



February 20, 1986
VP-86-0006

Director of Nuclear Reactor Regulation
Ms. Elinor G. Adensam, Director
Project Directorate No. 3
Division of BWR Licensing
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Ms. Adensam:

- Reference: 1) Fermi 2
NRC Docket No. 50-341
NRC License No. NPF-43
- 2) Letter from W. H. Jens to J. G. Keppler,
"Design of Alternative Shutdown
Approach", EF2-72001, dated October 22,
1984

Subject: Deviation Request - Emergency Lighting

Appendix A of Branch Technical Position ASB 9.5-1, Position D.5, "Lighting and Communication" and 10CFR50 Appendix R, Paragraph III.J, "Emergency Lighting", specify that emergency lighting units shall be provided with an 8-hour minimum battery power supply. Fermi 2 FSAR Section 9B.5 and draft FSAR Section 9B.3.4.1 provided in Reference 2 commit to 8-hour battery powered emergency lighting for the safe shutdown areas and the ingress/egress routes to those areas. The purpose of this letter is to request a deviation from these commitments for the yard lighting system, which will provide the emergency lighting for the outdoor access route to the RHR complex. This lighting is not battery backed; however, backup power is available from the combustion turbine generator (CTG) which supplies power to the alternate shutdown system.

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The concern with the Fermi 2 yard lighting system was initially identified by Detroit Edison as a result of Edison's involvement with the Nuclear Utility Fire Protection Group. Through review of industry experiences provided by this Group, Edison personnel were made aware of an NRC concern at another nuclear power plant wherein yard lighting was not battery-backed, yet was used to provide lighting for shutdown access/egress routes. A subsequent review of the Fermi 2 alternate shutdown system procedures and the yard lighting system indicated that this concern was applicable also at Fermi. Specifically, the Fermi 2 alternate shutdown system procedures require operators to cross the yard when travelling from the reactor building to the RHR complex (a distance of approximately 370 feet). Detroit Edison notified the appropriate Region III inspector of this determination and committed to define a plan for resolving the issue.

An evaluation of the specific backup power needs has been performed to: ensure adequate lighting for the subject area in the yard is provided; verify sufficient capacity to power lighting is available from the power source used for alternate shutdown; verify cables for the yard lights are not routed through fire zones designated for alternate shutdown; and ensure lights are available when operator travel across the yard is required by procedures. As a result of these reviews, Detroit Edison has determined that power can be provided to some of the yard lights from a Combustion Turbine Generator (CTG) backed bus. The CTG is currently used to supply power to the alternate shutdown system. As indicated in previous correspondence to the NRC, CTG-11 can be remotely started from the Dedicated Shutdown Panel and provides power to alternate shutdown circuits within a short time. The use of the CTG has been reviewed and the capability to provide power to the motor control centers for yard lighting prior to the operators being required to travel across the plant yard to the RHR complex has been verified.

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In order to implement this commitment, Abnormal Operating Procedure 20.000.18, "Control of Plant from the Dedicated Shutdown Panel", will be revised to allow the necessary yard lighting to be reenergized via the CTG. This level of lighting has been reviewed and approved by NRC Region III as providing adequate illumination to support yard activities in security emergencies.

Detroit Edison has reviewed this resolution plan with Region III personnel and has received preliminary concurrence that the proposed deviation will provide a level of fire protection safety equivalent to the technical requirements of 10CFR50 Appendix R, Paragraph III.J.

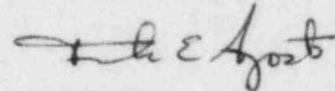
Similar deviation/exemption requests have been reviewed and found acceptable by the NRC in a number of prior cases (e.g., Indian Point Nuclear Generating Unit 2). In these cases, the NRC has found that exemptions/deviations (as appropriate for the subject facility) could be granted without endangering life, property, or the common defense and security and was otherwise in the public interest.

The requested deviation modifies the fire protection program but does not decrease the level of fire protection from that described in the Final Safety Analysis Report through Amendment 60 and approved in the SER through Supplement No. 5. The deviation does not result in a failure to complete the fire protection program approved by the Commission prior to license issuance nor does it involve an unreviewed safety question. Hence, it may be made without prior approval of the Commission as allowed by License Condition 2.C.(9)(c).

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Should you have any questions, please contact Mr. R. L.
Woolley at (313) 586-4211.

Sincerely,



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Vice President
Nuclear Operations

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