

July 28, 1980

In reply, please
refer to LAC-7057

DOCKET NO. 50-409

Director of Nuclear Reactor Regulation
ATTN: Mr. Dennis M. Crutchfield, Chief
Operating Reactors Branch #5
Division of Operating Reactors
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

SUBJECT: DAIRYLAND POWER COOPERATIVE
LA CROSSE BOILING WATER REACTOR (LACBWR)
PROVISIONAL OPERATING LICENSE NO. DPR-45
ADDITIONAL INFORMATION TO FACILITATE
10 CFR 50 APPENDIX J REVIEW

Reference: (1) NRC Letter, Crutchfield to Linder,
dated May 19, 1980.

Gentlemen:

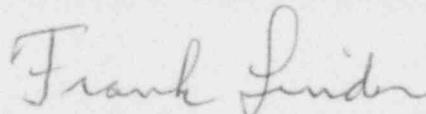
Your request for additional information (Reference 1) required justification for performing Type C leakage testing using water rather than air as a medium for testing. Justification that the affected systems will remain intact and liquid-filled following a LOCA for two of the isolation valves is included as Enclosure 1 to this letter.

Limited resources of manpower which are currently dedicated to responding to other NRC requirements necessitates that we request an extension until August 22, 1980 for our final response.

If there are further questions, please contact us.

Very truly yours,

DAIRYLAND POWER COOPERATIVE



Frank Linder, General Manager

FL:JDP:af
Enclosure 1

cc: J. Keppler, Reg. Dir., NRC-DRO III

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DEMINERALIZED WATER
(Reference 1, Item 1,
of Paragraph 2.1)

Your letter states that:

"Nevertheless, hydrostatic testing of these valves may be found acceptable because there are some systems which are designed to remain intact and liquid-filled following a postulated loss-of-coolant-accident. For these systems, testing with water as a medium is more appropriate than testing with air or nitrogen since it more closely approximates the post-accident environment. If hydrostatic testing of these systems is to be employed, justification must be provided that the available fluid inventory is sufficient to maintain a water seal on the isolation valves during and following an accident based on the water leakage-rate limit of the test."

The demineralized water system is utilized in post accident situations. It provides a water supply to the shutdown condenser and the overhead storage tank (which supplies the high pressure core spray system). The normal operating pressure of the demineralized water system is 95 psig. When system pressure drops a second demineralized water transfer pump is started automatically to maintain pressure. The demineralized water system isolation valve, No. 67-26-001, is tested for leakage using Type C testing criteria.

As the demineralized water system is designed to remain functional following a postulated loss of coolant accident, it is proper to test this system for leakage with water as the medium. Demineralized water system pressure exceeds the post accident containment pressure, therefore, any leakage would be into the containment section of the system and not to the outside atmosphere. The inventory of water available without additional makeup to the demineralized water pumps to maintain system pressure is approximately 22,000 gallons.

The acceptance criteria on the Type C leakage test is .62 gallons per hour. The water supply required to compensate for the acceptable leakage during the 30 days following an incident is 446 gallons. Therefore, the available fluid inventory is sufficient to maintain a water seal on this isolation valve during and following an accident and hydrostatic testing of the valve is the proper method.

HIGH PRESSURE SERVICE WATER
(Reference 1, Item 3,
of Paragraph 2.1)

The high pressure service water system is utilized in post accident situations. It provides a water supply to the shutdown condenser and the high pressure core spray system.

The normal minimum operating pressure of the high pressure service water system is 85-90 psig. Four pumps can provide water makeup to this system directly from the Mississippi River and a fifth pump is used for pressure control. The high pressure service water isolation valve, No. 75-26-003, is leak tested using Type C test criteria.

As the high pressure service water system is designed to remain functional following a postulated loss of coolant accident, it is proper to test this system for leakage with water as the medium. High pressure service water system pressure exceeds the post accident containment pressure, therefore, any leakage would be into the containment section of the system and not to the outside atmosphere.

The acceptance criteria on the Type C leakage test is 0.62 gallons per hour. The capacity of the pumps which can supply the system is thousands of gallons per minute. Therefore, the available fluid inventory is sufficient to maintain a water seal on this isolation valve during and following an accident and hydrostatic testing of this valve is the proper method.