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November 18, 1982

Mr. Paul O'Connor
Project Manager
Operating Reactors Branch No. 5
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Dresden 2
SEP Topic: VI-4, Containment Isolation System

NRC Docket 50-237

Reference: SER dated September 24, 1982 from P.W. O'Connor
To L. DelGeorge.

Dear Mr. O'Connor:

The NRC staff requires isolation provisions for the lines penetrating the primary containment to maintain an essentially leaktight barrier against the uncontrolled release of radioactivity to the environment. However, the staff has identified the following areas where Dresden Station does not meet current criteria:

- 1) Insufficient administrative control on certain locked closed valves;
- 2) Insufficient leak detection capability on remote manual valves;
- 3) Use of manual valves as isolation valves;
- 4) Check valves outside containment; and
- 5) Branch lines with single isolation valve and threaded cap.

Attachment A provides a response to clarify the station's position to those areas discussed above.

Please address any questions you may have concerning this matter to this office.

One (1) signed original and thirty-nine (39) copies of this transmittal have been provided for your use.

Very truly yours,

Thomas J. Rausch
Nuclear Licensing Administrator
Boiling Water Reactor

A035

SPPJ/rmr
25180
Attachment

cc: RIII Resident Inspector, Dresden
Gregg Cwalina, SEP Integrated Assessment
Project Manager.

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Attachment A

Administrative Controls

During the August, 1982 site visit, Dresden Station personnel agreed to review all containment penetrations in the plant and not limit the scope to Table II in the SER. Some of the containment penetration valves are inaccessible during normal unit operation. Therefore, this review will be completed and all associated procedure changes will be initiated during the Unit 2 refueling outage scheduled to start on January 8, 1983. The results of this review will be available to you upon request.

Leak Detection

The Dresden leak detection system as referenced in the SER, is composed of alarms and procedures listed on Attachment B. Basically, the system, although not specifically designated as a "Leak Detection" system consists of the following: High pressure alarms that indicate a leak through the core spray valves 1402-25A, B or LPCI valves 1501-22A, B.

Pressure isolation is verified during normal operations and during routine surveillances listed on Attachment B (A6 through A11 or B6 through B11). Low pressure alarms are also provided which give the operator information to identify and correct any leakage problems in the unlikely event a leak would develop.

Two LPCI pumps and a Core Spray pump are located in a common room. The Annunciator Procedure (A4, B4) monitors sump level in each room to provide early detection of leak. An annunciator and its associated procedure (A3) monitors the Core Spray system and specifies probable cause of failure and required operator action. The LPCI and Core Spray pumps are monitored for seal leakage. Control room alarms and procedures (A1, B1) are provided to indicate any leakage. Core spray valves 1402-3A, B and LPCI valves 1501-5A, B, C, D are suction valves and can be closed automatically from the control room. The Dresden leak detection system has been reliable and is designed to minimize the effect of any leak.

Manual Isolation Valves

During the site visit, Dresden committed to locking the valves closed and changing the appropriate procedures.

Check Valves as Isolation Valves

The feedwater penetrations, X-107A and B, contain check valves inside and outside of the containment. This design does not meet the current acceptance criteria required in GDC 55 and 56. The existing feedwater check valves are subjected to local leak rate testing in accordance with 10 CFR 50, Appendix J. The reliability of the feedwater check valves has been improved due to local leak rate testing. Therefore, the isolation reliability would not be significantly improved by adding remote manual valve.

Attachment A (Continued)

The HPCI penetrations, X312 and X317A, contain two check valves in series outside of the containment. The existing valves are subjected to local leak rate testing in accordance with 10 CFR 50, Appendix J. The purpose of the 2301-34 and 71 valves is to allow a rapid start of HPCI system by preventing a water slug build-up. Although this line discharges in the torus above the water, it is unlikely that there would be any effect on off-site doses if back leakage through the 2-inch line occurred. The exhaust steam line penetration discharges below torus water. The possibility of a pressure build-up sufficient to cause back leakage is considered remote, since the steam discharges below torus water level. Therefore, the isolation reliability for either line would not be significantly improved by adding a remote manual valve.

Branch Lines with Single Isolation Valves and Capped Seal

Penetrations X-303A, B, C, and D have branch lines containing single isolation valves and threaded caps. The six lines listed in the SER will have a valve added to each line and will be locked closed.

Attachment B

Core Spray (1402-3A, B and 25A, B)

- A1. DOA 902-3 C-5(D-5) Core Spray Pump A(B) Seal Leak
- A2. DOA 902-3 D-7 Core Spray System Header A or B Low Pressure
- A3. DOA 902-3 E-5(F-5) Spray Header A(B) High dP
- A4. DOA 902-3 F-3 Core Spray Pump Area High Water Level
- A5. DOA 902-3 G-5(H-5) Spray Header A(B) Valve Leak
- A6. DOS 1400-2 Core Spray System Valve Operability Check
- A7. DOS 1600-1 Quarterly Valve Timing
- A8. DOS 201-1 Reactor Vessel 1000 psi Hydrostatic Test
- A9. DOS 201-2 Reactor Vessel ASME Hydrostatic Test
- A10. DTS 1600-1 Local Leak Rate Testing of Primary Isolation Valves
- A11. DTS 1600-7 Intergrated Primary Containment Leak Rate Test

Low Pressure Cooland Injection (1501-5A-D and 22A, B)

- B1. DOA 902-3 C-6 LPCI Pump Seal High Flow
- B2. DOA 902-3 D-6 LPCI Header High Pressure
- B3. DOA 902-3 E-6(F-6) LPCI Header A(B) Low Flow
- B4. DOA 902-3 F-2 LPCI System Header Low Pressure
- B5. DOA 902-3 F-3 Core Spray Pump Area High Water Level
- B6. DOS 1500-1 LPCI System Valve Operability Test
- B7. DOS 201-1 Reactor Vessel 1000 psi Hydrostatic Test
- B8. DOS 201-2 Reactor Vessel ASME Hydrostatic Test
- B9. DOS 1600-1 Quarterly Valve Timing
- B10. DTS 1600-1 Local Leak Rate Testing of Primary Isolation Valves
- B11. DTS 1600-7 Integrated Primary Containment Leak Rate Test
- B12. DOA 902-3 G-2 Area High Temperature