

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-341/84-19(DRP)

Docket No. 50-341

License No. CPPR-87

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

Facility Name: Enrico Fermi Nuclear Power Station, Unit 2

Inspection At: Fermi Site, Newport, MI

Inspection Conducted: June 16, 1984 through July 31, 1984

Inspectors: P. M. Byron

M. E. Parker

G. Cashett

Approved By: *R C Knop*
R. C. Knop, Chief
Projects Section 1C

8-28-84
Date

Inspection Summary

Inspection on June 16 through July 31, 1984 (Report No. 50-341/84-19(DRP))

Areas Inspected: Routine, unannounced inspection by resident inspectors of licensee action on previous items of noncompliance; licensee action on previous inspector identified items; review of licensee action on 10 CFR 50.55(e) reports; regional requests; IE Bulletins; IE Circulars; preoperational test witnessing; independent inspection; fire protection; operating procedures; operating staff training; allegations; radiological emergency response exercise; plant tours. The inspection involved a total of 361 inspector-hours onsite by 3 NRC inspectors, including 80 inspector-hours onsite during off-shifts.

Results: Of the fourteen areas inspected, no items of noncompliance or deviations were identified in thirteen areas. Within the remaining area, one apparent item of noncompliance was identified (failure to document nonconforming conditions, paragraph 5).

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DETAILS

1. Persons Contacted

- *F. Agosti, Manager, Nuclear Operations
- *T. Alessi, Director, Corporate QA
- *L. Bregni, Licensing Engineer
 - J. DuBay, Director, Planning and Control
 - O. Earle, Supervisor, Licensing
 - R. Eberhardt, Acting Rad-Chem Engineer
- *W. Fahrner, Manager, Fermi 2 Project
 - A. Godoshian, Systems Completion Director
- *E. Griffing, Assistant Manager, Nuclear Operations
- *C. Heidel, President, DECo
- *W. Holland, Vice-President, Fermi 2 Project
- *W. Jens, Vice-President, Nuclear Operations
 - R. Kunkle, Director, SAFETEAM
 - S. Leach, Director, Nuclear Security
 - J. Leman, Maintenance Engineer
- *R. Lenart, Superintendent, Nuclear Production
 - R. Mays, Director, Project Planning
- *W. Miller, QA Supervisor, Operational Assurance
 - T. Mintun, Startup Director
- *T. Nickelson, Startup Engineer
- *S. Noetzel, Site Manager
 - J. Nyquist, Acting Assistant Superintendent, Nuclear Production
- *G. Overbeck, Assistant Plant Superintendent, Startup
 - J. Plona, Technical Engineer
 - E. Preston, Acting Operations Engineer
- *G. Trahey, Director, Nuclear QA
- *R. Vance, Assistant Project Manager, Engineering

*Denotes those who attended the exit meetings.

2. Followup on Items of Noncompliance

- a. (Closed) Noncompliance (341/83-20-02a(DPRP)). Measures Did Not Assure Identification was Maintained on Temporary Modifications. The inspectors reviewed Project Procedures Manual (PPM) Procedure 7.27, Project Housekeeping, Revision 1 dated 1/30/84, Section 4, which added the requirements to tag all determinated wires for identification and jurisdiction. In addition, the inspectors reviewed Plant Operations Manual (POM) Procedure 12.000.25T, Interim Temporary Modifications Procedure, Revision 3, dated 5/7/84, Section 2.5, which addresses the tagging of lifted leads. The inspectors also reviewed the training sheets for Training Supplement 59 dated 6/1/84, which addresses the changes to POM 12.000.25T. The inspectors consider the licensee's corrective action to be adequate and consider this item to be closed.

- b. (Closed) Item of Noncompliance (341/83-20-07c(DPRP)). Procedures issued for controlled procedures manual without being appropriately stamped. The licensee had procedures in place at the time of the finding which did not have the required appropriate stamping prior to issuance. The licensee performed a surveillance of all Project Quality Assurance Procedure (POAP) manuals and corrected all discrepancies. The licensee performed a subsequent surveillance to verify the effectiveness of their corrective action which was determined to be adequate. This item is considered to be closed.
- c. (Closed) Item of Noncompliance (341/83-30-02(DPRP)). Test Change Notice (TCN) 1386 was not reviewed for completeness and adequacy. The licensee's corrective action to prevent recurrence of inadequate review of changes was to revise the TCN procedure, Startup Instruction (SI) 4.5.1.01, which redefines a major and a minor TCN. Section 4.4.3.1a and Section 4.4.3.1b of SI 4.5.1.01, Revision 7 defines minor TCNs as corrections of typographical errors, except for acceptance criteria, and changes that do not change the functional intent of the procedure. Section 4.4.3.4 requires minor TCNs to be approved by the Nuclear Shift Supervisor and a Level III Engineer prior to implementing the change. TCN 1386 would have been considered a minor TCN as defined in SI 4.5.1.01, Revision 7. This item is considered to be closed as the stated corrective action has been implemented.

