

DMA

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November 6, 1985

Dr. J. Nelson Grace, Regional Administrator  
U. S. Nuclear Regulatory Commission  
Region II  
101 Marietta Street, NW, Suite 2900  
Atlanta, Georgia 30323

Subject: McGuire Nuclear Station  
IE Inspection Report 50-369/84-28  
and 50-370/84-25

05 NOV 12 P 3:14

Dear Dr. Grace:

Duke would like to clarify a statement made in a letter dated August 8, 1985 from NRC to Duke relative to subject inspection report. On page 3 of this letter, the NRC states that:

"The RHR Isolation valves are made inoperable during normal operation by opening their respective power breakers"

Duke Power takes credit for the number and location of the valve control circuit interlocks to preclude spurious operation (Attachment I). Valve FW27A, which provides one of the open inhibit interlocks to ND1B and ND2A, is locked open during plant operation. Additionally, since these valves are maintained in the required shutdown position during plant operation and motive power is not required, the valves are not affected by lack of breaker coordination on the associated busses.

These circuits were reviewed in detail during the NRC onsite audit as addressed in the subject inspection report.

Unless informed to the contrary, Duke considers that the discussion provided herein by Duke is acceptable to the NRC.

Very truly yours,

*Hal B. Tucker*  
Hal B. Tucker

RLG/hrp

cc: Mr. Darl Hood, Project Manager  
Division of Licensing  
Office of Nuclear Regulatory Commission  
Washington, D. C. 20555

Mr. W. T. Orders  
NRC Resident Inspector  
McGuire Nuclear Station

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IEO/

McGuire 10CFR50 Appendix R  
Hot Standby / Associated Circuits Report

9/18/84

... areas 4 and 14:

Valves 1CA161C and 1CA162C (i.e., Unit 1 only) and portions of associated cabling are physically located in fire areas 4 (Auxiliary Building 716+0) and 14 (Auxiliary Building 733+0), i.e., the same fire areas as redundant, safe shutdown components and cabling of the normal shutdown systems (e.g., Centrifugal Charging Pumps 1A and 1B). 1CA161C and 1CA162C are provided to align the Turbine Driven Auxiliary Feedwater Pump to an assured source of RN water during SSS operation and must be maintained free from fire damage. These design nonconformances were initially reported to the NRC on July 18, 1984, as documented in Non-Routine Event Report #1-84-34. Subsequently, Duke Power has committed to wrap the valves and associated cabling in a three hour fire insulating blanket, to insure SSS shutdown capability in fire areas 4 and 14.

Fire Areas 22 and 23:

Cabling associated with SSS-related steam generator C level instrumentation is located in fire areas 22 (Unit 1) and 23 (Unit 2). Each SSS dedicated transmitter is separately fused at  $\frac{1}{2}$  amp with a Bussman FNA type fuse and the 24VDC power supply has a current limiting device rated at 13 amps. Thus, fuse coordination will insure the integrity of the power source. Steam generator level monitoring for three steam generators and SSS shutdown capability for fire areas 22 and 23 is assured.

### 3. Results: Spurious Component Operation Review

#### 3.1 RCS/RHR Boundary Valves

Of concern is whether a fire in one of the subject plant areas (e.g., Control Complex) could cause the RCS/RHR boundary valves to spuriously open prior to RCS depressurization to 350 PSIG.

Once aligned for standby shutdown system operation, the controls and power for one RHR suction valve are fully isolated from the control room to preclude spurious operation. Spurious operation of both valves prior to SSS alignment is considered an incredible event by virtue of the location and number of control circuit interlocks. The open circuit for each RHR suction valve contains in series a control switch contact, a pressure interlock contact, and valve position interlock contacts. The pressure interlock and valve position interlocks both inhibit opening of the valve under normal operation. The control switch location, pressure interlock cabinets, and valve limit switches are spatially separate. The valve position interlocks originate from outside the control room and cannot be bypassed by a short in the control room.

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#### 3.2 RCS Boundary Valves & Centrifugal Charging

Of concern is whether a fire in one of the subject plant areas could, within the first ten minutes prior to SSF alignment, cause RCS boundary valves to spuriously open and also damage power cables to both of the Centrifugal Charging Pumps (Train A & B).