

July 31, 1992

Docket No. 50-341

Mr. William S. Orser  
Senior Vice President - Nuclear  
Operations  
Detroit Edison Company  
6400 North Dixie Highway  
Newport, Michigan 48166

Dear Mr. Orser:

SUBJECT: FERMI-2 - AMENDMENT NO. 85 TO FACILITY OPERATING LICENSE  
NO. NPF-43 (TAC NO. M82790)

The Commission has issued the enclosed Amendment No. 85 to Facility Operating License No. NPF-43 for the Fermi-2 facility. This amendment consists of changes to the Plant Technical Specifications in response to your letter dated January 30, 1992.

The amendment revises Technical Specification (TS) Tables 3.4.3.2-1 and 3.4.3.2-2 to remove two valves from the listing of Rector Coolant System Pressure Isolation Valves. These valves will remain in TS Table 3.6.3-1, "Primary Containment Isolation Valves."

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,

Robert Stransky/for

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. 85 to NPF-43
2. Safety Evaluation

cc w/enclosures:  
See next page

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OFFICE	LA:PD31	PM:PD31	SRXB	OGC NLO	D:PD31
NAME	MShuttleworth	TColburn:	RJones	M20BLOP	LMarsh
DATE	7/19/92	7/20/92	7/21/92	7/21/92	7/30/92

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

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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,

A handwritten signature in black ink, appearing to read "Timothy G. Colburn, Sr.", with a stylized flourish extending from the end.

FOR  
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. 85 to NPF-43
2. Safety Evaluation

cc w/enclosures:  
See next page

Mr. William Orser  
Detroit Edison Company

Fermi-2

cc:

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Mr. A. Cecil Settles  
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6400 North Dixie Highway  
Newport, Michigan 48166

DATED: July 31, 1992

AMENDMENT NO. 85 TO FACILITY OPERATING LICENSE NO. NPF-43-FERMI-2

Docket File

NRC & Local PDRs

PDIII-1 Reading

Fermi Plant File

B. Boger

J. Zwolinski

L. Marsh

M. Shuttleworth

T. Colburn

OGC-WF

D. Hagan, 3302 MNBB

G. Hill (4), P-137

Wanda Jones, MNBB-7103

C. Grimes, 11/F/23

R. Jones 8/E/23

ACRS (10)

GPA/PA

OC/LFMB

W. Shafer, R-III

cc: Plant Service list



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

DETROIT EDISON COMPANY

FERMI-2

DOCKET NO. 50-341

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 85  
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 January 30, 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. 85, 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



Ledyard B. Marsh, 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: July 31, 1992

ATTACHMENT TO LICENSE AMENDMENT NO. 85

FACILITY OPERATING LICENSE NO. NPF-43

DOCKET NO. 50-341

Replace the following page of the Appendix "A" Technical Specifications with the attached page. The revised page is identified by Amendment number and contains a vertical line indicating the area of change. The corresponding overleaf page is also provided to maintain document completeness.

REMOVE

3/4 4-11\*  
3/4 4-12

INSERT

3/4 4-11\*  
3/4 4-12

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\*Overleaf page provided to maintain document completeness. No changes are contained in this page.

## REACTOR COOLANT SYSTEM

### SURVEILLANCE REQUIREMENTS

4.4.3.2.1 The reactor coolant system leakage shall be demonstrated to be within each of the above limits by:

- a. Monitoring the primary containment atmospheric gaseous radioactivity at least once per 4 hours,\*
- b. Monitoring the primary containment sump flow rate at least once per 4 hours,
- c. Monitoring the drywell floor drain sump level at least once per 4 hours, and
- d. Monitoring the reactor vessel head flange leak detection system at least once per 24 hours.\*

4.4.3.2.2 Each reactor coolant system pressure isolation valve specified in Table 3.4.3.2-1 shall be demonstrated OPERABLE by leak testing pursuant to Specification 4.0.5 and verifying the leakage of each valve to be within the specified limit:

- a. At least once per 18 months, and
- b. Prior to returning the valve to service following maintenance, repair or replacement work on the valve which could affect its leakage rate.

The provisions of Specification 4.0.4 are not applicable for entry into OPERATIONAL CONDITION 3.

4.4.3.2.3 The high/low pressure interface valve leakage pressure monitors shall be demonstrated OPERABLE with alarm setpoints per Table 3.4.3.2-2 by performance of a:

- a. CHANNEL FUNCTIONAL TEST at least once per 31 days, and
- b. CHANNEL CALIBRATION at least once per 18 months.

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\*Not a means of quantifying leakage.



