region-based inspectors. This inspection identified one No Color finding, which involved a Non-Cited Violation. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using NRC Inspection Manual Chapter 0609 "Significance Determination Process" (SDP). Findings for which the SDP does not apply are indicated by the severity level of the applicable violation. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website at <a href="http://www.nrc.gov/NRR/OVERSIGHT/index.html">http://www.nrc.gov/NRR/OVERSIGHT/index.html</a>.

#### **Identification and Resolution of Problems**

The team identified several examples of poor implementation of the corrective action program, but concluded that in general the licensee effectively identified, evaluated, and corrected plant problems. Problem identification was effective in using a low threshold for initiating Condition Assessment Record Documents. Licensee audits and assessments identified issues similar to NRC observations. Corrective actions specified were appropriate based on the identified causes and were effective in preventing recurrence of significant conditions adverse to quality. Plant staff willingness to identify issues and a low threshold for initiating condition reports supported a safety conscious work environment.

#### **Cornerstone: Miscellaneous**

No Color A cross-cutting issue in the area of Problem Identification and Resolution was identified with several examples showing performance deficiencies in the implementation of the corrective action program in one or more phases for an issue. For example, repeated failure of the reactor building closed cooling water system temperature control valve resulted from incomplete identification and documentation of a problem and closure of a Condition Assessment Record Document without corrective action. In other examples, a temperature switch was returned to service with undocumented deficiencies and corrective action was not timely for a UFSAR commitment which was identified as not met from 1998 until this inspection. Finally, the poor prioritization and evaluation of corrective actions for 600 uninspected fire seal penetrations resulted in untimely and incomplete corrective actions. This example is being treated as a Non-Cited Violation.

The finding was more than minor because the examples showed occasional failures of the corrective action program to achieve prompt and thorough resolution of issues affecting plant equipment. Further, the finding was cross-cutting because the several examples were an indication of adverse performance.

#### **Report Details**

#### 4. OTHER ACTIVITIES (OA)

4OA2 Problem Identification and Resolution

.1 Effectiveness of Problem Identification

#### a. Inspection Scope

The inspectors reviewed items to determine if problems were being identified, characterized and entered into the corrective action program for evaluation and resolution. Specifically, the inspectors selected items from inspection reports issued over the last year, approximately 100 condition assessment resolution documents (CARDs), audits, and self-assessments. The inspectors evaluated the CARDs to determine the licensee's threshold for identifying problems. The inspectors also attended meetings, conducted walkdowns and interviewed plant personnel. The documents reviewed are listed in Attachment 1.

#### b. <u>Findings</u>

The licensee was identifying problems at a low threshold and entering them into the corrective action system; however, there were instances where the identification phase was ineffective, untimely, or did not completely identify the most relevant aspect of a problem. The following examples showed performance deficiencies where not properly identifying and documenting the problem resulted in multiple recurrences or delayed corrective action.

On November 24, 2000, CARD 00-24717 was initiated to address the problem of repeated failure of the reactor building closed cooling water system temperature control valve. The last failure of the temperature control valve caused an actuation of the engineered safety feature system. During the period of June 9, 2000 through November 24, 2000, the reactor building closed cooling water system temperature control valve controller linkage had failed a number of times. Following the first occurrence on June 9, 2000, the I&C personnel quickly repaired the linkage and notified the control room of the repair and Operations placed the temperature control valve back in service. CARD was not initiated because the two groups involved (Operations and I&C) thought that the other group had initiated the required documentation. During the second occurrence on August 23, 2000, Operations personnel noted a problem with the valve and I&C personnel performed repairs to the linkage. A very detailed CARD was written describing the problem with the linkage shaft rotation. The CARD was processed with the idea that the problem would be investigated and a permanent repair made. Later the work request and the CARD were canceled and closed out. This was an example of a cross-cutting issue with corrective action program implementation.

