OPERATING DATA REPORT

DOCKET NO 50-409
DATE 12-06-78
COMPLETED BY L.G.Papworth
TELEPHONE ~~608-689-~~2331

OPERATING STATUS

1. Unit Name: La Crosse Boiling Water Reactor
2. Reporting Period: 0000 78-01-11 to 2400 78-30-11
3. Licensed Thermal Power (MWt): 165
4. Nameplate Rating (Gross MWe): 65.3
5. Design Electrical Rating (Net MWe): 50
6. Maximum Dependable Capacity (Gross MWe): 50
7. Maximum Dependable Capacity (Net MWe): 48
8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons:
   NA

Notes

9. Power Level To Which Restricted, If Any (Net MWe): 48 Net MWe
10. Reasons For Restrictions, If Any: Self-imposed restriction due to Nuclear Instrumentation noise at higher power levels (voids in steam separators).

	This Month	Yr.-to-Date	Cumulative
11. Hours In Reporting Period	720	8016	79,611
12. Number Of Hours Reactor Was Critical	395.6	5256.7	50,435.2
13. Reactor Reserve Shutdown Hours	0	0	478
14. Hours Generator On-Line	270.1	4683.8	45,974.1
15. Unit Reserve Shutdown Hours	0	0	79
16. Gross Thermal Energy Generated (MWH)	21,206	592,062	6,475,362
17. Gross Electrical Energy Generated (MWH)	5,670	171,201	1,964,345
18. Net Electrical Energy Generated (MWH)	4,750	157,625	1,815,205
19. Unit Service Factor	37.5	58.4	57.8
20. Unit Availability Factor	37.5	58.4	57.8
21. Unit Capacity Factor (Using MDC Net)	13.7	41.0	47.5
22. Unit Capacity Factor (Using DER Net)	13.2	39.3	45.6
23. Unit Forced Outage Rate	30.0	17.8	5.6

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):
    Refueling shutdown, February 10, 1979, tentative shutdown date, 8-week duration.

25. If Shut Down At End Of Report Period, Estimated Date of Startup: NA

26. Units In Test Status (Prior to Commercial Operation):

	Forecast	Achieved
INITIAL CRITICALITY		
INITIAL ELECTRICITY		
COMMERCIAL OPERATION		

781212 0132

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH NOVEMBER 1978

DOCKET NO. 50-409
UNIT NAME LACBWR
DATE 12-06-78
COMPLETED BY L.G.Papworth
TELEPHONE 608-689-2331

No.	Date	Type[1]	Duration (Hours)	Reason[2]	Method of Shutting Down Reactor[3]	Licensee Event Report #	System Code[4]	Component Code[5]	Cause & Corrective Action to Prevent Recurrence
78-14	Continued from October 1978	S	233.7	B,F	1	NA	CB	PUMPXX	Containment Building Integrated Leak Rate Testing (Type A) continued into November 1978. Outage 78-14 was initiated for the major reason of repairing Forced Circulation Pump 1A Fluid Coupling. This repair was completed in October.
78-15	78-11-17	F	66.1	A	3	NA	IA	INSTRU	A low flow spike indication on Forced Circulation Loop 1A caused a shutdown based on a power to flow mismatch in P/F Channel 1. The two P/L channels operate in a 1-of-2 logic. The Forced Circulation Loop flow transmitters and square root converters associated with P/F Channel No. 1 were checked and Technical Specification tests were performed with no abnormalities observed. No equipment was replaced.

1 F: Forced
S: Scheduled

2 Reason
A Equipment Failure (Explain)
B Maintenance or Test
C Refueling
D Regulatory Restriction
E Operator Training & License Examination
F Administrative
G Operational Error (Explain)
H Other (Explain)

3 Method
1 Manual
2 Manual Scram
3 Automatic Scram
4 Other (Explain)

4 .....Cont'd next page.

Exhibit G - Instructions for Preparation of Data Entry Sheets for Licensee Event Report (LER) File (NUREG 0161)

5 Exhibit I - Same Source

UNIT SHUTDOWNS AND POWER REDUCTIONS

(Cont'd)

REPORT MONTH NOVEMBER 1978

DOCKET NO. 50-409
UNIT NAME LACBWR
DATE 12-06-78
COMPLETED BY L.G. Papworth
TELEPHONE 508-689-2331

No.	Date	Type[1]	Duration (Hours)	Reason[2]	Method of Shutting Down Reactor[3]	Licensee Event Report #	System Code[4]	Component Codes[5]	Cause & Corrective Action to Prevent Recurrence
78-16	78-11-20	F	150.1	A	3	NA	CB	PUMPXX	Excessive wear on 1A Forced Circulation Pump seal prompted securing of the pump which resulted in a reactor scram (from the heating range) due to indication of low core flow. The upper seal was replaced.

