# U. S. NUCLEAR REGULATORY COMMISSION

## REGION III

Report No. 50-341/89025(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 Conducteu: September 1 through October 16, 1989

Inspectors: W. G. Rogers S. Stasek

P. Pelke P. Eng P. Byron J. Ulie

Martallus Approved By: M. A. Ring, Chief Reactor Projects Section 3B

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## Inspection Summary

Inspection on September 1 through October 16, 1989 (Report No. 50-341/89025(DRP)) Areas Inspected: Action on previous inspection findings; operational safety; maintenance; surveillance; followup of events; refuel floor activities; material control; LER followup; information notices; DET review and management meeting.

Results: The licensee entered into their first refueling outage during this inspection period. Fuel movement was handled adequately, but control of activated components was not as strong. Also, initial housekeeping on the fifth floor and in the drywell was weak. One violation was identified (Paragraph 2.t) and one unresolved item was identified (Paragraph 8).

## DETAILS

#### 1. Persons Contacted

- Detroit Edison Company а.
  - \*P. Anthony, Licensing

  - R. Bailey, General Supervisor, Mechanical Maintenance \*S. Catola, Vice President, Nuclear Engineering and Services
  - #\*G. Cranston, General Director, Nuclear Engineering
  - #\*D. Gipson, Plant Manager
  - #\*L. Goodman, Licensing
  - #\*R. Matthews, Acting Supervisor, Maintenance & Modifications \*R. May, Director, Nuclear Material Management
  - #\*R. McKeon, Superintendent, Operations
  - # G. Ohlemacher, Principal Engineer, Licensing
  - #\*W. Orser, Vice President, Nuclear Operations
  - # J. Plona, Operations Engineer
  - #\*T. Riley, Supervisor, Compliance
  - #\*A. Settles, Superintendent, Technical Engineering
  - #\*R. Stafford, Director, Quality Assurance
  - #\*R. Thorson, Outage Manager
    - J. Walker, General Supervisor, Plant Engineering

#### U.S. Nuclear Regulatory Commission b.

#\*W. Rogers, Senior Resident Inspector

- #\*S. Stasek, Resident Inspector
- P. Byron, Senior Resident Inspector, Davis-Jesse
- # M. Clausen, Deputy Division Director, DRP, RIII
- # P. Eng, Project Manager, NRR
- # M. Ring, Section Chief
  - J. Ulie, Reactor Inspector

\*Denotes those attending the exit meeting on October 18, 1989. #Denotes those attending the monthly management meeting October 13, 1989.

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

- Action on Previous Inspection Findings (92701) 2.
  - (Open) Open Item (341/89018-02(DRP)): Non-interruptible Air a. System (NIAS) Color Coding. The plant manager committed to painting the appropriate division of NIAS. Work request 004C890918 has been initiated to accomplish this task which will commence after the refueling outage.

- b. (Closed) Open Item (341/89021-01(DRP)): Annunciator Power Source. The annunciator system in the control room received power from one source. The licensee evaluated this situation under PDC 10747 and documented the results of the review in memorandum NP-SE-89-0169. The licensee concluded that a modification was not warranted. This matter is considered closed.
- c. (Open) Violation (341/87022-01(DRS)): Inadequate corrective action to Jamesbury butterfly valve failures. In the original corrective action to the violation the licensee committed to replace all the stems and wafer: of this type of valve. On October 12, 1989, the licensee met with the inspector to discuss this corrective action. The licensee provided stroke time data on those valves that had not been changed out and reported the results of inspections on two of the valves that had been changed out during the outage. Based upon this information the licensee indicated that they did not want to change out the stems/wafers on some of the valves but wanted to continue accelerated stroke time testing. The inspector provided the licensee with the names of the cognizant individuals who could approve the change.
- d. (Closed) Violation (341/89008-09(DRP)): Failure to make a 10 CFR 59.72 report. The inspector reviewed the completed training provided licensed operators on this matter and found it satisfactory.
- e. (Closed) Open Item (341/87031-04(DRP)): Allowable ECCS/EDG alignments in cold shutdown. In a letter dated September 28, 1989, from NRR to Region III this matter was resolved. The NRR interpretation was that the operable EDGs must be aligned to the operable ECCS for the ECCS to be considered operable and this understanding was an inherent part of Technical Specifications 3.5.3 and 3.8.1.2.
- f. (Open) Open Item (341/86032-03(DRP)): Corrective actions to loss of modular power unit (MPU) 3. During the inspection period engineering completed all the MPU load lists in calculations 5024 through 5029. The load lists are being incorporated into procedure 23.308.
- g. (Open) Violation (341/86032-02(DRP)): Inadequate corrective action to unplanned ESF actuations. The final corrective action to this violation was the modification of the reactor vessel instrument racks during the refueling outage. However, the licensee could not support that schedule and the corrective action has been deferred to the next refueling outage.

