

July 23, 2002

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

SUBJECT: FERMIL 2 NUCLEAR POWER STATION  
NRC INTEGRATED INSPECTION REPORT 50-341/02-05

Dear Mr. O'Connor:

On June 30, 2002, the NRC completed an inspection at your Fermi 2 reactor facility. The enclosed report documents inspection findings which were discussed on July 11, 2002, with you and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel. Specifically, this inspection focused on plant operations, radiation protection and physical security.

Based upon the results of this inspection, a Green finding that was a violation of NRC requirements was identified. However, because of its 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, in accordance with Section VI.A.1 of the NRC's Enforcement Policy. If you deny this Non-Cited Violation, you should provide a response with the basis for your denial, within 30 days of the date of this inspection report, to the 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.

The NRC has increased security requirements at Fermi in response to terrorist acts on September 11, 2001. Although the NRC is not aware of any specific threat against nuclear facilities, the NRC issued an Order and several threat advisories to commercial power reactors to strengthen licensees' capabilities and readiness to respond to a potential attack. The NRC continues to monitor overall security controls and will issue temporary instructions in the near future to verify by inspection the licensee's compliance with the Order and current security regulations.

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 <http://www.nrc.gov/NRC/ADAMS/index.html> (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 50-341/02-05

cc w/encl: N. Peterson, Director, Nuclear Licensing  
P. Marquardt, Corporate Legal Department  
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U. S. NUCLEAR REGULATORY COMMISSION

REGION III

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

Report No: 50-341/02-05

Licensee: Detroit Edison Company

Facility: Enrico Fermi, Unit 2

Location: 6400 N. Dixie Hwy.  
Newport, MI 48166

Dates: April 1 through June 30, 2002

Inspectors: S. Campbell, Senior Resident Inspector  
J. Larizza, Resident Inspector  
G. Pirtle, Physical Security Inspector  
R. Alexander, Radiation Specialist  
T. Virant, NRC Intern

Approved by: Mark Ring, Chief  
Branch 1  
Division of Reactor Projects

## SUMMARY OF FINDINGS

IR 05000341-02-05, Detroit Edison Company, on 4/01-6/30/02, Fermi 2 Nuclear Power Station, plant operations.

The inspection was conducted by resident and specialist inspectors. This inspection identified one Green issue which involved a Non-Cited Violation. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter 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 at its Reactor Oversight Process website at <http://www.nrc.gov/NRR/OVERSIGHT/index.html>.

### Cornerstone: Mitigating Systems

- Green. One Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion XII, "Control of Measuring and Test Equipment," was identified for the licensee's failure to properly establish measures taken to assure that instruments, and other measuring and test devices are properly calibrated to maintain accuracy within necessary limits. As a result, temperature switches providing isolation for the reactor core isolation cooling (RCIC) and high pressure coolant injection (HPCI) rooms were incorrectly set too high.

The finding was more than minor because Channel A could not have actuated the RCIC and HPCI room area high temperature isolation during a steam leak in that room for about 4 months. However, Channel B alone could have initiated the isolation. On January 9, 2002, both Channel A and B were inoperable when Channel B was removed from service for calibration. Both HPCI and RCIC remained inoperable, but available for injection, for 1 hour and 15 minutes, a period less than 3 days. Therefore, the finding screened by the SDP is considered of very low safety significance (Green). (Section 4OA3)

## Report Details

### Summary of Plant Status

At the start of the inspection period, Fermi 2 operated at 54 percent power due to single reactor recirculation loop operation while corrective maintenance was being performed on the motor end slip ring of the A reactor recirculation motor generator set. Following restart of the idle loop, reactor power was returned to 100 percent on April 5, 2002. On April 10, 2002, reactor power was reduced to 85 percent to perform control rod pattern adjustment. Reactor power was returned to 100 percent the same day. On May 17, 2002, reactor power was reduced to 70 percent to perform control rod pattern adjustment, control rod scram insert time tests and other planned maintenance. Reactor power was returned to 100 percent on May 18, 2002. On May 19, 2002, while shifting the lube oil pumps for the north reactor feedwater pump, oil pressure decreased causing a reactor feedwater pump trip and resulting in a reactor recirculation loop runback to 59 percent power. Following repairs, reactor power was returned to 100 percent on May 20, 2002. On June 9, 2002, while reducing power to 93 percent for turbine bypass valve tests, a feedwater heater level oscillation resulted in a reactor recirculation loop runback to 71 percent power. Following replacement of a faulty relay, reactor power was returned to 100 percent on June 10, 2002. Reactor power remained at or near 100 percent the remainder of the inspection period.

## **1. REACTOR SAFETY**

### **Cornerstone: Mitigating Systems**

#### 1R01 Adverse Weather Protection (71111.01)

##### a. Inspection Scope

The inspectors selected three risk-significant systems (the residual heat removal complex ultimate heat sink, electrical main transformers, and the turbine closed cooling water system) that are required to be protected from adverse hot weather. The inspectors reviewed the Updated Final Safety Analysis Report (UFSAR), Technical Specifications, and plant documents to determine that the systems or components will remain functional when challenged by hot weather conditions. Procedures for operation and continued availability of the ultimate heat sink during hot weather conditions were reviewed also.

##### b. Findings

No findings of significance were identified.

1R04 Equipment Alignments (71111.04Q)

b. Inspection Scope

The inspectors conducted a partial walkdown of the risk-significant systems listed below:

- Division 1 Core Spray (E2100)
- Division 2 Core Spray (E2100)
- Standby Liquid Control System (C4100)
- Emergency Diesel Generator (EDG) 11 (R3000)
- Division 1 Standby Feedwater System (N2103)
- Division 2 Standby Feedwater System (N2103)

The inspectors reviewed associated piping and instrumentation drawings, condition assessment resolution documents (CARDs), and the independent lineup verification of operating, system, and annunciator response procedures to complete the walkdown. The inspectors used the documents to verify system components aligned properly and that no outstanding deficient conditions existed to prevent proper operation of these systems.

c. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05Q)

a. Inspection Scope

The inspectors toured the following areas to determine whether combustible hazards were present, fire extinguishers were properly filled and tested, the CARDOX units were operable, hose stations were properly maintained, and if the fire hazard analysis drawings were correct:

- Division 2 Residual Heat Removal Building Complex (UFSAR Section 9A.4.3)
- Third Floor Reactor Building (UFSAR Section 9A.4.1.8, Zone 7)
- Fourth Floor Reactor Building (UFSAR Section 9A.4.2.8, Zone 8)
- Auxiliary Building Cable Spread Room (UFSAR Section 9A.4.2.8, Zone 7)

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification (71111.11)

a. Inspection Scope

The inspectors observed a first shift operating crew during an “as found” requalification examination on the simulator. The inspectors evaluated crew performance in the areas of:



- Clarity and formality of communications
- Ability to take timely actions in the safe direction
- Prioritization, interpretation, and verification of alarms
- Procedure use
- Control board manipulations
- Oversight and direction from supervisors
- Group dynamics

Crew performance in these areas was compared to licensee management expectations and guidelines as presented in the operations section work instructions and critical tasks listed in the exercise guide, both referenced at the end of this report. The inspectors also compared simulator configurations with actual control room board configurations. For any weaknesses identified, the inspectors observed the licensee evaluators to verify that they also noted the issues and discussed them in the critique at the end of the session.

b. Findings

No findings of significance were identified.