1
F - Forced
S - Scheduled

2
Reason
A-Equipment Failure (Explain)
B-Maintenance or Test
C-Refueling
D-Regulatory Restriction
E-Operator Training & License Examination
F-Administrative
G-Operational Error (Explain)
H-Other (Explain)

3
Method
1-Manual
2-Manual Scram
3-Automatic Scram
4-Other (Explain)

4
Exhibit G - Instructions for Preparation of Data Entry Sheets for Licensee Event Report (LER) File (NUREG-0161)

5
Exhibit I - Same Source

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO 50-409
UNIT LACBWR
DATE 12-06-78
COMPLETED BY 608-689-2331
TELEPHONE

MONTH NOVEMBER 1978

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	0	17	25
2	0	18	0
3	0	19	0
4	0	20	0
5	0	21	0
6	0	22	0
7	0	23	0
8	0	24	0
9	0	25	0
10	1.5	26	0
11	14	27	14
12	8	28	19
13	17	29	23
14	21	30	25
15	24	31	--
16	25		

INSTRUCTIONS

On this format, list the average daily unit power level in MWe-Net for each day in the reporting month. Compute to the nearest whole megawatt.

EQUIPMENT	NATURE OF MAINTENANCE	LER OR OUTAGE NUMBER	MALFUNCTION		CORRECTIVE ACTION
			CAUSE	RESULT	
LEAK RATE TEST - HUMIDITY RECORDER	Corrective MR 2255	Outage 78-14	Adjustment off.	Incorrect readout.	Adjusted zero and span; replaced amplifier.
NUCLEAR INSTRUMENTATION N-2	Corrective MR 2266	Outage 78-14	Defective tubes.	Reading low.	Replaced tubes.
NUCLEAR INSTRUMENTATION N-6	Corrective MR 2308	Outage 78-15	Defective capacitor	Reading low.	Replaced power supply capacitor.
SECURITY SYSTEM ZONE 5	Corrective MR 2257	Outage 78-14	Improper alignment.	No alarm.	Realigned unit.
SECURITY SYSTEM ZONE 9	Corrective MR 2305	NA	Defective unit.	No alarm reset.	Replaced unit with spare.
SECURITY SYSTEM ZONE 5	Corrective MR 2327	NA	Defective unit.	Periodic alarm.	Adjusted line current.
DEMIN. WATER	Corrective MR 2277	Outage 78-14	Opened coil.	Valve inoperative.	Replaced solenoid coil.
COMPONENT COOLING WATER 1B	Corrective MR 2274	Outage 78-14	Defective bearing.	Rough operation.	Replaced motor bearing.
DIESEL FIRE PUMP 1B	Corrective MR 2300	NA	Thermostat inoperable.	Lo Temperature Alarm	Replaced burned wire on unit.
FEEDWATER HEATER #3	Corrective MR 2295	NA	Valve Leak Through	Level too high.	Adjusted valve controller.

INSTRUMENT AND ELECTRICAL MAINTENANCE

NOVEMBER 1978

EQUIPMENT	NATURE OF MAINTENANCE	LER OR OUTAGE NUMBER	MALFUNCTION		CORRECTIVE ACTION
			CAUSE	RESULT	
CIRCULATION SYSTEM	Corrective MR 2310	Outage 78-15	Calibration Request.	Test flows.	Calibrated 1A and 1B Flow System
NUCLEAR INST. N-6	Preventive MR 2311	Outage 78-16	Clean and adjust request.	Check proper operation.	Cleaned and checked switch.
SEAL INJECTION SYSTEM	Corrective MR 2316	Outage 78-16	Defective transmitter.	Loss of flow.	Replaced transmitter bellows.
FEEDWATER FLASH TANK	Corrective MR 2319	Outage 78-16	Loose valve feedback connection.	Valve not closed.	Tightened connection.
SEAL INJECTION SYSTEM SUPPLY	Corrective MR 2322	Outage 78-16	Defective power supply.	Low reading.	Replaced power supply.
DIESEL FIRE PUMPS 1A-1B	Preventive FC-78-04	NA	Improper cooling.	Engine overheat.	Replaced valve and control unit.

