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(608) 788-4000

June 20, 1980

In reply, please refer to LAC-6987

DOCKET NO. 50-409

Mr. James G. Keppler
Regional Director
U. S. Nuclear Regulatory Commission
Directorate of Regulatory Operations
Region III
799 Roosevelt Road
Glen Ellyn, Illinois 60137

SUBJECT: DAIRYLAND POWER COOPERATIVE
LA CROSSE BOILING WATER REACTOR (LACBWR)
PROVISIONAL OPERATING LICENSE NO. DPR-45
IE BULLETIN NO. 80-06 - ENGINEERED SAFETY FEATURE (ESF) RESET CONTROLS

Reference: (1) NRC Letter, Keppler to Linder, dated March 13, 1980.

Dear Mr. Keppler:

Your request (Reference 1) for a review of engineered safety feature reset control has been completed.

All drawings for systems serving safety related functions were reviewed at the schematic level to determine whether or not upon the reset of a safety actuation signal, all associated safety related equipment remains in its emergency mode. Except for the equipment listed in Appendix A of this letter, no safety-related functions were noted to reset upon the removal of the actuating signal.

Tests were performed during the recent outage to demonstrate whether or not equipment remains in its emergency mode upon removal of the actuating signal. Functions included in this test were containment isolation, onsite AC emergency diesel generators and emergency core cooling systems.

The equipment listed in Appendix A, an attachment to this letter, does not by design remain in its emergency mode. Proposed modifications where they are desirable are defined.

Mr. James G. Keppler
Regional Director

LAC-6987
June 20, 1980

Approval for this response to be submitted beyond the due date was granted by Mr. Ken Baker on June 16, 1980.

If there are any questions, please contact us.

Very truly yours,

DAIRYLAND POWER COOPERATIVE

Frank Linder

Frank Linder, General Manager

FL:JDP:af
Attachment

cc: U. S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Division of Reactor Operations Inspection
Washington, D. C. 20555

STATE OF WISCONSIN )
)
COUNTY OF LA CROSSE)

Personally came before me this 20th day of June, 1980, the above named Frank Linder, to me known to be the person who executed the foregoing instrument and acknowledged the same.

Notary Public, La Crosse County
Wisconsin.
My Commission Expires 2/26/84.

# APPENDIX A

1. Low Pressure Emergency Core Spray Valve No. 53-25-001.
A low reactor water level signal (-12 inches) simultaneous with reactor pressure not more than 30 psig opens this valve to actuate a low pressure injection by gravity. The valve has a hand controller in the control room. In case of loss of nitrogen or loss of 120V AC non-interruptible control power to the solenoid controlling nitrogen to operate the valve, it will fail open. The removal of either low reactor water level or reactor pressure signal reverses the valve opening action. This is the desired mode of operation of this valve and no modification is proposed.

2. Alternate Core Spray Valves No. 38-30-001 and No. 38-30-002.
Two parallel control valves (No. 38-30-001 and No. 38-30-002) are provided in the line to the reactor. These valves both open automatically when the reactor water level drops below the low level scram set point (-12 inches) and containment building pressure is equal to or greater than 5 psig. The water supply for the alternate core spray system is furnished by two diesel pumps which start upon receiving a signal of high containment building pressure (5 psig). Alternate core spray flow to the vessel commences when reactor vessel pressure drops to approximately 150 psig.

   Removal of the low water level signal closes these valves by design. This is the desired mode of operation and no modifications are necessary.

3. Main Steam Isolation Valve Bypass Valve No. 64-24-030.
The bypass valve is a diaphragm-operated flow control valve which is controlled from the control room. The valve is closed automatically on low reactor water level, low main condenser vacuum or low steam pressure at the turbine inlet. When any one of the above signals is removed and the valve position is manually controlled to a specified opening, the valve will reopen. There appears be no necessity for the bypass valve to automatically reopen, therefore the control features for this valve will be modified at the next refueling outage to permit the valve to remain in its emergency mode upon removal of the actuating signal.

4. Shutdown Condenser.
The shutdown condenser operates automatically upon high primary system pressure (1325 psig) on either one of two safety channels, or when either the main steam isolation valve or the turbine building isolation valve leaves the full open position.

When the shutdown condenser operation is initiated by a high primary system pressure, the system functions as a pressure control starting when reactor pressure reaches 1324 psig and stopping when pressure is reduced to 1300 psig.

A start signal opens:

- Parallel Steam Inlet Valves (62-25-001 and 62-25-011),
- Parallel Condensate Valves (62-25-002 and 62-25-012),
- Off-Gas Vent Valve (62-25-003) which remains open for two minutes to vent non-condensibles and then closes;

and closes:

- Drain Trap Isolation Valve (62-25-017).

The water supply to the shell side of the condenser cycles automatically to retain a specified level during operation. The principle water supply make-up is demineralized water (Valve No. 62-25-004) and the automatic back supply is high pressure service water (Valve No. 62-25-005).

This pressure control mode of operation is by design and no modifications are required.

When the shutdown condenser operates due to closure of either the main steam isolation valve or the turbine building isolation valve. Manual action is required to terminate operation.

5. Screen Wash Control.
The main circulating water system has traveling screens which remove debris from the main condenser cooling water. These screens are periodically washed by high pressure service water via two in parallel valves (No. 75-25-021 and 75-25-022). These valves are closed if high reactor building containment pressure ( + [illegible] psig) occurs to reduce demand on the alternate core spray system. When the high reactor pressure signal is removed, the valves return to their automatic cycling position (screen wash is in progress 10 minutes out of each hour). A review of this design feature reveals no overriding need to have the screen wash valves return to automatic cycling, therefore, this feature will be modified at the next refueling outage.

6. Low Voltage Relay 1A and 1B 440 Volt Essential Buses.
The undervoltage relays are 440 volt essential bus 1A (device numbers 427ESA Phase A and 427ESA Phase C) and 440 volt essential bus 1B (device numbers 427ESB Phase A and 427ESB Phase C) reset once the low voltage condition no longer exists.

An undervoltage condition on either bus initiates a reactor scram. An undervoltage condition on the 1A bus starts the 1A Emergency Diesel Generator. An undervoltage condition on the 1B bus starts the 1B Emergency Diesel Generator.

The reset of the relays is by design and does not reverse any of these actions started by the low voltage signal. No modifications are required.