- h. (Closed) Open Item (341/85015-01(DRP)): Acceptability of the offsite power distribution network. In a memorandum dated March 28, 1989, NRR documented an additional review of the offsite power sources and found them adequate.
- i. (Closed) Violation (341/87021-02(DRP)): Improper use of furmanite. The inspector verified that engineering procedure 5.17, "Approved/ Controlled Materials List," and the design verification checklist have been modified to preclude repetition of this problem.
- j. (Closed) Violation (341/89015-01(DRP)): Failure of a material engineering supervisor to issue DERs. The inspection performed in Inspection Report 341/89015 included followup on the corrective actions to the violation. Therefore, this item is closed based on those inspection efforts.
- k. (Closed) Open Item (341/88030-05(DRP)): Mixing of grease in Valve P44-F613. Replacement of the grease in this valve is currently scheduled during the current refueling outage (WR 010C890107). The associated DER 88-1956 is still open. Completion of the work request and closure of DER 88-1956 will be tracked under Open Item 341/89011-07, implementation of the lubrication program action plan.
- (Open) Open Item (341/89002-06(DRP)): Implementation of on-the-job 1. (OJT) training to familiarize journeymen electricians with the proper techniques and critical performance elements for performing maintenance on the GE AKF-2-25 type circuit breaker. The licensee developed OJT Lesson Matrix EM-033-002, Revision 0, to implement the training commitment. However, the inspector noted that the study guides had not been updated as revised maintenance procedures are implemented. This occurred because the cognizant individual in the Training Department had not evaluated changes to procedures as they were identified by the Training Document Index (TDI) system. The cognizant individual was a contractor and no longer works at Fermi. The inspector determined through a maintenance record review that six of 33 journeymen had completed the OJT matrix. Only journeymen who have completed the OJT are allowed to work on the breakers. The licensee identified that a Task Qualification Manual (electrical) had recently been developed and was available to the Maintenance foremen as a master index of journeymen versus the jobs that they are qualified to perform. Upon reviewing the journeymen who were qualified to perform maintenance on the GE AKF-2-25 breakers, the inspector noted that two individuals were listed in the Task Qualification Manual who were not qualified based on the inspector's previous review of training records. The licensee subsequently issued DER 89-1129 to address the administrative error that allowed the two individuals to be placed the list. The licensee was initiating an independent verification to ensure that all names listed in the Task Qualific in meet the task requirements.

A review of Procedure NPP-35.301.002, Revision 21, "Recirculation Pump Generator Field Breaker (GE Type AKF) General Maintenance," was conducted by a Region III Division of keactor Safety inspector and was determined to be acceptable. This item will remain open pending closure of DER 89-1129 and improvements to the TDI/training document revision interface such that disposition of document changes is adequately tracked.