• From November 21, 2000 to February 24, 2001, three CARDs were written to address the alarms on emergency diesel generator 12 low lube oil temperature switch. While resolving the initial CARD, 00-25147, a replacement switch that could not be properly mounted in the temperature well was installed and put into service. This deficiency was not documented on a CARD. Subsequently, the alarm came in again on December 27, 2000 (see CARD 00-24832), missing parts were identified on January 11, 2001 (see CARD 01-11820), and the alarm came in again on February 24, 2001 (see CARD 01-11247). The final signature that the paperwork was completed was made on March 29, 2001. This issue had minor safety significance because the temperature switch only operated an alarm and was indicating in a conservative direction. However, this was an example of a cross-cutting issue with corrective action program implementation.

#### .2 Prioritization and Evaluation of Issues

#### a. <u>Inspection Scope</u>

The inspectors conducted an independent assessment of the prioritization and evaluation of a selected sample of CARDs. The assessment included a review of the category assigned, operability and reportability determinations, extent of condition evaluations, cause investigations, and the appropriateness and effectiveness of the assigned corrective actions. The inspectors attended several daily ownership meetings to observe the assignment of CARD categories for current issues and a corrective action review board meeting to observe program oversight by management. The documents reviewed are listed in Attachment 1.

#### b. Findings

The Quality Assurance (QA) staff administered the corrective action program and also closely monitored how well the program was implemented. One audit issue identified by QA in the past year was that a number of aging, low priority issues existed. This was a issue because the threshold for prioritization had been lowered in the past. Several hundred CARDs were reviewed by the licensee to address this. The majority of unresolved CARDs involved configuration control issues such as drawing inaccuracies; however, an example, described below, involved a commitment in the UFSAR that was not being met. Other than the audit issues, the inspectors concluded that the significance of issues was properly assigned and that root cause evaluations were performed as required by the corrective action program. In general, operability and reportability determinations were technically justified. Actions that were assigned to correct a problem were consistent with the specified causes. The following example showed untimely corrective action:

On May 7, 2001, CARD 01-13957 was written to document a QA audit finding of a number of Level 4 CARDS that had been open for greater than two years. CARD 98-10409, dated January 20, 1998, identified that the UFSAR section 6.3.2.17, ECCS, stated the following: "Administrative procedures require the position of any manual valve to be verified and recorded prior to and after each time it is operated and the position of all manual valves to be verified and recorded prior to initial plant operation following refueling." This appeared to be

a commitment that all manual ECCS valves, including vent valves and drain valves would be verified and recorded prior to and after each time the valve was operated. The requirement identified in 1998 was not resolved as of May 7, 2001. Although Operations procedure 27.000.01, "Locked Valve Lineup Verification," already included the ECCS manual valves; procedure 22.000.01. "Plant Startup Master Checklist," was not revised until September 27, 2001. Steps 5.5.11, 7.2 and Attachment 2 incorporated the referenced requirements outlined in CARD 98-10409. On October 3, 2001, the licensee also initiated a Licensing Change Request to delete the requirement to verify the position of manual valves prior to each operation and to specify that only critical valves are verified after each operation and prior to initial plant operation following refueling from the UFSAR. This issue was of minor safety significance because no valve mispositions were involved, major valves were controlled by a locked valve program and part of the commitment will be deleted. However, inappropriate prioritization of this issue was an example of a cross-cutting issue with corrective action program implementation.

#### .3 Effectiveness of Corrective Action

#### a. Inspection Scope

The inspectors reviewed selected CARDs and associated corrective actions to evaluate the effectiveness of corrective actions. The inspectors focused on corrective action documents relating to risk significant systems. The documents reviewed are listed in Attachment 1.

#### b. Findings

Several examples of inadequate closure of corrective actions were identified including an NCV for missed fire penetration inspections discussed below. However, the majority of the corrective actions reviewed were timely, complete and effective in preventing recurrence of the problem. Root cause evaluations clearly specified the corrective actions which were intended to prevent recurrence of the problem. Corrective actions were directed to the identified causes and were completed in a generally timely manner through appropriately scheduled due dates. However, occasionally the licensee also identified issues where corrective actions were ineffective or untimely. The following example about the inspection of fire penetration seals showed inadequate implementation of the corrective action program to address all aspects of the problem and untimely execution of the corrective actions.

