

U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION III

Report No. 50-409/79-19

Docket No. 50-409

License No. DPR-45

Licensee: Dairyland Power Cooperative
2615 East Avenue, South
La Crosse, WI 54601

Facility Name: La Crosse Boiling Water Reactor

Inspection At: La Crosse Site, Genoa, WI

Inspection Conducted: October 1-5, 1979

Inspector: *K. R. Ridgway*
K. R. Ridgway

10/19/79

Approved By: *D. C. Boyd*
D. C. Boyd, Chief
Reactor Projects Section 3

10/19/79

Inspection Summary

Inspection on October 1-5, 1979 (Report No. 50-409/79-19)

Areas Inspected: Routine unannounced inspection of the licensee's maintenance activities; operational activities; and followup actions relative to previous items of noncompliance, IE Bulletins, IE Circulars, Licensee Event Reports, open inspection items, and special reports. The inspection involved 38 hours onsite by one NRC inspector.

Results: No items of noncompliance were identified in the eight areas inspected.

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DETAILS

1. Persons Contacted

- *R. Shimshak, Plant Superintendent
- J. Parkyn, Assistant Plant Superintendent
- *G. Boyd, Operations Supervisor
- L. Kelley, Assistant to Operations Supervisor
- C. Angle, Process Engineer
- L. Krajewski, Health and Safety Supervisor
- H. Towsley, Quality Assurance Supervisor
- P. Grey, Mechanical Maintenance Supervisor
- R. Cota, Shift Supervisor
- G. Joseph, Security Director
- M. Johnsen, Plant Operator
- L. Goodwin, Nuclear Engineering Services (Contractor)

In addition, the inspector observed and held discussions with other engineers, plant equipment operators, reactor operators, assistants, and plant attendants.

*Denotes those present at the exit interview.

2. General

The reactor had two unplanned outages since the last inspection in July; one a three day outage, on September 5, to repair a Forced Circulation bypass valve packing leak; second, an eight day outage, on September 28, caused by a burned out Control Rod Drive low hydraulic oil pressure relay. The licensee plans to operate the rest of the year at 80-85% power to extend core life because they lack spent fuel storage space.

3. Maintenance

The inspector selected and reviewed Maintenance Requests (MR) and Facility Changes (FC) for maintenance jobs performed in the last year on six different safety systems. The systems and jobs selected were:

a. Reactivity Control

- (1) MR-2677, No. 20 Control Rod Drive (CRD) seal leak
- (2) MR-2714, Repair oil leak on CRD Charging Header

b. Instrumentation

- (1) MR-2724, Nuclear Instrument (NI) Channel 6 Monthly Surveillance Test
- (2) MR-2560, Power-Flow Channels 1 & 2 Test

c. Reactor Coolant System

- (1) MR-2724, Repair Forced Circulation Pump (FCP) rotopart discharge valve leak
- (2) MR-2529, Main Stream Relief Valve Test

d. Emergency Core Cooling System

- (1) MR-2716, 1A High Pressure Service Water (HPSW) Diesel Failed to Start
- (2) FC-78-07, MR-2610, HPSW Fire Suppression Header, turbine area.

e. Containment Systems

- (1) MR-2625, Containment Building downstream exhaust damper repacked with new type packing.
- (2) MR-2590, Containment Ventilation Damper failed Class C leak rate test.

f. Plant and Electrical Power Systems

- (1) MR-2388, Replace 1B Static Inverter
- (2) MR-2351, 1B Emergency Diesel Generator over speed problems.

The inspector reviewed the above maintenance activities to determine that:

- g. Limiting conditions for operation were met while the activities were performed,
- h. Administrative approvals were obtained before initiating the work,
- i. Approved procedures were used,
- j. The approved procedures included provisions for fire, protection/prevention, cleanliness and housekeeping if applicable,
- k. Maintenance activities were carried out by or under the cognizance of qualified personnel,
- l. Quality control records where applicable were available for the above activities,

In addition, the inspector reviewed three procedures used in the above maintenance work to verify that they were adequate. The procedures examined were:

- m. Special Procedure, M 32-2, Repair CRD Charging header bladder leak.

- n. Special Procedure M50-01, Repair leaking FCP rotopart valves.
- o. RM-3-76, Lower CRD Maintenance and Testing

During the inspection, it was noted that Maintenance Requests were being filled out with checks in the areas of maintenance procedures and test numbers in lieu of the desired procedure or test numbers.

