

pmB

Fermi-2
6400 North Dixie Highway
Newport, Michigan 48166
(313) 586-4150

Nuclear
Operations

PRIORITY ROUTING

	CS	SECURITY
✓	OK 786	
✓	00117	
✓	low	
✓	ORR low	
	ORR	
	DINA	
		PRO

FILE low

Dear Mr. Keppler:

- Reference: (1) Fermi 2
NRC Docket No. 50-341
NRC License No. NPF-43
- (2) Detroit Edison letter to NRC Region III,
"Post-Fuel Load Testing Update",
NE-85-0404, dated July 8, 1985
- (3) Detroit Edison letter EF2-4138, "Enrico
Fermi: Unit 2-Response to AEC Verbal
Inquiry of May 12, 1971", dated May 14,
1985

Subject: Deletion of ECCS Suction
Line Leak Detection System

Section 2.C.14 of the Fermi 2 Operating License (Reference 1) requires Detroit Edison to notify the NRC of any changes to the initial test program described in Section 14 of the FSAR that are made in accordance with 10CFR50.59. Prior to issuance of the Fermi 2 Operating License, Detroit Edison identified those tests described in FSAR Chapter 14 that would not be completed prior to exceeding 5% power. These test exceptions were documented in Reference (2). (Reference (2) is identified in Attachment 1 to the Fermi 2 Operating License.) Attachment B to Reference (2) indicated that the pre-operational test for the ECCS Suction Line Leak Detection (moisture-sensitive tape) System (System No. E1000-001) would be complete by warranty run. Detroit Edison has subsequently determined that deletion of the moisture-sensitive tape system and associated pre-operational test is warranted.

8601280134 851227
PDR ADCK 05000341
P PDR

JAN 6 1986

1/0
TEO

Mr. James G. Keppler
December 27, 1985
VP-85-0207
Page 2

The moisture-sensitive tape leak detection system for the ECCS suction lines was originally installed in accordance with a mid-1971 Detroit Edison commitment to the Atomic Energy Commission (Reference 3). The tape was to provide a means by which, under accident conditions, a broken ECCS suction line could be quickly detected and isolated to preserve NPSH to the redundant system.

When this system was committed to, no NRC criteria had been issued for postulating pipe breaks outside the primary containment. For licensing evaluation, a full circumferential (guillotine-type) break was postulated in an ECCS suction line during a loss-of-coolant-accident. It was determined that this type of break would drain the torus at such a rate that the NPSH margin available to the ECCS pumps would be lost in a few minutes, rendering the affected systems ineffective. The original leak detection system design was, therefore, based on identifying and isolating the broken line within that time frame.

Subsequently, NRC Branch Technical Positions ASB 3-1 and MEB 3-1 were issued. These documents defined the criteria for location of breaks in high energy fluid systems and pipe leaks in moderate energy fluid systems. Accordingly, breaks need not be considered in the moderate energy ECCS suction lines.

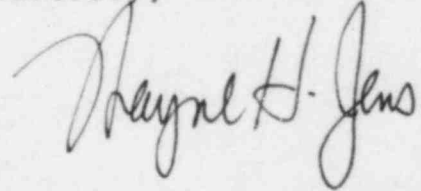
The torus room sump and torus water level monitoring systems provide a redundant means of identifying breaks or leaks in the lines (including the ECCS suction lines) in the torus room. This satisfies the leak detection requirements of Regulatory Guide 1.45.

The Fermi 2 design meets all current NRC regulations without the moisture-sensitive tape leak detection system. Detroit Edison has performed a safety evaluation in accordance with 10CFR50.59 and determined that deletion of this system does not involve an unreviewed safety question. Therefore, Detroit Edison has chosen to abandon-in-place the moisture-sensitive tape leak detection system. Due to the deletion of this system from the Fermi 2 design, the pre-operational test for System E1000-001 identified in Reference (2) and referenced from Attachment 1 to Operating License NPF-43 will not be performed.

Mr. James G. Keppler
December 27, 1985
VP-85-0207
Page 3

Please direct any questions to Mr. R. L. Woolley at (313)
586-4211.

Sincerely,

A handwritten signature in dark ink, appearing to read "Rayne H. Jones". The signature is fluid and cursive, with the first name "Rayne" being the most prominent.

cc: Mr. P. M. Byron
Mr. S. G. DuPont
Mr. M. David Lynch
Mr. G. C. Wright
Director, Inspection and Enforcement
USNRC Document Control Desk
Washington, D.C. 20555