- m. (Closed) Open Item (341/89008-06(DRP)): Lubrication concerns identified after mixing greases in the Hydrogen Recombiner motor. DER 88-1896 is still open. These issues will be tracked under Open Item 341/89011-07, implementation of the lubrication program action plan.
- n. (Closed) Open Item (341/89008-07(NRP)): Mixed oil in Diesel Fire Pump. DER 89-0072 is still open. This issue will be tracked under Open Item 341/89011-07, implementation of the lubrication program action plan.
- o. (Closed) Open Item (341/89008-08(DRP)): Grease not tested to GE specification. DER 88-1335 is still open. This issue will be tracked under Open Item 341/89011-07, implementation of the lubrication program action plan.
- p. (Open) Open Item (341/89011-07(DRP)): Implementation of the lubrication program action plan. Six of twenty-four DERs relating to lubrication issues have been closed. For further status of the lubrication program refer to Paragraph 12.
- q. (Open) Open Item (341/89011-09(DRP)): TWR not implemented in accordance with a commitment in an LEK response. The concern was documented in DER 89-0816. Development of a course on precautions to take while working on energized equipment and a revision to the electrician STQPD QP-EM-727 to include the course as required training are currently in progress. These actions should be complete by the end of October.
- r. (Open) Open Item (341/88030-04(DRP)): Implementation of administrative controls such that PM program credit is taken when a PM event is accomplished under a Corrective Maintenance work request and additionally, if a CM is scheduled to be performed, the planner will look ahead and include an upcoming related PM in the work request if appropriate. Administrative controls in this area have not been fully formalized due to maintenance program evolution.
- s. (Closed) Open Item (341/87040-05(DRP)): The inspector determined after review of the audit report and following discussions with the licensee's staff, that an improved interface between the designated

systems engineer and fire protection engineer relative to Appendix R criteria review is needed during the performance of future fire protection Q; audits.

Subsequently, during the December 1-15, 1987 audit (Number A-Q5-P-87-37), the audit report specified that a walkdown of plant installed fire protection systems and barriers for safety-related equipment was performed by the Fire Protection Engineer and the Systems Engineer to review the facility for compliance to the Updated Final Safety Analysis Report and any approved deviations. The report identified twelve plant areas inspected during this walkdown.

In addition, by licensee internal memorandum dated June 14, 1988, from F. E. Abramson, Supervisor, Quality Program Assurance, to L. Bregni, Senior Engineer, Licensing, the Quality Assurance organization did make sure during the December 1987 Fire Protection audit that the Fire Protection Specialist and the designated systems engineer did work together during the audit. Further, this memorandum specified that this action item is an ongoing item and will be continued during future fire protection audits. Based on the above, this item is considered closed.

t. (Open) Unresolved Item (341/89021-02(DRP)): Identified weaknesses in the performance of the Standby Gas Treatment System Division I filter performance test and subsequent return-to-service of the train. Upon reviewing the subject surveillance procedure NPP-43.404.01, the inspector found that steps 6.1, 6.2 and 6.4 requiring certain independent verifications were not performed. Despite this, LCO No. 89-0665, written to address the inoperability of Division I SGTS during the performance of the test, was "cleared" on August 16, 1989 and Division I SGTS declared operable witnout meeting the restoration requirements of Item 7 of the LCO sheet. Item 7 specifically delineated that completion of NPP-43.404.01 was required prior to system restoration and "clearing" of the LCO. This is in conflict with the requirements of administrative procedure NPP-OP1-11, Rev. 3, "System and Equipment Status," which in step 6.3.3.1 specifies that to clear an LCO, verification is to be made to ensure . . . "all listed requirements needed to declare the system or component operable have been performed." This is considered a violation (341/89025-01(DRP)).

Although engineers in the Technical Group on occasion are required to perform independent verification activities in accordance with procedures, to date, no formalized training has been provided to ensure familiarity with the requirements associated with independent verification. When the training deficiency was brought to the attention of appropriate plant management, preparation of an addition to the required reading for engineers in the Technical group was initiated. This item will remain open pending completion of inspector review into the independent verification program.

- u. (Closed) Open Item (341/86007-04): Determination of maximum valve stroke times for valves in the inservice testing program. The inspector reviewed the licensee's methodology for establishing maximum valve stroke times and found that FSAR, technical specifications and valve procurement specifications were appropriately considered. The inspector also reviewed selected maximum valves stroke times and found them to be acceptable. This is item is closed.
- v. (Open) Open Item (341/86007-02): Verification of remote position indicators for valves indicated on the remote shutdown panel. The licensee stated that verification of valves indicated on the remote shutdown panel was conducted as part of the fire protection surveillance test conducted on the remote shutdown panels. However, the licensee was not able to furnish drawings which supported this assertion to the inspector prior to the end of this inspection period. This item remains open.

No other violations or deviations were identified.

