June 7, 1993

Docket No. 50-341

Mr. Douglas R. Gipson
Senior Vice President - Nuclear
Generation
Detroit Edison Company
6400 North Dixie Highway
Newport, Michigan 48166

Dear Mr. Gipson:

SUBJECT: FERMI-2 - AMENDMENT NO. 90 TO FACILITY OPERATING LICENSE NO. NPF-43 (TAC NO. M84680)

The Commission has issued the enclosed Amendment No. 90 to Facility Operating License No. NPF-43 for the Fermi-2 facility. The amendment consists of changes to the Technical Specifications (TS) in response to your letter dated September 28, 1992.

The amendment revises the Technical Specifications related to testing of Emergency Diesel Generator (EDG) fuel oil. The changes update the standards used to specify test methods for the EDG fuel oil.

A copy of our Safety Evaluation is also enclosed. The notice of issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

Original signed by

Timothy G. Colburn, Sr. Project Manager
Project Directorate III-1
Division of Reactor Projects - III/IV/V
Office of Nuclear Reactor Regulation

Enclosures:
1. Amendment No. 90 to NPF-43
2. Safety Evaluation

cc w/enclosures:
See next page

OFFICE	LA:PD31*	PM:PD31	SPLB	OGC	(A)D:PD31
NAME	MShuttleworth	Colburn:sw	CMcCracken		WDean
DATE	5/12/93	5/13/93	5/19/93	6/1/93	6/7/93

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cc:

John Flynn, Esquire
Senior Attorney
Detroit Edison Company
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Nuclear Facilities and Environmental
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Mr. Wayne Kropp
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799 Roosevelt Road
Glen Ellyn, Illinois 60137

Mr. William E. Miller
Director - Nuclear Licensing
Detroit Edison Company
Fermi-2
6400 North Dixie Highway
Newport, Michigan 48166

DATED: June 7, 1993

AMENDMENT NO. 90 TO FACILITY OPERATING LICENSE NO. NPF-43-FERMI-2

Docket File
NRC & Local PDRs
PDIII-1 Reading
Fermi Plant File
J. Roe
J. Zwolinski
L. Marsh
M. Shuttleworth
T. Colburn
OGC-WF
D. Hagan, 3302 MNBB
G. Hill (2), P-137
Wanda Jones, MNBB-7103
C. Grimes, 11/F/23
ACRS (10)
GPA/PA
OC/LFMB
W. Shafer, R-III

cc: Plant Service list

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

DETROIT EDISON COMPANY

DOCKET NO. 50-341

FERMI-2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 90
License No. NPF-43

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by the Detroit Edison Company (the licensee) dated September 28, 1992, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of Facility Operating License No. NPF-43 is hereby amended to read as follows:

Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 90 , and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. DECo shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance with full implementation within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION

William M. Dean, Acting Director
Project Directorate III-1
Division of Reactor Projects - III/IV/V
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: June 7, 1993

ATTACHMENT TO LICENSE AMENDMENT NO. 90

FACILITY OPERATING LICENSE NO. NPF-43

DOCKET NO. 50-341

Replace the following pages of the Appendix "A" Technical Specifications with the attached pages. The revised pages are identified by amendment number and contain vertical lines indicating the area of change.

REMOVE	INSERT
3/4 8-3*	3/4 8-3*
3/4 8-4	3/4 8-4

*Overleaf page provided to maintain document completeness. No changes contained on these pages.

4.8.1.1.1 Each of the above required independent circuits between the offsite transmission network and the onsite Class 1E distribution system shall be determined OPERABLE at least once per 7 days by verifying correct breaker alignments and indicated power availability.

4.8.1.1.2 Each of the above required diesel generators shall be demonstrated OPERABLE:

a. In accordance with the frequency specified in Table 4.8.1.1.2-1 on a STAGGERED TEST BASIS by:

1. Verifying the fuel level in the day fuel tank.

2. Verifying the fuel level in the fuel storage tank.

3. Verifying the fuel transfer pump starts and transfers fuel from the storage system to the day fuel tank.

4. Verifying the diesel starts from ambient condition and accelerates to at least 900 rpm in less than or equal to 10 seconds.* The generator voltage and frequency shall be 4160 ± 420 volts and 60 ± 1.2 Hz within 10 seconds after the start signal. The diesel generator shall be started for this test by using one of the following signals:

a) Manual.
b) Simulated loss-of-offsite power by itself.
c) Simulated loss-of-offsite power in conjunction with an ESF actuation test signal.
d) An ESF actuation test signal by itself.

5. Verifying the diesel generator is synchronized, loaded to greater than or equal to an indicated 2500-2600 kW in less than or equal to 150 seconds,* and operates with this load for at least 60 minutes.

6. Verifying the diesel generator is aligned to provide standby power to the associated emergency busses.

7. Verifying the pressure in all diesel generator air start receivers to be greater than or equal to 215 psig.

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*All diesel generator starts for the purpose of this Surveillance Requirement may be preceded by an engine prelube period. The diesel generator start (10 sec)/load (150 sec) from ambient conditions shall be performed at least once per 184 days in these surveillance tests. All other engine starts for the purpose of this surveillance testing may be preceded by other warmup procedures recommended by the manufacturer so that the mechanical stress and wear on the diesel engine is minimized.

