

**Detroit
Edison**

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June 3, 1985
NE-85-0391

Director of Nuclear Reactor Regulation
Attention: Mr. B. J. Youngblood, Chief
Licensing Branch No. 1
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Youngblood:

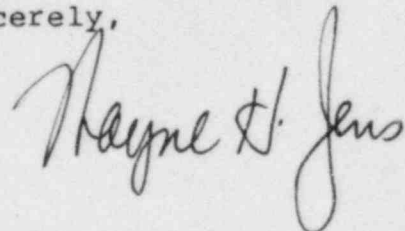
- Reference:
- (1) Fermi 2
NRC Docket No. 50-341
NRC License No. NPF-33
 - (2) NUREG-0798, Supplement 5,
Safety Evaluation Report Related
to the Operation of Fermi 2,
dated March 1985
 - (3) Detroit Edison letter to NRC,
"Clarification of Position on
Silicone Duct Sealant and Other
Issues", EF2-72039, dated
January 8, 1985

Subject: Additional Information Regarding Fermi 2
Leakage Reduction Program

Section 22, Item III.D.1.1. of Reference 2 identifies open items related to the Fermi 2 Leakage Reduction Program which require resolution prior to issuance of a full power license. In response to these items, the enclosure provides additional information regarding our Leakage Reduction Program.

We trust this letter satisfactorily responds to your concerns. If you have any questions regarding this matter, please contact Mr. O. K. Earle.

Sincerely,



cc: Mr. P. M. Byron
Mr. C. R. Nichols
USNRC, Document Control Desk
Washington, D.C. 20555

Enclosure

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RESPONSE TO LEAKAGE REDUCTION PROGRAM OPEN ITEMS

Statement of NRC Open Item III.D.1.1.(a)

The applicant has stated that inspecting for leaks using the helium leak detection method may be considered for some gaseous systems whereas we require in NUREG-0737 that testing of gaseous systems should include helium leak detection or equivalent methods.

Detroit Edison Response

The current Fermi 2 Leakage Reduction Program tests gaseous systems by pressurizing the system with air or nitrogen to a specified pressure (usually accident pressure of 56.5 psig or the system relief valve set pressure) and measuring to within 2 SCCM the flow required to maintain test pressure using a local leak rate test panel. The makeup flow is equivalent to the system leakage rate. This method of leak testing is similar to that required by 10CFR50 App. J for leak rate testing of the primary containment. If flow is detected, each system component will be tested with a soapy liquid per procedure to identify sources of leakage. Corrective action will be taken as warranted to reduce the leakage from each source, and the system will be retested to yield a quantitative indication of the leakage reduction achieved. This measuring methodology, leakage source identification procedure, and corrective action will ensure that leakage is reduced to the lowest practical level, as dictated by system hardware limitations. Detroit Edison believes that this method of test is more practical than the helium leak detection method and is equivalent to the helium leak detection method for measuring overall system leakage and for identifying and reducing individual leaks to their lowest practical level.

Though leakage will be maintained as low as practical for systems encompassed by the Leakage Reduction Program, the effect of leakage of these systems on operator exposure is further limited in two ways. These systems are located almost entirely within secondary containment. Therefore, direct exposure of the operators is avoided because no operator action inside secondary containment is required directly following severe accidents or transients involving significant contamination of these systems. In addition, gaseous/particulate leakage into the secondary containment would be treated by the Standby Gas Treatment System before being released thereby reducing the indirect exposure from this source.

RESPONSE TO LEAKAGE REDUCTION PROGRAM OPEN ITEMS

Statement of NRC Open Item III.D.1.1.(b)

The applicant has not described, as we require in NUREG-0737, a program to reduce potential paths due to design and/or operator deficiencies as discussed in our generic letter dated October 17, 1979, to all operating nuclear power plants regarding the North Anna and other related incidents.

Detroit Edison Response

Fermi 2 has considered the implications of NRC generic letter dated October 17, 1979 and the subsequent NRC IE Circular 79-21, "Prevention of Unplanned Releases of Radioactivity" in the initial selection of systems included in the Fermi 2 specific Leakage Reduction Program described in the FSAR. In addition, Fermi 2 design has incorporated similar measures as those described in the above NRC documents. Also, the associated open item (341/79-21-CC) was closed out by NRC Region III in NRC Inspection Report 50-341/84-05. Based on the above Detroit Edison believes the Leakage Reduction Program currently described in the EF-2 FSAR adequately describes a program to reduce potential paths due to design and/or operator deficiencies.

RESPONSE TO LEAKAGE REDUCTION PROGRAM OPEN ITEMS

Statement of NRC Open Item III.D.1.1.(c)

The applicant has stated that a report will be submitted to the NRC staff about the time when full power will be achieved in the Fermi 2 facility, of the recorded leakage and the preventive/corrective maintenance performed as a direct result of the applicant's evaluation of this leakage, whereas we require in NUREG-0737 that this matter be implemented by applicants for an operating license prior to issuance of a full power license.

Detroit Edison Response

In Enclosure D of Reference 3, Detroit Edison committed to strive to submit an advance copy of test results for 2-3 systems at a time, as they became available. The reason for this is that many of the systems required to be tested will not be available for test until after the initial stages of heatup. For example the HPCI and RCIC systems require nuclear steam to be tested. Also, systems such as Reactor Water Cleanup and Process Sampling will not be operated at normal reactor pressure until late in the heatup testing phase. Current pressure on these systems is well below normal reactor pressure and therefore test results would be of little value at this time.

It is expected that approximately 50% of the required leakage testing and related leakage reduction maintenance work will be completed during heatup and Test Condition 1 (less than 20% power) periods. Advance copies of these test results will be forwarded to you within approximately 2 to 3 weeks of completion of these tests.

Advance copies of the results from the balance of these tests will also be submitted as they become available, and the overall report on the leakage reduction program will be submitted prior to commercial operation as described in the Fermi 2 FSAR.

In conclusion we believe that the Leakage Reduction Program submitted in the EF-2 FSAR is an adequate and realistic approach to Leakage Reduction Program requirements and meets the intent of NUREG 0737.