

DAIRYLAND POWER COOPERATIVE

La Crosse, Wisconsin

54601

November 9, 1978

In reply, please
refer to LAC-5542

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
REPORTABLE OCCURRENCE NO. 78-11

Reference: (1) LACBWR Technical Specifications,
Section 3.9.2.1.
(2) DPC Letter, LAC-5524, Madgett to Keppler,
dated October 30, 1978.

Dear Mr. Keppler:

In accordance with the provisions of Reference (1), this submittal constitutes the required follow-up report describing the occurrence which was initially reported in Reference (2). The subject occurrence involved primary reactor containment integrated leakage testing (Type A) performed October 26-30, 1978.

Referring to the nomenclature as used in 10CFR50, Appendix J, the total leakage rate in the initial "As-Found" condition (L_{am}) at a test pressure of > 52 psig (P_a) was approximately 0.26 percent/24 hrs. as determined over a nine-hour period on October 28, 1978. To further evaluate the as-found leakage rate, a major source of measured leakage (containment building ventilation discharge dampers) was isolated to reduce gross leakage. Leakage was also observed at several electrical penetrations of the No. 4 electrical penetration unit. Leakage measurements continued while in this condition and on October 29, 1978, after allowing time for further stabilization of the volume of air within containment, a measured leakage rate (L_{am}) of 0.10023 percent/24 hrs. was determined. This determination was based on fifteen hours of data. (The aforementioned leakage rate values include a calculated instrument error of 0.00675 percent/24 hrs.). Based on the measurements of October 29, 1978, it was concluded that the maximum allowable leakage rate (L_a) acceptance criteria of 0.1 percent/24 hrs. could not be achieved and depressurization was initiated to effect repairs.

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Twenty-three individual mechanical penetration leakage rates were measured during the test for informational purposes following pressurization to > 52 psig. The major measurable point of leakage, the ventilation discharge dampers, contributed approximately 47.3 SCFH prior to isolation. The combined leakage from the remaining twenty-two penetrations amounted to approximately 15 SCFH for a total of 62.3 SCFH.

Other observed, but not measurable, leakage points included fourteen (14) individual electrical penetrations all located in the No. 4 electrical penetration unit.

Following depressurization, the following penetrations were inspected and repaired as noted:

<u>Penetration No.</u>	<u>Penetration Function</u>	<u>Repair Description</u>
M-21	Containment Ventilation Discharge	The seat rings on both butterfly discharge dampers were replaced and the operator shafts of both dampers re-packed. Additionally, both valves were permanently reinstalled in inverted positions to allow containment building pressure to force the damper disc against the seat when the damper is closed. Following repairs, the dampers were Type C tested satisfactorily.
None	Electrical Conduit Routing	Fourteen (14) individual electrical penetrations were resealed using an appropriate epoxy compound and subsequently Type B tested satisfactorily.

The Type A integrated leakage rate test was repeated November 1-6, 1978 following the repairs itemized above. The results of the second test proved to be acceptable. The measured average leakage rate (L_{am}) of three (3) separate 24-hour periods using beginning and ending point data equaled 0.06365 percent per 24 hours. No penetrations were isolated during conduct of this test.

The controlled leakage rate test was performed with satisfactory results. A calibrated leakage rate of 0.046 percent/24 hours was introduced which resulted in a measured composite leakage rate (L_c) equal to 0.11692 percent/24 hours. The difference between the measured composite leakage rate (L_c) and the imposed calibrated leakage rate (L_o) is $0.11692 - 0.046 = 0.07092$ percent/24 hrs. The difference between this value and the second Type A measured leakage rate is $0.07092 - 0.06365 = 0.00727$ percent/24 hrs. This final value is

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within the calibrated test acceptance criteria of $0.25 L_a$ or 0.025 percent/24 hours as defined by 10CFR50, Appendix J, Section III.A.3.(b). The measured composite leakage rate (L_C) was determined from the average leakage rate of three (3) separate 6-hour periods using beginning and ending data points. The induced leakage rate (L_O) was derived by use of a Least Square Fit.

The measured results of the second leakage test (L_{am}) when added to the calculated instrument error is $0.06365 + 0.00675 = 0.0704$ percent/24 hrs. This value is within the leakage rate acceptance criteria of $0.75 L_a$ (0.075 percent/24 hrs.) required for resumption of plant operation as defined by LACBWR Technical Specification 5.2.1.1.(b).

A Licensee Event Report is attached to this submittal. Should you have any questions concerning this report, please contact us.

Very truly yours,

DAIRYLAND POWER COOPERATIVE

Frank Linder, General Manager

FL:LGP:af

cc: Director, Office of Inspection and Enforcement (40)
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Director, Office of Management Information and (3)
Program Control
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555