1R12 Maintenance Rule Implementation (71111.12Q)

a. Inspection Scope

The inspectors reviewed systems to verify that the licensee properly implemented the maintenance rule for structures, systems, or components (SSCs) with performance problems. This evaluation included the following aspects:

- Whether the SSC was scoped in accordance with 10 CFR 50.65
- Whether the performance problems constituted maintenance rule functional failures
- The proper safety significance classification
- The proper 10 CFR 50.65(a)(1) or (a)(2) classification for the SSC
- The appropriateness of the performance criteria for SSCs classified as (a)(2) or the appropriateness of goals and corrective actions for SSCs classified as (a)(1)

The above aspects were evaluated by using maintenance rule scoping and report documents listed at the end of this report. For each SSC reviewed, the inspectors also reviewed significant work requests and CARDS, listed at the end of this report, to verify that failures were properly identified, classified, and corrected and that unavailable time had been properly calculated. The inspectors reviewed documents to verify that minor discrepancies in the licensee's maintenance rule reports were corrected.

The inspectors reviewed the licensee's implementation of the maintenance rule requirements for the following SSCs:

- Core Spray System (E2100)
- Automatic Depressurization System (B2104)
- Control Rod Drive Hydraulic System (E1150)

- Standby Liquid Control System (C4100)
- Direct Current (R3200)
- Combustion Turbine Generator 11-1 (R1100)

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessment and Emergent Work Evaluation (71111.13)

a. Inspection Scope

The inspectors reviewed the licensee’s evaluation of risk, activity scheduling, configuration control, and emergent work to ensure that plant risk was appropriately managed. The inspectors verified that licensee actions, such as establishing compensatory actions, minimizing activity duration, obtaining appropriate management approval, and informing appropriate plant staff to address increased online risk during these periods were accomplished when needed. The following work week activities were reviewed:

<b>Work Week Reviewed</b>	<b>Systems Out of Service During Work Week</b>
Week of March 30, 2002	An automatic system runback to 65 percent power occurred when motor generator set A generator brushes overheated.
Week of April 7, 2002	Emergency diesel generator 12 was removed from service for troubleshooting abnormally low jacket cooling water temperatures on the turbocharger side and concurrent with unexpected bubbling in the jacket water expansion tank.
Week of April 30, 2002	Repairs to Division 1 thermal recombiner when the air temperature was unable to achieve 1150°F within 75 minutes.
Week of May 12, 2002	Investigation of potential crack on the reactor recirculation motor generator set B coupling. Determined to be a grease mark and not a crack.

b. Findings

No findings of significance were identified.

1R14 Nonroutine Plant Evolutions (71111.14)

.1 Trip of Reactor Recirculation Motor Generator Set A

a. Inspection Scope

On March 30, 2002, the generator brushes for motor generator set A overheated, causing a trip of the reactor recirculation pump A, and an automatic runback of plant power to 65 percent. The plant stabilized at that power level in single loop operation using reactor recirculation pump B to maintain core flow. The inspectors evaluated the initiating causes of the event and reviewed operator logs, the plant computer data, and strip charts to determine what occurred and how the operators responded. Abnormal operating procedures and Chapter 15 of the UFSAR were reviewed to determine whether the event was described in the UFSAR and if operator response was in accordance with the response required by procedures and training.

Findings

No findings of significance were identified.

.2 Recovery from Single Loop Operation at Power.

a. Inspection Scope

The inspectors observed control room licensed personnel perform System Operating Procedure 23.138.01, "Reactor Recirculation System," Section 8.0, "Recovery from Single Loop Operation at Power," after motor generator set A tripped due to overheated brushes followed by an automatic runback to 65 percent power and single loop operation. The inspectors observed the pre-job brief, verified sufficient control room staffing, confirmed appropriate procedures were used, verified proper adherence to Technical Specifications and confirmed expected plant parameters and conditions.

b. Findings

No findings of significance were identified.

.3 Loss of Heater Drains Runback

a. Inspection Scope

On June 9, 2002, during the performance of Procedure 24.109.02, "Turbine Bypass Valve Operability Test," an emergency dump valve, which maintains heater level, had failed to properly control level because of a failed relay. This caused a loss of heater drains and the operators entered Abnormal Operating Procedure 20.107.02, "Loss of Feedwater Heating." A reactor recirculation pump runback occurred resulting in a reactor power level decrease to 71 percent. The plant stabilized at that power level. The inspectors evaluated the initiating causes of the event for personnel error contribution and reviewed operator logs, the plant computer data, and strip charts to determine what occurred and how the operators responded. Abnormal operating procedures and

Chapter 15 of the UFSAR were reviewed to determine whether the event was described in the UFSAR and if operator response was in accordance with procedures and training. A review of the transient analysis report was performed and interviews with operating personnel were conducted. Condition Assessment Resolution Document 02-15674, which was initiated because of the event, was also reviewed.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

.1 Emergency Diesel Generator 12 Fluctuating Jacket Coolant System (JCS) Pressure and Bubbles in JCS Expansion Tank.

a. Inspection Scope

On April 4, 2002, the licensee performed a fast start surveillance test on EDG 12. System engineering noted fluctuating JCS pressure and bubbles in the expansion tank for the JCS. These conditions are potential indications of leakage between the jacket coolant filled cylinder liner and the combustion chamber of the cylinder. The concern was that water leaking into the cylinder would make the oil film ineffective and lead to piston-liner failure. Another concern would be excessive exhaust getting into the JCS and possibly binding the associated jacket coolant pump. Condition Assessment Resolution Document 01-11762 was written to document the concern.

The inspectors reviewed documents associated with EDG 12 fluctuating JCS pressure and bubbles in JCS expansion tank. The inspectors reviewed the licensee's operability determination and future actions for continuation of the monitoring.

b. Findings

No findings of significance were identified.

.2 Fire Protection Sprinklers in EDG Fuel Oil Tank Rooms

a. Inspection Scope

On April 2, 2002, the licensee determined that the automatic fire protection sprinklers located in the EDG's fuel oil tank rooms exceeded the maximum allowed distance below the ceiling, as permitted by required design standard. The system was declared inoperable and hourly fire watch inspections were established. On April 10, 2002, licensee engineering department personnel completed an engineering functional analysis and recommended that the four automatic fire protection sprinklers remain inoperable pending a near-term modification of the sprinkler heads.

b. Findings

No findings of significance were identified.

.3 Discrepancy Noted Between UFSAR and Actual EDG's Operation at Fermi

a. Inspection Scope

On May 20, 2002, while performing documentation review, the EDG system engineer noted a discrepancy between the UFSAR Section 9.5.5, "Diesel Cooling Water System," and the actual operating parameters of the diesels. The UFSAR described coolant temperature between 165° and 180°F being controlled by a three way temperature control valve, when actually, the temperature is controlled between 152° and 162°F. There was a concern that the temperature control valve was not controlling the temperature properly.

The inspectors reviewed the operability evaluation associated with discrepancies in UFSAR 9.5.5, regarding the diesel cooling water system. A list of the documents reviewed by the inspectors can be found in the List of Documents Reviewed section of this report.

The inspectors verified that operability evaluations were performed when required and that completed evaluations were technically adequate, justified continued operation, considered other degraded conditions where applicable, and referenced applicable sections of the UFSAR and other design basis documents.

b. Findings

No findings of significance were identified.

