

November 13, 2006

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 050-00409/06-03(DNMS) AND
NOTICE OF VIOLATION - LA CROSSE BOILING WATER REACTOR
(LACBWR)

Dear Mr. Berg:

On November 8, 2006, the NRC completed an inspection in response to the Notification of Unusual Event (NOUE) declared at the La Crosse Boiling Water Reactor (LACBWR) facility on October 16, 2006. The purpose of the inspection was to determine the sequence of events that prompted the declaration of the NOUE, the implementation of the facility's emergency response procedures, and the subsequent recovery from the event conditions. At the conclusion of the onsite inspection on October 17, 2006, the NRC inspector discussed the preliminary findings with members of your staff. On November 8, 2006, at the conclusion of our in-office review of the circumstances related to the NOUE declaration, the inspector and I conducted a final exit meeting with Mr. Roger Christians, Plant Manager.

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 are identified in the enclosed report. 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 has determined that one Severity Level IV violation of NRC requirements occurred. The violation was evaluated in accordance with the NRC Enforcement Policy. The current Enforcement Policy is included on the NRC's Web site at www.nrc.gov; select **What We Do, Enforcement**, then **Enforcement Policy**. The violation is cited in the enclosed Notice of Violation (Notice). The violation involves failure to immediately respond to an emergency condition by declaring an Unusual Event in accordance with your emergency plan following the identification of airborne radioactivity on the main floor of the reactor building exceeding the emergency action level described in your plan.

Please note that you are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response to this letter, please describe why your proposed corrective actions are expected to be more successful in preventing future or similar violations than the actions and commitments stated in the past. The NRC will use your response, in part, to determine whether further enforcement action is necessary to ensure compliance with regulatory requirements.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). The NRC's document system is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

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

Sincerely,

/RA/

Jamnes L. Cameron, Chief
Decommissioning Branch

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

Enclosures:

- 1. Notice of Violation
- 2. Inspection Report 050-00409/06-03(DNMS)

cc w/encls: 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 and Social Services, Division of Health

DISTRIBUTION:

Docket File
 PUBLIC IE-01
 RIII PRR
 K. I. McConnell, NMSS
 K. L. Banovac, NMSS
 C. M. Craig, NMSS
 G. E. Grant, RIII
 S. A. Reynolds, RIII
 RIII Enf. Coordinator

DOCUMENT NAME: C:\FileNet\ML063170275.wpd
 Publicly Available Non-Publicly Available Sensitive Non-Sensitive
 To receive a copy of this document, indicate in the concurrence box "C" = Copy without attach/encl "E" = Copy with attach/encl "N" = No copy

OFFICE	RIII	RIII		
NAME	PJLee:mb	JLCameron		
DATE	11/13/06	11/13/06		

NOTICE OF VIOLATION

Dairyland Power Cooperative
La Crosse Boiling Water Reactor

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

During an NRC inspection conducted on October 17, 2006, with continuing in-office review through November 8, 2006, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," the violation is listed below:

10 CFR 50.54(q) requires, in part, that a licensee authorized to possess and operate a nuclear power reactor follow and maintain in effect emergency plans which meet the standards in 10 CFR 50.47(b) and the requirements in Appendix E to 10 CFR Part 50. The licensee maintained an emergency plan, "LACBWR Emergency Plan," Revision 25, dated December 2004. Section 1.0 of the LACBWR Emergency Plan, "DPC Emergency Organization And Responsibilities," requires, in part, that the emergency response organization is intended to provide immediate response to an emergency condition at LACBWR. Section 4.0 of the Emergency Plan, "Emergency Action Levels," Table 4.1, lists potential plant conditions and their emergency classifications. For the plant condition involving unplanned airborne concentrations greater than 10 times normal levels, the corresponding emergency classification in Table 4.1 is a Notification of Unusual Event.

Contrary to the above, on October 16, 2006, the licensee declared an Unusual Event based on airborne americium-241 concentrations of 3 to 5 derived air concentrations (DACs) in the general areas of the reactor building. As a result, the licensee failed to provide immediate response to the emergency condition. Specifically, the licensee identified americium-241 concentrations at those levels on October 13, 2006, but did not declare an Unusual Event until October 16, 2006.

This is a Severity Level IV violation (Supplement VI).

