



DAIRYLAND POWER
C O O P E R A T I V E

December 13, 2005

In reply, please refer to LAC-13890

DOCKET NO. 50-409

Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, DC 20555

SUBJECT: Dairyland Power Cooperative
La Crosse Boiling Water Reactor (LACBWR)
Possession-Only License No. DPR-45
License Amendment Request

- REFERENCES:**
- (1) LACBWR Possession-Only License No. DPR-45, Appendix A, Technical Specifications
 - (2) LACBWR Decommissioning Plan, Revised November 2005
 - (3) NRC Letter, Ziemann to Linder, dated February 4, 1980, transmitting Amendment No. 18 to Provisional Operating License No. DPR-45 with NRC Safety Evaluation
 - (4) NRC Letter, Fairtile to Berg, dated April 11, 1997, transmitting Amendment No. 69 to Facility Possession-Only License No. DPR-45 with NRC Safety Evaluation
 - (5) DPC Letter, LAC-5477, Madgett to Director of Nuclear Reactor Regulation, dated September 25, 1978, transmitting NES 81A0550, Rev. 2, dated September 20, 1978, "Spent Fuel Shipping Cask Drop Analysis for the La Crosse Boiling Water Reactor"

Pursuant to the requirement of 10 CFR 50.90, Dairyland Power Cooperative (DPC) requests the following changes to the LACBWR license Appendix A, Technical Specifications. These changes are needed to accommodate processing and shipment of Class B and Class C radioactive waste currently stored in the LACBWR Fuel Element Storage Well (FESW). This waste consists of 10 control rods, 2 antimony-beryllium startup sources, 24 stainless steel fuel element shroud cans, and 73 zirconium alloy fuel element shroud cans. These components will be removed, packaged, and disposed of at the Barnwell Waste Management Facility. Removal of irradiated hardware and other B&C wastes has been included in the scope of work during the Reactor Pressure Vessel Removal Project begun in August 2005.

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Currently Technical Specification (TS) 4.1.1.3 of Reference (1) states:

With the exception of a spent fuel shipping cask or transfer cask, the core spray bundle, the transfer canal shield plug and the other components and fixtures that are normally located and used within the storage well, no objects heavier than a fuel assembly shall be handled over the Fuel Element Storage Well.

The proposed wording of the change to TS 4.1.1.3 is as follows:

With the exception of a shipping cask or transfer cask, the core spray bundle, the transfer canal shield plug and the other waste processing components and fixtures weighing less than 50 Tons that are located and used within the storage well, no objects heavier than a fuel assembly shall be handled over the Fuel Element Storage Well.

The proposed wording of the change to TS 4.1.1.3 contains four discrete changes and are described following.

Proposed Change 1

DPC proposes to delete the phrase “*spent fuel*” in describing the type of shipping cask allowed to be handled over the FESW. Shipment of B&C waste located in the FESW will require a cask very similar to the spent fuel shipping cask anticipated in the current TS 4.1.1.3. The waste cask characteristics, weight, size, and handling methods will be conservatively enveloped by the cask drop analyses performed for the LACBWR FESW. The weight of the heavy load drop used in the most limiting analysis was assumed to be 50 Tons in Reference 5, the capacity of the Reactor Building overhead polar crane. The results of these analyses were submitted to the NRC previously and have been found acceptable in NRC staff Safety Evaluations in References 2, 3, and 4. The following statement is found on page 4 of the NRC Safety Evaluation in Reference 4:

The licensee performed an analysis of a shipping cask or other heavy load drop into the pool that assumed loss of all gap activity in all 333 spent fuel assemblies. This analysis was performed in Section 9.3 of the LACBWR Decommissioning Plan and previously found acceptable by the staff; therefore, it is acceptable to allow a transfer cask to be handled over the spent fuel pool.

Proposed Change 2

DPC proposes to add the phrase “*waste processing*” to describe other components allowed to be located or used in the FESW. The purpose of this change is to include equipment used to accomplish the task of B&C waste removal from the FESW.

Proposed Change 3

DPC proposes to add the phrase "*weighing less than 50 Tons*" to describe other components and fixtures located and used in the FESW. The purpose of this change is to limit the weight of such items to that found acceptable in the cask drop analyses performed for the LACBWR FESW.

Proposed Change 4

DPC proposes to delete the word "*normally*" to describe items located and used in the FESW. The word is ambiguous and does not represent waste and spent fuel disposal operations during the SAFSTOR period. In a limited number of campaigns, equipment will be used in the FESW that is different from that referred to as normally used for fuel handling and fuel storage. This waste processing equipment is commonly used in the industry for such disposal operations.

Analysis of No Significant Hazards Considerations, as required by 10 CFR 50.91(a):

- (1) *Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated? NO*

The shipping cask, whether it is a spent fuel shipping cask or a waste shipping cask, will be handled with the same equipment, under essentially the same LACBWR crane operating procedures and precautions, and will be conservatively enveloped by previous accident evaluations that assumed a heavy load drop weighing 50 Tons. Allowing the placement of typical waste processing equipment in the FESW and the handling of a waste shipping cask limited to weighing less than 50 Tons over the FESW may increase the number of cask movements over the FESW slightly but will not increase the probability nor consequences of an accident previously evaluated during a given cask handling.

- (2) *Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated? NO*

Simply changing the name of the heavy load handled over the FESW from "spent fuel shipping cask" to the generic term "shipping cask," as long as the heavy loads are limited to the analyzed drop weight of 50 Tons and their methods of handling are essentially equivalent, does not create the possibility of a new or different kind of accident from any accident previously evaluated. Other waste processing equipment will likewise be limited to the analyzed drop weight.

(3) *Does the proposed change involve a significant reduction in a margin of safety?* **NO**

Any shipping cask or other waste processing equipment to be handled over the LACBWR FESW will be conservatively enveloped by the load and conditions in the heavy load drop analysis, which assumed a drop weight of 50 Tons, performed for the LACBWR FESW and, therefore, the TS change will not involve a significant reduction in a margin of safety.

If you have any questions regarding this amendment request, please call Roger Christians, Mike Johnsen, or Dr. Seymour Raffety of my staff at 608-689-2331.

Sincerely,

DAIRYLAND POWER COOPERATIVE



William L. Berg, President & CEO

WLB:SJR:JBM:dh

Attachment

cc: James L. Caldwell, Regional Administrator
U. S. Nuclear Regulatory Commission, Region III

Kristina Banovac, NRC Project Manager

4/5. PERFORMANCE REQUIREMENTS

4.1 FUEL STORAGE AND HANDLING

4.1.1 GENERAL FUEL STORAGE AND HANDLING REQUIREMENTS

4.1.1.1 Irradiated fuel assemblies shall be stored underwater in spent fuel storage racks that are positioned on the bottom of the Fuel Element Storage Well or in approved on-site dry storage containers, or in an approved shipping cask.

4.1.1.2 During the handling of irradiated fuel assemblies that have been operated at power levels greater than 1 Mwt, the depth of water in the Fuel Element Storage Well shall be at least 2 feet above the active fuel, and only one fuel assembly will be moved at a time.

4.1.1.3 With the exception of a shipping cask or transfer cask, the core spray bundle, the transfer canal shield plug and the other waste processing components and fixtures weighing less than a cask that are located and used within the storage well, no objects heavier than a fuel assembly shall be handled over the Fuel Element Storage Well.