## Operational Safety Varification (71707)

The inspectors observed control room operations, reviewed applicable logs and conducted discussions with control room operators during the period from September 1 through October 16, 1989. The inspectors verified the operability of selected emergency systems, reviewed tagout records and verified proper return to service of affected components. Tours of the reactor building, turbine building and radwaste building were conducted to observe plant equipment conditions, including potential fire hazards, fluid leaks, and excessive vibrations and to verify that maintenance requests had been initiated for equipment in need of maintenance.

The inspectors, by observation and direct interview, verified that the phy\_ical security plan was being implemented in accordance with the station security plan.

The inspectors observed plant housekeeping/cleanliness conditions and verified implementation of radiation protection controls. During the inspection, the inspectors walked down the accessible portions of the following systems to verify operability by comparing system lineup with plant drawings, as-built configuration or present valve lineup lists; observing equipment conditions that could degrade performance; and verified that instrumentation was properly valved, functioning, and calibrated.

- Emergency Diesel Generator No. 11
- Emergency Diesel Generator No. 12

- Emergency Diesel Generator No. 13
- Emergency Equipment Service Water System Division II
- Residual Heat Removal Service Water System Division II

The inspectors also witnessed portions of the radioactive waste system controls associated with radwaste shipments and barreling.

These reviews and observations were conducted to verify that facility operations were in conformance with the requirements established under technical sp fications, 10 CFR, and administrative procedures.

- a. On September 2, 1989, the licensee began a controlled reactor shutdown in preparation for the first refueling outage. Start of the outage was moved up one week from the original schedule due to identification of a hydrogen leak in the generator stator cooling system. A unit shutdown was required to allow repairs to the generator. Because of the short time to the outage, the licensee elected not to attempt a restart prior to refucling. Throughout the remainder of the inspection period, outage related activities were ongoing with the unit in a cold shutdown condition.
- b. During the inspection period, the inspector requested a briefing on the status of zebra mussel infestation at the Fermi facility after reading reports of problems at other facilities on the Lake Erie coast. The licensee responded with the following information:
  - Throughout the spring and summer no mussels were observed by the aquatic monitoring program.
  - In September, mussels 5,000 to 10,000 per square meter, were observed on the concrete walls of the general service water intake structure. Additionally, approximately 25 dead mussels were observed in the sediment of the cooling tower hot water basin.
  - The licensee is presently trying to receive permission to modify the state discharge permit to utilize clam-trol to eliminate any potential mussel problems.

Following this briefing the inspector requested information on future fire protection sampling results since the fire protection water source is general service water.

c. During the inspection period, the Resident Inspector conducted routine tours within the drywell (opened as part of the current refuel outage). During these tours, the inspector assessed overall equipment conditions, radiological controls housekeeping and tool control, and implementation of security requirements. Overall conditions were found generally acceptable during tours conducted

during the later portion of the inspection period. However, during the inspector's initial tour (conducted once the major drywell work activities had begun), general area housekeeping and tool control were found to be poor. Excess amounts of tools were found throughout the drywell as well as in the staging area outside the equipment hatch. Work groups, apparently completing specific work activities failed to remove associated tools from the work area. In addition, numerous pieces of trash (tape, plastic, wire, etc.) were observed. When licensee management was approached on the matter. they indicated they were already aware of the problem and were taking steps to correct the poor practices identified. During subsequent drywell tours the inspector noted improvement in the area of housekeeping as well as better tool control. The licensee subsequently initiated a policy that only tools needed for ongoing work were allowed in the drywell at any particular time. Once the specific work was completed, the associated tools required immediate removal except in certain case-by-case circumstances. The inspector will continue to monitor conditions in the drywell during the remainder of the outage.

No violations or deviations were identified in this area.

## Monthly Maintenance Observation (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 frilowing 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 ver observed:

•	WR	002C890906	Rework B21-F022A Due to Failed LLRT
•	WR	003C890906	Rework of B21-F022B Due to Failed LLRT
•	WR	001C890918	Refueling Bridge Repairs

 WR 012C890622 Flux Wire Removal
WR 003C890729 Remove, Rebuild & Reinstall 28 RHR Division I Hydraulic Snubbers

Following completion of maintenance on the refueling bridge, the inspector verified that the system had been returned to service properly.

No violations or deviations were identified in this area.

