



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

February 8, 2001

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: CONTROL ROOM EMERGENCY  
FILTRATION PRESSURE DRIP TESTING (TAC NO. MB0174)

Dear Mr. O'Connor:

The Commission has issued the enclosed Amendment No. 142 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 September 20, 2000.

The amendment changes TS 5.5.7.d to decrease the maximum allowed pressure drops across control room emergency filtration (CREF) make-up and recirculation train filters and charcoal adsorbers. The words "(CREF only)" are also removed from the TS.

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,

Mohammed A. Shuaibi, 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. 142 to NPF-43  
2. Safety Evaluation

cc w/encls: See next page

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Fermi 2

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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. 142  
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 20, 2000, 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.

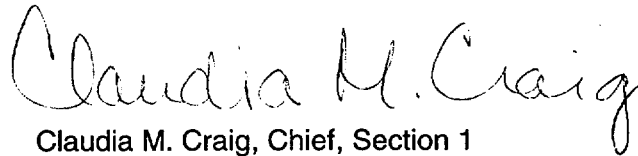
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of Facility Operating License No. NPF-43 is hereby amended to read as follows:

Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 142, 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 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Claudia M. Craig, Chief, Section 1  
Project Directorate III  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: February 8, 2001

ATTACHMENT TO LICENSE AMENDMENT NO. 142

FACILITY OPERATING LICENSE NO. NPF-43

DOCKET NO. 50-341

Replace the following page of the Appendix A Technical Specifications with the attached revised page. The revised page is identified by amendment number and contains marginal lines indicating the areas of change.

REMOVE

5.0-14

INSERT

5.0-14

5.5 Programs and Manuals

5.5.7 Ventilation Filter Testing Program (VFTP) (continued)

d. The following tests shall be performed once per 18 months.

Demonstrate for each of the ESF systems that the pressure drop across the combined HEPA filters, the prefilters, and the charcoal adsorbers is less than the value specified below when tested in accordance with Regulatory Guide 1.52, Revision 2, and ASME N510-1980 at the system flowrate specified as follows  $\pm 10\%$ :

<u>ESF Ventilation System</u>	<u>Delta P (inches water gauge)</u>	<u>Flowrate (cfm)</u>
Standby Gas Treatment	11.0	3800
Control Room Emergency Filtration (CREF)	3.0 (makeup train) 4.2 (recirculation train)	1800 3000

e. The following tests shall be performed once per 18 months.

Demonstrate that the heaters for each of the ESF system dissipate the value specified below when tested in accordance with ASME N510-1980:

<u>ESF Ventilation System</u>	<u>Wattage (kW)</u>
Standby Gas Treatment	$\geq 24$
Control Room Emergency Makeup Inlet Air	$12.0 \pm 2.0$

The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the VFTP test frequencies.

(continued)



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 142 FACILITY OPERATING LICENSE NO. NPF-43

DETROIT EDISON COMPANY

FERMI 2

DOCKET NO. 50-341

1.0 INTRODUCTION

By application dated September 20, 2000, the Detroit Edison Company (DECo or the licensee) requested changes to the Technical Specifications (TSs) for Fermi 2. The proposed changes would revise TS 5.5.7.d, "Administrative Controls--Programs and Manuals--Ventilation Filter Testing Program (VFTP)," to decrease the maximum allowed pressure drops across control room emergency filtration (CREF) make-up and recirculation train filters and charcoal adsorbers. Specifically, the pressure drops would be changed from "6.0 inches WG [water gauge]" to "3.0 inches WG" for the CREF makeup train, and from "8.0 inches WG" to "4.2 inches WG" for the CREF recirculation train. Additionally, the words "(CREF only)" would be removed from the TS to clarify that the standby gas treatment system (SGTS) prefilter is included in the VFTP.