SI 4.5.1.01, Revision 7, dated 5/8/84, Section 4.4.3.1.b states, "Changes that do not change the functional intent of the procedure: (i.e., if the purpose of the procedural step is to get a tank filled, a change to the method of filling the tank does not constitute a change to the intent of the procedure, unless the intent was to demonstrate a particular flow path during the filling operation)." The inspectors consider that the procedure is not definitive and that the definition of functional intent is subjective and allows a great deal of latitude for the initiator of a TCN. In addition, the licensee's example demonstrates the inadequacy of the procedure as alternate methods of filling could affect other systems. The minimal review afforded a minor TCN might not detect the effects on interfacing systems which should be considered with an indepth review. Also, alternate methods of fill require changes in the valve lineup and historically changes in valve lineups have been considered major changes. This is considered to be an unresolved item (341/84-19-01(DRP)).

3. Followup on Inspector Identified Items

- a. (Closed) Open Item (341/81-10-04(DPRP)). SER Item 5.4.2. Modifications to Residual Heat Removal (RHR) System to Allow Thermal Expansion of Water between RHR Insulation Valves. The inspectors reviewed Design Change Package (DCP) E1100M01, Thermal Relief Line in Response to FSAR Question 212.169 and Design Change Request (DCR) SB-2561, Revision 0, dated April 8, 1983. The DCR was signed off by QC as being complete on June 2, 1983. The inspectors verified that the installation was complete and consider this item to be closed.

- b. (Closed) Open Item (341/81-10-11(DPRP)). SER Item I.A.2.3 Administration of Training Programs for Licensed Operators. Page 22-12 of NUREG-0796, Fermi 2 Safety Evaluation Report (SER), requests that it be verified that all permanent members of the station staff who teach systems specific to BWRs, integrated responses, transients, and simulator courses to licensed operators or license candidates have completed an SRO examination prior to issuing the operating license. The inspectors reviewed Nuclear Operations Training Procedure NOT-012, Instructor Certification and Proficiency Maintenance Program, Revision 3, dated June 22, 1984. This procedure defines certified instructor as one who is a licensed or certified SRO. The inspectors also reviewed the license examination summary sheet dated November 8, 1983, and verified that the instructors who are listed for the above listed subjects have successfully taken the SRO examination. This item is considered to be closed.
- c. (Closed) Open Item (341/82-10-14(DE)). Discrepancies in L. K. Comstock Certification Records. This item had been previously reviewed in Inspection Reports No. 50-341/83-30 and 50-341/84-14. The item remained open pending the performance of an audit. The licensee met its commitment by performing Audit No. A-QS-S-84-15, L. K. Comstock Inspector Certification Program dated May 11, 1984. The inspectors consider this item to be closed.

The inspectors reviewed the audit and the L. K. Comstock responses. Several concerns were raised as a result of the review. The inspectors expressed their concerns to the licensee. The inspectors were concerned that the root cause was not identified and the audit findings were not presented to management in a form which would ensure their attention. The licensee reviewed the inspectors' concerns and concluded that they had merit. The licensee plans to enhance existing procedures and programs to accommodate the concerns. The principal vehicle will be expanded use of the corrective action request (CAR) procedure. The inspectors consider this action to be adequate.

