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WILLIAM L. BERG
General Manager

December 18, 1990

In reply, please
refer to LAC-13006

DOCKET NO. 50-409

Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Gentlemen:

SUBJECT: Dairyland Power Cooperative
La Crosse Boiling Water Reactor (LACBWR)
Possession-Only License NO. DPR-45
Licensee Event Report No. 90-05

REFERENCE: 10 CFR 50.73

In accordance with 10 CFR 50.73, attached is Licensee Event Report No. 90-05.

If there are any questions, please contact us.

Sincerely,

DAIRYLAND POWER COOPERATIVE

William L Berg

William L Berg
General Manager

WLB:REC:dh

Attachment

cc: A. Bert Davis, Regional Administrator
U. S. Nuclear Regulatory Commission

P. Erickson, LACBWR Project Manager
U. S. Nuclear Regulatory Commission

D. Sherman
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IE22

NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/88

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
LA CROSSE BOILING WATER REACTOR (LACBWR)	0 5 0 0 0 4 0 9	1 OF 0 3

TITLE (4)
Failure of High Pressure Service Water Diesels

EVENT DATE (5)			LER NUMBER (6)					REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR		SEQUENTIAL NUMBER		REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES	DOCKET NUMBER(S)
												0 5 0 0 0
1 2	0 6	9 0	9 0	-	0 0 5	-	0 0	1 2	1 8	9 0		0 5 0 0 0

OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
4		20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10)		20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
0 0 0		20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
		20.405(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
		20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
		20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
Roger E. Christians, LACBWR Technical Support Engineer	AREA CODE 6 0 8 6 8 9 - 2 3 3 1

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	

SUPPLEMENTAL REPORT EXPECTED (14)

		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	NO				

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

The Technical Specifications of the La Crosse Boiling Water Reactor (LACBWR) require each of two High Pressure Service Water (HPSW) fire pump diesel engines to be demonstrated OPERABLE by subjecting them to various tests at several different intervals. On December 6, 1990, the 1A High Pressure Service Water (HPSW) Diesel failed a monthly test designed to test its "OPERABILITY." At the same time, the 1B HPSW Diesel also failed to start, as required, upon receiving a low pressure signal.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
LA CROSSE BOILING WATER REACTOR	0 5 0 0 0 2 4 0 9	9 0	0 0 5	0 0	0 2 OF 0 3

TEXT (If more space is required, use additional NRC Form 366A's) (17)

The Technical Specifications of the La Crosse Boiling Water Reactor (LACBWR) require each of two High Pressure Service Water (HPSW) fire pump diesel engines to be demonstrated OPERABLE by subjecting them to various tests at several different intervals. One of the OPERABILITY tests is a monthly test designed to demonstrate that the diesel being tested will start automatically on a system header pressure signal of $\geq$60 psi and continue to run for >30 minutes. This test is performed on a staggered basis so that one of the diesels is tested every two weeks.

On December 6, 1990, the 1A HPSW Diesel was scheduled for its monthly test. The recently revised test procedure requires the operator to place the other diesel (1B for this test) control switch in "OFF" before decreasing header pressure. The duty Control Room operator failed to note this procedure change and left the switch for 1B Diesel in "AUTO." When header pressure was decreased to nearly 60 psi, the 1B Diesel began to crank but did not start. The operator in the cribhouse heard a "clicking" sound in the 1A HPSW Diesel control cabinet at approximately 60 psi, but the 1A Diesel did not crank at all, even though header pressure was decreased to 40 psi. 1B HPSW Diesel continued to crank for approximately 90 seconds, at which time it stopped cranking and its control cabinet generated an "OVER CRANK" alarm. The control switch for 1B HPSW Diesel was then placed in "OFF" and the test for 1A HPSW Diesel was run again. This time the 1A HPSW Diesel started at approximately 40 psi and was then stopped. A third test of 1A was run where the diesel started at 60 psi header pressure, was secured, restarted in manual from the Control Room, and allowed to run for the required 30 minutes. Because the problem with the 1B HPSW Diesel appeared to be the most serious of the two, it was declared "INOPERABLE" and was "tagged out" to effect repairs. A review of this incident has determined that the 1A HPSW Diesel should also have been declared "INOPERABLE." Several days of investigation on 1B HPSW Diesel led to the discovery of a faulty relay in the control circuitry for the fuel and cooling water solenoids. This relay was replaced on Monday, December 10. The 1B HPSW Diesel was then test run several times in both automatic and manual start modes and, when all were successful, the Diesel was declared "OPERABLE" on Tuesday, December 11.

The determination on 12/11/90 that both HPSW pumps were inoperable at the same time indicated a condition that fails to meet the minimum requirements of Technical Specifications for the Fire Suppression Water System. The action required by Technical Specification for this particular situation includes establishing a backup fire suppression water system within 24 hours and reporting the incident to the NRC by telephone within 24 hours, followed by a written report within 14 days. The backup fire suppression was present because the electric HPSW pump was still in service; however, the 24-hour telephone notification had been missed. A meeting of LACBWR staff members was then convened to discuss reportability. The NRC was called for guidance on the reporting method on Wednesday, December 12. LACBWR was advised to call the NRC Headquarters, report the incident and then to submit

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
LA CROSSE BOILING WATER REACTOR	0 5 0 0 0 4 0 9	9 0	— 0 0 5	— 0 0	0 3 OF 0 3

TEXT (If more space is required, use additional NRC Form 366A's) (17)

a Licensee Event Report (LER) within 14 days from the December 6th incident. This LER constitutes that report.

The 1A Diesel starting problem was investigated on 12/11 after 1B HPSW Diesel had been returned to "OPERABLE." The pressure sensing line was blown clean with air and the starting pressure setpoint was checked and discovered to be 10 lbs. lower than expected. The setpoint was reset at 65 psi. The 1A HPSW diesel was then started successfully several times. During one of the tests runs, the discharge pressure was checked and it was discovered to be inadequate. An investigation revealed a partially plugged air filter. The filter was replaced and the diesel was run successfully on Wednesday, December 12. As yet, there has been no definitive problem identified with the 1A Diesel that would explain what caused the initial failure of December 6. The safety significance of this incident is minimal because, even though both diesels were technically "INOPERABLE," they both could be started from the Control Room benchboard. Also, fire protection water supply was available from the electric High Pressure Service Water pump.

The routing of this report to all LACBWR staff members will serve to remind all personnel that more attention must be paid to equipment failures in regard to "OPERABILITY" or "INOPERABILITY" and to potential reportability of same.