.4 480 Volt Bus 72E Voltage Regulator Worm Gear Drive Mechanism Phase Coupling Pin

a. Inspection Scope

On June 14, 2002, while making adjustments on the 480 Volt Bus 72E voltage regulator output voltage in manual mode, the coupling pin between the center and the right phase worm gear drive shaft fell out. This disrupted the mechanical linkage between those two phases of the regulator.

The inspectors reviewed the operability evaluation associated with the loss of the automatic regulating function of the voltage regulator. A list of the documents reviewed by the inspectors can be found in the List of Documents Reviewed section of this report.

The inspectors verified that operability evaluations were performed when required and that completed evaluations were technically adequate, justified continued operation, considered other degraded conditions where applicable, and referenced applicable sections of the UFSAR and other design basis documents.

b. Findings

No findings of significance were identified.

1R16 Operator Work-Arounds (71111.16)

a. Inspection Scope

The inspectors reviewed the 1<sup>st</sup> and 2<sup>nd</sup> quarter of 2002 cumulative effects of operator workarounds on the reliability, availability, and, potential for misoperation of a system. Further, the inspectors reviewed the cumulative effects of operator workarounds that could affect multiple mitigating systems. The cumulative effects of operator workarounds on the ability of operators to respond in a correct and timely manner to plant transients and accidents was also evaluated.

a. Findings

No findings of significance were identified.

1R17 Permanent Plant Modifications (71111.17)

a. Inspection Scope

Engineering Design Package 30203, for replacement of obsolete GEMAC components in the flow control loop for the high pressure coolant injection (HPCI) pump discharge, was reviewed and selected aspects were discussed with engineering personnel. This document was reviewed for adequacy of the safety evaluation and consideration of design parameters. The modifications were for equipment upgrades of existing equipment.

b. Findings

No findings of significance were identified.

1R19 Post Maintenance Testing (71111.19)

a. Inspection Scope

The inspectors reviewed and observed the following post-maintenance testing activities involving risk significant equipment in the Mitigating Systems and Barrier Integrity Cornerstones:

- Procedure 24.307.45, EDG 11, "Fast Start and Load Rejection"
- Procedure 24.202.01, "HPCI Pump Time Response Test at 1025 PSIG"
- Previous Post Maintenance Test Review for 72 E Voltage Regulator

The inspectors verified that the post maintenance test was adequate for the scope of the maintenance work performed, that the test acceptance criteria were clear, and that the test demonstrated operational readiness consistent with design and licensing basis documents. The inspectors also verified that the impact of the testing had been properly characterized during the pre-job briefing; the test was performed as written; all

testing prerequisites were satisfied; and that the test data was complete. Following the completion of the test, the inspectors verified that test equipment was removed and that the system was returned to its normal standby configuration.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors observed surveillance testing activities and/or reviewed completed packages for the tests listed below related to systems in the Mitigating Systems and Barrier Integrity Cornerstones:

- Previous Stroke Tests for Risk Significant Core Spray System Valves
- Procedure 25.203.03, Section 5.1, "Division 2 Core Spray System Pump and Valve Operability Test"
- Procedure 44.020.204, HPCI Steam Line Flow Trip System B Calibration Functional Test"
- Procedure 24.107.03, "Standby Feedwater Pump and Valve Operability and Lineup Verification Test"
- Procedure 24.139.02, "Standby Liquid Control Pump and Check Valve Operability Test"
- Procedure 24.409.01, "Division 1 Post Loss-of-Coolant-Accident Thermal Recombiner Functional"

The inspectors verified that the structures, systems, and components selected were capable of performing their intended safety function and that the surveillance tests satisfied the requirements contained in Technical Specifications, the UFSAR, and licensee procedures. During surveillance testing observations, the inspectors verified that the test demonstrated operational readiness consistent with design and licensing basis documents and that the test acceptance criteria were clear. The inspectors also verified that the impact of the testing had been properly characterized during the pre-job briefing; the test was performed as written; the test data was complete and met the requirements of the testing procedure; and the test equipment range and accuracy were consistent with the application. Following test completion, the inspectors verified that the test equipment was removed and that the system was returned to its normal standby configuration.

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications (71111.23)

1. Temporary Monitoring Equipment at the Valve Control Module for No. 3 High Pressure Control Valve

a. Inspection Scope

The inspectors reviewed Temporary Modification 02-0009, "Install Temporary Monitoring Equipment at the Valve Control Module for No. 3 High Pressure Control Valve," to verify that the modification was screened in accordance with 10 CFR 50.59, the modification was consistent with documentation, associated drawings and procedures had been updated, and post installation test results were satisfactory.

b. Findings

No findings of significance were identified.

.2 Temporary Monitoring Instrumentation for HPCI Lube Oil System and Valves E4100F067 and E4100F068

a. Inspection Scope

The inspectors reviewed Temporary Modification 02-0001, "Install Monitoring Instrumentation onto the HPCI Lube Oil System and HPCI Valves E4100F067 and E4100F068," to verify that the modification was screened in accordance with 10 CFR 50.59, the modification was consistent with documentation, associated drawings and procedures had been updated, and post installation test results were satisfactory.

a. Findings

No findings of significance were identified.

**2. RADIATION SAFETY**

**Cornerstone: Occupational Radiation Safety (OS)**

2OS1 Access Control to Radiologically Significant Areas (71121.01)

.1 Plant Walkdowns and Radiological Boundary Verification

a. Inspection Scope

The inspectors conducted walkdowns of the radiologically restricted area to verify the adequacy of radiological boundaries and postings. Specifically, the inspectors walked down several radiation and high radiation area boundaries in the Reactor, Radwaste, and Turbine Buildings. Confirmatory radiation measurements were taken to verify that these areas were properly posted and controlled in accordance with 10 CFR Part 20, Technical Specifications, and licensee procedures. A selection of radiation work permits for general inspections and tours were reviewed for electronic dosimeter alarm set points



and protective clothing requirements.

b. Findings

No findings of significance were identified.

.2 High Risk Significant, High Dose Rate Locked High Radiation Areas and Very High Radiation Areas

a. Inspection Scope

The inspectors reviewed the station's implementation of physical and administrative controls over access to high dose rate-locked high radiation areas and very high radiation areas, including a discussion of these controls with radiation protection supervisors and lead radiation protection technicians, to verify that processes and procedures (including any recent changes) implementing these controls provided an appropriate level of worker protection. The inspectors also conducted walkdowns of all accessible high dose rate-locked high radiation areas and very high radiation area boundaries to verify adequate posting and locking of all entrances into these areas.

b. Findings

No findings of significance were identified.

.3 Identification and Resolution of Problems

a. Inspection Scope

The inspectors reviewed CARDS completed in recent months which focused on access control to radiologically significant areas. The inspectors reviewed these documents to assess the licensee's ability to identify repetitive problems, contributing causes, the extent of conditions, and implement corrective actions intended to achieve lasting results.

b. Findings

No findings of significance were identified.