- d. (Open) Open Item (341/83-20-05(DPRP)). The licensee has been unable to verify that the tapes used meet the halogen and sulfur requirements of ANSI N45.2.2, 1972. The inspectors reviewed the following DECo Engineering Research Department (ERD) reports which listed the chemical content of various tapes which are used on site.
- No. 83F11-1, dated 12/7/83, Analysis of Replicating Tape 1134 for chlorides and fluorides
 - No. 83F11-2, dated 12/12/83, Chemical Analysis of Nashua Gray Tape No. 357
 - No. 83F11-3, dated 12/13/83, Chemical Analysis of Various Tapes for Fermi 2
 - No. 83F11-4, dated 12/13/83, Chemical Analysis of Aluminum Foil Tapes

All of the tapes analyzed had halogen and sulfur contents below the limits set by ANSI N45.2.2, 1972. However, the licensee did not analyze all of the tapes which were used on the site at the time of the finding. Both Ideal and Nashua brand tapes were readily available, but only Nashua Type 357 was analyzed as it was stocked in the warehouse. The inspectors obtained samples of both brands of tape and notified the licensee of this at the time of the finding. It should be noted that the Ideal tape is not listed on the Approved and Controlled Material (A/CM) list, Revision 2.

The inspectors provided the licensee, at their request, a roll of Ideal tape on July 6, 1984, for testing. The inspectors consider the licensee's corrective action to be inadequate in that all of the available tapes were not tested, and untimely as it took nine months to correct the inadequacy. This item will remain open until the inspectors review the analysis of the Ideal tape, when complete, and document their review in a subsequent inspection report.

4. Licensee Action on 50.55(e) Items

(Open) 341/83-02-EE, DECo No. 88. L. K. Comstock Inspector Certifications. The inspectors reviewed the documentation provided and found conflicting statements. L. K. Comstock (LKC) letter No. 83-3-73, dated March 25, 1983, from L. C. Hack to T. Alexiou, DECo, listed the LKC corrective action taken to verify that QA Level 1 equipment had not been improperly inspected. The letter stated that LKC had reinspected 30% of the work performed by 4 inspectors. The licensee letter EF2-62623 dated April 20, 1983, from Wells to Keppler, NRC, was the final report to their 10 CFR 50.55(e) Item No. 88. This letter reported that LKC had reinspected 25% of the work of 19 inspectors. The discrepancy noted in the response to the NRC is considered to be an unresolved item (341/84-19-02(DRP)).

5. Followup on Regional Requests

a. SAFETEAM Interviews Containing Safety-Related Concerns

The inspectors reviewed the 30 interviews made by the Fermi 2 SAFETEAM during the inspection period. It was determined that approximately 5 of the interviews contained potential safety-related concerns. The inspectors will review the SAFETEAM responses to these concerns. The inspectors also reviewed the 35 responses issued by the SAFETEAM during the inspection period. The responses adequately addressed the concerns.

No items of noncompliance or deviations were identified.

b. Plant Tour by Region III and NRR Management

The Regional Administrator, Chief of Projects Branch 1, and Chief of Licensing Branch 1 accompanied the NRC CAT observer and the Senior

Resident Inspector on a tour of the Fermi 2 plant on July 31, 1984. The purpose of the tour was to assess the licensee's preparations and readiness for the issuance of an operating license and review identified areas of NRC concern.

No items of noncompliance or deviations were identified.

c. Final Construction Assessment

Duke Power Company completed its Final Construction Assessment of Fermi 2 on July 14, 1984, and presented their report to Detroit Edison and NRC management on July 31, 1984. The inspectors supported the efforts of the NRC observer. The Senior Resident Inspector was the backup to the NRC observer which resulted in considerable effort being expended in supporting the NRC effort.

The details of the Duke assessment and the comments of the NRC observer will be documented in Inspection Report (50-341/84-21).

The inspectors reviewed 21 DECo responses to the findings of the Duke CAT on July 5, 1984. All the responses reviewed had been approved by the Construction Assessment Support Team (CAST) leader. The review revealed that 7 findings reported nonconforming conditions which were dispositioned without benefit of nonconformance documents by DECo and an additional 3 findings were dispositioned incorrectly.

Project Procedure PPM 7.13, Section 1.1, states that deviations shall be reported in a deviation disposition request (DDR) and Section 1.2 states that systems transferred to the System Completion Organization (SCO) shall be documented on a nonconformance report (NCR) form and processed in accordance with plant operations manual (POM) procedure 12.000.52T. Section 3.1 of POM 12.000.52T, Nonconformance Report, states that all personnel discovering nonconformances shall initiate an NCR.

