

January 31, 2006

Mr. Donald K. Cobb
Assistant Vice President - Nuclear Generation
Detroit Edison Company
6400 North Dixie Highway
Newport, MI 48166

SUBJECT: FERMIL 2 - ISSUANCE OF AMENDMENT RE: ACTIONS CONCERNING
ALTERNATING CURRENT SOURCES (TAC NO. MC7017)

Dear Mr. Cobb:

The Commission has issued the enclosed Amendment No. 170 to Facility Operating License No. NPF-43 for the Fermi 2 facility. The amendment consists of changes to the Technical Specifications (TSs) in response to your application dated May 18, 2005, as supplemented by letter dated August 8, 2005.

The amendment revises the Fermi 2 TSs to add Actions to Limiting Condition for Operation 3.8.1, "AC [alternating current] Sources - Operating," for one offsite circuit inoperable, for two offsite circuits inoperable, and for one offsite circuit and one or both emergency diesel generators in one division inoperable.

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,

/RA/

David H. Jaffe, Senior Project Manager
Plant Licensing Branch III-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-341

Enclosures: 1. Amendment No. 170 to NPF-43
2. Safety Evaluation

cc w/encls: See next page

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Package Accession Number: **ML053260019**

Amendment Accession Number: **ML053260015**

TS Accession Number: ML

*No major changes to SE dated 11/18/05.

OFFICE	NRR/LPLIII-1/PM	NRR/LPLIII-1/LA	NRR/ITSB/BC	NRR/EEEB*	OGC	NRR/LPLIII-1/BC (A)
NAME	DJaffe	DClarke	TBoyce	RJenkins	JZorn	TKobetz
DATE	1/26/06	1/25/06	1/11/06	11/18/05	1/23/06	1/26/06

OFFICIAL RECORD COPY

DETROIT EDISON COMPANY

DOCKET NO. 50-341

FERMI 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 170
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 May 18, 2005, as supplemented by letter dated August 8, 2005, 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. 170, 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 its date of issuance and shall be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Timothy J. Kobetz, Acting Chief
Plant Licensing Branch III-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: January 31, 2006

ATTACHMENT TO LICENSE AMENDMENT NO. 170

FACILITY OPERATING LICENSE NO. NPF-43

DOCKET NO. 50-341

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

REMOVE

3.8-2

-

-

INSERT

3.8-2

3.8-2a

3.8-2b

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 170 FACILITY OPERATING LICENSE NO. NPF-43

DETROIT EDISON COMPANY

FERMI 2

DOCKET NO. 50-341

1.0 INTRODUCTION

By letter to the Nuclear Regulatory Commission (NRC, Commission) dated May 18, 2005 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML051440414), as supplemented by letter dated August 8, 2005 (ADAMS) Accession No. ML052280345), Detroit Edison Company (licensee) requested changes to the Fermi 2 Technical Specifications (TSs) to add Actions to limiting condition for operation (LCO) 3.8.1, "AC [alternating current] Sources - Operating," for one offsite circuit inoperable, for two offsite circuits inoperable, and for one offsite circuit and one or both emergency diesel generators (EDGs) in one division inoperable. The current Fermi 2 TSs contain only a single Action Statement for one or two offsite circuits inoperable. The present TSs require an immediate plant shutdown when an offsite power circuit is considered inoperable. By letter dated August 8, 2005, the licensee provided additional information in support of the requested changes to the Fermi 2 nuclear power plant.

The supplement dated August 8, 2005, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the NRC staff's original proposed no significant hazards consideration determination as published in the *Federal Register* on June 7, 2005 (70 FR 33212).

2.0 REGULATORY EVALUATION

The regulatory requirements that the NRC staff applied in its review of the application include:

General Design Criterion (GDC) 17, "Electric power systems," of Appendix A, "General Design Criteria for Nuclear Power Plants," to Title 10, Part 50, of the *Code of Federal Regulations* (10 CFR) requires, in part, that nuclear power plants have onsite and offsite electric power systems to permit the functioning of structures, systems, and components that are important to safety. The onsite system is required to have sufficient independence, redundancy, and testability to perform its safety function, assuming a single failure. The offsite power system is required to be supplied by two physically independent circuits that are designed and located so as to minimize, to the extent practical, the likelihood of their simultaneous failure under operating and postulated accident and environmental conditions. In addition, this criterion requires provisions to minimize the probability of losing electric power from the remaining

electric power supplies as a result of loss of power from the unit, the offsite transmission network, or the onsite power supplies.

Section 50.36, "Technical Specifications," requires a licensee's TSs to establish LCOs for equipment that is required for safe operation of the facility.

Regulatory Guide (RG) 1.93, "Availability of Electric Power Sources," provides guidance with respect to operating restrictions if the number of available AC sources is less than that required by the TS LCO.

3.0 TECHNICAL EVALUATION

As described by the licensee's submittal dated May 18, 2005, the unit Class 1E AC electrical power consists of the offsite power sources, and the onsite standby power sources (EDGs 11, 12, 13, and 14). As required by 10 CFR 50, Appendix A, GDC 17, the design of the AC electrical power system provides independence and redundancy to ensure an available source of power to the engineered safety feature (ESF) systems. The Class 1E AC distribution system is divided into redundant load groups (Division 1 and Division 2), so loss of any one group does not prevent the minimum safety functions from being performed. Each load group is connected to an offsite power supply and two EDGs.

