

May 28, 2003

Mr. W. L. Berg
General Manager
Dairyland Power Cooperative
3200 East Avenue South
P.O. Box 817
La Crosse, WI 54602-0817

SUBJECT: NRC INSPECTION REPORT 05000409/2003-001(DNMS) -
LA CROSSE BOILING WATER REACTOR (LACBWR)

Dear Mr. Berg:

On May 6-8, 2003, the NRC conducted an inspection at the permanently shut down La Crosse Boiling Water Reactor. The purpose of the inspection was to determine whether decommissioning activities were conducted safely and in accordance with NRC requirements. The enclosed report presents the results of the inspection. At the conclusion of the inspection on May 8, 2003, the NRC inspectors discussed the findings with members of your staff.

This inspection consisted of an examination of decommissioning activities at the La Crosse Boiling Water Reactor as they relate to safety and compliance with the Commission's rules and regulations. Specifically, areas of management controls, safety reviews, self assessments, radiological waste management and transportation, spent fuel safety, and radiological safety were examined and are identified in the enclosed report. Within these areas, the inspection consisted of a selective examination of procedures and representative records, observations of activities in progress, and interviews with personnel. All inspected activities were conducted in compliance with the Decommissioning Plan, the Quality Assurance Program, and Technical Specifications, and were appropriate for the decommissioning and safe storage activities in progress.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

W. Berg

-2-

We will gladly discuss any questions you have concerning this inspection.

Sincerely,

/RA/

Christopher G. Miller, Chief
Decommissioning Branch

Docket No. 05000409
License No. DPR-45

Enclosure: Inspection Report 05000409/2003-001(DNMS)

cc w/encl: Roger Christians, Plant Manager
B. D. Burks, P.E., Director, Bureau of Field Operations
J. Mettner, Chairman, Wisconsin Public
Service Commission
Spark Burmaster, Coulee Region Energy Coalition
State Liaison Officer
Chief, Radiation Protection Section
WI Department of Health
Social Services, Division of Health

Distribution:

Docket File w/encl
PUBLIC IE-01 w/encl
RIII PRR w/encl
M. Masnik, NRR w/encl
S. W. Brown, NMSS w/encl
J. L. Caldwell, RIII w/encl
M. L. Dapas, RIII w/encl
RIII Enf. Coordinator w/encl

DOCUMENT NAME: G:\SEC\LAC2003-001.WPD

To receive a copy of this document, indicate in the box: "C" = Copy without enclosure "E"= Copy with enclosure "N"= No copy

OFFICE	RIII	RIII	RIII	RIII
NAME	Lee:js	Kulzer	Landsman	Miller
DATE	05/28/03	05/28/03	05/28/03	05/28/03

OFFICIAL RECORD COPY

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No. 05000409
License No. DPR-45

Report No. 05000409/2003-001(DNMS)

Licensee: Dairyland Power Cooperative
3200 East Avenue South
La Crosse, WI 54602

Facility: La Crosse Boiling Water Reactor

Location: La Crosse Site
Genoa, Wisconsin

Dates: May 6-8, 2003

Inspectors: Peter J. Lee, Ph.D., CHP, Radiation Specialist
Edward L. Kulzer, CIH, CSP, Radiation Specialist

Approved by: Christopher G. Miller, Chief
Decommissioning Branch

EXECUTIVE SUMMARY

La Crosse Boiling Water Reactor NRC Inspection Report 05000409/2003-001(DNMS)

This routine decommissioning and safe storage inspection covered aspects of decommissioning performance, management control, safety reviews, self-assessments, radiological waste, spent fuel safety, and radiological safety.

Overall, the activities inspected were conducted in compliance with the Decommissioning Plan, the Quality Assurance Program, and Technical Specifications.