2.0 BACKGROUND

As stated in the licensee's application and documented in an NRC letter dated February 21, 1996, "Control Center Heating, Ventilation, and Air Conditioning (CCHVAC) Concern Resolution," DECo committed to reduce the maximum operating and design pressure for the make-up and recirculation trains of the CCHVAC system ductwork and hangers. To comply with American National Standards Institute (ANSI)/American Society of Mechanical Engineers (ASME) standard ANSI/ASME N509-1980, during the fifth refueling outage (RFO5), DECo reduced the CCHVAC recirculation fan speeds in accordance with an engineering design package (EDP-28160). This required a modification that involved replacing the fan and motor sheaves and the matching drive belts. As a result, the maximum allowable pressure drop across the combined high efficiency particulate air (HEPA) filters, prefilters, and the charcoal adsorbers was lower than the maximum acceptance criteria specified in the TS. DECo revised Surveillance Procedure 43.413.001, "Control Room Emergency Filter Performance Test," and established new acceptance criteria based on the test conducted after the modification.

3.0 EVALUATION

The function of the CCHVAC system is to provide a habitable environment for the control room operators during normal plant operation and following design-basis accidents. The system is also designed to provide an optimum environment for equipment and controls within the main control room and the associated ventilation zones.



The CREF trains include the HEPA filters, moisture separators, prefilters, and charcoal adsorbers of the make-up and recirculation filter trains for each division of the CCHVAC. Flow verification testing is performed for the CREF trains every 18 months in accordance with Regulatory Guide 1.52, Revision 2, guidance and ANSI/ASME N510-1980 test requirements. Simulated pressure drop testing is performed after a system modification to verify that rated flow is maintained with design dirty filter pressure drops by artificially restricting system airflow.

The CREF performance tests did not include the CREF make-up moisture separator/prefilter in the dirty filter pressure drop test before Fermi 2's adoption of improved TSs (ITS). DECo stated that on October 30, 1999, the ITS were implemented and the new testing methodology for the CREF system, which included the make-up moisture separator/prefilter, became effective. The CREF make-up moisture separator/prefilter was included in RFO7 dirty filter pressure drop testing to validate the administrative changes made following RFO5. DECo further states that the proposed values reflect the surveillance procedure limits and inclusion of the resistance added by the moisture separator/prefilter of the CCHVAC make-up train.

As specified in TS 5.5.7.d, the current Fermi 2 acceptance criteria for the pressure drop across the CREF is 6.0 inches WG for the make-up train and 8.0 inches WG for the recirculation train.

DECo states in its application dated September 20, 2000, that the purpose of the proposed change to TS Section 5.5.7.d of the VFTP is to decrease the maximum allowable pressure drop across the CREF trains. The proposed maximum allowable pressure drops for the CREF are 3.0 inches WG for the make-up train and 4.2 inches WG for the recirculation train. The proposed amendment would revise the TS acceptance criteria to reflect the simulated dirty filter pressure drops measured across the CREF make-up and recirculation trains during the RFO7 testing. Simulated dirty filter pressure drop values were obtained when increasing flow resistance by artificially restricting the CREF trains while maintaining the required flow rate of 1800 cubic feet per minute (cfm) for the make-up train and 3000 cfm for the recirculation train  $\pm 10$  percent.

The NRC staff has reviewed DECo's application and finds that it is acceptable for DECo to revise the acceptance criteria to reflect the simulated dirty filter pressure drops measured across the CREF make-up and recirculation trains during RFO7. Therefore, the proposed maximum allowed pressure drops for the CREF's make-up and recirculation trains of 3.0 inches WG and 4.2 inches WG respectively are acceptable. These values were determined by DECo performing an insitu test that demonstrated the actual capability of the system. The insitu test described in DECo's application is consistent with a test described in ANSI/ASME N510-1980 that the NRC staff finds acceptable. Therefore, the NRC staff finds this test provides reasonable assurance of the system's capability to perform its intended function.

DECo noted that even though TS 5.5.7.d regarding the VFTP indicates that the inclusion of the prefilters applies only to the CREF system, the SGTS prefilters were included in the testing before and after the adoption of the ITS. Therefore, DECo also proposes to delete the words "(CREF only)" from the TS to clarify that testing also covers SGTS prefilters. The NRC staff finds that this change is more restrictive than the current TS and is acceptable. Based on the foregoing, the NRC staff finds that the proposed change to TS 5.5.7.d is acceptable.

#### 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 (65 FR 65340). 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.

Principal Contributor: H. Walker

Date: February 8, 2001