EQUIPMENT	NATURE OF MAINTENANCE	LER OR OUTAGE NUMBER	MALFUNCTION		CORRECTIVE ACTION
			CAUSE	RESULT	
"A" CCW PUMP	Corrective MR 2040	Outage 78-14	Normal Wear	Leakage past Mechanical shaft seal.	Replaced seal.
"B" CCW PUMP	Preventive MR 2260	Outage 78-14	NA	NA	Replaced mechanical seal.
CRIB HOUSE NORTH INTAKE BAY	Preventive	Outage 78-14	NA	NA	Installed "stop-logs", pumped out bay and inspected structure and pumps and were found to be OK.
AIR EJECTOR AFTER CONDENSER	Corrective MR 2312	Outage 78-15	Pressure and temperature cycles.	Tube-end leak.	Rerolled tube end.
"A" FCP	Corrective MR 2318	Outage 78-16	Uncertain	Excessive seal wear and leakage.	Rebuilt seal.
EMERGENCY AIRLOCK INNER DOOR	Corrective MR 2313	Outage 78-16	Set screw loosened up.	Cam roller fell out of position. Door would not operate properly.	Reinstalled cam roller.
#1 AUXILIARY OIL PUMP	Corrective MR 2286	Outage 78-14	Normal wear.	Reduced pumping capacity.	Adjusted internal clearances.
EMERGENCY AIRLOCK OUTER PRESSURE EQUALIZING BALL VALVE	Corrective MR 2326	RO-78-12	Ball and seats scored by foreign particles.	Valve leaked during Type "B" pressure test of airlock.	Installed new ball and seats.
TURBINE CONDENSER COOLING WATER MONITOR FLOWMETER	Corrective MR 2321	Outage 78-16	Sight glass broke while adjusting flow.	Circulating water leak.	Replaced broken sight glass.
LIQUID WASTE AND SERVICE WATER MONITOR FLOWMETER	Corrective MR 2320	Outage 78-16	Debris stuck in flowmeter.	Flowmeter would not function properly.	Cleaned flowmeter.
HEATING STEAM TO REACTOR BUILDING ISOLATION VALVE	Corrective MR 2246	Outage 78-14	Worn disc and seats.	Valve leakage.	Replaced disc and seats.
1A EMERGENCY DIESEL GENERATOR	Corrective MR 2220	Outage 78-14	Injector Cracked	Fuel Oil Leak	Replaced injector.

EQUIPMENT	NATURE OF MAINTENANCE	LER OR OUTAGE NUMBER	MALFUNCTION		CORRECTIVE ACTION
			CAUSE	RESULT	
N^2 CHARGING BOOSTER PUMP	Corrective MR 2275	Outage 78-14	Worn components.	Loss of pump head.	Overhauled pump.
1B CONTROL ROD DRIVE HYDRAULIC CHARGING PUMP	Corrective MR 2281	Outage 78-14	Worn seal.	Shaft seal leaks.	Installed internal o-rings. shaft seal and gaskets.

NARRATIVE SUMMARY OF OPERATING EXPERIENCE

NOVEMBER 1978

At the onset of the November reporting period, periodic primary Reactor Containment Integrated Leak Rate Testing (Type A) was in effect. This testing was satisfactorily completed on November 5, 1978. Post ILRT valve line-up restoration and reactor plant startup preparations were completed on November 8 and the reactor was taken critical at 2030 hours that day. Power escalation continued and the plant was connected to the DPC grid at 1745 hours on November 10.

Power escalation continued until 1900 hours on November 11, 1978, when a power reduction from 40% power (13 MWe-net) was initiated due to an indication of a higher than normal off-gas activity level. The high level indication was determined to be caused by moisture carry-over from a leaking tube in the air ejector after condenser. The after condenser was repaired during a subsequent plant shutdown. At no time were off-gas activity limits exceeded.

Power escalation was initiated from 20.6% power (8 MWe-net) on November 12, 1978 and continued until 2150 hours on November 17, 1978, when at a power level of 62.2% power (28 MWe-net), a reactor scram occurred. A low flow spike indication on Forced Circulation Loop 1A caused indication of a power-to-flow mismatch in power-flow safety channel No. 1, which in turn initiated the reactor scram signal. The Forced Circulation Loop flow transmitters and square root converters associated with P/F Channel No. 1 were checked and technical specification testing was performed with no abnormalities observed. No equipment was replaced.

The reactor was subsequently taken critical at 0920 hours on November 19, 1978. Reactor heatup continued until 1555 hours on November 20, 1978 when excessive seal wear was indicated on Forced Circulation Pump 1A and the 1A pump was secured with the intention of orderly plant shutdown. A low flow indication prompted an automatic reactor scram at that time. The upper face seal was found to be badly worn upon inspection and was replaced. The exact cause of the abnormal seal wear and degradation is being investigated.

A reactor startup was conducted on November 24, 1978 with the reactor taken critical at 2021 hours. The plant was connected to the DPC grid at 2202 hours on November 26, 1978. Reactor escalation was continuing at the end of the November reporting period at a level of 59% power.

Significant maintenance items performed during the reporting period are indicated on attached Instrument and Electrical Maintenance and Mechanical Maintenance listings.

NARRATIVE SUMMARY OF OPERATING EXPERIENCE - (Cont'd)

The maximum power level at which the reactor was operated during November 1978 was 62.2% of rated reactor power (28 MWe-net).

The off-gas activity levels, as measured at the 150 ft^3 holdup tank effluent monitor (prior to entry into the augmented off-gas holdup system) did not exceed 501 curies per day (this at 59% power) during November, 1978, and the alpha activity in the primary coolant did not exceed 1.06×10^{-6} $\mu Ci/gm$ during the reporting period.