



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

REGION III  
2443 WARRENVILLE RD. SUITE 210  
LISLE, IL 60532-4352

October 20, 2015

Ms. Barbara A. Nick  
President and Chief Executive Officer  
Dairyland Power Cooperative  
3200 East Avenue South  
P.O. Box 817  
La Crosse, WI 54602-0817

**SUBJECT: NRC INSPECTION REPORT 050-00409/2015-01(DNMS) - LA CROSSE  
BOILING WATER REACTOR (LACBWR) DECOMMISSIONING INSPECTION**

Dear Ms. Nick:

On September 23, 2015, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at the La Crosse Boiling Water Reactor (LACBWR) facility. The purpose of the inspection was to determine whether decommissioning activities were conducted safely and in accordance with NRC requirements. At the conclusion of the inspection on September 23, 2015, the NRC inspector discussed the results with members of your staff.

The inspection consisted of an examination of activities at the facility as they relate to safety and compliance with the Commission's rules and regulations. Areas examined during the inspection included facility management and control and radiological safety. Within these areas, the inspection consisted of a selective examination of procedures and representative records, field observations of activities in progress, and interviews with personnel.

Based on the results of this inspection, the NRC did not identify any violations.

In accordance with Title 10 of the *Code of Federal Regulations* (CFR) 2.390 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's Public Document Room or from the NRC's Agencywide Document Access and Management System (ADAMS), accessible from the NRC's Web site at <http://www.nrc.gov/reading-rm/adams.html>.

B. Nick

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We will gladly discuss any questions you have concerning this inspection. If you have any questions, please contact Dr. Peter Lee of my staff at 630-829-9870.

Sincerely,

*/RA/*

Robert J. Orlikowski, Chief  
Materials Control, ISFSI, and  
Decommissioning Branch

Docket No. 050-00409  
License No. DPR-45

Enclosure:  
IR 050-00409/2015-01(DNMS)

B. Nick

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cc w/encl: C. Olson, Plant Manager  
W. Trubilowicz, Technical Engineer  
D. Villicana, Radiation Protection Manager

cc w/o encl: T. Zaremba, Wheeler, Van Sickle and Anderson  
J. Kitsembel, Chairman, Wisconsin Public Service Commission  
S. Burmaster, Coulee Region Energy Coalition  
S. Nickelotti Chairman, Town of Genoa  
P. Schmidt, Manager, Radiation Protection,  
Wisconsin Department of Health Services

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**U.S. NUCLEAR REGULATORY COMMISSION**

**REGION III**

Docket No.: 050-00409

License No.: DPR-45

Report No.: 050-00409/2015-01(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: July 29 and 30, 2015  
September 22 and 23, 2015

Inspector: Peter J. Lee, Ph.D., CHP

Approved by: Robert J. Orlikowski, Chief  
Materials Controls, ISFSI, and  
Decommissioning Branch  
Division of Nuclear Materials Safety

Enclosure

## EXECUTIVE SUMMARY

### La Crosse Boiling Water Reactor (LACBWR) NRC Inspection Report 050-00409/2015-01 (DNMS)

This routine decommissioning inspection covered aspects of facility management and control and radiological safety.

#### Facility Management and Control

- The inspector determined that the licensee was adequately controlling decommissioning activities and radiological work areas. (Section 1.1)

#### Radiological Safety

- The inspector determined that the licensee continued to be effective in controlling radiation worker personal exposure. (Section 2.1)
- The inspector determined that the licensee had complied with U.S. Nuclear Regulatory Commission (NRC) and Department of Transportation (DOT) regulations for shipments of radioactive waste. (Section 2.2)

## Report Details<sup>1</sup>

### Summary of Plant Activities

During the inspection period, active decommissioning work was ongoing at the site and consisted of cleanup of a spent resin tank, liquid waste tanks, and sumps. The cleanup started on June 29, 2015 and completed on September 4, 2015. Currently, the licensee has ceased the active dismantlement and decontamination activity until the license is transferred to La Crosse Solutions. During the transition period, only the routine monitoring and survey will be done.

### **1.0 Facility Management and Control**

#### 1.1 Decommissioning Performance and Status Review at Permanently Shut Down Reactors (71801)

##### a. Inspection Scope

The inspector conducted the plant tour to assess field conditions and decommissioning activities and ensure that radioactively contaminated areas were being controlled.