The inspector noted that an administrative control procedure, 2.5, "Housekeeping, System, and Component Cleanliness" had been developed, however, the areas of cleanliness and housekeeping was not addressed in any of the maintenance procedures reviewed. These problem areas were discussed at the exit interview.

No items of noncompliance were identified.

4. Plant Operations Review

The inspector observed plant outage conditions, control room manning, equipment tagging, key-lock control and valve lineups on the Core Spray and Boron injection systems during a plant tour. Additionally, the following records were reviewed from August 6, 1979 to September 30, 1979, to determine compliance with Technical Specifications and regulations and to determine if the Night Order Instructions or Operating Memos conflicted in any way with operational requirements.

- a. SO-18 Daily Log of MW-RMVA-MWH
- b. L-84 Control Rod Position Indications
- c. L-83 Reactor Plant Log
- d. L-82 Turbine Generator Plant Log
- e. L-74 Controlroom Panel A
- f. L-42 Radiation Monitor and Dew Cells
- g. L-119 AGS and Reactor Safety System Log
- h. L-72 Turbine Generator Auxillary Log
- i. L-73 Reactor Plant Auxillary Log
- j. L-68-71 Temperature Recorder Logs
- k. Night Order instruction Book
- l. Shift Supervisors Log July, 1979 to September 30, 1979
- m. Incident Reports
- n. Jumper and Bypass Key Log
- o. Reactor Vessel Heatup and Cool Down Data
- p. Turbine Operators Shift Log

During the inspection, it was noted that the recording of accumulated bypass time for certain keys were not being kept in a uniform manner from shift to shift, however, the 24 hour bypass time limit in a 30 day period was never approached.

Also, on September 6, 1979 during heatup the vessel flange and lid flange Delta Temperature exceeded the operating limit of 30°F (38°F maximum). It was later determined by resistance measurements

that the lid flange metal causing the high Delta Temperature. The heatup was continued using a 20-25°F/Hr heatup rate which had on all previous occasions satisfied the flange 30°F DT limit.

The inspection also included a review of items included in Amendment No. 16 to the Technical Specifications dated May 25, 1979. The review included verification that procedural changes had been made and were being implemented to cover the areas of:

- a. Maintaining water level above the core during all modes, no procedural changes required
- b. Maintaining at least one FC loop unisolated when the Shut Down Condenser is operating or the MSIVs are open, Operations Memo DPC-77
- c. Reactor Coolant and offgas radioactivity limits, Operations Memo DPR-35 Rev. 51.

No items of noncompliance were identified.

5. Review of Licensee Event Reports (LER's)

The inspector reviewed the following LER's to determine if the reports were correct and if the evaluations and corrective actions taken were appropriate and that they were completed as stated in the LER:

- a. (Closed) LER 50-409/79-12, Failure of the 1A Diesel engine driven pump to start during a routine surveillance test. The failure was caused by a shorted fuel solenoid valve circuit. Repairs were achieved and the engine retested.
- b. (Closed) LER 50-409/79-13, Failure of a piston rod seal on the Main Steam Bypass valve operating cylinder. The seals were replaced and the licensee is investigating possible seal material change to prolong service life.
- c. (Closed) LER 50-409/79-16, Failure to unby-pass the reactor coolant low flow rate scram circuit during reactor startup and heatup. This LER was reviewed during a special investigation^{1/} conducted by IE Region III personnel. The licensee's corrective action commitments were confirmed by an Immediate Action Letter.^{2/} The corrective actions taken were verified during this inspection as follows: Before the next startup, the licensee had revised his startup procedure to include a new startup checklist. Administrative Control Procedures had been revised to include the review and signoff of the operating log by plant operators and the logging of bypassed circuits by

1/ IE Inspection Report No. 50-409/79-18.
2/ IE 3 Letter to DPC dated September 17, 1979.

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system name instead of key number. Additionally the licensee has reviewed all safety circuit test procedures and checklists to assure that bypassed circuits will be unbypassed at the end of any procedure where the bypass keys will not be reused prior to startup. The licensee had conducted training in these changes and reviewed the significance of safety circuit bypass with the entire operating staff.