A Non-Cited Violation of T.S. 5.4.1.d. was identified for inadequate implementation of the fire protection program. In 1997, during a review for CARD 97-11167, the licensee found that about 600 penetrations did not have component identification numbers assigned. These penetrations were throughout the plant and in risk significant areas. Unassigned component identification numbers caused the penetrations not be incorporated in Fire Protection Procedure 28.507.05, "Inspection of Fire Penetration Stops." Consequently, these seal penetrations had not been inspected since plant construction.

Action Item 3 for the CARD directed a comprehensive review of all plant penetration seals for incorporation into Fire Protection Procedure 28.507.05. This action item was closed in December of 2000 without completing the procedure revision to include these penetrations for periodic inspection. Conducting Procedure 28.507.05 fulfilled the Technical Requirements Manual Surveillance Requirement 3.12.8.7 to complete an inspection of all plant penetrations within a fifteen-year period. The completion rate was based on 10 percent sampling of the total population of each seal type every eighteen months. Eventually, the licensee revised the procedure in June of 2001 to include the 600 missing seals.

The fifteen-year interval began in July of 1985, when Technical Specification 3.7.8 was issued for inspecting the fire protection seals. By October 1999, the requirement was moved to the Technical Requirements Manual. This meant that the licensee was required to complete the inspections by July 2000.

On August 7, 2001, while reviewing the planned surveillance test database against Procedure 28.507.05, NRC inspectors identified that the licensee had never inspected or scheduled the inspection of the 600 penetration seals. System engineering personnel erroneously assumed that after identifying the missing seals the 600 seals would be scheduled with the current seal penetration inspection that started in June of 2001. The licensee initiated CARD 01-16780 in response to the inspector findings. An engineering functional analysis was completed justifying the probability that the uninspected seals were satisfactory based on other inspected seals not being degraded. At the end of the inspection period, the licensee had inspected 155 of the 600 penetration seals and found no degradation.

Technical Specification 5.4.1.d requires that written procedures be established, implemented and maintained for implementing the fire protection program. Procedure 28.507.05, "Inspection of Fire Penetration Stops," implemented the fire protection program by fulfilling the Technical Requirements Manual Surveillance Requirement 3.12.8.7 to complete a visual inspection of fire rated assemblies, including penetration seals, at least once per fifteen years. Contrary to TS 5.4.1.d, the licensee failed to include about 600 penetration seals in Fire Protection Procedure 28.507.05 for visual inspection. As a result, all penetration seals were not visually inspected within fifteen years. Because of the very low safety significance, this violation is being treated as a **Non-Cited Violation** (NCV 50-341/01-016-01) consistent with Section VI.A.1 of the NRC Enforcement Policy. This violation is in the corrective action program as CARD 01-16780.

The failure to inspect all plant fire penetration seals before exceeding the fifteenyear inspection requirement was a finding of greater than minor significance because of the number seals involved represented about 15 percent (600 out of about 3,900 total seals) of the total. Further, the corrective action program was ineffective in correcting the condition before violating the Technical Requirements Manual Surveillance Requirement, and corrective action was inappropriately closed prior to issue resolution. The significance of this issue can not be determined until the inspections are completed, however the performance deficiencies with regard to use of the corrective action program was an example of a cross cutting issue in problem identification and resolution.

#### .4 <u>Assessment of Safety-Conscious Work Environment</u>

#### a. Inspection Scope

During the inspection, the inspectors were alert for any indications of unwillingness to raise safety questions. Some of the plant staff were asked questions that were similar to those listed in Appendix 1 to Inspection Procedure 71152, "Suggested Questions for Use in Discussions with Licensee Individuals Concerning PI&R Issues."

#### b. <u>Findings</u>

No significant findings were identified. The team noted no indication of a lack of willingness to identify safety issues. The low threshold for initiating a CARD, the increasing number of CARDs, and management support for using the CARD process observed during meetings also supported a safety conscious work environment.