2OS3 Radiation Monitoring Instrumentation and Protective Equipment (71121.03)

.1 Tests and Calibrations of Radiation Monitoring Instrumentation

a. Inspection Scope

The inspectors performed a walkdown of the post accident sampling system and discussed the system's use, maintenance, and testing with members of the chemistry staff to assess if the system was maintained as described in the UFSAR. The inspectors additionally reviewed recent quality control records for the post accident sampling system and acceptance criteria employed to ensure that the system was capable of

obtaining representative liquid and atmospheric samples (from the reactor coolant system, suppression pool, containment, and reactor building) in an emergency situation.

b. Findings

No findings of significance were identified.

.2 Self-Contained Breathing Apparatus (SCBA) Maintenance and User Training

a. Inspection Scope

The inspectors reviewed aspects of the licensee's respiratory protection program for compliance with the requirements of Subpart H of 10 CFR Part 20, to ensure that SCBAs were properly maintained and stored, and to ensure that personnel required to don SCBAs were qualified.

Specifically, the inspectors reviewed monthly surveillance records for SCBAs staged and ready for use in the following locations:

- Main Control Room
- Primary and Backup Operation Support Centers
- Remote Shutdown Panel
- Residual Heat Removal Complex

The inspectors also performed walkdowns of the SCBAs in these locations and inspected a sample of the units to assess the material condition of the equipment and to verify the air cylinders had the appropriate Department of Transportation markings. For five of the SCBA units visually inspected, the inspectors reviewed the vital component (i.e., regulator and low-pressure alarm) maintenance records for the past 5 years, as well as the cylinder hydrostatic testing documentation for the units.

The inspectors reviewed and discussed the station's current SCBA maintenance procedures with the program owner, reviewed a recent licensee audit of the vendor that provides maintenance for SCBA vital components, and licensee personnel qualification documentation to verify that individuals conducting maintenance on the SCBAs were trained and qualified in accordance with the manufacturer's recommendations.

In addition, the inspectors conducted a 100 percent sample of the licensee's current training, fit test, and medical qualification records to verify that applicable emergency response, fire brigade, and control room personnel were currently trained and qualified for SCBA use. The inspectors also reviewed the SCBA training lesson plans to verify the training included "hands-on" donning and doffing of the equipment and the use of the "Quick Fill" system employed for refilling air cylinders "in the field" during emergency situations.

b. Findings

No findings of significance were identified.

.3 Identification and Resolution of Problems

1. Inspection Scope

The inspectors reviewed licensee CARDS related to the post accident sampling system and SCBA programs generated in calendar years 2000 - 2002. The inspectors reviewed these documents to assess the licensee's ability to identify repetitive problems, contributing causes, the extent of conditions, and implement corrective actions intended to achieve lasting results.

2. Findings

No findings of significance were identified.

**3. SAFEGUARDS**

**Cornerstone: Physical Protection**

3PP1 Access Authorization Program (Behavior Observation Only) (71130.01)

a. Inspection Scope

The inspectors interviewed five supervisors and five non-supervisors (both licensee and contractor employees) to determine their knowledge level and practice for implementing the licensee's program responsibilities. Selected procedures pertaining to the Behavior Observation Program and associated training activities were reviewed. Also, licensee fitness-for-duty semi-annual test results were reviewed. In addition, the inspectors reviewed a sample of licensee self-assessments and security logged events. The inspectors also interviewed security managers to evaluate their knowledge and use of the licensee's corrective action program.

b. Findings

No findings of significance were identified.

3PP2 Access Control (Identification, Authorization and Search of Personnel, Packages, and Vehicles) (71130.02)

a. Inspection Scope

The inspectors reviewed the licensee's protected area access control equipment testing and maintenance procedures. The inspectors observed licensee testing of all access control equipment to determine if testing and maintenance practices were performance based. On two occasions, during peak ingress periods, the inspectors observed in-processing search of personnel, packages, and vehicles to determine if search practices were conducted in accordance with regulatory requirements and that staffing was

sufficient to adequately control the ingress process. Interviews were conducted and records were reviewed to verify that security staffing levels were consistently and appropriately implemented, and that procedures were prepared to address denial of unescorted access authorization. Also the inspectors reviewed the licensee's process for limiting access to only authorized personnel to the protected area and vital equipment. The inspectors reviewed the licensee's program to control security keys and security related computer data.

The inspectors reviewed a sample of licensee self-assessments, maintenance request records, and security logged events for identification and resolution of problems. In addition, the inspectors interviewed security managers to evaluate their knowledge and use of the licensee's corrective action system.

b. Findings

No findings of significance were identified.

3PP4 Security Plan Changes (71130.04)

a. Inspection Scope

The inspectors reviewed Revision 38 to the Physical Security Plan, Revision 10 to the Safeguards Contingency Plan, and Revision 18 to the Security Training and Qualification Plan submitted by licensee letter dated September 12, 2001. Additionally, the inspectors reviewed Revision 39 to the Physical Security Plan submitted by licensee letter dated January 10, 2002, and Revision 11 to the Safeguards Contingency Plan submitted by licensee letter dated March 20, 2002. The review was conducted to verify that the changes did not decrease the effectiveness of the security plans. The referenced revisions were submitted in accordance with 10 CFR 50.54(p).

b. Findings

No findings of significance were identified.

**4. OTHER ACTIVITIES (OA)**

4OA1 Performance Indicator Verification (71151)

.1 Occupational Radiation Safety Performance Indicator Verification

a. Inspection Scope

The inspectors reviewed the licensee's assessment of its performance indicator for occupational radiation safety to determine if indicator related data was adequately assessed and reported. Since no reportable events were identified by the licensee for the 2<sup>nd</sup> through 4<sup>th</sup> quarters of calendar year 2001 and for the 1<sup>st</sup> quarter of calendar year 2002, the inspectors compared the licensee's data with the CARD database and the radiological restricted area exit electronic dosimetry transaction records for these time periods to verify that there were no unaccounted for occurrences in the Occupational

Radiation Safety Performance Indicator as defined by the applicable revision of Nuclear Energy Institute Document 99-02 (“Regulatory Assessment Performance Indicator Guideline”). Additionally, as discussed in Section 2OS1.2, the inspectors conducted walkdowns of accessible locked high radiation areas and very high radiation area entrances to verify the adequacy of controls in place for these areas.

b. Findings

No findings of significance were identified.

.2 Security Performance Indicator Verification (71151)

a. Inspection Scope

The inspectors reviewed the licensee’s procedure for the Physical Protection Performance Indicators pertaining to Fitness-For-Duty Personnel Reliability, Personnel Screening Program, and Protected Area Security Equipment. A sample of plant reports related to security events, security shift activity logs, and fitness-for-duty reports were also reviewed. The Plant Protection Performance Indicator verification will be completed during the next scheduled inspection.

b. Findings

No findings of significance were identified.

.3 Initiating Events, Mitigating Systems and Barrier Integrity Performance Indicator Verification

a. Inspection Scope

The inspectors reviewed licensee event reports, licensee memoranda, plant logs, and NRC inspection reports to verify the following performance indicators for first quarter of 2002.

- Unplanned Scrams per 7000 Critical Hours
- Scrams with Loss of Normal Heat Removal
- Unplanned Power Changes per 7000 Critical Hours
- Safety System Unavailability, Residual Heat Removal System
- Reactor Coolant System Activity
- Reactor Coolant System Leakage

b. Findings

No findings of significance were identified.

