

August 1, 1991

Docket No. 50-341

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

DISTRIBUTION

Docket File
NRC & Local PDRs
PD31 R/F
EJordan
JZwolinski
PShuttleworth
OGC
DHagan

JStang
GHill(4)
Wanda Jones
JCalvo
ACRS (10)
GPA/PA
ARM/LFMB

Dear Mr. Orser:

SUBJECT: AMENDMENT NO. 72 TO FACILITY OPERATING LICENSE NO. NPF-43:
(TAC NO. 77690)

The Commission has issued the enclosed Amendment No. 72 to Facility Operating License No. NPF-43 for the Fermi-2 facility. This amendment consists of changes to the Plant Technical Specifications (TS) in response to your letter dated May 18, 1990.

The amendment revises the TS by adding a second Fuel Storage Pool Area Criticality Monitor to Table 3.3.7.1-1 of the TS as required by 10 CFR 70.24.

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

John F. Stang, Project Manager
Project Directorate III-1
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Enclosures:

- 1. Amendment No. 72 to NPF-43
- 2. Safety Evaluation

cc w/enclosures:

See next page

LA/PD31:DRP345
PShuttleworth

7/14/91

well

PM/PD31:DRP345 D/PD31:DRP345
JStang for LMarsh

6/13/91

7/25/91

OFFICIAL RECORD COPY

NRR/SICB
SNewberry

7/18/91

N/A

OGC

OPW
7/18/91

9108150296 910801
PDR ADOCK 05000341
PDR

100146

NRC FILE CENTER COPY

DF01
111

Mr. William Orser
Detroit Edison Company

Fermi-2 Facility

cc:
John Flynn, Esq.
Senior Attorney
Detroit Edison Company
2000 Second Avenue
Detroit, Michigan 48226

Nuclear Facilities and Environmental
Monitoring Section Office
Division of Radiological Health
P. O. Box 30195
Lansing, Michigan 48909

Mr. Walt Rogers
U.S. Nuclear Regulatory Commission
Resident Inspector's Office
6450 W. Dixie Highway
Newport, Michigan 48166

Monroe County Office of Civil
Preparedness
963 South Raisinville
Monroe, Michigan 48161

Regional Administrator, Region III
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Ms. Lynne Goodman
Director - Nuclear Licensing
Detroit Edison Company
Fermi Unit 2
6400 North Dixie Highway
Newport, Michigan 48166



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. 72
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, 1990, 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. , 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.

9108150298 910801
PDR ADOCK 05000341
PDR

3. This license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



L. 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: August 1, 1991

ATTACHMENT TO LICENSE AMENDMENT NO. 72

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 a vertical line indicating the area of change. The corresponding overleaf pages are also provided to maintain document completeness.

REMOVE

3/4 3-47*
3/4 3-48
3/4 3-49
3/4 3-50*

INSERT

3/4 3-47*
3/4 3-48
3/4 3-49
3/4 3-50*

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

INSTRUMENTATION

3/4.3.7 MONITORING INSTRUMENTATION

RADIATION MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.7.1 The radiation monitoring instrumentation channels shown in Table 3.3.7.1-1 shall be OPERABLE with their alarm/trip setpoints within the specified limits.

APPLICABILITY: As shown in Table 3.3.7.1-1.

ACTION:

- a. With a radiation monitoring instrumentation channel alarm/trip setpoint exceeding the value shown in Table 3.3.7.1-1, adjust the setpoint to within the limit within 4 hours or declare the channel inoperable.
- b. With one or more radiation monitoring channels inoperable, take the ACTION required by Table 3.3.7.1-1.
- c. The provisions of Specification 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.7.1 Each of the above required radiation monitoring instrumentation channels shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL FUNCTIONAL TEST and CHANNEL CALIBRATION operations for the conditions and at the frequencies shown in Table 4.3.7.1-1.

TABLE 3.3.7.1-1

RADIATION MONITORING INSTRUMENTATION

<u>INSTRUMENTATION</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE CONDITIONS</u>	<u>ALARM/TRIP SETPOINT</u>	<u>ACTION</u>
1. Control Center Normal Makeup Air Radiation Monitor	2	1,2,3,5 and *	≤ 340 cpm (≤ 5 mR/hr)	70
2. Area Monitors				
a. Criticality Monitors				
1) New Fuel Vault	1	#	≥ 5 mR/hr and ≤ 20 mR/hr(a)	71
2) Fuel Storage Pool	2	##	≥ 5 mR/hr and ≤ 20 mR/hr(a)	72
b. Control Room Direct Radiation Monitor	1	At all times	≤ 0.5 mR/hr(a)	71

TABLE 3.3.7.1-1 (Continued)

RADIATION MONITORING INSTRUMENTATION

TABLE NOTATIONS

*When irradiated fuel is being handled in the secondary containment.

