



Douglas R. Gipson  
Senior Vice President  
Nuclear Generation

Fermi 2  
6400 North Dixie Highway  
Newport, Michigan 48166  
(313) 586-5249

October 19, 1995  
NRC-95-0090

U. S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington D. C. 20555

- References:
- 1) Fermi 2  
NRC Docket No. 50-341  
NRC License No. NPF-43
  - 2) NRC Inspection Report 50-341/95009  
dated September 19, 1995

Subject: Reply to Notice of Violation 95-009-05

Enclosed is Detroit Edison's reply to the Notice of Violation for emergency light testing contained in Reference 2. In addition, Detroit Edison would like to take this opportunity to comment on some of the issues discussed in Reference 2.

9510250186 951019  
PDR ADOCK 05000341  
Q PDR

240060

IED/  
1/1

October 19, 1995

NRC-95-0090

Page 2

Detroit Edison recognized that several design modifications installed in the last refueling outage had problems and so instituted reviews to determine causes and actions to improve performance. Detroit Edison is pleased that the NRC review of the same modifications reached the same conclusions on problem identification as the internal review performed by our Engineering Improvement Group and provided to the NRC during the Engineering and Technical Support follow-up inspection in July of 1995.

Notwithstanding the high availability of the General Service Water System, Detroit Edison shares the overall concerns described in the inspection report with the operational and maintenance challenge this system imposes. Extensive work is being performed to reduce these challenges, including the rebuild and upgrade of major components during past refueling outages and more recent initiatives to evaluate the design and performance of this system.

Section 3.2 of the inspection report discusses the 50.59 safety evaluation screening process used at Fermi. NRC Inspection Module 37001 requires a Section 50.59 safety evaluation when the FSAR description would be affected by the change. Detroit Edison's philosophy goes beyond requiring a safety analysis when the words in the Updated Final Safety Analysis Report (UFSAR) are changed. Fermi's current process requires that the screening determine whether the change affects the function of a system, component or structure as described in the UFSAR, the ability to perform the functions described in the UFSAR, or assumptions made by the UFSAR. Detroit Edison believes that our formal design control process, including the 50.59 process, is conceived with and exercised based on the premise that any change must be undertaken in a manner that minimizes the potential for adverse safety impact.

Section 4.4 of the inspection report notes that the Emergency Operations Facility (EOF) lost power due to backup diesel failures when power was lost at the Nuclear Operations Center (NOC) during storms on August 3 and 4. At that time actions were already in progress to resolve the recent problems with the normal electrical feed during storms. Because the backup diesel has been very reliable, prompt actions were taken to restore it and to identify and correct the causes of the trips.

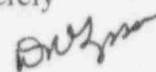
October 19, 1995  
NRC-95-0090  
Page 3

In response to violation 95009-05 for emergency lighting problems, the following commitments are being made in this letter:

1. The performance test selection criteria will be revised to assure all emergency lights listed in procedure 37.000.014 are tested on a periodic basis.
2. Criteria will be established for expanding the sample population based on test results.
3. Population three and four emergency lights will be tested per procedure 37.000.014.

If you should have any questions related to this reply, please contact Joseph M. Pendergast, Compliance Engineer, at (313) 586-1682.

Sincerely



Enclosure

cc: T. G. Colburn  
M. J. Jordan  
H. J. Miller  
A. Vogel  
Region III

Statement of Violation

10 CFR 50, Appendix B, Criterion XVI, states, in part, that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected. In the case of significant conditions adverse to quality, the measures shall assure that the cause of the condition is determined and corrective action taken to preclude repetition.

Contrary to the above, from November 1994 to August 1995, the licensee failed to identify and take prompt corrective action for a high failure rate (14 of 41) of emergency lighting units that were needed for operation of safe shutdown equipment (341/95009-05).

This is a Severity Level IV violation (Supplement I).

The Reason for the Violation:

The performance test procedure did not contain any criteria to expand the sample population of emergency lights tested when a certain number of emergency lights failed the eight hour discharge test. The procedure also did not specify a method to select emergency lights for testing to assure that all emergency lights listed in procedure 37.000.014 were tested on a rotating basis.

The Corrective Steps that have Been Taken and the Results Achieved:

There are 158 emergency lights tested under procedure 37.000.014 and 86 of those emergency lights are Appendix R lights. The Appendix R emergency lights were inspected when the problem was identified. Plant personnel depressed the test push buttons of the Appendix R lights for approximately 10 to 15 seconds. The lights illuminated brightly with the exception of one light which began to dim after 10 to 15 seconds. That unit's battery was replaced.

In order to quickly verify proper function of the emergency lights illumination and specific gravity checks were performed for all 158 lights in accordance with periodic test procedures. As a result four batteries were replaced for Appendix R lights.

In order to develop a plan to test the emergency lights tested per procedure 37.000.014, emergency light corrective maintenance, preventive maintenance, and battery discharge tests conducted from early 1991 to the present were reviewed. It was determined that some emergency lights had not been discharge tested during this time, and some of the lights have

Enclosure to  
NRC-95-0090  
October 19, 1995  
Page 2

received replacement batteries during this time. Based on the results of this review, the lights were divided into four populations.

Population one is composed of 52 lights which had not been discharge tested or had batteries replaced since 1990. These lights were tested and 22 of the lights failed the eight hour discharge test. Their batteries were replaced. The failed batteries were retested and passed the 5.25 volt discharge test acceptance criteria.

Population two is composed of 32 lights which had been discharge tested since 1990 but have batteries which had not been replaced after 1990. These lights were tested per procedure 37.000.014 with five failing the eight hour discharge test. Their batteries were replaced. The emergency lights were retested and passed the discharge test.

The Corrective Steps that will be Taken to avoid Further Violations:

Populations three and four are each composed of 37 lights, which have been tested with battery replacement after 1990. These lights are expected to be discharge tested by December, 1995.

The performance test selection criteria will be revised to assure all emergency lights listed in procedure 37.000.014 are tested on a periodic basis. Criteria will be established for expanding the sample population based on test results.

The Date when Full Compliance will be Achieved:

When the problem was identified a Deviation Event Report was written to initiate corrective actions and prompt actions were taken. Therefore, Detroit Edison is in full compliance with 10 CFR 50, Appendix B, Criterion XVI. The corrective actions listed for the emergency lights are expected to be completed by the end of December 1995.