Facility Management and Control

- The inspectors determined that the licensee staffing was adequate for the decommissioning activities taking place, and that the training requirements of the Decommissioning Plan were met. (Section 1.1)
- The inspectors determined that work areas and other portions of the facility were being adequately maintained and were free of unnecessary accumulations of debris and flammable materials. The portions of the fire protection program that the inspectors observed were in compliance with existing procedures. (Section 1.2)
- The inspectors determined that the licensee's process for screening changes met the requirements of 10 CFR 50.59. (Section 1.3)
- Based on a review of recent audits, the inspectors determined that the licensee audits appropriately identified safety issues, and corrective actions were implemented in a timely manner. (Section 1.4)

Spent Fuel Safety

- The FESW [Sampling of Fuel Element Storage Well] water level, water temperature, water chemistry, and cleanliness control were adequate to ensure the safe wet storage of the spent fuel. (Section 2.2)

Radiological Safety

- The licensee continued to effectively control exposure to radiation and to maintain effective contamination control processes. (Section 3.2)
- The licensee was adequately implementing the effluent monitoring program. (Section 3.3)
- The licensee complied with both NRC and Department of Transportation regulations for shipment of radioactive materials. (Section 3.4)

Report Details¹

Summary of Plant Activities

Activities during the inspection period were limited to routine ongoing safe storage (SAFSTOR) activities and removal of the steam piping system, steam jet air ejector, and the reactor feed water system.

1.0 Facility Management and Control

1.1 Organization, Management and Cost Controls (36801)

a. Inspection Scope

The inspectors evaluated the licensee's decommissioning staffing and training as specified in the Decommissioning Plan.

b. Observations and Findings

The NRC inspectors reviewed the organizational structure for the site. One technical support engineer had been added to the staff since the last inspection. The staff was sufficient for the decommissioning activities being performed. The fuel handler training met LACBWR [La Crosse Boiling Water Reactor] Operating Procedure 35-02 "Training of LACBWR Fuel Handlers." The fuel handlers were given a written examination every two years and an oral examination on alternate years. Employees received general employee training (GET) as found in LACBWR Training Plan Procedure (TPP) -7, "General Employee Training" on a yearly basis. Inspectors found the licensee's training programs that were inspected met the requirements found in Section 6.4 of the LACBWR Decommissioning Plan.

c. Conclusions

The inspectors determined that the licensee staffing was adequate for the decommissioning activities taking place, and that the training requirements of the Decommissioning Plan were met.

1.2 Decommissioning Performance and Status Review (71801)

a. Inspection Scope

The inspectors toured the plant to observe and assess the status of facility housekeeping and to determine whether installed fire detection and suppression systems were effectively maintained.

¹NOTE: A list of acronyms used in the report is included at the end of the Report Details.

b. Observations and Findings

The inspectors observed that the facility was free of unnecessary debris or flammable materials. The inspectors determined that radiological controls and postings were in full compliance with regulatory requirements of Title 10 of the Code of Federal Regulations (10 CFR) Part 20. Based on the condition of the equipment, the inspector determined that the licensee was adequately maintaining the material integrity of systems, structures and components necessary for the conduct of safe decommissioning.

The inspectors also determined the licensee adequately maintained fire detection and suppression systems in compliance with the LACBWR Fire Protection Program as found in Section 6.9 of the Decommissioning Plan.

c. Conclusions

The inspectors determined that work areas and other portions of the facility were being adequately maintained and were free of unnecessary accumulations of debris and flammable materials. The portions of the fire protection program that the inspectors observed were in compliance with existing procedures.

1.3 Safety Reviews, Design Changes, and Modifications (37801)

a. Inspection Scope

The inspectors reviewed eight safety screenings and selected three screenings to assess license conclusions regarding the need for safety evaluations in accordance with 10 CFR Part 50.59. The inspectors also reviewed the licensee safety review training program.

b. Observations and Findings

The inspectors reviewed the following three screenings to judge the effectiveness of the screening process:

“Remove Door (Ajar) Annunciation” FC No. 06-02-28;

“Remove Generator Rotor,” FC No. 16-02-01; and

“Abandon Rotoport Valve Accumulator in Place,” FC No. 61-02-04.

For the first screening, the inspectors reviewed LACBWR Fire Protection Procedure 01:1 Section 10, “Fire Barriers,” Fire Protection Procedure 01.3 “Monthly Safety and Fire Protection.” For the second screening, the inspectors reviewed the LACBWR Decommissioning Plan Section 5.2.27. For the third screening, the inspectors reviewed LACBWR Decommissioning Plan Sections 5.2.15 “Hydraulic Valve Accumulator System,” 7.3.2 “Removal of Unused Equipment,” and 5.3.33 “Electrical Power Distribution.”