#With fuel in the new fuel vault.

##With fuel in the fuel storage pool.

(a)Alarm only.

ACTION STATEMENTS

ACTION 70 -

- a. With one of the required monitors inoperable, place the inoperable channel in the downscale tripped condition within 1 hour; restore the inoperable channel to OPERABLE status within 7 days, or, within the next 6 hours, initiate and maintain operation of the control room emergency filtration system in the recirculation mode of operation.
- b. With both of the required monitors inoperable, initiate and maintain operation of the control room emergency filtration system in the recirculation mode of operation within 1 hour.

ACTION 71 - With the required monitor inoperable, perform area surveys of the monitored area with portable monitoring instrumentation at least once per 24 hours.

ACTION 72 -

- a. With one or more of the required monitors inoperable, perform area surveys of the monitored area with portable monitoring instrumentation at least once per 24 hours.
- b. With both of the required monitors inoperable during fuel movement, implement the preplanned alternate method of monitoring using a continuous monitor; otherwise, suspend fuel movement.

TABLE 4.3.7.1-1

RADIATION MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENTATION</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>CHANNEL CALIBRATION</u>	<u>OPERATIONAL CONDITIONS FOR WHICH SURVEILLANCE REQUIRED</u>
1. Control Center Makeup Air Radiation Monitor	S	M	R	1, 2, 3, 5, and *
2. Area Monitors				
a. Criticality Monitors				
1) New Fuel Vault	S	M	R	#
2) Fuel Storage Pool	S	M	R	##
b. Control Room Direct Radiation Monitor	S	M	R	At all times

#With fuel in the new fuel vault.

##With fuel in the fuel storage pool.

*When irradiated fuel is being handled in the secondary containment.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 72 TO FACILITY OPERATING LICENSE NO. NPF-43

DETROIT EDISON COMPANY

FERMI-2

DOCKET NO. 50-341

1.0 INTRODUCTION

By letter dated May 18, 1990, 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 revise the TS by adding a second Fuel Storage Pool Area Criticality Monitor to Table 3.3.7.1-1 of the TS.

2.0 EVALUATION

The Criticality Area Monitors are designed to provide a fast alarm response to initiate local personnel evacuation in the unlikely event of an inadvertent criticality and to alert control room personnel of the situation. The proposed amendment adds a requirement to the TS that two fuel storage pool criticality area monitors must be operable when fuel is in the storage pool. The current TS requires only one monitor to be operable. The second monitor is proposed to ensure that the spent fuel pool monitoring requirements of 10 CFR 70.24 "Criticality Accident Requirements" are maintained. The Code of Federal Regulations, Title 10, Part 70, Section 24, requires, in part, that each applicable licensee maintain in areas where specified quantities of special nuclear materials are handled, used, or stored, a monitoring system consisting of two detectors capable of detecting a criticality that produces an absorbed dose in soft tissue of 20 rads of combined neutron and gamma radiation at an unshielded distance of 2 meters from the reacting material within one minute.

The existing and new detector alarm systems have control room annunciation and a separate local audio alarm. The alarm trip set points specified in the proposed amendment have been evaluated in accordance with Regulatory Guide 8.12 "Criticality Accident Alarm Systems" and determined to be appropriate for both of the spent fuel pool area criticality monitors.

A new action statement has been added to the TS to address the increase in the number of required Fuel Storage Pool Criticality Monitors from one to two. The proposed action statement requires that area surveys be performed once per 24 hours if one or more monitors are inoperable. The requirement is consistent with the philosophy of the existing TS and the Standard Technical Specifications.

In addition, the action statement requires that a continuous monitor (e.g., portable) be operable if both criticality monitors are inoperable and fuel movement is in progress or otherwise, suspend fuel movement.

The proposed changes are justified based on the following:

- ° The reliability of the Criticality Monitoring System for the Fuel Storage Pool has been increased because an additional redundant monitor will be required by the TS. This will ensure that two Fuel Storage Pool Criticality Monitors are appropriately maintained and operable in accordance with 10 CFR 70.24.
- ° The proposed monitor, as well as the existing monitor, are in compliance with the requirements of Regulatory Guide 8.12. This Regulatory Guide has been generally accepted by the NRC for the design of Criticality Accident Alarm Systems.
- ° The proposed action statement more accurately represents the limiting condition for operation by requiring continuous monitoring of the subject area if both criticality monitors are inoperable and fuel movement is in progress.

Based on the above evaluation the staff finds proposed changes to the TS are 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. 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 arendrent will not be inirical to the corrron defense and security or to the health and safety of the public.

Principal Contributor: John Stang

Date: August 1, 1991