

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Reports No. 50-341/94004(DRSS); 50-016/94001(DRSS)

Docket Nos. 50-341; 50-016

Licenses No. NPF-43; DPR-9

Licensee: The Detroit Edison Company  
6400 North Dixie Highway  
Newport, MI 48166

Facility Name: Fermi 2 Nuclear Power Station; Enrico Fermi Atomic Power  
Plant, Unit 1

Inspection At: Newport, Michigan

Inspection Conducted: February 28 - March 4, 1994

Inspector: J. W. McCormick-Barger for  
R. Jickling

3/18/94  
Date

Approved By: J. W. McCormick-Barger  
J. W. McCormick-Barger, Chief  
Radiological Programs Section 1

3/18/94  
Date

Inspection Summary

Inspection on February 28 - March 4, 1994 (Reports No. 50-341/94004(DRSS);  
50-016/94001(DRSS))

Areas Inspected: Routine, announced inspection of the operational status of the emergency preparedness (EP) program (Inspection Procedure (IP) 82701), review of NRC Augmented Inspection Team (AIT) issues related to the December 25, 1993, turbine failure (IP 82701), follow-up of licensee actions on previously identified items (IP 82301), and the operational safety verification of the Fermi 1 facility (IP 71707).

Results: One violations was identified from the AIT issues concerning the assembly and accountability of onsite personnel (Section 2.b). However, the EP program continues to be well maintained. Management involvement in the program was strong. One concern remains open from the 1993 annual emergency preparedness exercise (Section 2.a). No concerns were identified with Fermi 1.

## DETAILS

### 1. Persons Contacted

#### Facility

- \*D. Gipson, Senior Vice President Nuclear Operations
- \*R. McKeon, Assistant Vice President and Manager
- \*W. Romberg, Assistant Vice President, Technical
- \*R. Newkirk, Acting Director, Licensing
- \*J. Korte, Director, Nuclear Security
- \*G. Baker, Director, Safety Engineer
- \*J. Walker, Director
- \*W. Miller, Superintendent, Technical Engineer
- \*P. Fessler, Manager
- \*W. Tucker, Assistant to Technical Manager
- \*D. Powel, Nuclear Shift Supervisor
- \*S. Hsreh, Supervisor, Nuclear Fuel
- \*L. From, Supervisor, Technical
- \*H. Higgins, Operations Supervisor
- \*E. Kokosky, General Supervisor, Radiation Protection
- \*J. Tibai, Principle Compliance Engineer
- \*J. Pendergast, Compliance Engineer
- \*K. Morris, Supervisor, Radiological Emergency Response Preparedness
- \*R. Webster, Emergency Response Specialist
- \*J. Kauffman, Emergency Response Specialist
- \*J. Baum, Emergency Response Specialist
- \*B. Szkotnicki, Supervisor, Quality Assurance
- \*R. Baum, Supervisor, Radiological Engineer
- \*R. Russell, Supervisor, Training
- \*D. Ockerman, Training
- \*J. Sweeney, Quality Assurance Specialist
- G. Heitzenrater, Nuclear Shift Supervisor

#### U. S. Nuclear Regulatory Commission (NRC)

- \*K. Riemer, Resident Inspector, Fermi

\*Denotes those present at the NRC exit meeting on March 4, 1994.

The inspectors also contacted other licensee personnel during the inspection.

### 2. Augmented Inspection Team (AIT) Report No. 50-341/93029(DRS)) Issues

During this inspection, the inspector reviewed two issues identified in Inspection Report No. 50-341/93029(DRS).

- a. The first issue concerned the timeliness of the Unusual Event (UE) declaration. At 1:15 p.m., the control room (CR) crew received indications of a seismic event, turbine vibration, and numerous other alarms, including fire alarms, coincident with an automatic

reactor shutdown (scram). While Tab 8 of the Radiological Emergency Response Preparedness (RERP) Procedure EP-101 contained conditions requiring a UE classification based on control instrumentation indicated turbine rotating component failure resulting in a reactor scram, a UE was not declared until 1:52 p.m., based on a fire in the plant requiring offsite support.

