U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-341/92010(DRP)

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

Licensee: Detroit Edison Company
2000 Second Avenue
Detroit, MI 48226

Facility Name: Fermi 2

Inspection At: Fermi Site, Newport, MI

Inspection Conducted: May 8 to June 30, 1992

Inspectors: S. Stasek
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Reactor Projects Section 2B

7/13/92
Date

Inspection Summary

Inspection on May 8 to June 30, 1992 (Report No. 50-341/92010(DRP))

Areas Inspected: Action on previous inspection findings; operational safety; maintenance; surveillances; followup of events; LER followup; union lockout actions; refueling preparation; and licensee self-assessment capability.
Results: Overall performance of the operating crews was adequate during the inspection period. Adherence to administrative controls was good with no instances of deviation from administrative requirements by operations personnel noted. However, a personnel error on the part of a licensed operator occurred that resulted in both divisions of the Standby Gas Treatment System being inoperable for approximately 20 minutes (paragraph 6.c). Also, two new fuel containers, each containing two new fuel bundles were inadvertently dropped when the hand pulled cart they were resting on tipped over (paragraph 6.e). Housekeeping was in general good throughout the plant. Two instances were noted where temporary scaffolding was inappropriately placed in contact with safety related components (paragraph 3.a). Surveillance and maintenance activities observed during the inspection period appeared to be conducted in accordance with all applicable requirements, including radiation protection controls. However, on two occasions inadvertent starts of ESF equipment occurred during maintenance activities or during preparations to do maintenance (paragraphs 6.a and 6.d). An inadvertent start of the Reactor Core Isolation Cooling (RCIC) System occurred

during a surveillance test that resulted in RCIC injecting to the reactor for approximately 13 seconds (paragraph 6.b). Because testing of the refuel bridge auxiliary hoists was not originally adequate to assure their proper operation, a problem with grapple response on a loss of power condition went unidentified from initial construction until midway through the unit's second fuel cycle (paragraph 2.b). This was subsequently licensee identified and adequately corrected. A lockout of bargaining unit members occurred during the inspection period with plant supervisory personnel performing those duties for an approximately two week period. No substantive problems were noted by the inspectors affecting the continued safe operation of the unit during that timeframe (paragraph 8). Overall, the licensee's self assessment capability was found to be good. However, some weaknesses were noted in the quality of OSRO meeting minutes (paragraph 10.b). Additionally, some concerns were identified in the licensee's implementation of two plant modifications and preparation of the supporting safety evaluations (paragraph 10.d). Two non-cited violations were identified (Paragraphs 2.b and 6.c) and one unresolved item was identified (Paragraph 10.d).

DETAILS

1. Persons Contacted

a. Detroit Edison Company

* S. Bartman, Supervisor, Radiation Protection
C. Cassise, General Supervisor, Mechanical Maintenance
*# S. Catola, Vice President, Nuclear Engineering and Services
J. Contoni, Supervisor, Plant Systems
\# R. Eberhardt, Superintendent, Radiation Protection
* P. Fessler, Director, Nuclear Training
\# L. Fron, Assistant to General Director, Engineering
*# D. Gipson, Assistant Vice President, Nuclear Operations
* L. Goodman, Director, Quality Assurance
* R. Henson, Operations Engineer
J. Hughes, General Supervisor, Electrical Maintenance
J. Korte, Director, Nuclear Security
*# A. Kowalczuk, Superintendent, Maintenance and Modifications
* R. Matthews, Assistant Superintendent, Maintenance & Modifications
*# R. McKeon, Plant Manager, Nuclear Production
* W. Miller, Superintendent, Technical Engineering
* N. Mims, Assistant Superintendent, Maintenance
*# R. Newkirk, General Director, Regulatory Affairs
\# G. Ohlemacher, Licensing
*# W. Orser, Senior Vice President, Nuclear Operations
* J. Plona, Superintendent, Operations
\# T. Riley, Supervisor, Nuclear Licensing
\# R. Russell, Outage Manager
* L. Schuerman, General Supervisor, Plant Engineering
*# A. Settles, Director, Licensing
\# G. Shukla, Senior Engineer
* B. Siemasz, Engineer, Licensing
\# R. Stafford, General Director, Nuclear Assurance
* D. Stone, Supervisor, Production Quality Assurance
* F. Svetkovich, Superintendent, Radwaste
* R. Szkotnicki, Director, Plant Safety
J. Tibai, Supervisor, Compliance
*# J. Walker, General Director, Nuclear Engineering

b. U.S. Nuclear Regulatory Commission

*# S. Stasek, Senior Resident Inspector
*# K. Riemer, Resident Inspector
T. Tongue, Project Engineer, RIII
\# D. Roth, Intern, RIII
\# T. Colburn, NRR Project Manager