6. Followup on Previous Noncompliance and Open Inspection Items (OII)

- a. (Closed) Deficiency (Inspection Report No. 50-409/79-02), Failure to identify Part 21 requirements on the Peripheral Shroud Purchase Order. Cognizant personnel were advised to review procedural requirements for procurement actions in the future.
- b. (Closed) Deficiency (Inspection Report No. 50-409/79-17), Failure to meet Operations Review Committee quorum requirements of 6 members. A 6 member quorum will be convened to conduct business required by Technical Specifications.
- c. (Closed) Deficiency (Inspection Report No. 50-409/79-17), Failure to use an approved "Predicted Critical Control Rod Position" curve. The revised procedures and curves for Cycle 6 startup had been reviewed by the ORC but not formally approved prior to use. The curve was subsequently approved on July 31, 1979.
- d. (Open) Infraction (Inspection Report No. 50-409/78-02) Regarding QA Records and storage. Resolution is pending receipt of records storage equipment and new records storage procedures.
- e. (Closed) OII 79-08 (Inspection Report No. 50-409/78-10 and IE Bulletin 79-08) Regarding inconsistencies in locked valves between procedures, checklists, Piping and Instrument Drawings and actual practice. The licensee had revised all procedures and checklists to resolve locked valve inconsistencies concerned with the Engineered Safety Features outlined in the bulletin.

7. Followup on IE Bulletins

- a. (Closed) IE Bulletin 79-08, TMI Incident Response for BWR Operators. I & E responsibility for review of licensee actions taken in response to this bulletin were covered in Temporary Instruction 2515/23 and completed in IER 79-10. Several inconsistencies and errors were found on PID's and valve check sheets which have been resolved. NRR has been assigned the responsibility for reviewing the licensee's formal response to this bulletin, therefore, this bulletin is being closed from the IE III review system.

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- b. (Closed) IE Bulletin 79-09, Failure of GE Type AK-2 Circuit Breaker in safety related systems. LACBWR does not have any of this type breaker in use.
- c. (Closed) IE Bulletin 79-10, Requalification Training Program Statistics. Responsibility for review of replies to this bulletin has been assigned to NRR. This bulletin is being closed from the IE III review system.
- d. (Closed) IE Bulletin 79-11, Faulty Overcurrent Trip Device in Circuit Breakers. The licensee determined that neither of the Westinghouse circuit breakers referred to in the bulletin are in use at LACBWR.
- e. (Closed) IE Bulletin 79-18, Audibility Problems Encountered in Evacuation of Personnel from High Noise Areas. The licensee tested all evacuation alarms and after repairing a defective switch in one, has determined that the signals were audible under normal operating conditions.

8. Followup on I&E Circulars

The inspector reviewed the licensee's evaluation of the following IEC's to determine that any necessary actions had been taken:

- a. I.E. Circular 78-13, Inoperability of Service Water Pumps.
- b. IE Circular 79-07, Unexpected Speed Increases of Reactor Recirculation MG Set Resulting in Power Increase.
- c. IE Circular 79-09, Occurrences of Split or Punctured Regulator Diaphragms in Certain Self-Contained Breathing Apparatus.
- d. IE Circular 79-12, Potential Diesel Generator Turbocharger Problem.
- e. IE Circular 79-17, Contact Problem in SB-12 Switches on General Electric Metalclad Circuit Breakers.

9. Review of Periodic and Special Reports

The inspector reviewed the following reports for timelines of submitted and adequacy of information submitted:

- a. Monthly Operating Data Reports for March through August, 1979.
- b. Annual Facility Change Report for 1978
- c. Special Report No. 79-02, August 28, 1979
- d. Startup Test Report for Fuel Cycle 6, August 8, 1979

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10. Anticipated Transient Without Scram Events(ATWS)

By letter dated January 8, 1979, NRC requested the licensee to commit to installation of a recirculating pump trip system and in the interim until the system is in place, to the development and implementation of emergency procedures for response to an ATWS event. The inspector reviewed procedure 3.12, Anticipated Transients Without Scram dated March 2, 1979 and determined that operator training for this procedure had been completed.

11. Exit Interview

The inspector met with the licensee representatives (denoted in Paragraph 1) at the conclusion of the inspection. The inspector summarized the scope and findings of the inspection. The following items were discussed:

a. Maintenance

- (1) The need to use maintenance procedure numbers and test procedure numbers on Maintenance Requests.
- (2) The absence of cleanliness requirements in certain maintenance and operations procedures.

b. The inconsistencies in the accumulation of bypass times in the Jumper and Bypass Key Log.

c. The corrective actions taken following the inadvertant bypassing of the Low Forced Flow reactor trip circuit.