Documents which incorrectly specified motor lead terminations were identified on June 18, 1984. A design change request (DCR) was issued rather than an NCR. Incorrectly sized fuses were identified on June 18, 1984, and a design change notice (DCN) was issued rather than a NCR to correct documents and replace the incorrectly sized fuse. The problem was compounded by changing the DCN to a Field Modification Request (FMR) on July 18, 1984. Three separate findings were made on June 14, 1984, relating to incorrectly sized resistors. A NCR was subsequently written on July 11, 1984, to correct documents which incorrectly identified resistor wattage ratings. A loose terminal strip was identified on June 18, 1984. An operations/maintenance work request (PN-21) was issued to correct the deficiency. Subsequently a NCR was written on July 17, 1984, to document the condition. A missing ground strap was identified on June 20, 1984. A PN-21 was issued to replace the ground strap. Subsequently, a NCR was issued on July 6, 1984. Seven examples are listed above in which NCRs were not issued

to document nonconforming conditions. This is considered to be an item of noncompliance with the requirements of 10 CFR 50, Appendix B, Criterion XV (341/84-15-03(DRP)). This is a repeated noncompliance as identified in Inspection Report Nos. 50-341/82-10 and 50-341/83-31.

Rework and repair are defined by sections 5.3 and 5.5, respectively, of POM Procedure 12.000.52T. The inspectors noted three NCR dispositions to CAT findings which were not consistent with the definitions provided in 12.000.52T. The NCRs were dispositioned "repair" when the disposition should have been "rework" in accordance with the procedural definitions. The action required for repair dispositions is different than that required for rework.

Based on the limited sample (21 of 199 Duke findings), the inspectors conclude the licensee should review the nonconformance procedure and its implementation. Thirty-three percent of the sample revealed that nonconforming conditions were not identified on nonconformance reports and fourteen percent listed incorrect NCR dispositions. It should be noted that all of the items which were not identified on NCRs were electrical.

6. IE Bulletin Followup

For the IE Bulletins listed below the inspector verified that the Bulletin was received by licensee management and reviewed for its applicability to the facility. If the Bulletin was applicable the inspector verified that the written response was within the time period stated in the Bulletin, that the written response included the information required to be reported, that the written response included adequate corrective action commitments based on information presented in the Bulletin and the licensee's response, that the licensee management forwarded copies of the written response to the appropriate onsite management representatives, that information discussed in the licensee's written response was accurate, and that corrective action taken by the licensee was as described in the written response.

- a. (Closed) IE Bulletin 72-03 (341/72-03-3B). Limitorque Valve Operator Failures. This bulletin concerns malfunction of electric type valve operators, Limitorque Models SMB-00 and SMB-000, that were manufactured between 1969 and 1971, with specific deficiencies. The licensee was requested to perform the following actions; 1) determine whether the described valve operators are installed or scheduled for installation, and 2) if the described valve operators are identified, inform the NRC as to number of valves, valve location or intended location, corrective action taken or planned, and schedule for completion. The inspectors reviewed DECo response EF2-15071 dated February 8, 1983, and DECo internal memo EF2-68182 dated March 28, 1984, in which the licensee's investigation revealed that five of the described Limitorque valve operators had been supplied to DECo for installation in Fermi 2. The licensee's corrective action was to replace the defective torque switches and test the repaired operators. Two valves for the recirculation system were repaired and tested at the factory. The two

installed valve operators were repaired and tested at the site. The final remaining valve was a spare valve and the torque switch was replaced and testing will be performed prior to installation. This bulletin is considered to be closed.

- b. (Open) IE Bulletin 78-14 (341/78-14-BB). Deterioration of Buna-N Components in ASCO Solenoids. This bulletin concerned the failure of Buna-N material in scram pilot valve solenoids which prevented the valves from properly venting air from the scram valve. The licensee was requested to review Buna-N material applications and to determine need for replacement. Review of DECo letter EF2-68172 dated March 14, 1984, identifies those solenoid valves having Buna-N material and describes their replacement. This response does not address those solenoid valves that have been backfitted for alternate rod insertion nor does it adequately address the periodic maintenance program to ensure components do not exceed useful life. This bulletin is to remain open pending further review by the licensee and NRC inspectors.
- c. (Closed) IE Bulletin 83-07, Supplement 1 and Supplement 2 (341/83-07-BB). Apparently Fraudulent Products Sold by Ray Miller, Inc. This bulletin was issued to inform power reactor facilities that fraudulent products may have been sold to nuclear industry companies by Ray Miller, Inc. An updated and comprehensive list of Ray Miller, Inc. customers for the years 1975 through 1979 was provided to power reactor licensees. Based on the information made available regarding specific purchase orders for which materials were apparently substituted, licensees were requested to determine whether suspect material had been provided and had been installed in plants, evaluate its safety significance, and tag or dispose of the suspect material not yet installed. Review of DECo response EF2-67828, dated May 8, 1984, indicated that through an extensive investigation, no Ray Miller, Inc. products have been provided to Fermi 2 nor used in safety-related systems at Fermi 2. This investigation consisted of a 100% review of DECo and their site contractors purchase orders made directly from Ray Miller, Inc., a comparison of DECo purchase orders with the bulletin list, and a review of all engineered equipment that was designed and fabricated before delivery to Fermi 2.