In reviewing documentation and interviewing licensee personnel, including the Nuclear Shift Supervisor (NSS) who was onshift during the emergency, it was apparent that a large number of alarms and reactor off-normal indications were concurrently received in the CR. Within minutes, the NSS initiated a methodical review of the indications and the classification procedures. The CR staff acted appropriately in ensuring the safe shutdown of the reactor and overall condition of the plant. Based on the numerous plant indications, the conditions for an UE based on a fire in the plant requiring offsite support were recognized prior to the assessment of the nature of the turbine failure. Although the indications appeared to be immediately present for the UE based on turbine failure and subsequent reactor scram, the NSS's evaluation of the conditions appeared timely, and, the subsequent classification appeared to be adequate.

- b. The second issue concerned the failure to follow procedures which required the immediate assembly and accountability of site personnel at the Alert declaration.

At approximately 1:57 p.m., the emergency director (ED) in the control room upgraded the emergency classification to an Alert. However, the order to assemble all personnel in the protected area and perform accountability in accordance with RERP Procedure EP-103, "Alert," was not performed until approximately 2:27 p.m.

In review of documentation and licensee interviews it was apparent that the nuclear assistant shift supervisor contacted some plant departments to account for plant personnel, prior to the NSS ordering assembly and accountability. The NSS was generally aware of who was onsite and what their functions were due to the reduced holiday staffing. However, a formal assembly and accountability, which would have ensured the complete accountability of plant personnel, was not performed until approximately 30 minutes after the Alert declaration.

Assembly and accountability of all personnel in the protected area was not ordered at the Alert declaration in accordance with RERP Procedure EP-103, "Alert," and with RERP Plan. According to 10 CFR 50.54(q), the licensee is required to maintain and follow their emergency plan. The failure to conduct an assembly and accountability of site personnel in accordance with EP-103 is a violation (Violation No. 50-341/94004-01).

One violation was identified.

3. License Action on Previously Identified Items (IP 82301)

- a. (Open) Inspection Follow-up Item (IFI) No. 50-341/93009-01: The NSS failed to properly declare a Site Area Emergency during the 1993 annual emergency preparedness exercise.

The licensee has initiated development of an emergency action level (EAL) chart to improve emergency classification. Discussions regarding training improvements have taken place and lessons learned were being used in the development of future emergency response training. This item will remain open pending the completion of the licensee's training and EAL development and the successful demonstration of the licensee's corrective actions.

- b. (Closed) IFI No. 50-341/93009-02: During the 1993 annual emergency preparedness exercise, the notification of the NRC was not adequately simulated for the General Emergency classification.

The following corrective actions were taken:

- Lessons learned from the July 14, 1993, annual exercise were incorporated into emergency response training; and
- NRC notification during the October 27, 1993, drill was successfully demonstrated.

Based on the above training and the adequate offsite notifications during the October 1993 drill and December 25, 1993, event, this item is closed.

4. Operational Status of the Emergency Preparedness (EP) Program (IP 82701)

- a. Emergency Plan and Implementing Procedures

On January 10, 1994, the licensee implemented Revision 10 of the RERP Plan. This revision included changes regarding implementation of EPA-400 guidance, some terminology changes, and a number of EAL enhancements. The RERP Plan was received by the NRC for review within regulatory requirements.

The inspector reviewed the changes in RERP Procedure EP-101, which did not appear to decrease the effectiveness of the emergency plan. Current copies of the emergency plan and implementing procedures were available in the emergency response facilities.

The inspector and the licensee's RERP and licensing staffs discussed the licensee's plans for the development of an EAL chart system to improve its ability to promptly and correctly classify emergencies. This was to be an interim improvement until the licensee's Nuclear Management And Resources Council (NUMARC) EALs were approved and implemented.