Monthly Surveiliance Observation (61726)

The inspectors observed the following surveillance testing required by Technical Specifications and verified that: testing was performed in accordance with adequate procedures, test instrumentation was calibrated, limiting conditions for operation were met, removal and restoration of the affected components were accomplished, test results conformed with Technical Specifications and procedure requirements and were reviewed by personnel other than the individual directing the test, and any deficiencies identified during the testing were properly reviewed and resolved by appropriate management personnel.

•	24.307.011	Emergency Diesel Generator No. 12 - ECCS Start and Load Rejection Test
•	44.010.100	SRM A Channel Functional Test
•	44.010.101	SRM B Channel Functional Test
•	43.401.408	Local Leak Rate Testing for Penetration X-213B (for G51-F602)

No violations or deviations were identified in this area.

Followup of Events (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:

September 2, 1989

Hydrogen leak in stator cocling. A plant shutdown was required as a result of the leak and start of the refuel outage was moved up approximately one week.

•	September	8, 1989	Emergency Notification System (ENS) inoperable.
•	September	20, 1989	Brown Boveri type breakers found with missing close latch anti-shock spring.
•	September	22, 1989	Union picket activity at alternate access gate.
•	September	23, 1989	Unplanned actuation of reactor protection system.
•	September	24, 1989	Loss of cifsite power to Division I.
•	September	24, 1989	Unplanned actuation of reactor protection system.
•	Stptember	28, 1989	Unplanned ESF actuation. While preparing for modification activities, the RBHVAC tripped and secondary containment dampers closed.

 October 6, 1989
Design deficiency identified in the LPCI swing bus. Following discussion with another nuclear utility the licensee reviewed the design of the LPCI swing bus and identified that the swing bus transfer would not occur in a degraded bus situation with the hus powered from the emergency diesel generators.

October 8, 1989

October 10, 1989

PRM String Flunger inadvertently broken during string removal from the core (reference paragraph 7.d of this report).

Unplanned ESF actuation. While performing maintenance activities the CCHVAC shifted into the recirculation mode. The maintenance activity was replacement of a light bulb. Subsequent discussion with the licensee at the monthly management meeting revealed that the CCHVAC indication system may be a floating 120VAC system and highly susceptible to ESF actuation through grounding. The licensee indicated that nuclear engineering would be reviewing the design. October 15, 1989

Unplanned ESF actuation. While performing maintenance activities the CCHVAC shifted to the emergency mode, RBHVAC tripped, miscellaneous containment isolation valves closed and SGTS started.

 Numerous ENS updates were provided throughout the inspection period for valves failing local leak rate tests.

No violations or deviations were identified in this area.

# 7. Refuel Floor Activities (60705) (60710)

During the inspection period, the inspector observed/reviewed activities associated with the refuel floor. The inspector witnessed portions of the removal of the drywell shield plugs, detensioning and initial lift of the drywell head, removal of the insulation "bird-cage," and detensioning of the reactor vessel head. The inspector observed fuel movements on a number of occasions, as well as portions of fuel and vessel inspections. The inspector also reviewed completed surveillances to verify Technical Specification requirements were met prior to and during fuel movements. Plant procedures related to reactor vessel assembly/disassembly, fuel and core component movement and spent fuel pool activities were reviewed.

- a. During these observations the inspectors noted some housekeeping/tool control d.screpancies on September 13, 1989. These discrepancies involved the handling of rags on the refueling platform, control of swipe smears, knowledge of thol control personnel, establishment of a tool control boundary over the crud induced localized corrosion inspections and handling of refueling lights. Following identification of these problems and operations management witnessing of the situation the refueling platform was shut down and personnel briefed on appropriate actions. Subsequently, these discrepancies were provided to a DRS inspector dedicated to refueling activity observations. The DRS inspector reviewed subsequent refueling performance and did not note a repetition of these discrepancies.
- b. During replacement of 20 control rod blades the licensee had to override the uptravel hoist interlock for the blades to clear the bottom of the cattleshoot. The cattleshoot is a transition structure between the reactor wessel cavity and the spent fuel pool. The inspector was contacting NRR representatives at the end of the inspection period to ascertain if this action was consistent with the intent of Technical Specification 3.9.6.