During the initial review, the inspectors notified the licensee that their response to this bulletin was late and not signed under oath or affirmations as requested by this bulletin. The licensee was requested to respond prior to March 22, 1984, but their response was dated May 8, 1984. The inspectors have in turn notified the licensee of the significance of timely reporting. The licensee has subsequently re-submitted the response under oath and affirmations. This bulletin is considered to be closed.

7. IE Circular Followup

For the IE Circulars listed below, the inspector verified that the Circular was received by the licensee management, that a review for applicability

was performed, and that if the circular were applicable to the facility, appropriate corrective actions were taken or were scheduled to be taken.

- a. (Closed) IE Circular 77-02 and 77-02A (341/77-02-CC)(341/77-02-1C). Potential Heavy Spring Flooding. The purpose of this circular was to inform licensees that the National Weather Service had predicted that heavy spring flooding in the area from the Missouri River eastward was likely to occur. It was recommended that licensees receiving this circular consider certain items in preparation for potential flooding and the associated effects at facilities under construction. Review of DECo letters EF2-69104 dated June 7, 1984, and EF2-68767 dated May 18, 1984, indicated that Fermi 2 site is not close to any of the principal rivers identified in this circular to be affected by their flooding potential. Flooding of the site is conceivable only as the result of an extremely severe storm with a storm-generated rise in the level of Lake Erie. The 100 year flood elevation for Fermi 2 site is 578 feet. Fermi 2 grade elevation is at 583 feet, and safety-related structures and facilities containing safety-related documents have been protected from adverse effects of flooding to elevations even higher than 583 feet. This circular is considered to be closed.
- b. (Open) IE Circular 77-12 (341/77-12-CC). Dropped Fuel Assemblies at BWR Facilities. This circular describes several reported events involving dropped fuel assemblies at BWR facilities, and suggested several steps and measures that should be implemented to minimize the possibility of a fuel assembly dropping incident.

Review of DECo letters EF2-57268 dated March 9, 1982, NP-84-0700 dated May 16, 1984, and NE-84-0514 dated July 6, 1984, the licensee has taken the circular's recommended corrective action. Subsequent to issuance of the circular, G.E. issued Service Information Letter (SIL) 181 which superseded SIL 109 recommended by the circular. SIL 181 recommended replacing the present grapple hook with an improved double hook. The licensee's engineering department believes that the modifications performed per SIL 109 are adequate to prevent dropping of a fuel bundle and the double hook recommended by SIL 181 is unnecessary. Nuclear Production, on the other hand, has indicated problems with the current design and have noted problems with the modifications performed per SIL 109. This circular is to remain open pending further inspector review of the licensee's resolution of the discrepancy between engineering and production.

- c. (Closed) IE Circular 80-03 (341/80-03-CC). Protection from Toxic Gas Hazards. This circular identifies several toxic gas releases on or around reactor facilities. General Design Criterion (GDC) 19 of Appendix A to 10 CFR 50 requires a control room from which action can be taken to maintain the reactor in a safe condition under accident conditions. The control room designs of current license applicants are reviewed for operator protection from toxic gases in accordance with the Standard Review Plan (SRP). It was recommended that the licensee

evaluate the plant against the SRP with respect to toxic gas and modify where necessary to achieve an equivalent level of protection. The inspectors reviewed DECo letter EF2-56013, dated January 6, 1982, EF2 SER and EF2 FSAR. The action recommended in this circular is addressed in EF2-FSAR Appendix H, Section III, D.3.4. Based on the information presented in the FSAR, the SER concludes that the control room meets the habitability requirements of GDC 19 of 10 CFR 50 Appendix A and the guidelines of USNRC Regulatory Guides 1.78 and 1.95. This circular is considered to be closed.