##### b. Observations and Findings

The licensee maintained the work areas with adequate shielding and enclosures with high efficiency particulate air filter (HEPA) exhaust systems to minimize worker doses. Work areas were observed to be adequately controlled, postings and boundaries were appropriate, and workers were wearing respirators and appropriate protective clothing and following established procedures.

##### c. Conclusions

The inspector determined that the licensee was adequately controlling decommissioning activities and radiological work areas.

### **2.0 Radiological Safety**

#### 2.1 Occupational Radiation Exposure (83750)

##### a. Inspection Scope

The inspector reviewed external exposure and air sampling results during cleanup of a spent resin tank, liquid waste tanks, and sumps. The inspector evaluated the entry and exit bioassay results for the workers involved in the cleanup of a spent resin tank, liquid waste tanks, and sumps.

##### b. Observations and Findings

The personnel external exposures were well below Title 10 of the *Code of Federal Regulations* (CFR) 2.390 Part 20 limits. The worker wore a controlled air purifying

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<sup>1</sup>NOTE: A list of acronyms used in the report is included at the end of the report.

respirator with a HEPA filter hood, and a portable HEPA exhaust was placed near the breathing zone of the worker. Based on the review of air sampling results and the protection factor of the respirator, the inspector concluded that the workers received no detectable internal exposure.

Based on the entry and exit bioassay results, no workers had a positive intake of Am-241. However, entry bioassay result of fecal samples indicated three contract workers had positive Am-241 intakes during work performed prior to arriving at the LACBWR facility. The licensee notified the previous employer of the three contract workers who had the intake of Am-241.

c. Conclusions

The inspector determined that the licensee continued to be effective in controlling radiation worker personal exposure.

2.2 Transportation of Radioactive Materials (86750)

a. Inspection Scope

The inspector reviewed radioactive waste shipping documents for selected shipments and conducted interviews of the responsible individual to ensure compliance with NRC and U.S. Department of Transportation (DOT) regulations.

b. Observations and Findings

The licensee shipped the radiological waste generated from cleanup of spent resin and liquid waste holding tanks and sumps, including liquid and sludge to the Energy Solutions waste processing facility in Oak Ridge, Tennessee, and spent resin to Clive disposal site in Utah. All the wastes were NRC Class A waste and a DOT Type A quantity of Low Specific Activity (LSA)-II material.

The licensee's shipping manifest showed that personnel packaged, labeled, and marked each shipping container according to the DOT and 10 CFR Part 71 transportation requirements. The licensee verified that the results of radiation and removable contamination levels were within applicable limits. The waste manifest included all required information.

c. Conclusions

The inspector determined that the licensee had complied with NRC and Department of Transportation regulations for shipments of radioactive waste.

### **3.0 Exit Meeting**

The inspector presented the inspection results to members of the licensee's staff at the conclusion of the inspection on September 23, 2015. The licensee did not identify any of the documents or processes reviewed by the inspector as proprietary.

ATTACHMENT: SUPPLEMENTAL INFORMATION



## **SUPPLEMENTAL INFORMATION**

### **PARTIAL LIST OF PERSONS CONTACTED**

- \* C. Olson, Plant Manager
  - \* J. Henkelman, Quality Assurance Specialist
  - \* D. Villicana, Radiation Protection Manager
  - E. Martin, QA Manager
  - R. Call, Work Planner/Analyst
  - W. Trubilowicz, Technical Engineer
- \* Persons present at the exit meeting on September 23, 2015

### **INSPECTION PROCEDURES USED**

IP 71801	Decommissioning Performance and Status Review
IP 83750	Occupational Radiation Exposure
IP 86750	Transportation of Radioactive Materials

### **ITEMS OPENED, CLOSED, AND DISCUSSED**

Opened	None
Closed	None
Discussed	None

### **INITIALISMS AND ACRONYMS**

ADAMS	Agencywide Documents Access and Management System
ALARA	As Low As Reasonably Achievable
CFR	Code of Federal Regulations
DOT	Department of Transportation
DNMS	Division of Nuclear Materials Safety
HEPA	High Efficiency Particulate Air
LACBWR	La Crosse Boiling Water Reactor
LSA	Low Specific Activity
NRC	U. S. Nuclear Regulatory Commission