R. Stransky, NRR Project Manager
W. Shafer, Chief, Branch 2, RIII
M. Phillips, Chief, Section 2B, RIII

*Denotes those attending the exit meeting on June 30, 1992.
#Denotes those attending the management meeting on May 27, 1992.

The inspectors also interviewed others of the licensee's staff during this inspection.

2. Action on Previous Inspection Findings (92701)

a. (Closed) Violation (341/91002-01(DRP)): Failure to include appropriate acceptance criteria for EPA breaker testing. In response, the licensee revised procedures 42.610.02, "Division I Reactor Protection System (RPS) Electrical Protection Assembly Calibration/Functional Test," and 42.610.04, "Division II Reactor Protection System (RPS) Electrical Protection Assembly Calibration/Functional Test," to identify the time delay limits as acceptance criteria. In addition, the licensee conducted a review to identify all procedures which also used the term "acceptable limits." The Fermi 2 writers guide was thereafter revised to better define acceptance criteria relating to surveillance procedures. Also, details of the violation and the licensee's followup actions were distributed to appropriate plant personnel via the required reading program and informal training program for maintenance and operations groups. This item is considered closed.

b. (Closed) Unresolved Item (341/91007-01(DRP)): Refuel bridge auxiliary hoist failure mode on loss of power. The licensee had issued Deviation Event Report (DER) 91-0158 which addressed an identified problem with the refuel bridge auxiliary hoists in that on loss of power the frame-mounted and monorail-mounted hoists would fail open. The problem with the hoists was subsequently determined to be as a result of inadequate installation and testing during initial plant construction. This meant that from that time until identification, a loss of power to the refuel bridge would cause the subject hoists to fail open. The licensee reviewed which grapples/tools could have been affected by this situation and the impact of dropping any associated components in the core or in the spent fuel pool via Safety Evaluation 89-0182. The safety evaluation concluded that no grapple failure could occur that would allow a dropped component to exert a compressive force great enough to cause fuel damage. The licensee subsequently revised procedure 24.623, Reactor Manual Control/Reactor Mode Switch/Refueling Platform-Refueling Interlocks, to incorporate loss of air and loss of power tests for the monorail and frame mounted hoists as well as the refuel mast.

Because testing of the hoists was not originally adequate to assure their proper operation, a condition adversely affecting proper system response to a loss of power was not identified for an extended period of time. Therefore, this is considered a violation of 10 CFR 50 Appendix B, Criterion XI, "Test Control". However, inspector review determined this situation was of minor safety significance (in that no components had actually been dropped as a result of a loss of power to the refuel bridge, nor would there have been major consequences if a susceptible component had been dropped), and the condition was corrected with adequate testing requirements currently inplace, and in reviewing 10 CFR 2, Appendix C, the criteria specified in Section VII.B.2 of the Enforcement Policy were met to allow exercising of enforcement discretion. Therefore, a Notice of Violation will not be issued.

c. (Closed) Open Item (341/90013-06(DRP)): Replacement of CR120A type relays in safety related applications and development of appropriate preventative maintenance. Because of the failures that have been experienced, the licensee has undertaken a replacement program. Those replacements commenced during the second refueling outage with further assessments being made to address other applications. In addition, preventative maintenance (PM) events were created to periodically replace the subject relays every five years. This item is considered closed.