#### 4OA5 Other

(Closed) Licensee Event Report 50-341/00010-00: "Engineered Safety Feature Actuation of a Suppression Chamber to Drywell Vacuum Breaker." This licensee event report documented a description and the associated corrective actions (CARD 00-24717) for one of the twelve suppression chamber to drywell vacuum breakers opening for approximately four minutes due to drywell pressure reduction as the result of the reactor building closed cooling water temperature control valve failing in the full open position. Although the corrective actions will remain open until Operations and Maintenance training activities are completed during the second quarter of 2002, the inspectors determined that the proposed corrective actions were sufficient. The inspector considered the risk significance of this issue to be very low from a containment barrier perspective. This licensee event report is closed.

(Closed) Licensee Event Report 50-341/00007-00: "Failure of Isolation Valves to Meet Secondary Containment Bypass Leakage Limits." This licensee event report documented a description and the associated corrective actions (CARDs 00-13868 and 00-13869) for local leak rate testing of the main steam line drain isolation valves exceeding the Technical Specifications surveillance requirements conducted during the seventh refueling outage. Following appropriate refurbishment the valves passed the local leak rate test. Although additional corrective actions will remain open pending further testing during the eighth refueling outage, scheduled for the Fall of 2001, the inspectors determined that the proposed corrective actions were sufficient. The inspector considered the risk significance of this issue to the containment barrier to be very low. This licensee event report is closed.

(Closed) Licensee Event Report 50-341/00005-00: "Pressure Isolation Valve Leak Test Failure." This licensee event report documented a description and the associated

corrective actions (CARD 00-13873) for local leak rate testing of the division 1 residual heat removal, low pressure coolant injection system injection line, inboard isolation check valve exceeding the Technical Specifications surveillance requirements conducted during the seventh refueling outage. Although the corrective actions will remain open until the eighth refueling outage, scheduled for the Fall of 2001, to implement further recommended changes, the inspectors determined that the proposed corrective actions were sufficient. The inspector considered the risk significance of this issue to be very low because the upstream pressure isolation valve remained closed during plant operation and successfully passed its leakage rate test. This licensee event report is closed.

(Closed) Licensee Event Report 50-341/00001-00: "Residual Heat Removal (RHR) Low Pressure Coolant Injection (LPCI) System Declared Inoperable due to Loss of Power to the Division 1 LPCI Inboard Isolation Valve." This licensee event report documented a description and the associated corrective actions (CARD 00-11017) related to the division 1 low pressure coolant injection inboard isolation valve being de-energized unexpectedly while maintenance personnel erected scaffolding near the switch. Corrective actions included review of Maintenance Conduct Manual Procedure, MMA08, "Scaffolding" and Maintenance Department Instruction, MDI, "Pre-job Briefing." The event was discussed at the Fermi human performance stand down day. This event was discussed previously in Inspection Report 50-341/99016.

(Closed) URI 50-440/01-09-01. Inability to Automatically Backwash Emergency Service Water Strainer. The inspectors reviewed the licensee's 10 CFR 50.59 screening documentation, the UFSAR, and the operating procedures. The inspectors determined that because the automatic backwashing was not a safety-related feature, there was no violation. The inspectors also determined that the licensee had provided sufficient guidance to operators to address this work-around until the equipment is repaired, which is scheduled for October 2001.

#### 4OA6 Meetings

#### Exit Meeting

The inspectors presented the inspection results to Mr. O'Connor and other members of licensee management in an exit meeting on October 5, 2001. Licensee management acknowledged the findings presented and indicated that no proprietary information was provided to the inspectors.