Pursuant to the provisions of 10 CFR 2.201, Dairyland Power Cooperative is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555, with a copy to the Regional Administrator, Region III, within 30 days of the date of the letter transmitting this Notice of Violation (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each violation: (1) the reason for the violation, or, if contested, the basis for disputing the violation or severity level, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken to avoid further violations, and (4) the date when full compliance will be achieved. Your response may reference or include previous docketed correspondence, if the correspondence adequately addresses the required response. If an adequate reply is not received within the time specified in this Notice, an order or a Demand for Information may be issued as to why the license should not be modified, suspended, or revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time.

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

Enclosure 1

Because your response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>, to the extent possible, it should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the public without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information). If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days.

Dated this 13th day of November 2006

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No.: 050-00409

License No.: DPR-45

Report No.: 050-00409/06-03(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: October 17, 2006 (onsite)
November 8, 2006 (in-office review)

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

Approved by: Jamnes L. Cameron, Chief
Decommissioning Branch

EXECUTIVE SUMMARY

La Crosse Boiling Water Reactor (LACBWR) NRC Inspection Report 050-00409/06-03(DNMS)

This was a special, reactive inspection, performed in response to the licensee's October 16, 2006 "Notification of Unusual Event." The licensee's basis for the emergency declaration was the identification of airborne concentrations in the general areas of the reactor building that exceeded 10 times the normal level. On October 13, 2006, the licensee identified 3 to 5 derived air concentrations (DACs) of americium-241 in the reactor building, outside of the area in the lower levels of the building where licensee staff were cutting piping associated with the control rod drive mechanisms. The licensee did not normally observe any detectable concentrations of americium-241 in the reactor building, however, the minimum detectable concentration of americium-241 for the licensee's radioanalytical counting equipment was approximately 1.0 DAC.

Subsequent investigation by the licensee determined that the counting equipment was contaminated with americium-241, which resulted in false indications of airborne americium-241. Recounting of the air samples taken between October 13 and 17, 2006, determined that airborne concentrations were below the minimum detectable concentration.

Notwithstanding the licensee's subsequent determination that the results of earlier air sampling in the reactor building were not valid, the licensee made a declaration of an Unusual Event on October 16, 2006, based on airborne concentrations of americium-241 that it had identified on every air sample taken since October 13. As a result, the licensee should have made the declaration based on those conditions on October 13, rather than waiting until October 16. The licensee's failure to make a timely emergency declaration constitutes a violation of 10 CFR 50.54(q).

The licensee's actions following the declaration were timely and appropriate, including notification to the NRC and the subsequent recovery from the event. The event did not result in any exposures to workers or release of radioactive material to the environment.

Report Details¹

1.0 Radiological Safety

1.1 Occupational Radiation Exposure (83750)

a. Inspection Scope

The inspector reviewed the sequence of events associated with the licensee's October 16, 2006, declaration of a "Notification of Unusual Event." The review included interviews of licensee personnel, evaluation of the results of air sampling taken between October 13 and 17, 2006, and examination of the licensee's counting system used to analyze the samples.

b. Observations and Findings

On October 12, 2006, the licensee removed the reactor expansion ring, the cover for the failed fuel system located in the upper cavity, and the leak off tubes for the upper control rod drive mechanisms. Air samples taken from the main floor of the reactor building indicated the presence of airborne americium-241 at approximately 8 derived air concentrations (DACs). The licensee verified the results on October 13, 2006, by gamma analysis.

At this time the licensee postulated that the americium-241 was caused by the work in the cavity. However, when setting up for the lower cavity work, the licensee built an enclosure around the work area, which included dedicated ventilation using high efficiency particulate air (HEPA) filters. The licensee could not explain the presence of americium-241 outside the enclosed work and on the main floor of the reactor building. The licensee stopped all work on the expansion ring, however, other work in the reactor building continued. Surveys, including large area surface wipes for removable contamination, did not identify the presence of americium-241. An air sample taken on the main floor of the reactor building taken late October 13, 2006, continued to indicate airborne americium-241 at about the 3 DACs level. At this time, the licensee declared the reactor building an airborne radioactivity area and restricted access to only those personnel qualified to wear respiratory protection. As an additional measure, the licensee installed HEPA filtration units to draw air from the upper cavity in an attempt to remove the airborne radioactivity.

On October 14, 2006, air sampling continued to indicate airborne americium-241 levels in the building in the 3 to 5 DACs range. The licensee closed all drain valves to the expansion ring and shut off the HEPA filtration units, which were still taking a draw on the upper cavity, in an attempt to locate the source of the americium-241. The licensee maintained normal reactor building ventilation to try and clear the airborne radioactivity. On October 15, 2006, the levels of airborne radioactivity remained at 3 to 5 DACs.

