

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 - APPLICATION TO AMEND FACILITY OPERATING LICENSE
(TAC NO. 77677)

Enclosed is a "Notice of Consideration of Issuance of Amendment to Facility Operating License and Opportunity for Hearing" concerning your application for amendment dated May 18, 1990. This Notice was forwarded to the Office of the Federal Register for publication.

Sincerely,

Original Signed By:

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

Enclosure:
As stated

cc w/enclosure:
See next page

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

February 26, 1991

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Nuclear Operations
Detroit Edison Company
6400 North Dixie Highway
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Sincerely,

A handwritten signature in cursive script, appearing to read "John Stang".

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

Enclosure:
As stated

cc w/enclosure:
See next page

Mr. William Orser
Detroit Edison Company

Fermi-2 Facility

cc:

John Flynn, Esq.
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Detroit, Michigan 48226

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Detroit Edison Company
Fermi Unit 2
6400 North Dixie Highway
Newport, Michigan 48166

UNITED STATES NUCLEAR REGULATORY COMMISSIONDETROIT EDISON COMPANYDOCKET NO. 50-341NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENT TO
FACILITY OPERATING LICENSE AND PROPOSED NO SIGNIFICANT HAZARDS
CONSIDERATION DETERMINATION AND OPPORTUNITY FOR HEARING

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of an amendment to Facility Operating License No. NPF-43, issued to Detroit Edison Company (the licensee), for operation of Fermi-2 located in Monroe County, Michigan.

The proposed amendment would eliminate the requirement for use of the Rod Sequence Control System (RSCS) and decrease the power level set point above which the Rod Worth Minimizer (RWM) system would no longer be required.

Before issuance of the proposed license amendment, the Commission will have made findings required by the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations.

The Commission has made a proposed determination that the request for amendment involves no significant hazards consideration. Under the Commission's regulations in 10 CFR 50.92, this means that operation of the facility 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.

The proposed change to delete the RSCS and reduce the RWM low power set point from 20% to 10% power does not:

- (1) Involve a significant increase in the probability or consequences of an accident previously evaluated.

Deleting the RSCS and changing the low power set point of the RWM has no effect on the probability of any previously evaluated accident because these systems play no role in any accident initiating mechanism. These systems act to mitigate the consequences of the rod drop accident (RDA); however, the probability of an RDA is dependent only on the control rod drive system and mechanisms themselves, and not in any way on the RSCS or RWM. Therefore, the change does not involve a significant increase in the probability of an accident previously evaluated.

The consequences of an RDA as evaluated will not be affected by this modification. The BWR Owners' Group sponsored study (NEDE-24011-P-A) of the RDA has concluded that the RSCS is unnecessary. This study was approved by the NRC in a safety evaluation (SE) dated December 27, 1987.

The RSCS duplicates the function of the RWM. So long as the RWM is operable, the RSCS is not needed since the RWM prevents control rod pattern error. In the event the RWM is out-of-service, the proposed Technical Specifications (TS) require that control rod movement and compliance with the prescribed control rod pattern be verified by a second licensed operator or technically qualified member of the technical staff. The verification process is controlled procedurally.

In addition, to further minimize control rod movement at low power with the RWM out-of-service, the proposed TS will permit only one plant start-up per calendar year with the RWM out-of-service prior to or during the withdrawal of the first twelve control rods. The above substantiates the conclusion that there will be no increase in the consequences of an RDA as a result of eliminating the RSCS. There will also be no increase in the consequences of an RDA due to lowering the RWM set point from 20% to 10% power. The effects of an RDA are more severe at low power levels and are less severe as power level increases. Although the original calculations showed that no significant RDA could occur above 10% power, the NRC required that the generic BWR TS be written to require operation of the RWM below 20% power in order to account for uncertainties in the analysis. Recently, more refined calculations conducted for the NRC have shown that even with the maximum single control rod position error, and most multiple control rod error patterns, the peak fuel rod enthalpy reached during an RDA from these control rod patterns would not exceed the NRC limit of 280 cal/gm for RDAs above 10% power, confirming the original GE analyses. Hence, lowering the RWM set point from 20% to 10% will not result in an increase in the consequences of an RDA. The previously referenced NRC safety evaluation has concluded that this RWM set point reduction is acceptable.

- (2) Create the possibility of a new or different kind of accident from any accident previously evaluated.

