

SAFETY EVALUATION  
RELATED TO AMENDMENT NO. 70 TO POSSESSION ONLY LICENSE NO. DPR-45  
DAIRYLAND POWER COOPERATIVE  
LA CROSSE BOILING WATER REACTOR  
DOCKET NO. 50-409

1.0 INTRODUCTION

By letter dated December 13, 2005, as supplemented by letters dated January 12, 2006, and March 17, 2006, the licensee, Dairyland Power Cooperative (DPC), requested amendment to its La Crosse Boiling Water Reactor (LACBWR) License and Technical Specifications (TS) (License No. DPR-45). The proposed wording changes to the TS would allow waste processing components or fixtures to be handled over the Fuel Element Storage Well (FESW), limiting the weight of such items to 50 tons (the weight of the heavy load drop found acceptable in the cask drop analyses performed for the LACBWR FESW). The proposed change would allow processing and shipment of Class B and Class C radioactive waste currently stored in the FESW, which will require a cask similar to the spent fuel shipping cask reflected in the current TS.

2.0 BACKGROUND

LACBWR was permanently shutdown on April 30, 1987, and reactor defueling was completed on June 11, 1987. The decommissioning plan was approved August 7, 1991. The decommissioning plan is considered the post-shutdown decommissioning activities report (PSDAR). The PSDAR public meeting was held on May 13, 1998. Since shutdown, the licensee has been conducting limited and gradual dismantlement.

The licensee plans to remove irradiated hardware and other Class B and Class C wastes that are currently stored in the LACBWR FESW. The components will be removed, packaged, and disposed of at the Barnwell Waste Management Facility. On February 14, 2006, the staff published a proposed no significant hazards consideration determination in the Federal Register (71 FR 7804) related to this amendment request. The March 17, 2006, letter from the licensee provided a correction to the TS replacement page to reflect the wording of the proposed TS change in the licensee's December 13, 2005, letter. Because the March 17, 2006, letter simply corrected the TS replacement page to reflect the language included in the licensee's original license amendment request, no re-noticing was needed in the Federal Register.

3.0 EVALUATION

To allow removal, packaging, and disposal of the Class B and Class C wastes currently stored in the LACBWR FESW, the licensee has proposed changing the wording of TS 4.1.1.3, as follows:

The current TS 4.1.1.3 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 licensee proposes changing the wording of TS 4.1.1.3 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 change to TS 4.1.1.3 contains four discrete changes, which are described and evaluated below.

The licensee proposes to delete the phrase "spent fuel" in describing the type of shipping cask allowed to be handled over the FESW. Shipment of Class B and Class 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 licensee 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 Class B and Class C waste removal from the FESW.

The licensee 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 the weight of the heavy load drop used in the cask drop analyses performed for the LACBWR FESW ("Spent Fuel Shipping Cask Drop Analysis for the La Crosse Boiling Water Reactor," September 20, 1978).

The licensee 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.

The licensee's proposed changes to TS 4.1.1.3 are bound by the licensee's previous analysis of a shipping cask or other heavy load drop in the LACBWR FESW. The results of this analysis were submitted to the U.S. Nuclear Regulatory Commission (NRC) previously and have been found acceptable in the following: NRC Safety Evaluation Report (SER) supporting Amendment No. 18 to Provisional Operating License No. DPR-45 (February 4, 1980); NRC SER supporting Amendment No. 69 to Possession Only License No. DPR-45 (April 11, 1997); and the LACBWR decommissioning plan (revised November 2005). As this analysis was

previously found acceptable by NRC staff, the licensee's proposed changes to TS 4.1.1.3 are acceptable.

#### 4.0 FINAL NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

Based on NRC staff's evaluation of the licensee's proposed license amendment, the staff has made a final determination that the proposed amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated; does not create the possibility of a new or different kind of accident from any accident previously evaluated; and does not involve a significant reduction in a margin of safety. The following evaluation in relation to the standards of 10 CFR 50.92(c) explains the staff's final no significant hazards consideration determination.

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

As discussed in the licensee's December 13, 2005, request, 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. Based on the above, NRC staff concludes that the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

As discussed in the licensee's December 13, 2005, request, 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. Based on the above, NRC staff concludes that the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

As discussed in the licensee's December 13, 2005, request, 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. Based on the above, NRC staff concludes that the proposed amendment would not involve a significant reduction in a margin of safety.

On the basis of the above evaluation, NRC staff has made a final determination that the proposed amendment does not involve a significant hazards consideration.

#### 5.0 STATE CONSULTATION

In accordance with NRC's regulations, the Wisconsin State official was notified of the proposed issuance of this amendment, on February 14, 2006 and March 17, 2006. The State official had no comment.

#### 6.0 ENVIRONMENTAL CONSIDERATION

The amendment involves changes to the LACBWR License and Technical Specifications. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. NRC has previously issued a proposed finding that the amendment involves no significant hazards consideration (71 FR 7804; February 14, 2006), and there has been no public comment on such finding. NRC staff has made a final determination that the proposed amendment does not involve a significant hazards consideration. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

#### 7.0 CONCLUSION

NRC has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner; (2) such activities will be conducted in compliance with NRC's regulations; and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: K. L. Banovac

Date: April 3, 2006