## LIST OF ITEMS OPENED AND CLOSED

<u>Opened</u>		
50-341/01-16-01	NCV	Inadequate implementation of the fire protection program as defined in T.S. 5.4.1.d.
Closed		
50-342/01-16-01	NCV	Inadequate implementation of the fire protection program as defined in T.S. 5.4.1.d.
50-440/01-09-01	URI	Inability to Automatically Backwash Emergency Service Water Strainer
50-341/00001-00	LER	Residual Heat Removal (RHR) Low Pressure Coolant Injection (LPCI) System Declared Inoperable due to Loss of Power to the Division 1 LPCI Inboard Isolation Valve
50-341/00005-00	LER	Pressure Isolation Valve Leak Test Failure
50-341/00007-00	LER	Failure of Isolation Valves to Meet Secondary Containment Bypass Leakage Limits
50-341/00010-00	LER	Engineered Safety Feature Actuation of a Suppression Chamber to Drywell Vacuum Breaker

#### LIST OF ACRONYMS USED

CARD Condition Assessment Resolution Document

CFR Code of Federal Regulations

CRB CARD Review Board

DCR Document Control Revision
DRS Division of Reactor Safety
EDP Engineering Design Package

EECW Emergency Equipment Cooling Water

gpm gallons per minute

IPTE Infrequently Performed Test or Evolution

LCO Limiting Conditions for Operations

LER Licensee Event Report

NRC Nuclear Regulatory Commission NSRG Nuclear Safety Review Group

RHR Residual Heat Removal
OSRO Onsite Review Organization
psig pounds per square inch gage

SW Service Water

UFSAR Updated Final Safety Analysis Report

#### KEY POINTS OF CONTACT

#### Licensee

- H. Arora, Principle Engineer, Nuclear Licensing
- L. Burkholder, Work Control, Specialist-Scientist
- S. Cashall, Principle Engineer, Nuclear Licensing
- D. Cobb, Plant Manager
- L. Craine, General Supervisor, Environmental
- J. Davis, Manager, Outage
- J. Davis, General Supervisor, Nuclear Training
- T. Dong, Manager, In-Service Inspection
- J. Dudlets, Supervisor, Plant Support Engineering
- Q. Duong, Manager, Plant Support Engineering
- J. Green, General Supervisor, Nuclear Maintenance
- T. Haberland, Manager, Nuclear Maintenance
- S. Hassoun, Principle Engineer, Nuclear Licensing
- D. Hemmele, Supervisor, Nuclear Control Room
- M. Hobbs, Supervisor, Electrical System Engineering
- R. Johnson, Supervisor, Nuclear Licensing
- E. Kokosky, Manager, Radiation Protection
- J. Korte, Manager, Security
- R. Libra, Director, Technical
- M. McDonough, Fire Protection Engineer
- J. Moyers, Manager, Nuclear Quality Assurance
- W. O'Connor, Vice President, Nuclear Generation
- N. Peterson, Manager, Nuclear Licensing
- J. Priest, Nuclear Quality Assurance, Technician
- R. Salmon, Acting Supervisor, Independent Safety Engineering Group
- K. Snider, Supervisor, Nuclear Training
- S. Stasek, Director, Quality Assessment
- E. Vinsko, CARD Coordinator, Maintenance
- D. Williams, Assistant Radiation Protection Manager