The inspectors determined that the 50.59 screening process followed LACBWR Administrative Control Procedure, APC-06.4, “10 CFR 50.59 Reviews,” dated April 21, 2003. The licensee complied with the procedure and conducted adequate screenings of

these modifications. The licensee instructions and forms used for 10 CFR Part 50.59 evaluations addressed the applicable regulatory requirements.

The inspectors reviewed the training for 10 CFR Part 50.59 evaluations, LP-001, "10 CFR 50.59 Changes, Tests and Experiments." All reviewers and evaluators were appropriately qualified.

c. Conclusions

The inspectors determined that the licensee's process for screening changes met the requirements of 10 CFR Part 50.59.

1.4 Self-Assessment, Auditing, and Corrective Action at Permanently Shutdown Reactors (40801)

a. Inspection Scope

The inspectors reviewed three Quality Assurance (QA) Audits to determine the effectiveness of the licensee's self-assessment program and the effectiveness of corrective actions that were initiated to improve licensee performance.

b. Observations and Findings

The inspectors scanned all of the Quality Assurance (QA) Audits completed since the last inspection. The inspectors selected a sample of three audits which were pertinent to current activities:

1. QA Audit Report No. 02-02-01, "Technical Specifications", dated December 2002 - February 2003.
2. QA Audit No. 70-02-03, "ODCM/Environmental Monitoring" dated December 23, 2002 - February 24, 2003.
3. QA Audit No. 70-02-02, "Emergency Planning (EP)/Meteorological Monitoring," dated November - December 2002.

The inspectors reviewed the first two audits which covered Technical Specifications and environmental monitoring. These audits had no findings. The last audit covered Emergency Planning and had four significant findings:

1. The licensee had not conducted and documented annual emergency training.
2. The licensee had not contacted off-site support groups annually.
3. The licensee did not document annual reviews of the interface with state and local governments.
4. The licensee had not performed and documented the annual exercise with critiques available.

The corrective actions taken to resolve these findings included the following:

- The licensee conducted emergency training to local fire and police departments. The last training session for operating staff (10) employees will be completed by June 1, 2003.
- The licensee completed the second and third findings and issued letters of agreement which are on file. The licensee issued reviews of the changes that have occurred in the emergency plan on February 13, 2003.
- The last finding, failure to perform the exercise, was corrected with an emergency drill in December 2002.

The inspectors determined that the findings from these audits were valid and that the audit process was effective in finding potential safety problems. Corrective actions taken were effective in improving performance.

b. Conclusions

Based on a review of recent audits, the inspectors determined that the licensee audits appropriately identified safety issues, and appropriate corrective actions were implemented in a timely manner.

2.0 Spent Fuel Safety

2.1 Spent Fuel Pool Safety at Permanently Shutdown Reactors

a. Inspection Scope (60801)

The inspection included an evaluation of the spent fuel pool safety. Factors considered in the evaluation included: water temperature, water level, water chemistry and cleanliness control.

b. Observations and Findings

After reviewing chemistry, conductivity and gamma spectrum analyses results for January, February, March and April of 2003, the inspectors determined that all the above parameters were within limits specified in HSP-7.2, "Sampling of Fuel Element Storage Well (FESW)." Cleanliness control in the area of the FESW was adequate. After reviewing the FESW water level and temperature for January, February, March and April of 2003, the inspectors determined that these parameters met the requirements of Technical Specifications 4.1.2. The licensee had been monitoring FESW water level and temperature daily, according to the surveillance requirements of Technical Specifications 5.1.2.1.

The inspectors reviewed the calibration procedure and calibration record for the FESW water level indication channel, which was calibrated on January 23, 2003. The FESW water level indication channel calibration met the surveillance requirements of Technical Specification 5.1.2.2.

c. Conclusions

The FESW water level, water temperature, water chemistry, and cleanliness control were adequate to ensure the safe wet storage of spent fuel.

3.0 Radiological Safety

3.1 Occupational Radiation Exposure

a. Inspection Scope (83750)

The inspectors examined and evaluated aspects of the Radiation Protection Program (RPP). Specific areas evaluated included external and internal exposure control, radiological surveying, and contamination control.

b. Observations and Findings

The general air sampling data taken from the Reactor Building and Turbine Building during the first quarter of 2003 did not indicate the presence of any licensed materials. The only isotopes identified were daughter products of Radon 220 and 222.