- c. During crud induced localized corrosion inspections the inspector noted that there was no physical interlock present when individual fuel rods were extracted from the main fuel assembly. A procedural control had been established so that the rod remained 6 feet under water. The inspector will pursue the matter further in the next inspection period.
- On October 8, 1989, while personnel on the refuel floor were d. conducting changeout of power range monitor instrumentation strings and were traversing one string from the reactor cavity to the spent fuel pool, the spring loaded plunger on the top - d of the string became separated from the rest of the string. At the time of occurrence, the string was physically in the spent fuel pool area, in a non-vertical position, and was grappled to the handling tool "t the plunger end and a lanyard further down the string. The cause of the break apparently was application of lateral pressure to the plunger via the handling tool which, in turr, caused the plunger to shear from the string. The string was placed in an appropriate storage spot in the pool and the plunger which was still attached to the handling tool was placed in a filter storage box located underwater near the reactor vessel flange. This occurred at a proximately 1911 hours. Radiation Protection personnel on the refuei floor as well as the shift supervisor were informed of the situation. However, the consequences of plunger placement relative to radiation levels in the upper region of the drywell were not realized at the time.

At approximately 1030 hours on October 9, a Radiation Protection technician, while performing a routine pre-job survey on elevation 659 ft. of the drywell, detected higher than expected radiation levels and traced the source to the upper drywell bulkhead immediately below the filter storage box. Levels of approximately 40 R/hr were observed at the bulkhead (10 feet above head level) and 500 mR/hr at head level. Personnel were prohibited access to the area, and the operating authority notified. The plunger was subsequently removed from the filter box and placed in the spent fuel pool.

No personnel received substantive radiation exposure as a result of placing the plunger in proximity to the flange area due to the added administrative controls that had been placed for access to the upper levels within the symple. However, the following aberrations did occur during the event which resulted in a challenge to those additional administrative controls.

 Improper handling of the PRM string apparently resulted in the severing of the plunger from the string.

- (2) Refuel floor personnel were not cognizant of the effect of placing the plunger in proximicy to the lessel flange and top of drywell.
- (3) Radiation Protection personnel and the operating authority did not recognize the consequences of the plunger placement.
- (4) Shift turnovers were not complete in that oncoming personnel were not made totally aware of the event, subsequent actions taken, and significance of those actions.

No violations or deviations were identified.

Material Control-Shop Area (38702) (35502)

On October 20, 1989, the inspector performed a walkdown of the QA1 material storage cage located on the south side of the OSB mechanical maintenance machine shop. The inspector found that utilization of the cage was not in conformance with Termi Administrative Procedure FIP-PM3-01, "Material Storage," Rev 2. The inspector noted numerous discrepancies between the inventory log sheets and the actual material stored in the cage, weaknesses in the inventory log entries themselves, as well as material improperly stored on the shelving. Examples included:

- a. The inventory log documented that a bonnet gasket (ROS No. J170234) was stored in the cage on July 3. 1986, with no "date out" completed. The casket was not found in the cage.
- b. The inventory log documented that tower lights were stored in the cage (placed on September 19, 1989). The lights were not found in the cage.
- c. The inventory log documented that a "wedge" was stored in the cage on April 21, 1988, with a note "to be sent to stores." No date out was completed on the form nor was the wedge located in the cage.
- d. The inventory log stated "pkg pts in box" with a "date in" of August 5, 1988, and an associated work request number 0148051788. No quastities were documented and the inspector could not identify the specific box referred to in the cage.
- e. The inventory log documented "eccentric reducers" with a "date in" of June 1987 with no quantity specified. Four reducers were found in an opened box in the storage cage.
- f. A stainless steel pipe, not documented on the inventory log, approximately & inches long and 1 inch in diameter, was stored in contact with a carbon steel value. This is contrary to the requirements of FIP-FA3-01, Item 5.6.6.

When the inspector notified the mechanical maintenance supervisor of the conditions found in the storage cage, the mechanical maintenance supervisor agreed that corrective actions were warranted and indicated that a re-inventory would be performed and material not appropriately stored would either be returned to the warehouse or disposed. The re-inventory was subsequently completed that evening. However, in the process, the original inventory logs were erroneously disposed. At the end of the inspection period, actions were ongoing to disposition those materials still in the cage.