4OA3 Event Followup (71153)

.1 Review of Unresolved Item

a. Inspection Scope

The inspectors performed an onsite review of records to evaluate the root cause and corrective actions for the unresolved item discussed in the “Findings” section below. The inspectors evaluated the timeliness, completeness, and adequacy of the root cause and corrective actions in accordance with the requirements of 10 CFR Part 50, Appendix B, as appropriate.

b. Findings

One green finding was identified for the inadequate calibration of measuring and test equipment used to adjust the reactor core isolation cooling system (RCIC) and HPCI room temperature switches that resulted in the switch temperature settings being adjusted too high.

Background

(Closed) Unresolved Item 50-341/02-003-01: “Setting on HPCI and RCIC Systems Room Area Temperature Monitoring Equipment Found out of Tolerance High.” On March 8, 2002, while performing Surveillance 44.020.227, “Nuclear Steam Supply System - HPCI and RCIC Room Area Temperature, Channel A Functional Test,” two temperature switches, E41N602A and E51N602A, which provide HPCI and RCIC isolation on high room temperature to protect against a steam line break, were found out of tolerance high at 185°F. Technical Specification Table 3.3.6.1-1, Functions 3.d and 4.d, require the HPCI Equipment Room Temperature - High and the RCIC Equipment Room Temperature - High, respectively, to be set at less than or equal to 162°F.

The licensee found that during the December 2001 Channel A Functional Test for HPCI and RCIC room temperature switches, the setpoints were inadvertently set too high (185°F) due to a loose battery connection inside the test equipment (Transmation Thrice-Cell). The Thrice-Cell serves to condition the signal being supplied to the temperature switches, providing temperature compensation similar to the installed temperature detector and wiring. With the Thrice-Cell not working properly, the output was too high, causing the HPCI and RCIC room temperature setpoints to be misadjusted. The battery connection became loose while carrying the Thrice-Cell to the location. The technicians did not check the battery connection after carrying the equipment to the area. Unknown to the licensee, Channel A remained misadjusted while the other channel, Channel B, was calibrated on January 9, 2002. This resulted in both channels being inoperable for about 1 hour and 15 minutes.

Significance

The finding was more than minor because Channel A could not have actuated the RCIC and HPCI room area high temperature insulation during a steam leak in that room for about 4 months. However, Channel B alone could have initiated the isolation. On January 9, 2002, both Channel A and B were inoperable when Channel B was removed from service for calibration. Both HPCI and RCIC remained inoperable, but available for injection, for 1 hour and 15 minutes, a period less than 3 days. Therefore, the finding screened by the SDP, is considered of very low safety significance because the

instruments were only inoperable for a very short time (Green).

### Enforcement

10 CFR Part 50, Appendix B, Criterion XII, "Control of Measuring and Test Equipment," requires that properly established measures be taken to assure that instruments, and other measuring and test devices are properly calibrated to maintain accuracy within necessary limits. Contrary to 10 CFR Part 50, Appendix B, Criterion XII, the licensee failed to ensure that properly calibrated test equipment was used for adjusting the HPCI and RCIC room temperature switches. This was considered a Non-Cited Violation of 10 CFR 50, Appendix B Criterion XII (**NCV 50-341/02-05-01**) in accordance with Section VI.A.1 of the NRC Enforcement Policy. The issue was entered into the licensee's corrective action program as CARD 02-13570.

### .2 Review of Licensee Event Reports

(Closed) Licensee Event Report 50-341/01-03-00: "Pressure Isolation Valve Leak Test Failure." On November 9, 2001, during the seventh refueling outage, while performing leak testing in accordance with Technical Specification surveillance requirements of pressure isolation valve E1100F050A (Division 1 residual heat removal system inboard isolation valve), the resultant leak rate was determined to be in excess of the specified leakage rate of 10 gallons per minute. Upon disassembly of the valve, it was determined that the valve's disk was prevented from fully closing by the actuator. The other pressure isolation valve in the injection line (E110F015A) remained closed during Cycle 8 plant operation and successfully passed its leak rate testing.

The cause of the failure was determined to be improper reassembly of the actuator during the previous refueling outage because of inadequate craft skills and insufficient craft supervision. Corrective actions included the rebuilding of the actuator, replacement of the soft seat and successful leak rate retest. The opposite train equivalent valve even though it had passed its leak rate test was also disassembled, inspected and its soft seat replaced. Additional corrective actions in preparation for the following refueling outage included a detailed screening process for valve workers, pre-outage training performed on a mockup valve purchased from the manufacturer and evaluation by licensee's supervision as well as increased work supervision. The failure to properly reassemble the actuator was considered a violation of minor significance. This item is closed.

(Closed) Licensee Event Report 50-341/01-04-00: "Manual Reactor Scram Due to Loss of Stator Water Cooling." On December 6, 2001, in anticipation of an automatic reactor scram due to an imminent main turbine trip, reactor operators inserted a manual reactor scram from 100 percent power. The imminent main turbine trip was due to a leak in the main turbine generator stator water cooling. The loss of stator water cooling occurred when a vent line separated from the heat exchanger during removal of a pipe cap from the vent line in preparation for obtaining a sample for chemistry analysis. All systems responded as expected and all the control rods fully inserted. No emergency core cooling system initiated. No safety relief valves lifted.

The cause of the vent line failure was attributed to inadequate problem documentation

and resolution that dated back to 1996. In April of 1996, a work request identified a leak at the threaded portion of the vent line to the heat exchanger. The work request also requested a means of restraining the piping. The work request was completed with no additional restraints added. In May 2000, the vent line was identified to be loose again. Repairs were completed. The vent line was reinstalled with an additional 180 degrees of rotation, providing additional thread engagement but possibly damaging the threaded area. During the refueling outage, in November 2001, the main turbine generator stator underwent copper oxide removal. To assure that all the chemicals had been removed a sample was requested to be taken.

The corrective actions included the strengthening of the vent line and the reduction of the unsupported length. Schedule 80 steel was used to replace schedule 40 and the connection to the heat exchanger was welded instead of threaded. A review of systems and practices was performed for the potential for similar failures. This item is closed.

(Closed) Licensee Event Report 50-341/2001-S01-00: "Unescorted Access Revoked Upon Discovery of Adverse Information in Background Check." A contractor employee (carpenter) was granted temporary access to the protected area on September 28, 2001. No vital area unescorted access was granted to the individual because of NRC guidance that existed at the time.

On October 18, 2001, ongoing investigation activities revealed that the contractor employee failed to disclose adverse information (a positive drug test at a non-nuclear facility) during the application process. The licensee immediately suspended the individual's unescorted access authorization and reported the incident to the NRC. The licensee's investigation concluded that the contractor employee's access to nuclear power plants was limited to Fermi 2. The suspension of access authorization was entered into the industry's Personnel Access Data System, which is queried by nuclear power plant licensee's when a contractor requests unescorted access authorization to a nuclear plant. Subsequent requests for access to any nuclear plant would advise licensees to contact the Fermi 2 plant before granting access to their facility.

This issue was also evaluated by NRC Region III between February 7- 25, 2002, for potential enforcement issues. The review concluded that the licensee had complied with their access authorization program requirements.

Based on the fact that the individual had access to the protected area only (no vital area access) this incident had low safety significance.

#### 4OA5 Management Meetings

##### .1 Exit Meeting Summary



The inspectors presented the inspection results to Mr. O'Connor and other members of licensee management at the conclusion of the inspection on July 11, 2002. The licensee acknowledged the findings presented. No proprietary information was identified.

