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Docket No.: 50-341

Mr. Harry Tauber
Vice President
Engineering & Construction
Detroit Edison Company
2000 Second Avenue
Detroit, Michigan 48226

Dear Mr. Tauber:

Subject: Reactor Pressure Vessel Water Level Sensing Line Failures

On February 8, 1982 the Atomic Safety and Licensing Board for Enrico Fermi Atomic Power Plant was notified of the potential for high containment drywell temperatures to cause errors in BWR reactor vessel water level indication (Board Notification 82-02). By letter dated May 5, 1982 Detroit Edison, the applicant, was requested by the NRC staff to provide a plant specific response to the high drywell temperature concern. On July 15, 1982 the applicant provided a written response on this issue and this response is currently being reviewed by the Instrumentation and Control Systems Branch.

In addition to addressing the high drywell temperature concern the applicant's July 15, 1982 letter included a brief dicsussion on the design of the level indication system with respect to a leak or break of a single instrument tap or sensing line. The additional information identified in the enclosure is needed to verify the acceptability of the Fermi 2 design to meet the single failure criteria for postulated instrument tap or sensing line failures.

Please amend your application to provide the additional information identified in the enclosure. Our review schedule is based on the assumption that the additional information will be available for our review by December 8, 1982.

OFFICE ▶							

If you wish clarification of the requests or if you cannot meet these dates, please telephone the Licensing Project Manager, L. Kintner, within 7 days after receipt of this letter.

Sincerely,

Original signed by:
B. J. Youngblood

B. J. Youngblood, Chief
Licensing Branch No. 1
Division of Licensing

Enclosure:
Request for Additional
Information

cc w/encl.: See next page

OFFICE	DL:LB#1	DL:LB#1					
SURNAME	LKintner/lg	BJYoungblood					
DATE	9/20/82	9/21/82					

Mr. Harry Tauber
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ENCLOSURE

REQUEST FOR ADDITIONAL INFORMATION ENRICO FERMI

ATOMIC POWER PLANT UNIT 2

Operating reactor experience indicates that a number of failures have occurred in BWR reactor vessel level reference sensing lines and that in most cases the failures have resulted in erroneously high reactor vessel level indication. For BWR's common reference sensing lines are used for feedwater control and as the basis for establishing vessel level channel trips for one or more of the protective functions (reactor scram, MSIV closure, RCIC, LPCI, ADS or HPCS initiation). Failures in such sensing lines, may cause reduction in feedwater flow and consequential delay in trip within the related protective channel.

If an additional failure, perhaps of electrical nature, is assumed in a protective channel not dependent on the failed sensing line, protective action may not occur or may be delayed long enough to result in unacceptable consequences. This depends on the logic for combining channel trips to achieve protective actions.

Identify each case where a reactor vessel water level tap or sensing line failure concurrent with an additional random single electrical failure induces a transient and precludes the automatic operation of a reactor protection and/or engineered safety feature system. For each case identified demonstrate how the redundancy or diversity of the plant design provides for reactor protection or safety system operation within acceptable limits. Where manual action is required by the operators discuss the instrumentation and time available for the operator to take such corrective action.