d. (Closed) Open Item (341/91024-01(DRP)): Inconsistent Appendix R Technical Specification Action Statements. In addition to the inconsistency identified in the original open item, further inconsistencies were identified with the limiting conditions for operation in Technical Specification 3.3.7.4, "Remote Shutdown System Instrumentation and Controls," and Technical Specification 3.7.4, "Reactor Core Isolation Cooling System." In both examples, a question of what comprised a particular system's control circuit versus the equipment that is being controlled was involved. In the latter example, the licensee had previously addressed this issue by utilizing an internal Technical Specification Clarification to better define control circuit versus controlled equipment. Further review by NRC Region III and Office of Nuclear Reactor Regulation (NRR), resulted in concurrence that the licensee's methodology for implementation of the Technical Specification via the clarification was appropriate. Therefore, since the NRC concurred with the licensee's implementation in the one case, and with the other example being of like nature, the current implementation philosophy was likewise deemed acceptable. Therefore, this item is considered closed.

e. (Closed) Open Item (341/92007-02(DRP)): Extra pipe supports installed on Core Spray Division II piping. The licensee subsequently contacted Sargent & Lundy Engineers to resolve the concern because S&L had conducted several walkdowns of the plant in the past to identify just such items, This particular case was found to have been previously identified with appropriate documentation that indicated the configuration to be acceptable. This item is closed.

One non-cited violation was identified in this area.

3. Operational Safety Verification (71707)

The inspectors observed control room operations, reviewed applicable logs and conducted discussions with control room operators throughout the inspection period. The inspectors verified the operability of selected safety-related systems, reviewed tagout records, and verified proper return to service of affected components. The inspectors observed a number of control room shift turnovers. The turnovers were conducted in a professional manner and included log reviews, panel walkdowns, discussions of maintenance and surveillance activities in progress or planned, and associated LCO time restraints, as applicable.

The inspectors conducted tours of the reactor, auxiliary and turbine buildings. During these tours, observations were made regarding plant equipment conditions, fire hazards, fire protection, adherence to procedures, radiological controls and conditions, housekeeping, tagging of equipment, ongoing maintenance and surveillance activities, containment integrity, and availability of safety-related equipment. Walkdowns of the accessible portions of the following systems were conducted to verify operability by comparing system lineups with plant drawings, as-built configuration or present valve lineup lists; observing equipment conditions that could degrade performance; and verifying that instrumentation was properly valved, functioning and calibrated.

- Emergency Diesel Generator No. 11
- Emergency Diesel Generator No. 14
- Standby Liquid Control
- High Pressure Coolant Injection
- Standby Gas Treatment System - Divisions I and II
- Residual Heat Removal System - Divisions I and II

Additionally, the inspector observed implementation of portions of the licensee's security program during the inspection period including: badging of personnel; access control; security walkdowns; security response (compensatory actions); visitor control; security staff attentiveness; and operation of security equipment.

Significant observations and reviews included the following:

a. On June 6, during a routine plant tour of the auxiliary building fifth floor, the inspector noted a scaffold constructed in support of a plant modification was improperly erected in that it was in contact with a Division I electrical conduit. Additionally, the scaffold was observed to be in contact with HVAC ventilation ductwork. On subsequent walkdowns of the auxiliary building, the inspector again noted a scaffold improperly erected in the division II standby gas treatment room. In the second case, the scaffold was found to be in contact with instrument tubing associated with isolation damper solenoid valves on the standby gas treatment system. These observations were communicated to appropriate licensee personnel and corrective actions were quickly taken to correct the two situations.

b. During a routine walkdown in the division I standby gas treatment (SGTS), the inspector noted the local Hicomm speaker was intentionally muffled by placement of rags in the speaker throat assemblies. Once communicated to appropriate licensee personnel, the speakers were cleared of their obstructions. Licensee management theorized that the volume on those speakers was set excessively high so that plant workers felt a need to take action to reduce the volume levels. Licensee followup action included an adjustment of the volume control circuit to lessen the volume to a more acceptable level. The subject Hicomm speakers were previously found to be electrically disconnected (reference inspection report 341/92004). The inspectors will continue to closely observe operation of Hicomm speakers within the plant areas to assure their continued operability as part of the routine inspection program.

c. During a walkdown of the turbine building, the inspectors noted that a door to the outside of the building on the first floor was open with two tygon hoses routed through it. It was subsequently determine the door was opened and the hoses placed as part of work request 000Z922673, "GSW Main Turbine Lube Oil Temperature Control Valve Leak Repair." The inspectors noted that the same door was not posted "Radiologically Controlled Area" from the outside. It was posted as a RCA boundary from the inside, but the posting was held magnetically to the inside of the door. There was the potential for someone to enter the RCA from outside without seeing a posting or crossing a marked boundary. This was reported to radiation protection personnel. They responded by posting the door from the outside and taping down the associated hoses.

d. On June 3, 1992, the resident inspector participated as an evaluator in the FERMEX 92 radiological emergency response graded exercise. Discussion of the results of FERMEX 92 is documented in Inspection Report 50-341/92005(DRSS).

