

May 26, 1988

MEMORANDUM FOR: Hubert J. Miller, Director
Division of Reactor Safety
Region III

FROM: Daniel R. Muller, Acting Director
Project Directorate III-1
Division of Reactor Projects - III,
IV, V and Special Projects

SUBJECT: TECHNICAL REVIEW OF FERMI-2 TS AMENDMENT
(TAC NO. 67100)

Detroit Edison Company has submitted a request for an amendment to the Technical Specifications for Fermi-2.

We request that Region III review the enclosed amendment request dated January 26, 1988, and prepare a Safety Evaluation supporting your conclusions regarding the acceptability of the proposed changes. A SALP input should also be provided for associated review effort. The requested completion date is September 15, 1988. This date and the subject evaluation were previously discussed with Monte Phillips of your staff. If further information or support is necessary for this technical review, please contact the assigned backup project manager, Lynn Kelly, at FTS 492-1305.

Please have your staff sign and return the blue sheet as appropriate.

original signed by

8806030055 880526
PDR ADOCK 05000341
P PDR

Daniel R. Muller, Acting Director
Project Directorate III-1
Division of Reactor Projects - III,
IV, V and Special Projects

Enclosures:

1. Amdt. Request dtd.
1/26/88
2. Work Request Transmittal
(blue sheet)

CONTACT:

L. Kelly, DRSP/NRR
FTS 492-1305

DISTRIBUTION

Docket Files

NRC & Local PDRs
PD31 gray file
RIngram
DMuller
LKelly

OFFICE:	LA/PD3-1	^{LLK} PM/PD3-1	D/PD3-1
SURNAME:	RIngram	LKelly/r1	DMuller
DATE:	05/24/88	05/23/88	05/26/88



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555
May 26, 1988

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Please have your staff sign and return the blue sheet as appropriate.

A handwritten signature in cursive script that reads "Daniel R. Muller".

Daniel R. Muller, Acting Director
Project Directorate III-1
Division of Reactor Projects - III,
IV, V and Special Projects

Enclosures:

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CONTACT:
L. Kelly, DRSP/NRR
FTS 492-1305

B. Ralph Sylvia
Group Vice President

Detroit
Edison

6400 North Dixie Highway
Newport, Michigan 48166
(313) 586-4150

January 26, 1988
NRC-87-0248

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington D. C. 20555

Reference: Fermi 2
NRC Docket No. 50-341
NRC License No. NPF-43

Subject: Proposed Technical Specification Change (License
Amendment) - Primary Containment (3/4.6.1) and Secondary
Containment (3/4.6.5)

Pursuant to 10CFR50.90, Detroit Edison Company hereby proposes to amend Operating License NPF-43 for the Fermi 2 plant by incorporating the enclosed change into the Plant Technical Specifications.

The proposed change allows closure mechanisms for primary and secondary containment penetrations which are located in locked high radiation areas to be verified closed each Cold Shutdown (if not performed within the previous 31 days) rather than every 31 days. Additionally, the proposed revision clarifies that the primary containment penetrations located in locked areas which remain high radiation areas during the Cold Shutdown may be verified by review of high radiation area access controls. This proposed change implements the ALARA (As Low As Reasonably Achievable) philosophy while still giving assurance that containment integrity is being maintained.

Detroit Edison has evaluated the proposed Technical Specifications against the criteria of 10CFR50.92 and determined that no significant hazards consideration is involved.

The Fermi 2 Onsite Review Organization has approved and the Nuclear Safety Review Group has reviewed the proposed Technical Specifications and concurs with the enclosed determinations.

Pursuant to 10CFR170.12(c), enclosed with this amendment request is a check for one hundred fifty dollars (\$150.00).

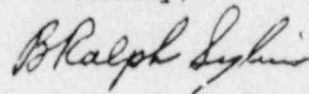
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USNRC
January 26, 1988
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In accordance with 10CFR50.91, Detroit Edison has provided a copy of this letter to the State of Michigan.

If you have any questions, please contact Mr. Glen Onlemacher at (313) 586-4275.

Sincerely,

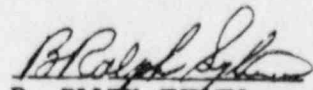


Enclosure

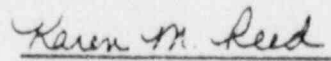
cc: A. B. Davis
E. G. Greenman
T. R. Quay
W. G. Rogers
Supervisor, Advanced Planning and Review Section,
Michigan Public Service Commission

USNRC
January 26, 1988
NRC-87-0248
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I, B. RALPH SYLVIA, do hereby affirm that the foregoing statements are based on facts and circumstances which are true and accurate to the best of my knowledge and belief.


B. RALPH SYLVIA
Group Vice President

On this 26th day of January, 1988, before me personally appeared B. Ralph Sylvia, being first duly sworn and says that he executed the foregoing as his free act and deed.