Operation of the RSCS and RWM cannot cause or prevent an accident. They function to minimize the consequences of an RDA. The RDA is evaluated in the UFSAR and the effect of this proposed change on the analyses is discussed in Item (1) above.

Elimination of the RSCS and lowering the RWM set point will have no impact on the operation of any other system, and hence would not contribute to a malfunction in any other equipment nor create the possibility for an accident to occur which has not already been evaluated.

- (3) Involve a significant reduction in a margin of safety.

Elimination of the RSCS will not lower the margin of safety for the reasons discussed in Item (1) above and summarized below:

- (a) An extensive NRC study has determined that the possibility of an RDA resulting in unacceptable consequences is so low as to negate the requirement for the RSCS.
- (b) Recent calculations have determined that the consequences of an RDA are acceptable above 10% power.
- (c) The RSCS is redundant in function to the RWM. Eliminating the RSCS does not eliminate the control rod pattern monitoring function performed by the RWM.
- (d) To ensure that the RWM will be in service when required, the RWM TS will be revised to allow only one start-up per calendar year with the RWM out-of-service prior to or during the withdrawal of the first twelve control rods. If the RWM is out-of-service below 10% power, control rod movement and compliance

with prescribed control rod patterns will be verified by a second licensed operator or technically qualified member of the technical staff.

There is no significant reduction in the margin of safety resulting from lowering the RWM set point from 20% to 10% power because calculations have shown that even with the maximum single control rod position error, and most multiple error patterns, the peak fuel rod enthalpy during an RDA from these patterns would not exceed the NRC limit (280cal/gm) above 10% power.

In summary, GE has provided technical justification for the proposed changes in the Topical Report NEDE-24011-P-A and associated references which justify the acceptability of the proposed changes.

The NRC has reviewed and accepted the GE analysis and provided guidelines for licensees wanting to make the changes proposed in NEDE-24011-P-A and approved in the NRC SE issued December 27, 1987, to J. S. Charnley of General Electric.

The proposed changes are consistent with those approved in the NRC SE and the guidelines set forth therein. Therefore, there is no significant reduction in a margin of safety.

Therefore, based on the above considerations, the Commission has made a proposed determination that the amendment request involves no significant hazards consideration.

The Commission is seeking public comments on this proposed determination. Any comments received within 30 days after the date of publication of this notice will be considered in making any final determination. The Commission

will not normally make a final determination unless it receives a request for a hearing.

Written comments may be submitted by mail to the Regulatory Publications Branch, Division of Freedom of Information and Publications Services, Office of Administration, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, and should cite the publication date and page number of this FEDERAL REGISTER notice. Written comments may also be delivered to Room P-223, Phillips Building, 7920 Norfolk Avenue, Bethesda, Maryland, from 7:30 a.m. to 4:15 p.m. Copies of written comments received may be examined at the NRC Public Document Room, the Gelman Building, 2120 L Street, N.W., Washington, D.C. The filing of requests for hearing and petitions for leave to intervene is discussed below.

By April 5, 1991, the licensee may file a request for a hearing with respect to issuance of the amendment to the subject facility operating license and any person whose interest may be affected by this proceeding and who wishes to participate as a party in the proceeding must file a written petition for leave to intervene. Request for a hearing and petitions for leave to intervene shall be filed in accordance with the Commission's "Rules of Practice for Domestic Licensing Proceedings" in 10 CFR Part 2. Interested persons should consult a current copy of 10 CFR 2.714 which is available at the Commission's Public Document Room, the Gelman Building, 2120 L Street, N.W., Washington, D.C. 20555 and at the Local Public Document Room located at Monroe County Library System, 3700 S. Custer Road, Monroe County, Michigan. If a request for a hearing or petition for leave to intervene is filed by the above date, the Commission or an Atomic Safety and Licensing Board, designated by the Commission or by the Chairman of the Atomic Safety and Licensing Board

Panel, will rule on the request and/or petition and the Secretary or the designated Atomic Safety and Licensing Board will issue a notice of hearing or an appropriate order.