No violations or deviations were identified in this area.

4. Maintenance (62703)

Station maintenance activities on safety-related systems and components listed below were observed to ascertain that they were conducted in accordance with approved procedures, regulatory guides and industry codes or standards and in conformance with technical specifications.

The following items were considered during this review: the limiting conditions for operation were met while components or systems were removed from service; approvals were obtained prior to initiating the work; activities were accomplished using approved procedures and were inspected as applicable; functional testing and/or calibrations were performed prior to returning components or systems to service; quality control records were maintained; activities were accomplished by qualified personnel; parts and materials used were properly certified; radiological controls were implemented; and fire prevention controls were implemented.

Work requests were reviewed to determine the status of outstanding jobs and to assure that priority is assigned to safety-related equipment maintenance which may affect system performance.

The following maintenance activities were observed/reviewed:

- WR 000Z920491 Modification of HPCI Ramp Generator Signal
- WR 000Z920846 Stellite Seal and Guide Removal and Replacement with 410 Stainless Steel
- PM R125920529 Change Out Oil Filter on EDG 14 Starting Air Compressor
- PM T322910411 Disassemble and Inspect Actuator
- WR 000Z920389 Troubleshoot Discrepancy Between Local and Control Room Frequency Indication on EDG 11
- PM C011920303 Calibrate LPRMs/Group A & B Neutron Monitoring System
- WR 000Z920221 Receipt and Inspection of New Fuel for RF03

Following completion of maintenance on the Emergency Diesel Generators, the inspectors verified that the EDGs had been returned to service properly.

No violations or deviations were identified in this area.

5. Surveillance (61726)

The inspectors observed/reviewed the following Technical Specification required surveillance testing.

- 24.307.17 Emergency Diesel Generator No. 14 Start and Load Test
- 24.404.04 Division II SGTS Filter and Secondary Containment Isolation Damper Operability Test

The following items were considered during the inspection: the testing was performed in accordance with approved procedures; that test instrumentation was calibrated; that test results conformed with Technical Specifications and procedure requirements and were reviewed by personnel other than the individual directing the test; and that any deficiencies identified during the testing were reviewed and resolved by appropriate management personnel.

The inspectors also performed a record review of the completed surveillance tests listed below. The review was to determine that the test was accomplished within the required time interval, procedural steps were properly initialled, the procedure acceptance criteria were met, independent verifications were accomplished by individuals other than those performing the test, and that the test was signed in and out of the control room surveillance log book.

- 24.000.02 Attach 2, 3, & 6, Shiftly, Daily, and Weekly Required Surveillances
- 24.138.06 Jet Pump Operability Test
- 54.000.06 APRM Calibration
- 54.000.07 Core Performance Parameter Check

No violations or deviations were identified in this area.

6. <u>Followup of Events</u> (93702)

During the inspection period, the licensee experienced several events, some of which required prompt notification of the NRC pursuant to 10 CFR 50.72. The inspectors pursued the events onsite with licensee and/or other NRC officials. In each case, the inspectors verified that the notification was correct and timely, if appropriate, that the licensee was taking prompt and appropriate actions, that activities were conducted within regulatory requirements and that corrective actions would prevent future recurrence. The specific events are as follows:

a. <u>May 8</u> - Inadvertent start of Emergency Equipment Service Water (EESW) Pump due to shorting across terminal connections. While performing maintenance to remove a flow indicator from the back of a control room panel, the Division II EESW pump inadvertently started. Operators in the control room notified the Instrument and Control (I&C) technicians who were performing the work of the pump start and stopped work in the panel. The licensee initiated an investigation into the cause of the pump start.