.2 Security Exit Meeting

Senior Official at Exit:	Mr. Don Cobb, Director, Nuclear Production
Date:	May 17, 2002
Proprietary Information:	No
Subject:	Physical Security

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.3 Radiation Protection Meeting

Senior Official at Exit:	Mr. Don Cobb, Director, Nuclear Production
Date:	June 21, 2002
Proprietary Information:	No
Subject:	Occupational Radiation Safety

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## KEY POINTS OF CONTACT

### Licensee

D. Cobb, Director, Nuclear Production  
D. Craine, Supervisor, Radiological Engineering  
J. Davis, Manager, Outage Management  
R. Fitzsimmons, Supervisor, Access Control  
R. Haggerty, Supervisor, Chemistry Laboratory  
R. Johnson, Supervisor, Compliance  
J. Korte, Manager, Nuclear Security  
R. Libra, Director, Engineering  
J. Moyers, Manager, NQA  
G. Mulleavy, Supervisor, Chemical Engineering  
W. O'Connor, Vice President, Nuclear Generation  
R. Orwig, Nuclear Security Specialist  
S. Peterman, Manager, Operations  
N. Peterson, Manager, Nuclear Licensing  
L. Sanders, Director, Nuclear Training  
D. Scheller, Respiratory Protection Specialist  
T. Stack, Supervisor, Security Operations Support  
D. Williams, Manager, Radiation Protection

## LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

### Opened

50-341/02-05-01      NCV      Setting on the HPCI and RCIC Systems Room Area Temperature Monitoring Equipment Found out of Tolerance High

### Closed

50-341/02-05-01      NCV      Setting on the HPCI and RCIC Systems Room Area Temperature Monitoring Equipment Found out of Tolerance High

50-341/02-03-01      URI      Setting on the HPCI and RCIC Systems Room Area Temperature Monitoring Equipment Found out of Tolerance High

50-341/01-03-00      LER      Pressure Isolation Valve Leak Test Failure

50-341/01-04-00      LER      Manual Reactor Scram Due to Loss of Stator Water Cooling

50-341/2001-S01-00      LER      Unescorted Access Revoked Upon Discovery of Adverse Information in Background Check

## LIST OF ACRONYMS USED

CARD	Condition Assessment Resolution Document
CFR	Code of Federal Regulations
EDG	Emergency Diesel Generator
HPCI	High Pressure Coolant Injection
JCS	Jacket Coolant System
NRC	Nuclear Regulatory Commission
RCIC	Reactor Core Insolation Cooling
SCBA	Self-Contained Breathing Apparatus
SSC	Structures, Systems, or Components
UFSAR	Updated/Final Safety Analysis Report

## 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.

### 1R01 Adverse Weather Protection

CARD 02-16765	Potential Warm Weather Preparation Improvements (NRC Issue)	June 24, 2002
ODE-006	Operator Work Arounds for May 2002	May 2002
Job ID X083020100	Check OSB Chiller Flow	June 29, 2003
	Warm Weather Report	June 3, 2002
WR 000Z021427	West Train of RBHVAC Fans Will Not Stay Running	April 26, 2002
WR A113020100	Perform Diagnostic Software Test Prior to Seasonal Startup	April 26, 2002
WR Y102020100	TBCCW: Clean Coils, Drain Pans, Check Belts Check Set Screws, Change Filters	July 3, 2002
WR 000Z021747	Second Fan From Top on North West Bank of Transformer is Not Working	May 29, 2002
WR 000Z020046	Switchgear Room A/C Units Not Working Properly	July 8, 2002

### 1R04 Equipment Alignment

Drwg 6M721-5707	Core Spray Functional Operating Sketch	Revision Z
Procedure 27.000.01	Locked Valve Lineup Verification	Revision 51
ARP 1D1	Div I CSS Actuated	Revision 8
ARP 1D2	Div I/II CSS Test Mode	Revision 8
ARP 1D5	Div I CSS Valves Thermal Overload	Revision 8
ARP 1D6	Div I CSS Logic Power Failure	Revision 11
ARP 1D9	Div I CSS Suct Val F036A Key Sw Operate Pos	Revision 7
ARP 1D14	Div I CSS Inj Val Leak Press High	Revision 8

ST-OP-315-0040-001	Core Spray System	Revision 8
Procedure 23.203	Core Spray System	Revision 34
Procedure 24.139.02	SLC Pump and Check Valve Operability Test	Revision 35
Drwg 6M721-5704	Standby Liquid Control System Functional Operating Sketch	Revision I
Procedure 24.307.14	Emergency Diesel Generator 11 - Start and Load Test.	Revision 44
ST-OP-315-0018-001	System Training Manual: Standby Feedwater	Revision 7
Procedure 23.107.01	Standby Feedwater System	Revision 29
Drwg. 6M721-5715-3	Standby Feedwater System Functional Operating Sketch	Revision L

1R05 Fire Protection

UFSAR Section 9A.4.3	Fire Hazard Analysis: Residual Heat Removal Complex	Revision 8
Drwg 6A721N-2042	Fire Protection Evaluation Residual Heat Removal Complex Upper Floor Plan EI-617'-0"	Revision D
Drwg 6A721N-2041	Fire Protection Evaluation Residual Heat Removal Complex Grade Floor Plan EI-590'-0"	Revision F
UFSAR Section 9A.4.1.8	Fire Hazard Analysis: Reactor Building Third Floor Zone 7, EI-641'-6"	Revision 11
Drwg 6A721-2407	Fire Protection Evaluation Reactor and Auxiliary Buildings Third Floor Plan EI-641'-6"	Revision Q
UFSAR Section 9A.4.1.9	Fire Hazard Analysis: Reactor Building Fourth Floor Zone 8, EI-659'-6"	Revision 8
Drwg 6A721-2408	Fire Protection Evaluation Reactor and Auxiliary Buildings Fourth Floor Plan EI-659'-6"	Revision Q
UFSAR Section 9A.4.2.8	Fire Hazard Analysis: Auxiliary Building Elevation Zone 7 630'-6" Cable Spreading Room	Revision 8
Drwg 6A721N-2406	Fire Protection Evaluation Reactor and Auxiliary Buildings Cable Spreading Area Plan (Elevation 630.5 FT)	Revision 10

### 1R11 Licensed Operator Requal

SS-OP-202-0221	Licensed Operator Requalification: Controlling Equipment Processes - Cycle 02-02, Scenario 4, "JP Failure/Turbine LO Pump Trip/LOCA," and Scenario 6, "RBM A Downscale/Rod Drift Out/Fuel Fail/ Stuck Open SRV/ATWS."	Revision 1
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### 1R12 Maintenance Rule Implementation