The offsite power is supplied to the 120 kV and 345 kV switchyards from the transmission network by five transmission lines, with three incoming lines supplying the 120kV switchyard and two incoming lines supplying the 345 kV switchyard. Two physically independent and redundant sources of offsite power are available on an immediate basis for safe shutdown. The preferred source to Division 1 is the 120 kV offsite supply from the 120 kV switchyard and station service transformer (SST) 64; the preferred source to Division 2 is the 345 kV offsite supply from the 345 kV switchyard and SST 65. Each of the 64 and 65 SSTs normally energizes its related 4.16 kV AC Class 1E buses; i.e., SST 64 normally energizes Division 1 Class 1E buses and SST 65 normally energizes Division 2 Class 1E buses. This arrangement eliminates the need for automatic switching of the preferred power sources. An actual loss of SST 64 or SST 65 will result in a plant shutdown.

The licensee has proposed the following changes to LCO 3.8.1:

3.1 LCO 3.8.1

The current TS LCO 3.8.1 Action C requires shutdown to MODE 3 within 12 hours of declaring one or two offsite circuits inoperable and to Mode 4 within 36 hours. The licensee has proposed new Actions C, D, and E to allow a single offsite circuit to be inoperable for up to 72 hours, two offsite circuits to be inoperable for up to 24 hours, and one offsite circuit and one or both EDGs in one division to be inoperable for up to 12 hours. These changes are described below:

Current Condition C is being re-labeled Condition F, and being revised to read "Required Action and Associated Completion Time of Conditions A, B, C, D or E not met." The required actions and completion times for this condition remain unchanged. These changes are administrative and are acceptable.

New Condition C is being added to require, with one offsite circuit inoperable, perform Surveillance Requirement 3.8.1.1 (breaker alignment and power availability) for OPERABLE offsite circuit within 1 hour and once per 8 hours thereafter; and, declare required feature(s) with no offsite power available inoperable when the redundant required feature(s) are inoperable within 24 hours from discovery of no offsite power to one division concurrent with inoperability of redundant required feature(s); and restore offsite circuit to OPERABLE status within 72 hours and 10 days from discovery of failure to meet the LCO. The 10-day requirement versus 6 days differs from NUREG 1433, "Standard Technical Specifications General Electric Plants, BWR/4," Rev. 3, to account for the 7-day completion time in the current TS to restore both EDGs in a division to OPERABLE status. The proposed changes are consistent with Regulatory Position 1 of RG 1.93 and NUREG 1433, Rev. 3, and are, therefore, acceptable.

New Condition D is being added to, with two offsite circuits inoperable, declare required feature(s) inoperable when the redundant required feature(s) are inoperable within 12 hours from discovery of Condition D concurrent with inoperability of redundant required feature(s); and, restore one offsite circuit to OPERABLE status within 24 hours. This is consistent with Regulatory Position 2 of RG 1.93 and NUREG 1433, Rev. 3, and is, therefore, acceptable.

New Condition E is being added to, with one offsite circuit inoperable and one or both EDGs in one division inoperable, restore offsite circuit to OPERABLE status within 12 hours, or restore both EDGs in the division to OPERABLE status within 12 hours. This is consistent with Regulatory Position 3 of RG 1.93 and NUREG 1433, Rev. 3, and is, therefore, acceptable.

3.2 LCO 3.8.1 Action A.6

Currently, Action A.6 of LCO 3.8.1 requires a completion time of 7 days to restore both EDGs in the division to OPERABLE status if one or both EDGs in one division are inoperable. Required Action A.6 is being revised to add a restriction to the completion time of 10 days from the discovery of failure to meet the LCO. The 10-day requirement differs from NUREG 1433, Rev. 3, because the 7 day completion time in the current TS (3 days in NUREG 1433, Rev. 3) to restore both EDGs in a division to OPERABLE status was approved in its licensing basis. The NRC staff finds the proposed change to be acceptable because now there is a limit on the maximum time allowed for any combination of required AC power sources to be inoperable during any contiguous occurrence of failing to meet the LCO. The change is also consistent with the NUREG 1433, Rev. 3.

3.3 Second Completion Time - Conditions A.6 and C.3

The second completion time for Required Action A.6 and C.3 establishes a limit on the maximum time allowed for any combination of required AC power sources to be inoperable during any single contiguous occurrence of failing to meet the LCO. If Condition A (one or both EDGs in one division is inoperable) is entered while, for instance, Condition C (one offsite circuit inoperable) had been previously entered, and that circuit is subsequently restored OPERABLE, the LCO may already have been not met for up to 72 hours. This situation could lead to a total of 10 days, since initial failure of the LCO, to restore the EDG. At this time, an offsite circuit could again become inoperable, the EDG restored OPERABLE, and an additional 72 hours (for a total of 13 days) allowed prior to complete restoration of the LCO. The 10-day completion time provides a limit on the time allowed in a specified condition after discovery of

failure to meet the LCO. This limit is considered reasonable for situations in which Conditions A and C are entered concurrently. The “AND” connector between the 7-day and 10-day completion times means that both completion times apply simultaneously, and the more restrictive must be met.

As in Required Action A.6 and C.3, the completion time allows for an exception to the normal “time zero” for beginning the allowed outage time “clock.” This exception results in establishing the “time zero” at the time that the LCO was initially not met, instead of the time that Condition A was entered.

As noted previously, the second completion time in Conditions A.6 and C.3, are acceptable in light of the current 7 day requirement for restoration of one or both EDGs in one division or 72 hours for restoration of one offsite circuit. The 10-day second completion time, for Conditions A.6 and C.3, provides an acceptable limit for the LCO not being met due to a combination of inoperable conditions as described above.

4.0 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.

5.0 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. The NRC 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 (70 FR 33212). 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.

6.0 CONCLUSION

The Commission 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.

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Date: January 31, 2006

Fermi 2

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