The licensee's investigation ruled out engineered safety feature (ESF) system logic actuation as the cause of the pump start. Further investigation revealed that the I&C technicians had to move a bundle of conductors connected to a terminal strip several times in order to reach up and back far enough into the panel to perform work on the subject flow indicator. A review of the EESW "B" pump logic drawings indicated that two conductors in the bundle were part of the EESW "B" pump manual start circuit. Examination of the physical condition of the wiring and terminal board connections revealed that a single strand of wire extended from the terminal lug of one of the two conductors. The licensee determined that, as the bundle containing the two conductors was moved, the protruding strand of wire came in contact with and shorted across the adjacent terminal providing the electrical path to start the pump. The licensee determined that the single strand of wire was capable of providing sufficient current to permit pickup of the EESW "B" pump manual starting coil which resulted in initiation of the pump and the observed sequence-of-events recorder points. The licensee covered the strand of wire with insulating tape as a compensatory measure, and wrote a work request to rework the lug to permanently eliminate the protrudence. The licensee subsequently initiated Licensee Event Report (LER) 92-004 to document the event.

b. May 11 - Reactor Core Isolation Cooling (RCIC) inadvertent initiation. During performance of surveillance 44.030.254, " ECCS Reactor Vessel Water Level 1, 2, and 8 Division II Channel D Functional Test", an inadvertent initiation of the RCIC start logic occurred. RCIC autostarted and injected to the reactor vessel for approximately 13 seconds. No effect to normal power operations was observed during the time of injection. The system was subsequently shut down and returned to a standby condition. Although the system is not designated as an ESF or ECCS system, and therefore its initiation was not required to be reported to the NRC, however, the licensee made an information only call via ENS to the HQ duty officer. Evaluation was ongoing during the inspection period with the licensee initiating Deviation Event Report (DER) 92-0235 to track resolution.

c. June 3 - Both divisions of Standby Gas Treatment System (SGTS) concurrently inoperable. On June 3, 1992 control room operators attempted to start Division II of SGTS to support removal of the Reactor Building Heating, Ventilation, and Air Conditioning (RBHVAC) system from service for maintenance. On the control room nuclear supervising operator's (CRNSO) initial attempt, Division II did not start. The CRNSO suspected that the Division II SGTS fire protection PE relay was tripped and dispatched an operator to the Division II SGTS room to reset the relay. The Division II PE relay was subsequently manipulated and thought to be reset. Later, it was determined that the PE relay initially was not actually tripped but that subsequent operator action inadvertently put the relay in a tripped condition. Meanwhile, after the report was received that the PE relay was reset, the CRNSO's second attempt to start the SGTS failed. The CRNSO then bypassed the PE relay from the control room panel in accordance with the system operating procedure and the third attempt to start Division II SGTS was successful. However, this information was not communicated to the operator stationed locally in the Division II SGTS room. Subsequently, the local operator traversed to the Division I SGTS and found the PE relay for Division I in the same condition as the Division II relay was initially found. Again, believing the Division I relay to also be in a tripped condition, the operator mechanically manipulated this relay and put it in the same condition as he had the Division II PE relay. In actuality, the Division I relay was initially in the correct position, and by his actions, the operator mechanically tripped it. At this point Division I SGTS was inoperable because it would not automatically perform its intended function. Division II was not inoperable at this time since the system was running.

When the RBHVAC maintenance was completed, the RBHVAC system was restarted and operation of Division II SGTS was no longer necessary to maintain secondary containment integrity. The CRNSO attempted to verify proper reset of the Division II SGTS PE relay, and in doing so, Division II tripped. At this point, both divisions of SGTS were inoperable since neither division would start on an automatic initiation signal. Subsequently, control room personnel realized that both Division I and Division II PE relays were in a tripped, rather than reset, condition. With Technical Engineering assistance, the Division II SGTS PE relay was correctly reset and the system successfully started to verify its operability. The Division I PE relay was subsequently reset, rendering Division I SGTS operable.