CARD 02-11760	Functional Failure Reviews were not Conducted for Valve T4500F601	April 3, 2002
CARD 02-12020	Mechanical Binding Valve Causing Premature Closing Torque Switch Trips	March 7, 2002
CARD 01-19553	Valve Failed to Close During Performance of 27.702.01	December 7, 2001
CARD 00-12134	OOS Hours not Tracked for Several Risk Significant Containment Isolation Valves	January 7, 2000
Maint. Rule Program Manual	Appendix G, E2100, "Core Spray System"	Revision 9
Maint. Rule Program Manual	Appendix H, E2100, "Core Spray System"	Revision 9
CARD 00-15579	Div 1 Core Spray Valve Stroke Time Outside IST Limits	April 23, 2000
Procedure 24.203.02	Division 1 Core Spray System Pump and Valve Operability and Automatic Actuation	Revision 33
CARD 00-15723	Blown Fuses in MCC Buckets for the Core Spray System	April 17, 2000
CARD 00-16258	PMT Failed for E2150-F015B	May 7, 2000
CARD 00-20114	Trip Did not Come In During Surveillance	October 16, 2000
CARD 01-12861	Blown Primary Control Fuse for E2150F015B	March 3, 2001

### 1R13 Maintenance Risk Assessment and Emergent Work

CARD 02-14338	Discrepancy Noted During Internal Inspection of JCS/ACS Expansion Tank, 3/8" Vent Pipe Missing Internally for ACS Vent	April 11, 2002
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WR 000Z021337	Discrepancy Noted During Internal Inspection of JCS/ACS Expansion Tank.	April 11, 2002
CARD 02-14125	EDG 12 Turbocharger Temperature Abnormal	April 9, 2002
CARD 02-11762	Determine Cause of Fluctuating JCS Pressure (~5#) and Bubbles in JCS Expansion Tank During EDG 12 Run.	April 4, 2002
WR 000Z002282	West Hydrogen Recombiner Fails to Come to Temperature in Required Time	November 29, 2000
WR 000Z011559	Repair/Replace Leaking Tee on Cooling Water Line at Orifice	May 16, 2001
WR 000Z984589	Valve T4804F001A Leaks Past Seat, Disassemble & Rework as Required	August 11, 2001

#### 1R14 Nonroutine Plant Evolutions

System Operating Procedure 23.138.01	Reactor Recirculation System	Revision 77
CARD 02-13666	DCS Trouble During RR Pump Startup from SLO. Pump Controller Shifted to Manual at 36% Speed	April 4, 2002
Procedure 24.109.02	Turbine Bypass Valve Operability Test	
AO Procedure 20.107.02	Loss of Feedwater Heating	
CARD 02-15674	Loss of Heater Drains	June 9, 2002

#### 1R15 Operability Evaluations

CARD 02-11762	Determine Cause of Fluctuating JCS Pressure (~5#) and Bubbles in JCS Expansion Tank During EDG #12 Run	April 4, 2002
Engineering Functional Analysis	EFA for CARD 02-11662, "EDG 12 Fluctuating Jacket Coolant System (JCS) Pressure and Bubbles in JCS Expansion Tank	April 5, 2002
CARD 02-12381	Fire Protection Sprinklers in All EDG Fuel Oil Tank Rooms Exceeded Max Allowed Distance From Ceiling per NFPA 13	April 2, 2002

Engineering Functional Analysis	EFA for CARD 02-12381	April 10, 2002
CARD 02-14682	Discrepancies Noted Between UFSAR Section 9.5.5, "Diesel Cooling Water System" and How the EDG's at Fermi Actually Work Currently	May 20, 2002
Engineering Functional Analysis	EFA for CARD 02-14682, "EDG Jacket Coolant and Air Coolant not Functioning as Described in UFSAR Section 9.5.5	May 22, 2002
CARD 02-14747	72E Regulator Worm Gear Drive Mechanism Phase Coupling Pin Fell Out	June 14, 2002
Engineering Functional Analysis	EFA for CARD 02-14747	June 14, 2002
Procedure ARP 10D43	Division 2 Bus Voltage Low	Revision 9
Technical Specification	TS LCO 3.8.7, Electrical Power Distribution System	Amendment 134

#### 1R16 Operator Workarounds

NPOP-02-0037	First Quarter Aggregate Assessment of Operator Work Arouns	March 5, 2002
NPOP-02-0037	Second Quarter Aggregate Assessment of Operator Work Arouns	May 3, 2002

#### 1R17 Permanent Plant Modifications

EDP 30203	Replacement for Obsolete GEMAC Components in the Flow Control Loop for the HPCI Pump Discharge.	Revision 0
WR 000Z003606	Flow Indication Controller: HPCI Pump Flow Rate	February 18, 2002
WR 000Z010461	Implement EDP 30203 at H11P602	March 12, 2002
WR 000Z010462	Instrument Rack: NSSS Process Instrument Cabinet, Division 2	March 12, 2002
WR 000Z010463	Implement EDP 30203 at H11P620	March 12, 2002



WR 000Z010465	Instrument Rack: HPCI Relay Room Governor Control	March 12, 2002
WR 000Z010466	Rescale ERIS and GETARS Points for EDP 30203	March 12, 2002

1R19 Post Maintenance Testing

Procedure 24.307.45	EDG 11 Fast Start Followed by Load Reject	Revision 8
Technical Specification	Surveillance Requirement 3.8.1.7 and 3.8.2.1	
Procedure 24.202.01	HPCI Pump Time Response and Operability Test at 1025 psi	Revision 74
Vendor Manual VME 8-11	Inductrol Type AIRT Voltage Regulators	Revision A
CARD 02-00552	Potential AC Voltage High Out of Specification	February 11, 2002
CARD 02-11583	72E Regulator Setpoint Adjustment	January 10, 2002
CARD 02-14747	72ERegulator Worm Gear Drive Mechanism	June 17, 2002

1R22 Surveillance Testing

Job 026000318	Perform 24.203.004, Section 5.2, "Div 1 CSS Local Valve Position Indication Verification"	April 19, 2000
Job 0260010930	Perform 24.203.004, Section 5.2, "Div 1 CSS Local Valve Position Indication Verification"	November 16, 2001
Job 025800507	Perform 24.203.003, Section 5.2, "Division 2 CSS Simulated Automatic Actuation Test"	May 7, 2000
Job 0258010930	Perform Section 24.203.003, Section 5.3, "Division 2 CSS Sim Auto Act - E2150F005B"	November 6, 2001
Job 126000318	Perform 24.203.004, Section 5.2, "Division 2 CSS Local Valve Position Indication Verification"	May 3, 2000
Procedure 24.203.03	Division 2 CSS Pump and Valve Operability, and Automatic Actuation	Revision 40
Technical Specification	SR 3.3.5.1.2 Table 3.3.5.1-1 Function 1.d ECCS Instrumentation, Manual Initiation	
Technical Specification	SR 3.5.1.8, Flow Rate and System Head Corresponding to Specific Reactor Pressure	

Technical Specification	SR 3.5.2.6, Flow Rate and System Head Corresponding to Specific Reactor Pressure	
Procedure 24.107.03	SBFW Pump and Valve Operability and Lineup Verification Test	Revision 30
Technical Requirements Manual	TRSR 3.7.7.4 Surveillance Requirement	
AOP 20.000.18	Abnormal Operating Procedure: Control of the Plant from the Dedicated Shutdown Panel	Revision 31
DBD C36-00	Design Basis Document: Dedicated Shutdown System	Revision A
Drwg 6M721-5707	Core Spray System Functional Operating Sketch	Revision Z
Drwg 6M721-5715-3	Standby Feedwater System Functional Operating Sketch	Revision L
Drwg 6M721-5715-4	Standby Feedwater Lube Oil System Turbine Building	Revision D
Procedure 24.139.02	SLC Pump and Check Valve Operability Test	Revision 35
Technical Requirement Manual	TRSR 3.8.6.1 and 3.8.6.2 Surveillance Requirement	
Technical Specifications	TS 5.5.6 Inservice Inspection TSSR 3.1.7.7 Flow Rate Verification	
Drwg 6M721-5704	Standby Liquid Control System Functional Operating Sketch	Revision I