Notary Public

KAREN M. REED
Notary Public, Monroe County, Mich.
Commission Expires May 14, 1990

I. BACKGROUND/DISCUSSION

Fermi 2 Technical Specification 4.6.1.1.b provides a surveillance requirement to verify, at a frequency of at least once per 31 days, that all primary containment penetrations not capable of being closed by operable containment automatic isolation valves and required to be closed during accident conditions are closed by locked closed valves, blank flanges, or deactivated automatic valves secured in position, except as provided in Table 3.6.3-1 of Specification 3.6.3. Inaccessibility of valves located in the containment is recognized by providing a decreased frequency for such valves. Specification 4.6.5.1.b.3 provides a similar 31-day surveillance requirement for secondary containment penetrations.

At Fermi 2 approximately thirty (30) items which fall under the verification requirement of Specifications 4.6.1.1.b or 4.6.5.1.b.3 are located in areas which are normally locked high radiation areas during reactor power operations. Access to these locked high radiation areas is controlled by an administrative program which requires control over and documentation for each entry.

Physical verification of each item located within a locked high radiation area during full power operation would result in an estimated occupational exposure of ten (10) man-rem each year. Detroit Edison believes that this exposure is excessive considering that the penetrations are located in locked areas to which entry is closely controlled.

The proposed specification would establish a verification frequency for such penetrations located in locked high radiation areas of each Cold Shutdown, if not performed within the previous 31 days, and allow penetrations located in locked areas which remain high radiation areas during the Cold Shutdown to be verified by review of high radiation area access controls. The latter provision covers the TIP (Transverse Incore Probe) Room, in the case of a short Cold Shutdown following use of the probes, since the room is temporarily inaccessible due to high radiation following probe use. The control over locked high radiation area entry greatly reduces the probability of any penetration being disturbed. The proposed surveillance frequency for penetrations located in locked high radiation areas could be considered as providing equivalent assurance of containment integrity as verification of normally accessible penetrations every 31 days.

Based on the reduction in dose that this change achieves, it is supported by the ALARA philosophy. Since this proposed revision still provides assurance of control over containment boundary valves, it is definitely reasonably achievable.

SIGNIFICANT HAZARDS CONSIDERATION

In accordance with 10CFR50.92, Detroit Edison has made a determination that the proposed amendment involves no significant hazards considerations. To make this determination, Detroit Edison has established that operation in accordance with the proposed amendment would not: 1) involve a significant increase in the probability or consequences of an accident previously evaluated, or 2) create the possibility of a new or different kind of accident from any accident previously evaluated, or 3) involve a significant reduction in a margin of safety.

1. The proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated. The change provides an alternative frequency and means of verification of primary and secondary containment penetration isolation which still provides assurance that required conditions are being maintained.
2. The proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated. The change does not add any new equipment, does not affect the operation of any of the systems, or alter any of the design assumptions previously evaluated.
3. The proposed change does not involve a significant reduction in a margin of safety. The proposed change only contains an alternative frequency and method of verifying a primary and secondary containment penetration isolation and thus results in an identical plant configuration with an unchanged margin of safety.

CONCLUSION

Based on the evaluations above: 1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and 2) such activities will be conducted in compliance with the Commission's regulations and the proposed amendment will not be inimical to the common defense and security or to the health and safety of the public.

II. REVISED TECHNICAL SPECIFICATIONS

The requested revision is attached.

III. ENVIRONMENTAL IMPACT

Detroit Edison has reviewed the proposed Technical Specification changes against the criteria of 10CFR51.22 for environmental considerations. As shown above, the proposed changes do not involve a significant hazards consideration, nor change the types or increase

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the amounts of effluents that may be released offsite, nor significantly increase individual or cumulative occupational radiation exposures.

The change reduces cumulative occupational radiation exposures while maintaining an equivalent assurance that containment integrity is being maintained.

Based on the foregoing, Detroit Edison concludes that the proposed Technical Specifications do meet the criteria given in 10CFR51.22(c)(9) for a categorical exclusion from the requirements for an Environmental Impact Statement.

PROPOSED PAGE CHANGES

CONTAINMENT SYSTEMS

3/4.6 CONTAINMENT SYSTEMS

3/4.6.1 PRIMARY CONTAINMENT

PRIMARY CONTAINMENT INTEGRITY

LIMITING CONDITION FOR OPERATION

3.6.1.1 PRIMARY CONTAINMENT INTEGRITY shall be maintained.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2* and 3.

ACTION:

Without PRIMARY CONTAINMENT INTEGRITY, restore PRIMARY CONTAINMENT INTEGRITY within 1 hour or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

SURVEILLANCE REQUIREMENTS

4.6.1.1 PRIMARY CONTAINMENT INTEGRITY shall be demonstrated:

- a. After each closing of each penetration subject to Type B testing, except the primary containment air locks, if opened following Type A or B test, by leak rate testing the seals with gas at P_a , 56.5 psig, and verifying that when the measured leakage rate for these seals is added to the leakage rates determined pursuant to Surveillance Requirement 4.6.1.2.b for all other Type B and C penetrations, the combined leakage rate is less than or equal to $0.60 L_a$.
- b. ~~At least once per 31 days by verifying that all primary containment penetrations** not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by locked closed valves, blank flanges, or deactivated automatic valves secured in position, except as provided in Table 3.6.3-1 of Specification 3.6.3.~~
- c. By verifying each primary containment air lock is in compliance with the requirements of Specification 3.6.1.3.
- d. By verifying the suppression chamber is in compliance with the requirements of Specification 3.6.2.1.