#### **NRC**

M. Ring, Chief, Division of Reactor Projects, Branch 1

### LIST OF DOCUMENTS REVIEWED

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

# **Corrective Action Resolution Documents (CARDs)**

97-11658	Valve considered "drain" by P&ID/F05 and CECO, may Actually be a Vent
97-11167	Penetrations in Fire Rated Separation Barriers not Included in Surveillance Procedure
98-10884	Inadequate Procedure for Emergency Breathing
98-14848	Setpoints Listed in CECO for R30N560A-D and R30N562A-D do not Represent Plant Configuration
99-13152	Storage of the Q1 Station Batteries
00-01519	Damaged Cable
00-10249	SE 99-0009 does not Conform to MLS-07
00-10262	CARD 98-14848 Failed to Identify Cause and Corrective Action for a Configuration Control Problem Associated with the EDG Receiver Low Pressure Alarm
00-11282	Multizone Heater #1 for Div 1 CCHVAC Breaker Found Tripped Free
00-11282 00-11754	Multizone Heater #1 for Div 1 CCHVAC Breaker Found Tripped Free  Batteries no Longer in Warehouse
00-11754	Batteries no Longer in Warehouse
00-11754 00-13693	Batteries no Longer in Warehouse  CARD 00-11754 was Incorrectly Assigned as a Level 4 CARD
00-11754 00-13693 00-13700	Batteries no Longer in Warehouse  CARD 00-11754 was Incorrectly Assigned as a Level 4 CARD  Cannibalization Process not Properly Followed  Inappropriate CARD Closure Results in Repeat Instance of Lost As-Found
00-11754 00-13693 00-13700 00-14434	Batteries no Longer in Warehouse  CARD 00-11754 was Incorrectly Assigned as a Level 4 CARD  Cannibalization Process not Properly Followed  Inappropriate CARD Closure Results in Repeat Instance of Lost As-Found Calibration Data on Reactor Feedwater Flow Loop
00-11754 00-13693 00-13700 00-14434 00-14944	Batteries no Longer in Warehouse  CARD 00-11754 was Incorrectly Assigned as a Level 4 CARD  Cannibalization Process not Properly Followed  Inappropriate CARD Closure Results in Repeat Instance of Lost As-Found Calibration Data on Reactor Feedwater Flow Loop  Incorrect or Incomplete Procedure after Last Revision

00-18145	Security System Feasibility Study
00-18758.	EDG Fuel Oil Storage Room Ventilation PM Event Operability Impact
00-19342	Audit Finding: Recurring Problems with Work Control and Maintenance using Incorrect Revision of work Package Walkdown Checklist
00-19367	E5150-F044 Hard to Operate
00-19493	NRC Identified Issue - Improper CARD Level Applied to CARDs Identifying Wrong Size Fuses
00-19494	Concerns on Method of Determining Operability Request Review for CARD 00-18758
00-19659	Entry into Tech Spec 3.7.4 for Inoperability of Div 2 CCAC
00-20008	Plugged One Div 2 CCHVAC Chiller Condenser Tube
00-20951	S. RFPT Tripped
00-21095	Operable. Non Procedural Live Load Packing Gland Configuration Found on E1150F007A RHR Division I Pump "A" and "C" Minimum Flow Valve
00-24215	Errors in Feedwater Flow Calibration
00-24717	Repeat Failure of RBCCW TCV Causing ESF Actuation.
00-24832	Faulty Temperature Switch on EDG 12
00-24857	Broken Terminal Lug on CR1 Relay
00-25147	Switch Causing Alarm at Inappropriate Temperature
00-25412	Inappropriate CARD Level Classification and Incorrect CARD Organization
01-00833	PCRMS Tripping on Low Flow
01-00919	EECW Leaking from Inlet Union of SE Sump Heat Exchanger
01-10701	Failed PMT for 000Z010019
01-10704	Radwaste Building Ventilation Radiation Monitor
01-10753	Fuses Blown
01-10802	Pressure Transient during HPCI System Startup

01-10805	Replaced Blown Fuse in MCC 72C-3A POS 4C FNQ-1.5 Control PWR P4400F607B
01-10808	345 kV BKR "CT" Compressor Trouble Alarm
00-11017	Loss of Power to E1150-F015A; MCC 72CF- Position 2C Open
01-11132	Failed Response Time
01-11208	Large Amount of Water in PCRMS System
01-11229	Evaluate Operability of Div 2 Cardox Level and Pressure Indicator
01-11247	EDG-12 Lube Oil Temp High/Low Alarm
01-11820	Discrepancies in Part Numbers Leading to Wrong Parts Installed
01-11845	EFP Strainer Does Not Meet Code Requirements
01-11910	Audit Finding Condition Adverse to Quality Incorrectly Classified as Level 4 CARD
01-12204	Radwaste Building Sping Fuse Blown
01-12443	Div 1 CCHVAC Supply Fan Blower Lubrication Issue
01-12455	Grease on Motor Shaft
01-12462	Suspect Outboard Bearing Bad on Div 1 EECW Pump Room Cooler
01-12846	Feedwater Heater Oscillations Cause a Plant Transient
00-13701	10CFR21 Notification Concerning Unqualified Epoxy Used in Fabrication of ITT Conoflow I/P Transducers
01-13707	Numerous CARDs Written on the CARD Tag Process
00-13868	LLRT Failure on B2103F022C and B2103F028C
00-13869	LLRT Failure on Inboard MSIV-"D" Steam Line
00-13873	E1100F050A Failed LLRT (Pressure Isolation Test) SR 3.4.5.1
01-13961	CARD 00-13700 Closed 11/2/00, Evaluated Cannibalization Process not Properly Followed for a MCC Bucket Reset Pushbutton (QA1) without Internal Requisition and MEG Approval - Failed to Evaluate Use of a Minor Maintenance for QA1, Seismic 1, TS Component