SURVEILLANCE REQUIREMENTS (Continued)

b. By removing accumulated water:

1. From the day tank at least once per 31 days and after each occasion when the diesel is operated for greater than 1 hour, and

2. From the storage tank at least once per 31 days.

c. By sampling new fuel oil in accordance with ASTM D4057-88 prior to addition to the storage tanks and:

1. By verifying in accordance with the tests specified in ASTM D975-91 prior to addition to the storage tanks that the sample has:

a) An API Gravity of within 0.3 degrees at 60°F or a specific gravity of within 0.0016 at 60/60°F, when compared to the supplier's certificate or an absolute specific gravity at 60/60°F of greater than or equal to 0.83 but less than or equal to 0.89 or an API gravity at 60°F of greater than or equal to 27 degrees but less than or equal to 39 degrees.

b) A kinematic viscosity at 40°C of greater than or equal to 1.9 centistokes, but less than or equal to 4.1 centistokes, if gravity was not determined by comparison with the supplier's certification.

c) A flash point equal to or greater than 125°F, and

d) A clear and bright appearance with proper color when tested in accordance with ASTM D4176-86.

2. By verifying within 31 days of obtaining the sample that the other properties specified in Table 1 of ASTM D975-91 are met when tested in accordance with ASTM D975-91.

d. At least once every 31 days by obtaining a sample of fuel oil from the storage tanks in accordance with ASTM D2276-88, and verifying that total particulate contamination is less than 10 mg/liter when checked in accordance with ASTM D2276-88, Method A.

e. At least once per 18 months, during shutdown, by:

1. Subjecting the diesel to an inspection in accordance with procedures prepared in conjunction with its manufacturer's recommendations for this class of standby service.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 90 TO FACILITY OPERATING LICENSE NO. NPF-43

DETROIT EDISON COMPANY

FERMI-2

DOCKET NO. 50-341

1.0 INTRODUCTION

By letter dated September 28, 1992, the Detroit Edison Company (DECo or the licensee) requested an amendment to the Technical Specifications (TS) appended to Facility Operating License No. NPF-43 for Fermi-2. The proposed amendment would update the standards used to specify test methods for the emergency diesel generator (EDG) fuel oil which are contained in TSs 4.8.1.1.2.c and d.

2.0 EVALUATION

Fuel Oil Sampling Methodology - American Society for Testing and Materials (ASTM) D4057

Technical Specification 4.8.1.1.2.c currently specifies ASTM D4057-81 as the methodology for sampling new fuel oil prior to its addition to the fuel oil storage tanks. American Society for Testing and Materials D4057 has been revised to the current revision, ASTM D4057-88. The 1988 revision does not change the methodology used to sample new fuel shipments.

The staff consider this change to be administrative in nature. The staff has determined that this change is acceptable.

Fuel Oil Properties - ASTM D975

Technical Specifications 4.8.1.1.2.c.1 and 2 provide tests to be performed on new fuel oil. Technical Specification 4.8.1.1.2.c.1 specifies tests to be performed prior to addition of the fuel oil to the storage tanks and TS 4.8.1.1.2.c.2 specifies tests to be completed within 31 days of obtaining the sample. American Society for Testing and Materials D975-81 is currently specified in both of these TS. American Society for Testing and Materials D975-81 has been superseded by ASTM D975-91.

American Society for Testing and Materials D975-91 differs in the methodologies used for determining the calculated Cetane Index and the sulfur content. Both of these properties are required to be determined by TS 4.8.1.1.2.c.2 within 31 days of obtaining a sample.

The 1991 methodology for determining the calculated Cetane Index considers two additional factors, the 10% and 90% distillation temperatures. These are in addition to the 50% distillation temperature and density factors utilized in the 1981 methodology. The inclusion of these two factors yields a more representative index.

Currently the TS require analysis for sulphur content by one of three methods: ASTM D975-81, ASTM D1552-79 or ASTM D2622-82. American Society for Testing and Materials D975-91 has incorporated the ASTM D1552 and ASTM D2622 methods. In addition, ASTM D975-91 allows the use of ASTM D4294. American Society for Testing and Materials D4294 is a non-dispersive x-ray florescence method which has a lower minimum sensitivity to fuel oil sulphur content and greater accuracy than the other currently allowed methods. The specification of ASTM D975-91 will allow the licensee to utilize the improved methods which have been incorporated into this standard.

Based on the above, the staff has determined that the proposed change is acceptable.

Appearance and Color - ASTM D4176

The proposed TS change updates the reference to ASTM D4176 from the 1982 version to the current 1986 version. The new version does not change the test methodology nor affect the ability of the required test to detect abnormal conditions in the fuel oil.

The staff considers this change to be administrative in nature. The staff has determined that this change is acceptable.

Total Particulate Contamination - ASTM D2276

Technical Specification 4.8.1.1.2.d currently requires that a fuel oil sample be obtained from the storage tanks every 31 days in accordance with ASTM D2276-78 and checked for total particulate contamination using Method A of the same standard. The proposed TS change updates ASTM D2276 to the current 1988 version. The 1988 version does not change the required sampling or testing methodology.

The change is, therefore, administrative in nature. The staff has determined that the proposed change is acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Michigan State official was notified of the proposed issuance of the amendment. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes the surveillance requirements. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration and there has been no public comment on such finding (57 FR 53785). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

5.0 CONCLUSION

The staff has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: T. Colburn

Date: June 7, 1993