- d. (Closed) IE Circular 80-09 (341/80-09-CC). Problems with Plant Internal Communications Systems. This circular was issued to inform licensees of circumstances at other plants where internal communications were provided by non-safeguards power supplies. As a backup communications, two-way portable radios were used. These radios performed satisfactorily, however, when transmitting in the vicinity of certain electronic equipment, they induced false signals into electronic equipment. The recommended action was to determine power source for internal communications systems, upgrade internal communications systems, determine whether plant equipment may be adversely affected by portable radios, and instruct employees on the use of radios in these areas. The inspectors reviewed DECo letters NP-84-904 dated July 9, 1984, and Fermi 2 Plant Orders EFP-1057 dated June 26, 1984. The Fermi internal communications system (Hi-Com/Gai-tronics) is the primary means for in-plant communications and is powered by the essential service system with backup power supplied by the emergency diesel generators. This feature assures Hi-Com availability during transient and accident conditions. To resolve the adverse affects of portable radios, Fermi 2 has issued Plant Order EFP-1057 which identifies restrictions on usage of portable radios within certain areas of the plant. This circular is considered to be closed.
- e. (Closed) IE Circular 81-14 (341/81-14-CC). Main Steam Isolation Valve Failure to Close. This circular was issued to licensees to inform them of recent failures in the main steam isolation valves (MSIV), attributable to the following two causes; 1) poor quality control air to the pilot valves, and 2) binding of the MSIV valve stems with the valve stem packing. The recommended action for holders of construction permits was to evaluate MSIV control air system designs in light of industry experience and to consider design changes where appropriate. The inspectors reviewed DECo letters NE-84-0079 dated January 23, 1984, and NE-84-0500 dated May 31, 1984, in which the licensee evaluated industry experience. In regard to air supply, the licensee determined that the current design is adequate as the inboard and outboard valves have different supplies and the air supplies for both utilize filters and dryers to assure a high quality air source. The evaluation determined that to benefit from industry experience and to effectively mitigate a potential common mode failure the existing packing should be replaced with a graphite type. A Potential Design Change (PDC-1316) has been issued to modify the MSIV stuffing boxes and repack with pure graphite at the first refueling outage. This circular is considered to be closed.

8. Preoperational Test Witnessing

The inspectors reviewed portions of preoperational test procedures, reviewed procedure results completed to date, toured the areas containing system equipment, interviewed personnel, and observed test activities of those preoperational tests identified below.

During this review, the inspectors noted that the latest revision of the test procedure was available and in use by crew members, the minimum crew requirements were met, the test prerequisites were met, appropriate plant systems were in service, the special test equipment required by the procedure was calibrated and in service, the test was performed as required by approved procedures, temporary modifications such as jumpers were installed and tracked per established administrative controls, and test results for the tests observed by the inspectors indicated that acceptance criteria were met.

a. Emergency/Standby Power Supply System.

The inspectors reviewed portions of Preoperational Test Procedure PRET. R3000.003, Revision 1, "Emergency Diesel Generators (EDG) Load Profile Test and Load Sequencing". The inspectors observed the following portions of PRET. R3000.003: Division 1 EDG 11 and 12, 24 Hour Run Tests; and Division 1 EDG 11 and 12, Emergency Core Cooling System (ECCS) Start With Loss of Offsite Power Tests.

The 24 hour run test consisted of simulating an undervoltage on the Emergency Safeguard Features (ESF) Bus to determine if the EDG starts on the loss of offsite power and energizes the emergency busses. The ECCS Start With Loss of Offsite Power Test consisted of simulating an undervoltage in conjunction with an ECCS actuation test signal to verify de-energization and load shedding of emergency busses; EDG starts on the auto-start signal and energizes emergency busses; and energizes the auto-connected shutdown loads through the load sequencer.

During testing, the inspectors verified proper EDG starting, sequencing of loads, ECCS pump starting, synchronizing the emergency bus to an offsite power source, transferring of loads to offsite power source, and restoring the EDG to standby status. During the performance of testing, the inspectors observed that the shift test engineer and nuclear supervising operator were in control of testing activities, testing was being performed in accordance with procedures, and testing was performed with no problems identified. The inspectors did note that both EDG 11 and 12 exhibited oscillations in the exciter D.C. voltage and that this was subsequently identified on a Test Engineering Disposition Report (TEDR). The shift test engineer believed this to be a minor governor adjustment.