01-13989	Potentially Inadequate Closing Test (CT-C) for RHR Keep-Fill Check Valves (IST) (SSDI RHR RFI 052/053)
01-14026	DG 14 Output Breaker Failed to Close on Manual Start/Synchronization
01-14274	Adverse Trend in Security Equipment Performance Indicator (P.I.) Windows
01-14312	N. Reactor Feed Pump Min Flow Value Failed Open
01-14657	Spec EJ do not Match Field
01-14942	Create Contingency Work Requests for Battery Testing in RF08
00-14990	Tubing Leak Check for P44N410B Unsatisfactory
01-15360	Extra LCO Time Required on EDG 12 due to Communication Errors Regarding Oil Sample Analysis
01-15435	MOV Experienced Locked Rotor Closing and has Severe Actuator Binding
01-15538	Incorrect Oil Added to EDG 13 Outboard Bearing
01-15797	Low Battery Electrolyte
01-16027	EDG Reliability Review - Function Failure Reviews
01-16029	EDG reliability review - Repeat EOS Switch Problems Update Work History
01-16140	EDG Reliability Review - Extent of Condition
01-16321	Install New Short Range Microwave Units per ERE-30996
01-16322	Install New Short Range Microwave Units per ERE-30991
01-16423	Div 2 N2 Alternate Nitrogen Regulator not Controlling Pressure
01-16780	Timeliness in Performing Inspections of Penetration Fire Stops in accordance with Procedure 28.507.05
01-17025	Standby Feedwater Bearing Housing Lube Oil Supply Line is Leaking During System Standby
01-17267	Motor Replaced under PM Event A66290912 (5/14/98) Without an Approved EDP and PE/SE as Required by MES 11, Revision 8, which was the Procedure in Place at the Time of Replacement
01-17269	Standby Feedwater Motor Inboard Bearing Lube Oil Supply Line has Excessive Oil Flow

01-17395	DGSW Pump CNC Switch Position (23.307) Misaligned for EDG Start
01-19338	CARD 00-18059 Closed Out with Corrective WR 000Z003083 Still Open

# Other CARDs

01-11194	00-26517	00-14978	00-19705	01-11068	00-26516
00-26514	01-10405	01-16109	00-19091	00-19706	01-10413
01-10415	00-25619	00-14966	00-14957	00-14961	00-14964
00-19088	01-10481	00-14972	00-14974	00-14977	00-14979
00-19089	00-19098	00-19104	00-19107	00-19707	00-19709

# **Work Requests**

000Z010589	Temperature Switch Electric: EDG N0. 12 Lube Oil Temperature Low
000Z004077	Switch Causing Alarm at Inappropriate Temperature
000Z004464	Replace Switch And Identify Cause
000Z004422	Alarm 4D137 Alarming and not Showing on SOEER
000Z011948	Div 2 EECW Head Tank Alternate N2 Supply Upstream PCV
000Z011696	Suspect Outboard Bearing Bad on Div 1 EECW Pump Room Cooler
000Z010447	Replace the Suction Strainer on the Electric Fire Pump
J420010100	Recalibrate RHRFP Div 2 Cardox Storage Tank Level and Pressure Indicators
000Z010269	Troubleshoot Heat Tracing, Replace iodine Cartridge, Check Line Unplugged
000Z010243	PCRMS Tripping on Low Flow
000Z010410	EECW Leaking from Inlet Union of SE Sump Heat Exchanger
C866010100	Calibration Check Feedwater Flow "A" to RPV Loop
C867010200	Calibration Check Feedwater Flow "B" to RPV Loop
000Z003083	Need to Replace P44K400B to Satisfy NE-6.6 EQMS.067

