

June 26, 2002

Mr. William T. O'Connor, Jr.
Vice President - Nuclear Generation
Detroit Edison Company
6400 North Dixie Highway
Newport, MI 48166

SUBJECT: FERMI 2 - ISSUANCE OF AMENDMENT RE: DELETION OF LICENSE
CONDITION 2.C.(11) (TAC NO. MB2090)

Dear Mr. O'Connor:

The Commission has issued the enclosed Amendment No. 148 to Facility Operating License No. NPF-43 for the Fermi 2 facility. The amendment consists of changes to the Operating License in response to your application dated May 24, 2001.

The amendment deletes License Condition 2.C.(11), which required inspection of the low-pressure turbine discs during the second refueling outage and specified that the frequency of subsequent inspections should be in accordance with the turbine manufacturer's recommendations. License Condition 2.C.(11) is no longer applicable to Fermi 2.

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/

Tae Kim, Senior Project Manager, Section 1
Project Directorate III
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-341

Enclosures: 1. Amendment No. 148 to NPF-43
2. Safety Evaluation

cc w/encls: See next page

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ADAMS Accession No. ML021780057

*Previously Concurred

OFFICE	PDIII-1/PM	PDIII-1/LA	EMCB/SC*	OGC	PDIII-1/SC
NAME	TKim	RBouling	TChan	RWeisman	LRaghavan
DATE	06/12/02	06/12/02	06/11/02	06/21/02	06/26/02

OFFICIAL RECORD COPY

Fermi 2

cc:

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Newport, MI 48166

March 2002

DETROIT EDISON COMPANY

DOCKET NO. 50-341

FERMI 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 148
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 24, 2001, 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 Operating License is amended by deletion of paragraph 2.C.(11) as indicated in the attachment to this license amendment.
3. This license amendment is effective as of its date of issuance and shall be implemented within 30 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

L. Raghavan, Chief, Section 1
Project Directorate III
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment: Changes to the Operating License

Date of Issuance: June 26, 2002

ATTACHMENT TO LICENSE AMENDMENT NO. 148

FACILITY OPERATING LICENSE NO. NPF-43

DOCKET NO. 50-341

Replace the following page of the Facility Operating License with the attached revised page. The revised page is identified by amendment number and contains marginal lines indicating the areas of change.

REMOVE

5

INSERT

5

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 148 FACILITY OPERATING LICENSE NO. NPF-43

DETROIT EDISON COMPANY

FERMI 2

DOCKET NO. 50-341

1.0 INTRODUCTION

By application dated May 24, 2001, the Detroit Edison Company (the licensee) requested an amendment to the Facility Operating License for Fermi 2. The proposed amendment would delete License Condition 2.C.(11), which is no longer applicable to the facility. The proposed amendment would also delete the corresponding footnote for License Condition 2.C.(11). License Condition 2.C.(11) requires inspection of the low-pressure turbine-discs during the second refueling outage, including volumetric examination of the disc base using ultrasonic techniques, and specifies that the frequency of subsequent inspections shall be in accordance with the turbine manufacturer's recommendations. The initial inspection, including volumetric examination of the disc base using ultrasonic techniques, was required because the original turbine rotor design involved a shrunk-on disc configuration that was known to have stress corrosion problems in low-pressure rotor discs.

In its application dated May 24, 2001, the licensee stated that the initial inspection was completed in June 1991, during the second refueling outage, as required. Subsequently, the low-pressure turbine rotors were replaced in 1996, during the fifth refueling outage, with monoblock-designed rotors that do not utilize shrunk-on disks. The licensee's inspection and maintenance program for the new low-pressure turbine is based on the current turbine manufacturer's recommendations for the monoblock-designed rotors. For these reasons, the licensee stated that License Condition 2.C.(11) is obsolete, and therefore, should be deleted from the Facility Operating License.

2.0 EVALUATION

License Condition 2.C.(11) states the following:

(11) Low-Pressure Turbine-Disc Inspection (Section 10.2.2, SER)¹

DECo shall perform an inspection of the low-pressure turbine-discs during the second refueling outage, including volumetric examination of the disc base using ultrasonic techniques. The frequency of subsequent inspections shall be in accordance with the turbine manufacturer's recommendations.

¹ The parenthetical notation following the title of many license conditions denotes the section of the Safety Evaluation Report (SER) and/or its supplements wherein the license condition is discussed.

The basis for License Condition 2.C.(11) is found in Section 10.2.2, "Turbine Materials," of the Fermi 2 safety evaluation report (NUREG 0798) issued in July 1981. This section discusses the properties of materials used in the low-pressure turbine discs manufactured by the English Electric Company, and contains the licensee's commitment to perform an inspection of the turbine-discs during the second refueling outage. The inspection, including volumetric examination of the disc base using ultrasonic techniques, was required because the original turbine rotor design involved a shrunk-on disc configuration that was known to have stress corrosion problems in low-pressure rotor discs. In its application dated May 24, 2001, the licensee stated that the initial inspection was completed in June 1991, during the second refueling outage, as required.

Subsequently in 1996, during the fifth refueling outage, the low-pressure turbine steam path consisting of rotors, buckets (blades), diaphragms, and steam flow guides, all manufactured by the English Electric Company, were replaced with General Electric Company (GE) components. The GE design does not utilize shrunk-on discs; it includes rotors of monoblock construction. Each rotor was machined from a single forging that accounts for bucket (blade) attachment points, as well as the coupling configuration. The licensee stated that the surveillance program and inspection requirements associated with the new low-pressure turbine are based on the current turbine manufacturer's recommendations for the monoblock design and meet the standards of the Nuclear Electric Insurance Limited Company. Additionally, the overspeed control system is included in the Fermi 2 Maintenance Rule Program required by 10 CFR 50.65, "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants." This ensures maintenance-related failures are understood and system reliability is tracked.

Based on the above, the NRC staff concludes that License Condition 2.C.(11), which was originally included in the Facility Operating License to reflect the design and construction of the original low pressure turbine, no longer applies to Fermi 2. Therefore, the NRC staff finds it acceptable to delete License Condition 2.C.(11), including the corresponding footnote.

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 surveillance or inspection requirement. 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 (66 FR 64288). 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 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.

Principal Contributor: T. Kim

Date: June 26, 2002