Subsequently, the inspector performed a walkdown of the OSB shop north storage cage. Additional questions involving the proper level of control required for that area were again raised. Although pieces of harstock stored in that cage were tagged with the green "Q" tags, the cage was routinely left unlocked with the door open. Mechanical Maintenance management is currently reviewing the storage requirements for that area.

Following the walkdowns, the inspector Lecame aware of a QA surveillance that had been performed on the south side storage cage in January 1989 which had identified similar conditions. This matter is considered an unresolved item (341/89025-02(DRP)) pending completion of inspector review of the north storage cage control requirements and QA activities in this area.

9. Licensee Erant Report Followup (92700)

Through direct observations, discussions with licensee personnel, and review of records, the following event reports were 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.

- a. (Closed) LER 87043, Revision 1 & Revision 2, Unplanned ESF actuation of the CCHVAC and SGTS.
- b. (Closed) LER 85082, Revision 1 & Revision 2, Potential overloading of embedded support plates. In a letter dated January 2°, 1986, Sargent & Lundy provided Detroit Edison with the results of the "Embedment Plate Loading Log." The results indicated that no embedment plates were overloaded.
- c. (Closed) LER 86033, Revision 1, Actuations of the ESF and RPS by a calibration procedure not being followed. Any further corrective actions under this LER will be encompassed by actions to violation 341/86032-02.

- d. (Closed) LER 86036, Revision 1, Starloaded modular power unit causes ESF actuations. Any further actions to this LER will be encompassed by actions under open item 341/86032-03.
- e. (Closed) LER 88006-00, Loss of shutdown cooling due to improper reset of suction valve logic.
- f. (Closed) LER 88031-00, Failure to Perform Accelerated Stroke Time Testing as required by ASME. Procedure NFP-CT1-01, "Surveillance/Performance Package Control," requires the ISI/PEP Program Manager to analyze all IST Pump and Valve Program test results within 7 days of NSS signoff. ISI review of the surveillance package must be performed within 5 working days. ISI personnel make changes in stroke time testing frequencies when required using the SST/PST Periodicity Change Request Form, attached to Procedure NPP-CT1-02, "Surveillance/Performance Scheduling and Tracking Computer P ograms Maintenance." No further incidences have occurred during the past 13 months since the event originally occurred. This LER is considered closed.
- g. (Open) LER 89013-00, Actuation of the Standby Gas Treatment System and Isolation of the Reactor Building Heating, Ventilation, and Air Conditioning. This LER was previously reviewed in Report No. 89021. During this inspection, the inspector reviewed an August 25, 1989, memorandum from the acting General Supervisor/I&C to all shop personnel explaining the use of the LER Reduction Input Sheet. Additionally, the input sheet was discussed with I&C personnel during a "Pride" meeting on September 20, 1989. One sheet has been submitted to date documenting poor lighting in the vicinity of Panel H11-P891 (north wall of relaw room). This LER will remain open pending implementation of PDC 10577 to install multi-contact keylock switches on Panels H11-P883 and H11-P884.
- h. (Closed) LER 89-019-00, Failure of Division I Control Center Heating, Ventilating and Air Conditioning Recirculation Fan. The shaft and bearing were subsequently replaced. The failed components were sent to the Detroit Edison Engineering Research Department (ERD) for analysis. Followup of the ERD results will be performed in conjunction with Open Item (341/89011-07(DRP)). This LER is considered closed.
- 1. (Closed) LER 89-020-00, Removal of an Incorrect Fuse Caused the Fuel Pool Exhaust Radiation Monitor to Become De-energized. Root cause was determined to be personnel error. A critique of this event was subsequently completed (No. 89-012) and is to be included as part of required reading for operators and I&C personnel. This LER is considered closed.

No violations or deviations were identified in this area.

### Review of Information Not<sup>2</sup>ces (92701)

(Open) Information Notice 88-51, "Failure of Main Steam: Isolation Valves (MSIV)." This Notice was previously reviewed in Report No. 341/89008. The Notice will remain open pending completion of a force balance calculation (PDC 10226 scheduled for the first quarter 1990) and testing the leak tightness of the MSIV actuators and accumulators (scheduled during the current refueling outage).

No violations or deviations were identified in this area.