#### **Miscellaneous Documents**

Licensee Event Report 97-014 and -01, "Turbine Building and Auxiliary Building Mezzanine Not Fully Meeting License Condition 2.C.9"

Technical Specification Amendment NO. 62 to Facility Operating License NO. NPF-43: (TAC NO. 77293)

Fire Protection Procedure 28.507.05, "Inspection of Fire penetration Stops,"

Technical Requirements Manual 3.12.8, "Fire Rated Assemblies"

Technical Specification 3/4.7.8, "Fire Rated Assemblies"

#### **Miscellaneous Assessment Documents**

Initiation/Modification Approval Form for Cost Estimate for Performing a Scoping Effort for the Security SysteM, 2002

NQA Monthly Report 01-0003, April 2001

NQA Monthly Report 01-0004, May 2001

NQA Monthly Report 01-0005 June 2001and July 2001

System Health FERMI 2 for A7000 Security System, 4th Quarter 2000

System Health FERMI 2 for A7000 Security System, 1st Quarter 2001

System Health FERMI 2 for A7000 Security System, 2nd Quarter 2001

FERMI SITE Performance Measures, Safety, Regulatory Performance, Performance Indicator S19, Emergency Preparedness Performance Index, December 2000

FERMI SITE Performance Measures, Safety, Regulatory Performance, Performance Indicator S19c, Emergency Preparedness Performance Index - Alert and Notification System Reliability, December 2000

FERMI SITE Performance Measures, Safety, Regulatory Performance, Performance Indicator S21a, Security Index - Protected Area Security Equipment Performance Index, December 2000

FERMI SITE Performance Measures, Safety, Regulatory Performance, Performance Indicator S21b, Security Index - Personnel Screening Program Performance, December 2000

FERMI SITE Performance Measures, Safety, Regulatory Performance, Performance Indicator S21c, Security Index - Fitness-For -Duty (FFD)/Personnel Reliability Program Performance, December 2000

FERMI SITE Performance Measures Window for Performance Indicators August 2001

FERMI SITE Performance Measures Reliability, Corrective Action Program, Performance Indicator R6, CARD Program Effectiveness, August 2001

FERMI SITE Performance Measures, Safety, Public Safety, Performance Indicator S23, Protected Area Security Equipment Performance Index, August 2001

NSSC 00-0070 Self Assessment - Supply Chain, November 13, 2000

Operator Work Arounds Index (ODE-006)

Aggregate Assessment of Operator Work Arounds, September 17, 2000

Risk Assessment of Revised Operator Work Arounds, September 17, 2000

Operator Work Around, OWA 01-014, "P4100F086 Disc Chattering" (Turbine Building Closed Cooling Water Temperature Control Valve P43F402, General Service Water Outlet Valve)

#### **Temporary Modifications**

00-0008	Install Monitoring Instrumentation onto the Reactor Recirculation B Scoop Tube Positioner Circuitry, Revision 0
01-0006	To Defeat the Interlocks on the PS SOVs, F313A&B, and F314A&B to Permit Manual Operation of the Pump, Revision A,

#### **Procedures**

FBP-26	Rev-0	Self-Assessment Guidelines
MQA11	Rev-6	Condition Assessment Resolution Document
MQA12	Rev-2	Cause Analysis and Corrective Action Determination
MQA13	Rev-0	Quality Trending
MQA13	Rev-1	Quality Trending (Draft Copy)
FBP-26	Rev-1	Self-Assessment Guidelines (Draft Copy)
MOP04	Rev-14	Shift Operations
MES 29	Rev-5	Documentation and Reporting of Operating Transients and Cycles
MES 27	Rev-70	Verification of System Operability

23.307 Rev-8 Emergency Diesel Generator System

CARD Review Board Charter Effective date 7/31/01

Ownership Committee Charter Effective date 02/24/00