No items of noncompliance or deviations were identified.

b. Residual Heat Removal System

The inspectors observed the performance of Preoperational Test PRET E1100.001, Revision 3, RHR System, Sections 6.11.3.10 through 6.11.3.16. This portion of the preoperational test demonstrated the runout performance of the RHR pumps as discussed in Section 6.3.2.14.1 of the FSAR. The performance of this test partially satisfies Open Item (341/81-10-05).

The inspectors observed that RHR pump C was able to maintain a 14,800 gpm flow rate for ten minutes and each of the remaining three pumps were able to maintain a 14,000 gpm flow rate for ten minutes. However, the licensee was initially unable to achieve the desired flow rate on RHR pump C and proceeded to open valve MO-F024B to obtain the flow rate. This step was not in the procedure. The Nuclear Shift Supervisor (NSS) stopped the testing and directed a Test Change Notice (TCN) be written to allow this step. A minor TCN was written and approved and testing resumed with a minimal delay. No other problems were observed.

No items of noncompliance or deviations were identified.

9. Independent Inspection

a. Warehousing

Paragraph 6.C.(ii) of Inspection Report (50-341/83-20) identified the lack of physical controls to prevent the entrance of rodents and other animals contrary to the requirements of ANSI N45.2.2-1972. This resulted in an item of noncompliance (341/83-20-04b). DECo's response to the noncompliance dated December 19, 1983, stated that Plant Operations Manual Procedure 12.000.28, Section 6.2.1 would be revised to include "other animals" and full compliance to prevent further non-compliance would be achieved by the end of 1983.

The inspectors observed on June 30 and July 1, 1984, that the east overhead door to Warehouse B was open for several hours each day. The inspectors brought this finding to the attention of the licensee who implemented immediate additional corrective action. Subsequent observation by the inspectors indicates that the licensee's revised corrective action is effective and this item is considered to be closed.

b. Overheating of Emergency Diesel Generator 14 Turbo-chargers

Emergency Diesel Generator (EDG) 14 was found to have water leaking from the jacket cooling water flanges of both turbo-chargers on July 2, 1984. The leakage of water was attributed to the overheating of the turbo-chargers which was caused by the lack of cooling water flow. Investigation revealed that EDG 14 jacket cooling water outlet isolation valve (F0008D) was not returned to the open position when clearing Operations or Maintenance Order (PN-21) No. 570788. Deviation/Event Report (DER) NP-84-053 was written documenting the deviation.

Initial investigation revealed that the operator notified the tagging center Nuclear Shift Supervisor of the abnormal lineup. The operator was informed that no further action was required as a subsequent valve lineup would detect and correct the out-of-position valve. The subsequent valve lineup was not performed because a valid lineup was still in effect as no work had been done on the system and the one out-of-position valve was returned to normal position. This was the information on which the Nuclear Shift Supervisor based his decision.

The DER did not reflect the cause of the event, only the effects of the action. The licensee did not accept closure of the DER and is continuing investigating the event. This is considered to be an unresolved item (341/84-19-09(DRP)). The inspectors will review the results of the licensee's continuing investigation.

10. Fire Protection

DECo agreed at a June 5, 1984, meeting to review the Region III and NRR concerns relating to fire protection and return at a later date to present their resolution to these concerns.

The licensee presented their proposed resolutions to NRR management staff, I & E staff, representatives from Region III and the Senior Resident Inspector at a meeting held in Bethesda on July 11, 1984. The licensee proposed several solutions to satisfy the inspection team's concerns. DECo, after listening to staff comments, proposed a resolution which will satisfy several of the inspection team's concerns. This meeting will be documented in Inspection Report (50-341/83-16).

11. Operating Procedures

The inspectors performed a review of selected operating procedures in the following category: Operations Procedures--Emergency.

The procedures were reviewed for technical adequacy, applicable operating limits, regulatory requirements and prescribed steps important to the protection of the health and safety of the public. The procedures were also reviewed to determine whether they were consistent with the general guidance of ANSI N18.7.