The licensee later determined that the plant was in Technical Specification 3.0.3 due to having both divisions of SGTS inoperable at the same time. This condition existed for approximately 20 minutes. This is considered a violation of the Technical Specification Limiting Condition for Operability (LCO) in that two trains of the system were inoperable at the same time and would not automatically perform their intended function. However, inspector review determined the event to be of minor safety significance because of the short duration coupled with the fact that SGTS could have been manually started by bypassing the PE relay. Because of this, and since the event was licensee identified and immediately corrected, the inspector determined, in reviewing 10 CFR 2, Appendix C, the criteria specified in Section VII.B.2 was met to allow exercising of enforcement discretion and no Notice of Violation (NOV) will be issued. The licensee initiated LER 92-005 to document this event.

d. <u>June 11</u> - ESF Actuation - Emergency Equipment Cooling Water (EECW) system automatic initiation. On June 11, 1992 operators were in the process of valving out one of the two Reactor Building Closed Cooling Water (RBCCW) heat exchangers for planned maintenance. As the one heat exchanger was slowly being valved out of service, a Division I RBCCW low differential pressure alarm occurred, along with an automatic initiation of Division I EECW. After restoring the RBCCW and EECW valve lineups, the Division I EECW pump was shutdown in accordance with the licensee's procedures. However, a low differential pressure condition again occurred which affected the Division I and Division II EECW supply and return headers, causing automatic initiation signals to Division I and Division II EECW. Licensee Event Report (LER) No. 92-006 was subsequently initiated to document the event.

The licensee subsequently determined that the cause of the event was a procedural inadequacy coupled with inadequate training of the operators relating to allowed system configuration requirements. The procedure will be changed to require that the EECW system be manually started prior to isolating a heat exchanger in the RBCCW system. In addition, the licensee found that engineering personnel had previously evaluated the system lineup the operators had attempted to perform and had recognized that an ESF actuation was highly probable.

e. June 29 - Dropped new fuel container. On June 29, 1992 during receipt and inspection of new fuel, two reactor assembly (RA) containers were dropped. When new fuel is processed onsite, it is unloaded from the truck that delivers it onto a hand pulled cart for movement in the Reactor Building. Four RA bundles are loaded on each cart, two rows of two bundles each. The licensee was in the process of moving RA containers off of the cart on the first floor of the reactor building and hoisting them to the fifth floor of the reactor building for inspection. Two of the four RA bundles had been removed from the cart and personnel were attempting to move or reposition the cart. The cart tipped and the remaining two RA container assemblies fell to the floor. Radiation Protection personnel were immediately notified and responded to the scene. No airborne radioactivity was found and surveys and swipes of the area and the RA containers were clean. The licensee suspended work on the new fuel receipt and inspection process until a course of action and corrective actions could be taken. At the end of the inspection period the licensee had completed receipt of new fuel and were evaluating corrective actions with respect to the two RA containers that had fallen. General Electric (supplier of the new fuel) was contacted for assistance during inspection of the container's internals with no obvious damage noted. The two RA boxes were shortly thereafter returned to GE for further, detailed inspection.

The resident inspectors will monitor licensee evaluation and corrective actions during the next inspection period.

During initial licensee followup actions to this event, a question of reportability was raised. At first, this was thought to require a report per 10 CFR 20.403. However, the licensee later found their reporting procedure was out of date and that the subject reporting requirements had been deleted from the NRC regulations. Although making an unnecessary report would have been conservative in this case, a question on whether other recent changes to 10 CFR requirements were fully recognized and incorporated. At the end of the inspection period, the licensee was initiating actions to assure they possessed updated copies of the 10 CFR.

One non-cited violation was identified in this area.

7. Followup of Licensee Event Reports (92700)

Through direct observations, discussions with licensee personnel, and review of records, the following event report was reviewed to determine that reportability requirements were fulfilled, immediate corrective action was accomplished, and corrective action to prevent recurrence had been accomplished in accordance with technical specifications.

(Closed) LER 90-003-02, Relay Failure Causes Loss of RPS Power and MSIV Closure. Revisions 0 and 1 were addressed and closed in inspection report 50-341/90013(DRP). The licensee addressed further corrective actions, revision 2, that have been accomplished to address the root cause for this event. Preventative maintenance (PM) events were created to replace the K1 relays every five years. The licensee determined, based upon prior history, that the normal life expectancy for normally energized GE CR120A relays is approximately 7 to 12 years. In addition, scram discharge volume (SDV) vent discharge design was modified via engineering design package (EDP) 11563 during the second refuel outage. The EDP added an additional catch to collect and better drain water from the SDV vent discharge to reactor building HVAC pathway. Finally, evaluation of possible design modifications to enhance the use of high pressure coolant injection and reactor core isolation cooling systems for reactor pressure control is currently tracked under open item 341/90013-08(DRP). Therefore, this LER is considered closed.