1R23 Temporary Plant Modifications

Temp Mod 02-0009	Install Temporary Monitoring Equipment at the Valve Control Module for # 3 High Pressure Control Valve.	Revision 0
Temp Mod 02-0001	Install Monitoring Instrumentation onto the HPCI Lube Oil System and HPCI Valves E4100F067 and E4100F068	Revision A

2OS1 Access Control to Radiologically Significant Areas

GRWP 02-0002	USNRC Personnel General Access to the RRA for Inspections and Surveillances	Revision 0
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MRP06	Accessing and Control of High Radiation, Locked High Radiation, and Very High Radiation Areas	Revision 4
SRWP 02-1009	Fermi 2 Personnel, Including NRC, Perform Pre-Job Walkdown, Inspections, and Supervisory Tours	Revision 0

2OS3 Radiation Monitoring Instrumentation and Protective Equipment

	Fermi 2 RPM System - Respiratory Protection Qualified Individuals	June 18, 2002
CARD 00-16360	Post Accident Sampling System Failed Semi-Annual Comparison for Primary Containment Atmosphere Sample	August 11, 2000
CARD 00-16371	PMT Failed for WR 000Z003103	October 9, 2000
CARD 01-00163	Valves Leaking By	March 22, 2001
CARD 01-11467	SCBA Eyeglass Inserts Not Available for On Shift STA	May 10, 2001
CARD 01-16729	Fire Brigade Gear	July 5, 2001
CHS-AUX-09	Chemistry Specification - Post Accident Sampling System Availability	Revision 3
LP-GN-509-0200	Nuclear Training Lesson Plan, Lesson: Self-Contained Breathing Apparatus	Revision 2
LP-GN-509-0300	Nuclear Training Lesson Plan, Lesson: Self-Contained Breathing Apparatus and Emergency Breathing Air	Revision 3
MRP09	Respiratory Protection	Revision 3
NPRC-01-0149	Trip Report - Safety Today/Midwest Service Center, Merrillville, Indiana	April 16, 2001
PTP 65.000.707	Inspection of MSA Respiratory Equipment	Revision 8
PTP 65.000.717	Inspection, Maintenance, and Hydrostatic Testing of Breathing Air Cylinders	Revision 6
PTP 65.000.718	Maintenance and Repair of MSA Respiratory Protection Equipment	Revision 7
PTP 78.000.12	Post-Accident Sampling and Transport	Revision 14
PTP 78.000.14	Post-Accident Sample Analysis	Revision 25
PTP 78.000.19	PASS System Maintenance	Revision 10
Report No. 02-06456	Air Check Report for Eagle/IR BAP20TH3, S/N 30T10831	May 14, 2002
Report No. 02-06478	Air Check Report for Eagle/IR BAP20TH3, S/N 30T710828	May 14, 2002
Section 11.4.4.4	Fermi 2 Updated/Final Safety Analysis Report, "Postaccident Sampling System"	Revision 9
Unit No. R400022 (Primary OSC)	Fermi 2 RPM System - Respiratory Protection Equipment Report	June 18, 2002

Unit No. R400167 (Control Room)	Fermi 2 RPM System - Respiratory Protection Equipment Report	June 18, 2002
Unit No. R400366 (Remote Shutdown Panel)	Fermi 2 RPM System - Respiratory Protection Equipment Report	June 18, 2002
Unit No. R400431 (RHR Complex)	Fermi 2 RPM System - Respiratory Protection Equipment Report	June 18, 2002
Unit No. R400460 (Backup OSC)	Fermi 2 RPM System - Respiratory Protection Equipment Report	June 18, 2002
WI-RH-018	Work Instruction for Quantitative Respiratory Fit Testing Using the TSI Model 8020A Portacount and N95 Companion	Revision 1

3PP1 Access Authorization Program

	FFD Semiannual Report	August 24, 2001
	FFD Semiannual Report	February 7, 2002
General Administration Control Manual MGA 10	Fitness For Duty	Revision 12
General Administration Control Manual MGA 16	Behavioral Observation	Revision 0
NQA Audit Report 01-0114	FFD Program	October 1-31, 2001
SEP-SE-13	Access Authorization	Revision 14

3PP2 Access Control

	Annual Lock and Key Inventory	June 7, 2000
	Annual Lock and Key Inventory	July 31, 2001
	Self-Assessment - Personnel Search Officer	
Condition Assessment Resolution Document (CARD) 01-20032	Failure to Properly Store VA Security Padlocks	November 20, 2001
Condition Assessment Resolution Document (CARD) 02-11969	Self Assessment - Personnel Search Officer	
General Administration Control Manual MGA 09	Access Control	Revision 15

I & C Calibration Procedure 46.601.004	Sentex Sensing Technology Scanex 1 Explosive Detector	Revision 33
LER 2001-S01-00	Revoked Unescorted Access	November 14, 2001
	Nuclear Security Maintenance History Report	September 2001 through April 30, 2002
	Security Related CARDS Listing	September 1, 2001 to May 10, 2002
SEP-SE 1-01	Testing and Maintenance	Revision 18
SEP-SE 1-02	Security Lock and Key Control	Revision 6

#### 3PP4 Security Plan Changes

	Revision 38 to Physical Security Plan	September 12, 2001
	Revision 10 to Safeguards Contingency Plan	September 12, 2001
	Revision 18 to Security Training and Qualification Plan	September 12, 2001
	Revision 39 to Physical Security Plan	January 10, 2002
	Revision 11 to Safeguards Contingency Plan	March 2, 2002

#### 4OA1 Performance Indicator Verification

SDI 20	Protected Area Security Equipment Performance Indicator Tracking and Reporting	Revision 3
	RP Report "Personnel Who Have Received > 100 mR for a Single Entry" (2 <sup>nd</sup> Quarter 2001 - 1 <sup>st</sup> Quarter 2002)	June 18, 2002
CARD 01-00562	Locked High Rad Gate Needs Repair	September 4, 2001
CARD 01-18496	Degrading Locking Mechanisms on Water Tight HRA and LHRA Doors	September 19, 2001
CARD 01-21708	Accessing LHRA Gates	December 2, 2001
MRP06	Accessing and Control of High Radiation, Locked High Radiation, and Very High Radiation Areas	Revision 4

#### 4OA3 Event Followup

Technical Specification 1.1	Definition: Dose Equivalent Iodine-131	Amendment 134
Technical Specification 3.4.7	RCS Specific Activity	Amendment 134
Technical Specification 3.4.4	RCS Operational Leakage	Amendment 134
Procedure 24.000.02	Shiftly, Daily and Weekly Required Surveillance	Revision 101
Procedure 76.000.34	Reactor Coolant Analysis	Revision 10
Procedure 74.000.19	Chemistry Routine Surveillance	Revision 16
	Fermi 2, 1Q/2002 Performance Summary	April 23, 2002
NEI 99-02	Regulatory Assessment Performance Indicator Guideline	Revision 2
	Control Room Logs from January 1, 2002 through March 31, 2002.	