The emergency call out system was changed to augment specific Emergency Operations Facility (EOF) positions at the Alert classification to improve the dispatch of offsite monitoring teams.

b. Emergency Response Facilities, Equipment and Supplies

An inspection tour was conducted of the Technical Support Center (TSC), Operational Support Center (OSC), and Alternate OSC. The TSC was found to be in an excellent state of operational readiness. An inspection of facility equipment and supplies located in emergency cabinets did not reveal any problems. Radiological monitoring instruments were properly calibrated.

Plans were reviewed for remodeling the OSC to decrease congestion and improve information availability. The OSC remodeling was projected to be completed by the next annual exercise.

The addition of an emergency management communications loop between the emergency response facilities managers was established to improve communications between management centers.

c. Organization and Management Control

The Fermi 2 site organization completed a restructuring, including changes in the management oversight of the emergency preparedness group. The RERP supervisor reported to the nuclear licensing director, where previously, the RERP supervisor reported to the general director of regulatory affairs. With the exception of this change, the level of management interface and oversight from the RERP department to the senior vice president has not changed.

In September 1993, the RERP staff also underwent organizational changes, including the transfer of the former RERP supervisor to another plant organization. Subsequently, an experienced member of the RERP staff was named as the RERP supervisor. This individual had over six years of EP experience and was knowledgeable of the licensee's program. With this re-assignment, a radiation protection technician was added to the RERP staff. This gave the RERP group a diverse experience background and provided a strong team of three specialists and one supervisor.

d. Emergency Preparedness Training

The inspector reviewed the training of emergency response personnel and RERP staff. Lessons-learned from drills, exercises, and events have been incorporated into requalification training courses. Courses for facility orientation and management overview have been added to provide an overview and assist decision makers regarding offsite dose projections. Additionally, qualification requirements were created for the RERP staff positions.

A training course in emergency classification, notifications, and event reporting assessment was observed. The lessons-learned handout and the significant event handout were excellent. However, actual in-class event classification from the latter handout would have been more useful than directing the class to take the handout and classify events on their own time, especially in light of past performance in the 1993 exercise and the December 1993 turbine event. Also, actually walking through some more difficult EALs may have been appropriate.

During an interview with a licensed operator requalification instructor, improvements in simulator training were discussed. During licensed operator requalification training in the simulator, emergency response activities have been added. Appropriate time delays as well as in-plant operator availability were simulated.

An interview with an NSS was conducted. Overall knowledge of responsibilities, tasks to be performed, and procedures to be used was excellent. Knowledge and ability to use the emergency classification procedure for specific questions and conditions was very good.

No violations or deviations were identified.

5. Fermi 1 Operational Safety Verification (IP 71707)

Specific aspects of the Fermi 1 facility were inspected after a recent problem at the Dresden 1 facility with cold weather preparations (Inspection Report No. 50-010/94001(DRSS)).

Systems condition, design, and status were evaluated. Radiological information was reviewed related to contamination levels and to quantities of radioactive materials. Alarms and annunciators for moisture intrusion and carbon dioxide and instrument surveillance were identified.

In the Fermi 1 facility, there continued to be no water stored in the reactor containment and no fuel onsite. The curie content of the facility was sufficiently low as not to pose a significant threat to the environment or public, even during a significant accident. Annunciators alarm in the Fermi 1 and 2 control rooms for water intrusion and the carbon dioxide high/low pressure. Surveillances were conducted every six months on the instruments and weekly checks were also completed.

No violations or deviations were identified.

4. Exit Interview

The inspector held an exit interview on March 4, 1994, with licensee representatives identified in Section 1, to present and discuss the preliminary inspection findings. The licensee was informed that one violation of NRC requirements pertaining to inadequate assembly and accountability of all site personnel was identified as a result of the inspection. The licensee indicated that none of the matters discussed were proprietary in nature.