#### 11. Review of the Diagnostic Evaluation Team (DET) Report

Section 3.6.2.6 of the DET report discussed the post accident sampling system (PASS) and the inability of the cooling system for PASS to be powered from Class 1E circuits. The inspector discussed this matter with the applicable NRR reviewer. The results of that conversation were that no regulatory bases existed for the PASS or its support systems to be powered from Class 1E circuits. This matter is closed.

#### 12. Management Meetings

a. On October 13, 1989, a Monthly Management Meeting was conducted in Detroit Edison's Nuclear Operations Center. The topics are stated below along with a short synopsis of information provided.

<u>Outage Progress</u> - The licensee reported that 26 of the 209 local leak rate tested valves had failed. The mechanical stress improvement program was almost complete. A large percentage of some of the hydraulic snubber types were experiencing failures. To improve productivity in this area an extensive snubber removal effort would occur during the next two weekends and an additional snubber testing station had been established. The NRC questioned whether system operability evaluations were being performed on the as left system. The licensee responded that this was ongoing. Finally, core onload was targeted for October 15.

Turbine Damage - The Technical Engineer pro. Id a status of the investigation on high vibration of the main turbine. He related that rotating blade damage had been observed on the fifth stage of No. 2 low pressure turbine. The blade shroud had separated and numerous blades had lodged into the casing. Experts from English Electric and a consultant with experience with the similar San Onofre turbine in California were analyzing the data to determine the root cause. Presently, the licensee intends to inspect all three low pressure turbines and remove the fifth stage from two of the three low pressure turbines. Lubrication Program - The licensee reported the status of the immediate actions of the program. The status and the actions are:

- Update the computerized data base (CECO) with lubrication information - complete
- Verify that adequate controls exist for the lubrication information in CECO - complete
- Change administrative procedure to establish CECO as the lead design document for lubrication - to be completed by November 1, 1989
- Verify CECO lubrication information is consistent with environmental qualification data - to be completed by December 1989

The licensee briefly outlined the short term and long term actions due to time constraints. The NRC questioned whether the ERD report on the most current CCHVAC fan failure had been received. The licensee stated no but it should be ready by the end of the month.

Long Term EOP Improvements - The licensee provided information on containment venting and emergency procedure flowcharting. Venting will be reviewed in 1990. Presently, a number of contractor formats are being reviewed by operations/training personnel. Upon completion of this review a decision on flowcharting will be made, and if positive, a bid specification will be drafted. The time frame for specification issuance is spring 1990. If flowcharting is accepted, implementation would probably not occur until mid-1991. The NRC requested information on the simulator upgrade progress and the reviews to explore scenarios in which drywell cooling could be reinitiated. The licensee indicated that the hardware for the upgrade had been delivered but a more detailed schedule needed to be established with the contractor for DECo to have better control on their activities. The licensee indicated that the drywell cooling reinitiation issue was targeted for completion in 1990 and more detailed information would be provided after the meeting.

Maintenance Organization Changes - The licensee informed the NRC that a new maintenance superintendent had been hired and would be onsite by the end of the month. The licensee indicated that the present maintenance superintendent would assume the role of assistant maintenance superintendent with duties including oversight of the support groups (administrative, M&TE, principle engineer and maintenance support engineer). The licensee informed the NRC that a new I&C supervisor had been hired and was in the position. Also, additional resources have been temporarily added for the refueling outage to mechanical maintenance to help provide parts, procedures, etc. to support ongoing work.

Design Bases Task Force - The licensee provided a status on the training program for the design bases task force. There are 6 training modules to be performed, of which, module 1 is completed and module 2 is beginning.

<u>Commitment Deferrals</u> - The status of the two outstanding commitment deferrals was discussed. Regarding the first on MSIV actuation indication status, a letter from DECo to NRR would be sent on October 16. Regarding, the second on replacement of Jamesbury valve parts, a letter was targeted to be sent to Region III by the end of next week.

b. On September 14, 1989, the NRC Region III, Division of Reactor Projects Director made a presentation to Detroit Edison management/ employees on recent problems at other nuclear facilities during refueling outages. The information was provided with the intent to prevent such problems during the present Fermi outage.

## 13. 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 8.

## 14. Exit Interview (30703)

The inspectors met with licensee representatives (denoted in paragraph 1) on October 18, 1989, 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.