No violations or deviations were identified in this area.

8. Review of Union Lockout (92709) (92710) (92712)

During the inspection period the inspector reviewed the licensee's plans for coping with strikes. At the time of review, the current union contract was about to expire (on June 1, 1992) with negotiations ongoing. The inspector ascertained that approximately 200 members of the licensee's staff would be affected by the strike. Contingencies included replacement of non-licensed operators, maintenance personnel, and other miscellaneous personnel affected by the strike by appropriate supervisory personnel. Staffing levels were evaluated as well as the qualifications of supervisors performing the bargaining members' functions in the interim. The licensee's strike contingency plan included arrangements with off-site company facilities as well as local support agencies. The plan also addressed adequate continuation of the licensee's safeguards program, radiological emergency response program, as well as ongoing required requalification training.

Following contract expiration, Fermi supervisory personnel conducted an orderly turnover from bargaining unit members and assumed all onshift functions. Lockout of the bargaining unit members continued for approximately two weeks. At hich time agreement was reached between Detroit Edison management and Union Local 223 to allow for an agreement of prior notice before a strike would be implemented at the plant. During this time, the inspectors monitored, on an increased level, continuing plant operations. Inplant work activities were observed with extra emphasis placed on ascertaining that employees met qualification and training requirements for those activities. Also, licensee level of conformance to its strike contingency plan was monitored.

During the initial bargaining unit members' return to work, the inspectors observed the turnover activities and initial inplant work activities to assure an acceptable level of quality.

No substantive concerns were noted as a result of inspector review in this area. The licensee's contingency plan was adequately prepared and implemented. Union members' return to work was conducted in a conservative, controlled manner.

No violations or deviations were identified in this area.

9. Preparation For Refueling (60706)

The inspectors observed new fuel receipt and inspection activities during the inspection period. Verification of proper handling, control of inspection activities, and adequacy of personnel training to safely and adequately perform the assigned tasks was made. Associated activities observed included: truck inprocessing including radiation protection surveying, hoisting and rigging operations, bundle inspection and channeling, and fuel pool placement activities.

All activities observed appeared to have been accomplished per applicable requirements. One incident did occur that involved two dropped fuel assembly containers which necessitated further inspector review and is discussed in greater detail in paragraph 6.

No violations or deviations were identified in this area.

10. Evaluation of Licensee Self-Assessment Capability (40500)

During the inspection period, the inspectors assessed portions of the licensee's self assessment capability. Areas reviewed included the Onsite Review Organization (OSRO), the Nuclear Safety Review Group (NSRG), Nuclear Quality Assurance (NQA), the Safety Evaluation process, the Human Performance Enhancement System (HPES), and the corrective action program.

Significant observations and reviews included the following:

a. The inspectors observed the functioning of the onsite review organization (OSRO) during a planned meeting. The conduct of the meeting fulfilled Technical Specification and procedural requirements. Discussions related to agenda items were spirited and technically sound with all members seeming well prepared for the meeting. Voting requirements were properly adhered to.

b. The inspectors reviewed selected committee meeting minutes for the previous year for the OSRO and NSRG (the onsite and offsite review groups). Membership qualifications and experience levels were also reviewed. All members appeared to meet or exceed the qualification and experience levels described in the Technical Specifications. Meeting minutes were generally concise, well formatted and of sufficient detail. Ample use of subcommittees was evident. Both groups met far more frequently than required by Technical Specifications.