The inspectors reviewed the breathing zone air sampling data taken during dismantlement of the steam piping system, steam jet air ejector, and the reactor feed water system from January 2003 to April 2003. The inspectors also reviewed the external dosimetry records for the first quarter of 2003. Workers received no significant exposure from these work activities.

The inspectors reviewed the direct radiation survey and smear sample results from the Reactor Building and Turbine Building for the first quarter of 2003. The inspectors determined that the licensee complied with procedural requirements, and that the contaminated areas were adequately controlled. Contamination levels within the facility were kept to a minimum.

The inspectors reviewed the calibration procedures and records for area radiation monitors, radiation survey meters, and scintillation alpha/beta detectors, which were calibrated during April of 2003. The inspectors also interviewed station personnel to ascertain whether or not the instruments were adequately calibrated. From these interviews, the inspectors determined that the licensee had calibrated all the instruments properly and was in compliance with procedural requirements.

c. Conclusions

The licensee continued to effectively control exposure to radiation and to maintain effective contamination control processes.

3.2 Radioactive Waste Treatment, and Effluent and Environmental Monitoring.

a. Inspection Scope (84750)

The inspectors examined and evaluated aspects of the effluent monitoring program, which included a review of calibration records and procedures for the gas effluent monitor's flow sensors.

b. Observations and Findings

Based on interviews with station personnel and a review of the applicable records, the inspectors determined that the gas effluent monitor's flow sensors were properly calibrated and checked for operation in accordance with station procedures. The inspectors reviewed the results from the radiochemistry cross check program and found that the results were acceptable.

c. Conclusions

The licensee was adequately implementing the effluent monitoring program.

3.3 Solid Radwaste Management and Transportation of Radioactive Materials (86750)

a. Inspection Scope

The inspectors reviewed the radioactive materials shipping program and applicable shipping documents.

b. Observations and Findings

The licensee processed two radiological waste shipments in April 2003. The licensee shipped the radiological waste to GTS Duratek in Oak Ridge, Tennessee. The inspectors reviewed survey records, radioanalysis results, and inspection checklists and found these documents to be adequate and in accordance with NRC and Department of Transportation (DOT) regulations.

c. Conclusions

The inspectors determined that the licensee complied with both NRC and DOT regulations for shipping radioactive materials.

4.0 Exit Meeting

The inspectors presented inspection results to members of the licensee's staff at the conclusion of the inspection on May 8, 2003. The licensee did not identify any of the documents or processes reviewed by the inspectors as proprietary.

PARTIAL LIST OF PERSONS CONTACTED

- * R. Christians, Plant Manager
- * R. Cota, Training/Security Supervisor
- * J. Henkelman, Quality Assurance Specialist
- * M. Johnsen, Tech Support Engineer
- * L. Nelson, Health and Safety Supervisor
- * S. Rafferty, Reactor Engineer
- * M. Moe, Captain, Burns Security
- * D. Egge, Quality Assurance Supervisor
- * R. Lewton, Electrician & Instrument Technician
- * J. McRill, Tech Support Engineer

* Denotes those attending the exit meeting on May 8, 2003.

INSPECTION PROCEDURES USED

- IP 36801: Organization, Management and Cost Controls at Permanently Shut Down Reactors
- IP 37801: Safety Reviews, Design Changes, and Modifications at Permanently Shutdown Reactors
- IP 40801: Self-Assessment, Auditing, and Corrective Actions at Permanently Shutdown Reactors
- IP 60801: Spent Fuel Pool Safety at Permanently Shutdown Reactors
- IP 71801: Decommissioning Performance and Status Review at Permanently Shutdown Reactors
- IP 83750: Occupational Radiation Exposure
- IP 84750: Radioactive Waste Treatment, and Effluent and Environmental Monitoring
- IP 86750: Solid Radwaste Management and Transportation of Radwaste Materials

LIST OF DOCUMENTS REVIEWED

The licensee documents reviewed and utilized during the course of this inspection are specifically identified in the "Report Details" above.

ITEMS OPENED, CLOSED, AND DISCUSSED

None

INITIALISM AND ACRONYMS

DOT	Department of Transportation
FESW	Fuel Element Storage Well
GET	General Employee Training
LACBWR	La Crosse Boiling Water Reactor
QA	Quality Assurance
RPP	Radiation Protection Program
SAFSTOR	Safe Storage