TABLE 3.4.3.2-1  
REACTOR COOLANT SYSTEM PRESSURE ISOLATION VALVES

<u>VALVE NUMBER</u>	<u>VALVE DESCRIPTION</u>
1. RHR System	
E11-F015A	LPCI Loop A Injection Isolation Valve
E11-F015B	LPCI Loop B Injection Isolation Valve
E11-F050A	LPCI Loop A Injection Line Testable Check Valve
E11-F050B	LPCI Loop B Injection Line Testable Check Valve
E11-F008	Shutdown Cooling RPV Suction Outboard Isolation Valve
E11-F009	Shutdown Cooling RPV Suction Inboard Isolation Valve
E11-F608	Shutdown Cooling Suction Isolation Valve
2. Core Spray System	
E21-F005A	Loop A Inboard Isolation Valve
E21-F005B	Loop B Inboard Isolation Valve
E21-F006A	Loop A Containment Check Valve
E21-F006B	Loop B Containment Check Valve
3. High Pressure Coolant Injection System	
E41-F007	Pump Discharge Outboard Isolation Valve
E41-F006	Pump Discharge Inboard Isolation Valve
4. Reactor Core Isolation Cooling System	
E51-F012	Pump Discharge Isolation Valve
E51-F013	Pump Discharge to Feedwater Header Isolation Valve

TABLE 3.4.3.2-2  
REACTOR COOLANT SYSTEM INTERFACE VALVES  
LEAKAGE PRESSURE MONITORS

<u>VALVE NUMBER</u>	<u>SYSTEM</u>	<u>ALARM SETPOINT (psig)</u>
E11-F015A & B, E11-F050A & B	RHR LPCI	≤ 449
E11-F008, F009, F608	RHR Shutdown Cooling	≤ 135
E21-F005A & B, E21-F006A & B	Core Spray	≤ 452
E41-F006, F007	HPCI	≤ 71
E51-F012, F013	RCIC	≤ 71



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 85 TO FACILITY OPERATING LICENSE NO. NPF-43  
DETROIT EDISON COMPANY  
FERMI-2  
DOCKET NO. 50-341

1.0 INTRODUCTION

By letter dated January 30, 1992, the Detroit Edison Company (DECo or the licensee) requested amendment to the Technical Specifications (TS) appended to Facility Operating License No. NPF-43 for Fermi-2. The proposed amendment would remove two valves from TS Table 3.4.3.2-1 and 3.4.3.2-2 because these valves are no longer reactor coolant system pressure boundary isolation valves.

2.0 EVALUATION

The elimination of two valves from the above TS tables will have the effect of eliminating the surveillance requirements for these valves. The two valves in question, the reactor pressure vessel (RPV) head spray inboard isolation valve (E11-F022) and the RPV head spray outboard isolation valve (E11-F023). The RPV head spray line has previously been permanently disconnected (flanged) from the reactor vessel and, therefore, these valves no longer perform a reactor coolant system pressure boundary isolation function. Thus, it is appropriate to eliminate these valves from TS Table 3.4.3.2-1, "Reactor Coolant System Pressure Isolation Valves" and Table 3.4.3.2-2, "Reactor Coolant System Interface Valves Leakage Pressure Monitors."

The RPV head spray feature was an operating mode for the Residual Heat Removal (RHR) System associated with the RHR shutdown cooling mode. When RHR is operating in the shutdown cooling mode, reactor coolant is returned to the RPV through a recirculation system loop, or with head spray installed, part of the flow could be diverted to a spray nozzle in the RPV head. The intent of the head spray feature was to maintain saturated conditions in the RPV head volume by condensing steam being generated by the hot RPV walls and internals and to decrease thermal stratification in the RPV coolant during shutdown coolant. However, operating experience has shown that RPV differential temperature limits can be met as long as the TS allowable cool down rate for the reactor coolant is not exceeded while in shutdown cooling. Consequently, head spray was not needed nor was it used.

The RHR head spray mode performed no safety-related functions. The safety analysis did not take credit for this mode of RHR in mitigating the consequences of an accident or malfunction and it was not required for the

safe shutdown of the plant. Because head spray was not required for its intended function nor any safety functions, a design change was made to disconnect the head spray line from the RPV head spray nozzle to reduce the thermal duty on the RPV. Additionally, the licensee has stated that approving the proposed changes will reduce radiation exposure to personnel who previously performed surveillances of these valves.

The two isolation valves, E11-F022 and E11-F023, remain installed and continue to perform a primary containment isolation function. The valves are listed in TS Table 3.6.3-1, "Primary Containment Isolation Valves," and are subject to the associated surveillance requirements. However, the valves no longer perform a RCS pressure isolation function.

The staff has reviewed the licensee's basis for removal of the RPV head spray line from the RPV head spray nozzle. The RPV head spray performed no safety-related functions and because credit was not taken in the safety analysis for mitigation of the consequences of any accident; additionally, removal of this line eliminated a potential leakage pathway from the reactor coolant system. Lastly, approval of the proposed TS will reduce radiation exposure to plant personnel currently required to perform surveillance of these valves. Based on the above, the staff finds the licensee's proposed changes to be 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 in 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 which 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 22261). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR Section 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: July 31, 1992