

Prairie Island Nuclear Generating Plant Operated by Nuclear Management Company, LLC

AUG 2 6 2008

L-PI-08-071 10 CFR 50.90 10 CFR 50.46

Document Control Desk U.S. Nuclear Regulatory Commission Washington, DC 20555-0001

Prairie Island Nuclear Generating Plant Units 1 and 2 Dockets Nos. 50-282 and 50-306 License Nos. DPR-42 and DPR-60

Supplement to License Amendment Request for Technical Specifications Changes to Allow Use of Westinghouse 0.422-inch OD 14X14 VANTAGE+ Fuel (TAC Nos. MD9142 and MD9143)

Reference: Letter from Nuclear Management Company, LLC to Document Control Desk, "License Amendment Request for Technical Specifications Changes to Allow Use of Westinghouse 0.422-inch OD 14X14 VANTAGE+ Fuel", dated June 26, 2008 (ADAMS Accession ML081820137)

On June 26, 2008, Nuclear Management Company, LLC (NMC) requested amendments to the Operating Licenses and associated Technical Specifications (TS) for Prairie Island Nuclear Generating Plant (PINGP), Units 1 and 2, in support of the transition from 0.400-inch outer diameter (OD) VANTAGE+ fuel to Westinghouse 0.422-inch OD VANTAGE+ (hereafter referred to as 422V+) fuel (Reference). This transition is planned beginning with Cycle 26 (Fall 2009) for Unit 1 and Cycle 26 (Spring 2010) for Unit 2 and will extend over three cycles for each Unit (Cycles 26 through 28).

NMC wishes to clarify the Significant Hazards Consideration Analysis submitted with the reference license amendment request. Specifically, the responses to Question 1, "Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?" and Question 2, "Does the proposed amendment create the possibility of a new or different kind of accident from any accident previously evaluated?" include the following:

"Further, all design basis accidents and transients affected by the fuel upgrade were re-analyzed or evaluated, and the results for the existing fuel remain bounding for the transition to 422V+ fuel." (emphasis added).

The existing 400V+ and proposed 422V+ fuels are compatible for use in transition cores. The intent was not to imply that 400V+ specific limiting parameters would also be applied to 422V+ fuel, only that the results for the existing 400V+ fuel remain bounded by its acceptance criteria during the transition. To clarify, the sentence should be revised to read:

"Further, all design basis accidents and transients affected by the fuel upgrade were re-analyzed or evaluated **using representative core designs and the results for each fuel type show all acceptance criteria will continue to be met.**"

In addition, the response to Question 2 includes the following sentence:

"No equipment additions or modifications are included with the proposed change, and no changes to plant operating procedures are proposed."

To the extent revisions are needed to reflect the changes requested in the referenced license amendment, plant operating procedures will be updated. However, actual plant operations will not be materially affected as a result of the requested changes. The sentence should be revised to read:

"No equipment additions or modifications are included with the proposed change."

The above changes do not affect the conclusions of the Significant Hazards Consideration Analysis.

The revised Significant Hazards Consideration Analysis reflecting the changes described above is enclosed.

Document Control Desk Page 3

Summary of Commitments

This letter contains no new commitments and no revisions to existing commitments.

NMC continues to request approval of this license amendment request by June 30, 2009 with 90 days to implement the associated changes on Unit 1 to support the Unit 1 Cycle 26 refueling outage.

If you have any questions or require additional information regarding this request, please contact Mr. Lenny Sueper at (612) 330-6917, Leonard.Sueper@xenuclear.com.

I declare under penalty of perjury that the foregoing is true and correct. Executed on AUG .2 6 2008

Michael Die Dan

Michael D. Wadley Site Vice President, Prairie Island Nuclear Generating Plant, Units 1 and 2 Nuclear Management Company, LLC

Enclosure

cc: NRC Regional Administrator NRC Project Manager NRC Resident Inspector(s) State of Minnesota

#### Enclosure

### **Revised Significant Hazards Consideration Analysis**

### 4.3 Significant Hazards Consideration Analysis

The proposed amendment would make changes the Technical Specifications that are conforming or related to a change in fuel type from Westinghouse 0.400-inch OD Vantage+ fuel (400+) to Westinghouse 0.422-inch OD Vantage+ (422V+) fuel.

NMC has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

# 1. Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

#### Response: No.

The requested amendment is related to a change in the reload fuel design. The design criteria for the reload fuel are consistent with those for the existing fuel and ensure that the reload fuel is compatible on the basis of coolant flow and neutronic characteristics, as well as DNB and peak cladding temperature requirements. The reload fuel design also ensures mechanical compatibility with the existing fuel, reactor core, control rods, steam supply system, and fuel handling tools and system. The reactor fuel and its analysis are not accident initiators. Therefore, the change in reload fuel design does not affect accident or transient initiation.

The minimum boron accumulator concentration is also not an accident initiator. The proposed change to the minimum accumulator boron concentration Technical Specification limit ensures that the plant will continue to operate in a manner that provides acceptable levels of protection for health and safety of the public. Further, all design basis accidents and transients affected by the fuel upgrade were re-analyzed or evaluated using representative core designs and the results for each fuel type show all acceptance criteria will continue to be met.

Therefore, the proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

## 2. Does the proposed amendment create the possibility of a new or different kind of accident from any accident previously evaluated?

#### Response: No.

Use of the 422V+ fuel is consistent with current plant design bases and does not adversely affect any fission product barrier, nor does it alter the safety function of safety significant systems, structures and components or their roles in accident prevention or mitigation. The operational characteristics of 422V+ fuel are bounded by the safety analyses

(Attachment 4). The 422V+ fuel design performs within existing fuel design limits.

The proposed change to the minimum accumulator boron concentration Technical Specification limit ensures that the plant will continue to operate in a manner that provides acceptable levels of protection for health and safety of the public. Further, all design basis accidents and transients affected by the fuel upgrade were re-analyzed or evaluated using representative core designs and the results for each fuel type show all acceptance criteria will continue to be met.

No equipment additions or modifications are included with the proposed change.

Therefore, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

## 3. Does the proposed amendment involve a significant reduction in a margin of safety?

### Response: No.

The proposed changes do not alter the manner in which applicable design basis limits are determined, nor do they result in exceeding existing design basis limits. Thus, all licensed safety margins are maintained.

Therefore, the proposed changes do not involve a significant reduction in the margin of safety.

Based on the above, NMC concludes that the proposed amendment does not involve a significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.