As required by 10 CFR §2.714, a petition for leave to intervene shall set forth with particularity the interest of the petitioner in the proceeding, and how that interest may be affected by the results of the proceeding. The petition should specifically explain the reasons why intervention should be permitted with particular reference to the following factors: (1) the nature of the petitioner's right under the Act to be made party to the proceeding; (2) the nature and extent of the petitioner's property, financial, or other interest in the proceeding; and (3) the possible effect of any order which may be entered in the proceeding on the petitioner's interest. The petition should also identify the specific aspect(s) of the subject matter of the proceeding as to which petitioner wishes to intervene. Any person who has filed a petition for leave to intervene or who has been admitted as a party may amend the petition without requesting leave of the Board up to fifteen (15) days prior to the first prehearing conference scheduled in the proceeding, but such an amended petition must satisfy the specificity requirements described above.

Not later than fifteen (15) days prior to the first prehearing conference scheduled in the proceeding, a petitioner shall file a supplement to the petition to intervene which must include a list of the contentions which are sought to be litigated in the matter. Each contention must consist of a specific statement of the issue of law or fact to be raised or controverted. In addition, the petitioner shall provide a brief explanation of the bases of

the contention and a concise statement of the alleged facts or expert opinion which support the contention and on which the petitioner intends to rely in proving the contention at the hearing. The petitioner must also provide references to those specific sources and documents of which the petitioner is aware and on which the petitioner intends to rely to establish those facts or expert opinion. Petitioner must provide sufficient information to show that a genuine dispute exists with the applicant on a material issue of law or fact. Contentions shall be limited to matters within the scope of the amendment under consideration. The contention must be one which, if proven, would entitle the petitioner to relief. A petitioner who fails to file such a supplement which satisfies these requirements with respect to at least one contention will not be permitted to participate as a party.

Those permitted to intervene become parties to the proceeding, subject to any limitations in the order granting leave to intervene, and have the opportunity to participate fully in the conduct of the hearing, including the opportunity to present evidence and cross-examine witnesses.

If a hearing is requested, the Commission will make a final determination on the issue of no significant hazards consideration. The final determination will serve to decide when the hearing is held.

If the final determination is that the request for amendment involves no significant hazards consideration, the Commission may issue the amendment and make it effective, notwithstanding the request for a hearing. Any hearing held would take place after issuance of the amendment.

If a final determination is that the amendment involves a significant hazards consideration, any hearing held would take place before the issuance of any amendment.

Normally, the Commission will not issue the amendment until the expiration of the 30-day notice period. However, should circumstances change during the notice period such that failure to act in a timely way would result, for example, in derating or shutdown of the facility, the Commission may issue the license amendment before the expiration of the 30-day notice period, provided that its final determination is that the amendment involves no significant hazards consideration. The final determination will consider all public and State comments received. Should the Commission take this action, it will publish a notice of issuance and provide for opportunity for a hearing after issuance. The Commission expects that the need to take this action will occur very infrequently.

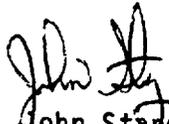
A request for a hearing or a petition for leave to intervene must be filed with the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Docketing and Services Branch, or may be delivered to the Commission's Public Document Room, the Gelman Building, 2120 L Street, N.W., Washington, D.C., by the above date. Where petitions are filed during the last ten (10) days of the notice period, it is requested that the petitioner promptly so inform the Commission by a toll-free telephone call to Western Union at 1-(800) 325-6000 (in Missouri 1-(800) 342-6700). The Western Union operator should be given Datagram Identification Number 3737 and the following message addressed to L. B. Marsh: (petitioner's name and telephone number), (date petition was mailed), (plant name), and (publication date and page number of this FEDERAL REGISTER notice). A copy of the petition should also be sent to the Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, and to John Flynn, Esq., Detroit Edison Company, 2000 Second Avenue, Detroit, Michigan, attorney for the licensee.

Nontimely filings of petitions for leave to intervene, amended petitions, supplemental petitions and/or requests for hearing will not be entertained absent a determination by the Commission, the presiding officer or the Atomic Safety and Licensing Board that the petition and/or request should be granted based upon a balancing of the factors specified in 10 CFR 2.714(a)(1)(i)-(v) and 2.714(d).

For further details with respect to this action, see the application for amendment dated May 18, 1990, which is available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street, N.W., Washington, D.C. 20555 and at the Local Public Document Room located at Monroe County Library System, 3700 South Custer Road, Monroe, Michigan 48226.

Dated at Rockville, Maryland, this 26th day of February 1991.

FOR THE NUCLEAR REGULATORY COMMISSION



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