However, on at least six occasions, the OSRO meeting minutes were unclear as to the voting status for alternate members in attendance. Discussions with current and former OSRO vice chairman as well as attendance at OSRO meetings indicated that all attendees had a vote with everyone having to be in agreement before any item is passed. Quorum requirements for having a chairman and four members, of whom no more than two may be alternates, were met in all cases. Additionally, on at least four occasions, two persons were listed as OSRO chairmen during a meeting with three other members in attendance. Technical Specification 6.5.1.2 and FIO-FMP-01, Section 3.2.1 states, in part, that an OSRO Vice Chairman/member may not serve as Chairman and member at the same time. Given that this requirement exists, no more than one OSRO member should be listed as chairman unless the minutes are annotated in a manner that clearly defines who performs the chairman function for a given timeframe during the meeting. The inspector could not conclude from the meeting minutes whether or not quorum requirements were met during those four occasions. Discussions with the current and former vice chairmen led the inspector to believe it is likely quorum requirements had been met. However, greater attention to detail should be applied during OSRO meetings to detect these minor administrative errors when approving previous meeting minutes.

c. Several NQA assessment reports prepared and forwarded to NSRG were reviewed and appeared sufficiently self-critical. The Safety Evaluation (SE) grading system appeared to function well in evaluating the technical merits and strength of submitted evaluations.

d. Selected design change packages (EDP) and Safety Evaluations related to plant modifications were reviewed. In general, the Safety Evaluations appeared technically sound and provided sufficient information to address whether an unreviewed safety question existed. It was noted that OSRO routinely reviews all Safety Evaluations (SE).

However, the inspectors did note that EDP 9979 which directed a modification to blank off the reactor vessel head spray line had been implemented during the first refuel outage (RF01) and accomplished without obtaining prior NRC approval. Subsequently, the licensee requested a license amendment, dated January 28, 1992, to remove two valves located in the reactor vessel head spray line from the list of reactor coolant system pressure isolation valves contained in Technical Specification Table 3.4.3.2-1. 10 CFR 50.59 allows licensees to make changes to the facility as described in the FSAR without prior NRC approval so long as the changes do not involve an unreviewed safety question or a change to the Technical Specifications. Irrespective of whether an immediate change to the Technical Specifications was required to allow resumption of plant operations following the modification, the resultant amendment request was submitted solely as a byproduct of this modification. Therefore, the inspector questioned whether this modification should have received prior NRC approval.

During review of the SE related to EDP 10792 which removed the reactor head vent line bypass valves and associated instrumentation, including the removal of the capability to remotely operate the system from the control room, the inspector noted that this system was addressed along with the safety relief valves (SRVs) and other components in the NRC staff's initial Safety Evaluation Report (SER) NUREG-0798 in consideration of the TMI Action Plan (NUREG-0737) Item II.B.1 requirements for licensing of the Fermi 2 reactor. The licensee's SE for determining whether an unreviewed safety question existed failed to provide sufficient documentation that consideration of the system function as described in NUREG-0798 was given.

Pending completion of inspector review into the licensee's implementation of EDP 9979 and adequacy of the Safety Evaluation in support of EDP 10792, this matter is considered an unresolved item (341/92010-01(DRP)).

e. Corrective action program implementing procedures did not accurately reflect the actual implementation of the program in some areas. Many of the duties and responsibilities which were established are currently maintained informally. For example, the determination of whether a matter that initiates a Deviation Event Report (DER) constitutes a Significant Condition Adverse to Quality (SCAQ), thus requiring a root cause investigation, or not, is performed by a small group of people in the Plant Safety department. The licensee stated that no working definition of the SCAQ threshold is available for use by these employees.

f. The licensee's 1991 Human Performance Evaluation System (HPES) reports repeatedly concluded that the omission of relevant information was a significant contributor to poor written communications. However, no evidence of a procedure or work order improvement program was found. The licensee stated that a plant-wide "self checking" program had been established.

No violations or deviations were identified in this area.

11. <u>Management Meeting</u>

On May 27, 1992, the licensee and NRC management (denoted in paragraph 1) met onsite for a periodic management meeting. Topics discussed included: contractor control, preparations for the upcoming third refuel outage (RF03), status of the licensee's plans for coping with strikes, Individual Plant Evaluation (IPE) preliminary insights/schedule, service water system review, status of the power uprate initiative, and performance trends.

12. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, violations or deviations. An unresolved item disclosed during the inspection is discussed in Paragraph 10.d.

13. Exit Interview

The inspectors met with licensee representatives (denoted in paragraph 1) on June 30, 1992, and informally throughout the inspection period and summarized the scope and findings of the inspection activities. The inspectors also discussed the likely informational content of the inspection report with regard to documents or processes reviewed by the inspectors during the inspection. The licensee did not identify any such documents/processes as proprietary. The licensee acknowledged the findings of the inspection.