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

An air sample taken in the early morning of October 16, 2006, indicated no change in the reactor building airborne concentration of americium-241. The licensee put all work in the reactor building on hold, and declared an Unusual Event and notified NRC. The licensee based its decision on an emergency action level of airborne concentrations greater than 10 times normal levels in the plant, as described in Table 4.1 of the licensee's emergency plan.

Surveys in the basement of the reactor building indicated high levels of americium-241 contamination. The licensee decontaminated the basement area and continued normal ventilation. However, air samples taken in the afternoon of October 16 continued to indicate americium-241 concentrations at 3 to 5 DACs. The licensee started another stack fan to increase the air flow through the reactor building and the building ventilated overnight.

On October 17, 2006, early morning air samples indicated no change in the americium-241 concentrations. The licensee examined its air sample counting equipment and discovered that the sample holder was contaminated with americium-241. On October 12, 2006, the licensee calibrated the gas proportional counter using an americium-241 counting standard that it had made. Evidently, a small piece of this source likely broke free and remained on the sample holder. The licensee had not noticed the contaminated sample holder previously, since the holder was not used during analyses for background radiation levels. The licensee surveyed the counting room and did not identify any contamination. The licensee re-analyzed the air samples taken from October 12 through 17. The results indicated only background levels.

On the morning of October 17, 2006, the inspector observed the sample analyses and evaluated the analytical results. Based on the review of analytical results of all the air samples, no detectable airborne americium-241 actually existed in the reactor building.

Title 10 CFR 50.54 (q) requires, in part, that a licensee authorized to possess and operate a nuclear power reactor follow and maintain in effect emergency plans which meet the standards in 10 CFR 50.47 (b) and the requirements in Appendix E to 10 CFR Part 50. The licensee maintained an emergency plan, "LACBWR Emergency Plan," Revision 25, dated December 2004. Section 1.0 of the LACBWR Emergency Plan, "DPC Emergency Organization And Responsibilities," requires, in part, that the emergency response organization provide immediate response to an emergency condition at LACBWR. Section 4.0 of the Emergency Plan, "Emergency Action Levels," Table 4.1, lists potential plant conditions and their emergency classifications. For the plant condition involving unplanned airborne concentrations greater than 10 times normal levels, the corresponding emergency classification in Table 4.1 is a Notification of Unusual Event. The licensee's failure to provide immediate response, by delaying declaration of the Unusual Event until October 16, 2006, rather than on October 13, 2006, constitutes a violation of 10 CFR 50.54(q). This is a Severity Level IV violation (VIO 05000409/2006003).

c. Conclusions

The inspector concluded that the licensee's October 16, 2006, declaration of an Unusual Event was based on erroneous information, due to contamination of the

equipment used to analyze air samples. Although the licensee's classification of the event as an Unusual Event was conservative, based on plant conditions indicated by the air sample analysis results, the decision to declare was not timely. The licensee's failure to make a timely event declaration constitutes a violation of 10 CFR 50.54(q). Based on subsequent re-analysis of the air samples in question, the licensee determined that no detectable airborne contamination existed. As such, there was no detectable exposure to workers or releases to the environment. The licensee's corrective actions will be evaluated following receipt of the response to the Notice of Violation and during a future inspection.

2.0 Exit Meeting

The inspector presented the preliminary inspection results to members of the licensee's staff at the conclusion of the inspection on October 17, 2006. An additional telephone exit meeting was conducted on November 8, 2006. 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

- * 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

* Persons present at the exit meeting.

INSPECTION PROCEDURES USED

IP 83750: Occupational Radiation Exposure

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

Opened

050-00409/2006-003	VIO	Failure to make a timely declaration of an Unusual Event in accordance with emergency plan following identification of airborne concentration in the main floor of the reactor building exceeding the emergency action level.
--------------------	-----	---

Closed

None

Discussed

None

INITIALISMS AND ACRONYMS

ACP	Administrative Control Procedure
ADAMS	Agencywide Documents Access and Management System
CFR	Code of Federal Regulations
DAC	Derived Air Concentration
DNMS	Division of Nuclear Materials Safety
HEPA	High Efficiency Particulate Air
LACBWR	La Crosse Boiling Water Reactor
NRC	Nuclear Regulatory Commission
PARS	Publicly Available Records
VIO	Violation