The inspectors reviewed the following Operations Procedures--Emergency:

- 29.000.01 Level/Pressure Control, Revision 0, August 9, 1983
- 29.000.02 Cooldown, Revision 0, August 9, 1983
- 29.000.03 Primary Containment Control, Revision 0, August 9, 1983
- 29.000.04 Contingency for RPV Flooding, Revision 0, August 9, 1983
- 29.000.05 Contingency for Level Restoration, Revision 0, August 9, 1983
- 29.000.06 Contingency for RPV Pressure Reduction, Revision 0, August 9, 1983
- 29.000.08 Reactivity Control, Revision 0, August 9, 1983

Upon completion of the review, the inspectors held an exit meeting with the operations engineer to discuss their concerns. The major item of concern to the inspectors was securing of an ECCS system to prevent injection into the reactor vessel as described in Procedure 29.000.02. The licensee has indicated that this is consistent with the BWR Owners Group recommendations in BWR Emergency Procedure Guidelines. This item will be followed up in a subsequent inspection report pending review of the BWR Emergency Procedure Guidelines.

No items of noncompliance or deviations were identified.

12. Operating Staff Training

An inspection was conducted by a member of the NRC Reactor Training Center during the week of June 18, 1984, to determine the effectiveness of licensed operator training. The inspection included the review of abnormal response procedures, reviewing licensed operator retraining curricula and observing licensed operators' responses to given transients.

The inspector reviewed nine abnormal response procedures in preparation for the checkout of the operators. His review indicated that several of the procedures needed to be clarified. An operator was given a transient and asked how he would respond. The operator selected the appropriate procedures and walked through the procedure with the inspector. The inspector questioned the operator during various phases of the walkdown to determine the operator's understanding of the procedure and the effects of the evolution on interfacing systems. The inspector interviewed operators from three sections in order to attain a representative sample. The inspector considered that operator knowledge was acceptable.

The inspector met with licensee management at the conclusion of his inspection to discuss the results of his observations and recommended changes in the operator retraining program. The licensee took immediate action to implement some of the recommendations. No items of noncompliance or deviations were identified.

13. Followup on Allegations

(Closed) Allegation (RIII-84-A-0092) Alcohol Use at Fermi. The concern was that DECo posts signs at plant entrances that state alcohol and drugs are prohibited from entering premises; but that during the strike, alcohol and food were brought on site in trailers to provide comfort to working employees, and that alcohol could be found in the Bechtel temporary housing quarters.

During interviews with licensee management, it was pointed out to the inspectors that alcohol had been provided to those employees locked in on DECo fossil fuel plants. DECo's policy of not allowing alcohol on the Fermi site was still in effect and currently being enforced. Fermi has a policy of dismissing employees on the spot if found bringing alcohol on site.

The inspectors toured all areas where employees slept on site and where food and bedding were stored. This included all temporary trailers brought on site for sleeping and storage. During the strike period, the only individuals that stayed on site were DECo employees. In fact, Bechtel craft employees honored the strike the first two days of the strike. No sign of alcohol or alcohol containers was identified. The allegation could not be substantiated and the inspectors consider this item to be closed.

14. Radiological Emergency Response Exercise

The licensee held a full-scale exercise of its Radiological Emergency Response Plan on June 26 and 27, 1984. The State of Michigan, Monroe County, Frenchtown Township, and the Province of Ontario participated in the exercise which was observed by Region III, I&E, and the Federal Emergency Management Agency (FEMA). The inspectors were observers on June 26 and participants on June 27, 1984. Region III held their exit meeting on June 29, 1984. The details of the exercise are identified in Inspection Report 50-341/84-15 (DRSS) along with the resident inspectors' concerns.

No items of noncompliance or deviations were identified.

15. Plant Tours

During the months of June and July 1984, the inspectors conducted tours of the RHR complex, the Reactor Building, the Auxiliary Building, the Turbine Buildings, and the Radwaste area, including the fifth floor of the Reactor Building, the Control Room, and the cable spreading rooms. The areas were inspected for general housekeeping and fire prevention practices, work controls, and maintenance of safety-related system integrity. The inspectors observed control room operations, reviewed applicable logs, and conducted discussions with control room operators.

No items of noncompliance or deviations were identified.

16. Unresolved Items

Unresolved items are matters about which more information is required in order to determine whether they are acceptable items or items of noncompliance. Unresolved items disclosed during the inspection are discussed in Paragraphs 2.c, 4, and 9.b.

17. Exit Interview

The inspector met with licensee representatives (denoted in Paragraph 1) throughout the month and at the conclusion of the inspection and summarized the scope and findings of the inspection activities. The licensee acknowledged the inspectors' comments.