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July 2, 1981

EF2 - 53932

Mr. L. L. Kintner
Division of Project Management
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555



Dear Mr. Kintner:

Reference: Enrico Fermi Atomic Power Plant, Unit 2
NRC Docket No. 50-341

Subject: Additional Information on Bypass Leakage Testing

The following items are in response to concerns stated during telecon on June 29 between Mr. John Lane and Mr. L. L. Kintner, NRC, and Mr. J. Honkala and Mr. M. Batch, Edison.

1. LEAKAGE CRITERIA FOR BYPASS LEAKAGE TESTING

The two letters written on this subject (EF2-53495, June 8, 1981 and EF2-53867, June 23, 1981) are inconsistent. The first letter is correct. To summarize that letter, the valves which have potential bypass leakage are:

V17 - 2009	V8 - 2198
V17 - 2010	V8 - 2200
V17 - 2036	V8 - 2232
V17 - 2037	V9 - 2044
V17 - 2024	V9 - 2005
V17 - 2025	V9 - 2022
	V9 - 2023

The leak rate of these valves is measured as part of our Appendix J or Section XI programs. The testing medium is air or N₂, not water. The Bypass Leakage Program will maintain a running total of these measurements and compare it with the maximum allowable. The decision on valve maintenance will be based on the closeness of these two numbers.

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2. ADDITIONAL INFORMATION IN BYPASS LEAKAGE VALVES WHICH ARE NOT PRIMARY CONTAINMENT ISOLATION VALVES

There are four such lines:

1. HPCI steam line drain to main condenser
2. RCIC steam line drain to main condenser
3. HPCI pump discharge to condensate storage
4. RCIC pump discharge to condensate storage

The following items give additional information on the isolation valves in these lines.

- a. Each line has two valves in series.
- b. The Design Criteria for these lines is Class B through the second valve.
- c. All these valves are within secondary containment.
- d. The valves on the HPCI steam drain pot (V17 - 2024, 2025) are supplied with divisional power; they close on HPCI block valve opening and on loss of power.
- e. The valves on the RCIC steam drain pot (V17 - 2036, 2037) function same as HPCI valves.
- f. The valves on the HPCI pump discharge to condensate storage (V8 - 2198, 2200) are supplied with Division II power - the same as HPCI. They close on containment isolation signals (RPV Level 2 and high drywell pressure).
- g. The valves on the RCIC pump discharge to condensate storage (V8 - 2232, 2200) are supplied with divisional power. (Note that V8 - 2200 is common with HPCI). V8 - 2232 is on same division as RCIC. It closes on RPV Level 2 or RCIC injection valve opening.

3. CONTAINMENT LEAKAGE THROUGH CONTROL ROD DRIVE SYSTEM PENETRATION

Leakage from the CRD system into the Reactor Building is detected for the full spectrum of leakage rates. Small leaks will be

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detected by observation during daily inspection rounds of the control unit areas by operators. Large leaks will be detected by duty timers on Reactor Building floor drain sump pumps. A large leak of reactor coolant from any INSERT line will be automatically isolated by the ball check valve in the CRD housing. Leaks of CRD supply water will be indicated by increased flow as continuously recorded in the control room. The CRD directional control valves are normally closed and are automatically closed upon a reactor scram signal. Excessive leakages through the scram valves will be detected by duty timers on sump pumps.

Leakages through the eight insert and eight withdrawal spare penetration tubes will be detected during Type A tests.

We believe the above statements provide sufficient justification for concluding that these methods for leak testing of the control rod drives form an acceptable alternative to the requirement of Appendix J commensurate with the importance to reliability of this system.

Sincerely,

W. F. Colbert

W. F. Colbert
Technical Director
Enrico Fermi 2

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