See
Insert
A

*See Special Test Exception 3.10.1.

~~**Except valves, flanges, and deactivated automatic valves which are located inside the containment, and are locked, sealed or otherwise secured in the closed position. These penetrations shall be verified closed during each COLD SHUTDOWN except such verification need not be performed when the primary containment has not been deinerted since the last verification or more often than once per 92 days.~~

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Insert A

- b. At least once per 31 days by verifying that all primary containment penetrations except those inside the containment or in locked high radiation areas not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by locked closed valves, blank flanges, or deactivated automatic valves secured in position, except as provided in Table 3.6.3-1 of Specification 3.6.3.
1. Valves, flanges, and deactivated automatic valves which are located inside the containment, and are locked, sealed or otherwise secured in the closed position shall be verified closed during each COLD SHUTDOWN except such verification need not be performed when the primary containment has not been deinerted since the last verification or more often than once per 92 days.
 2. Locked closed valves, flanges, and deactivated automatic valves which are located outside the containment within locked high radiation areas shall be verified closed during each COLD SHUTDOWN if not performed within the previous 31 days. The penetrations in locked areas which remain high radiation areas during the COLD SHUTDOWN may be verified by review of high radiation area access controls.

CONTAINMENT SYSTEMS

3/4.6.5 SECONDARY CONTAINMENT

SECONDARY CONTAINMENT INTEGRITY

LIMITING CONDITION FOR OPERATION

3.6.5.1 SECONDARY CONTAINMENT INTEGRITY shall be maintained.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, 3, and *.

ACTION:

Without SECONDARY CONTAINMENT INTEGRITY:

- a. In OPERATIONAL CONDITION 1, 2, or 3, restore SECONDARY CONTAINMENT INTEGRITY within 4 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- b. In Operational Condition *, suspend handling of irradiated fuel in the secondary containment, CORE ALTERATIONS and operations with a potential for draining the reactor vessel. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.6.5.1 SECONDARY CONTAINMENT INTEGRITY shall be demonstrated by:

- a. Verifying at least once per 24 hours that the vacuum within the secondary containment is greater than or equal to 0.125 inch of vacuum water gauge.
- b. Verifying at least once per 31 days that:
 1. All secondary containment equipment hatches and pressure relief doors are closed and sealed and one railroad bay access door is closed.
 2. At least one door in each access to the secondary containment is closed. *except those in locked high radiation areas*
 3. All secondary containment penetrations ~~not~~ capable of being closed by OPERABLE secondary containment automatic isolation dampers/valves and required to be closed during accident conditions are closed by valves, blank flanges, or deactivated automatic dampers/valves secured in the closed position.
- c. *See Insert B*
- d. ~~X.~~ At least once per 18 months:
 1. Verifying that one standby gas treatment subsystem will draw down the secondary containment to greater than or equal to 0.25 inch of vacuum water gauge in less than or equal to 567 seconds at a flow rate not exceeding 3800 cfm, and
 2. Operating one standby gas treatment subsystem for 1 hour and maintaining greater than or equal to 0.25 inch of vacuum water gauge in the secondary containment at a flow rate not exceeding 3000 cfm.

*When irradiated fuel is being handled in the secondary containment and during CORE ALTERATIONS and operations with a potential for draining the reactor vessel.

Insert B

- c. Valves, flanges, and deactivated automatic isolation dampers/valves which are located within locked high radiation areas and required to be closed as described in Section 4.6.5.1 shall be verified closed during each COLD SHUTDOWN if not performed within the previous 31 days.

Date Prepared: 5/18/88

WORK REQUEST TRANSMITTAL

TO: H. Miller, ~~Branch Chief~~, ^{Director} DN. of Reactor Safety ^{R III}

THRU: D. Muller, Director, PD III-1

FROM: L. Kelly, Project ^{Engineer} Manager, PD III-1

PLANT: Fermi-2 TAC No./Title: 67100 - ^{T.S. change - Primary} ~~containment and secondary~~ ^{containment}

Description of Review Requested: Provided safety

Evaluation for the Technical Specification changes
proposed in licensee's 1/26/88 application concerning
frequency of surveillance to verify primary & secondary cont. Penetrations
closed

Requested Target Date: 9/15/88

Basis for Target Date: Discussion with Monte Phillips on
5/18/88. Date chosen as reasonable.

Please indicate your acceptance of the Work Request and Target Date by Signature and Assignment of Reviewer(s). Work Package should be retained by reviewer(s).

Target Date Acceptable: Yes No Alternative Target Date _____

Branch Chief Signature: _____ Date: _____

Section Leader Signature: _____ Date: _____

Assigned Reviewer(s): _____

RETURN TO: <u>L. Kelly</u>	MAIL STOP: <u>13-H-15</u>	PHONE: <u>FTS</u> <u>492-1305</u>
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If there are any questions, please call.