NRC-03-018

10 CFR 50.90

February 27, 2003

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

KEWAUNEE NUCLEAR POWER PLANT
DOCKET 50-305
LICENSE No. DPR-43
SUPPLEMENT TO LICENSE AMENDMENT REQUEST 193, MEASUREMENT UNCERTAINTY RECAPTURE POWER UPRATE FOR KEWAUNEE NUCLEAR POWER PLANT

References:
1) Letter NRC-03-004 from Thomas Coutu to Document Control Desk, "License Amendment Request 193, Measurement Uncertainty Recapture power Uprate for Kewaunee Nuclear Power Plant," dated January 13, 2003 (TAC No. MB7225).

2) Letter NRC-81-26 from E.R. Mathews (WPSC) to A. Schwencer (NRC), "Proposed Amendment No. 45," dated February 20, 1981.

3) Letter from S.A. Varga (NRC) to E.R. Mathews (WPSC), regarding issuance of Amendment No. 35, dated July 24, 1981.

In accordance with the requirements of 10 CFR 50.90, Nuclear Management Company, LLC (NMC) submitted license amendment request (LAR) 193 (reference 1) for a measurement uncertainty recapture (MUR) power uprate of 1.4 percent. The MUR power uprate would change the operating license and the associated plant Technical Specifications (TS) for the Kewaunee Nuclear Power Plant (KNPP) to reflect an increase in the rated power from 1650 MWt to 1673 MWt.

The reference 1 submittal followed Nuclear Regulatory Commission (NRC) Regulatory Issue Summary (RIS) 2002-03, "Guidance on the Content of Measurement Uncertainty Recapture Power Uprate Applications." In response to Section VII.5.A of the RIS guidance, the NMC provided a discussion of the 10 CFR 51.22 criteria for categorical exclusion for environmental review. This discussion was provided in reference 1, Attachment 2, pages 58 and 59. This discussion included information regarding effluent releases governed by the Wisconsin Department of Natural Resources (WDNR) including the Wisconsin Pollutant Discharge Elimination System (WPDES) permit and a WDNR Order, the latter containing limits on circulating water discharge flow rate and temperature.

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Following the reference 1 submittal, intake icing problems caused the NMC to thoroughly investigate the WDNR Order temperature limits. Research into this WDNR Order determined that the limits in the original WDNR Order (dated September 13, 1976) were no longer in effect. From references 2 and 3 it can be concluded that the WDNR Order was no longer in effect following the issuance of the September 28, 1979 WPDES permit. The Environmental Services Department at Wisconsin Public Service Corporation (WPSC), the owner of the KNPP, confirmed that the current WPDES permit is the controlling document and that this permit does not contain any limitations on circulating water discharge flow rate or temperature. The research into the WDNR Order limits has been captured in the site corrective action program.

Based on the above discussion, Attachment 2, Section VII.5.A of the MUR power uprate submittal (reference 1) requires revision. The NMC has determined the most straightforward approach is to revise the affected pages of Attachment 2 in reference 1. The revised pages are numbered 58a and 59a and are included as an attachment to this letter. Revision bars in the right hand margin denote the affected text of these pages. Pages 58a and 59a replace the original pages 58 and 59 of reference 1, Attachment 2, in their entirety.

The fact that the WDNR Order was superceded does not affect the ultimate conclusion of the environmental review provided for the MUR power uprate. The MUR power uprate does not involve a significant change in the types of or significant increase in the amounts of any effluents that may be released offsite or a significant increase in individual or cumulative occupational radiation exposure. Therefore, the proposed change continues to meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), an environmental assessment of the proposed change is not required.

This supplement does not change the Operating License or Technical Specifications for the KNPP. This supplement also does not change the no significant hazards determination originally submitted in reference 1. No additional commitments have been made as a part of this supplement.

In accordance with 10 CFR 50.91, a copy of this application, with the attachment, is being provided to the designated Wisconsin Official.

I declare under penalty of perjury that the foregoing is true and correct.
Executed on February 27, 2003.

Thomas Coutu
Site Vice-President, Kewaunee Plant

LMG

Attachment Revised Pages for License Amendment Request 193, Measurement Uncertainty Recapture Power Uprate for Kewaunee Nuclear Power Plant

cc- US NRC, Region III
US NRC Senior Resident Inspector
Electric Division, PSCW

ATTACHMENT 1

NUCLEAR MANAGEMENT COMPANY, LLC
KEWAUNEE NUCLEAR PLANT
DOCKET 50-305

**February 27, 2003**

Letter from Thomas Coutu (NMC)

To

Document Control Desk (NRC)

Supplement to License Amendment Request 193

Revised Pages for License Amendment Request 193, Measurement Uncertainty Recapture Power Uprate for Kewaunee Nuclear Power Plant

**5. A discussion of the 10 CFR 51.22 criteria for categorical exclusion for environmental review including:**

**A. A discussion of the effect of the power uprate on the types or amounts of any effluents that may be released offsite and whether or not this effect is bounded by the final environmental statement and previous Environmental Assessments for the plant.**

A review considering the operating license, the current Wisconsin Pollutant Discharge Elimination System (WPDES) permit, and the information contained in the Final Environmental Statement (FES) was performed. Effluents from the plant that could change as a result of the MUR power uprate are thermal discharges to Lake Michigan and radiological effluents. Although increases in discharge amounts associated with the proposed power uprate are possible, they will remain within acceptable limits. Annual radiological discharges will continue to be a small percentage of the allowable limits and the FES estimates. The effluents are described below.

Wisconsin Pollutant Discharge Elimination System (WPDES) permit, WI-00001571-06-0, addresses chemical and contamination limits and reporting requirements of KNPP. There are no thermal limits in the WPDES Permit. Chemical and contamination limits are defined on a volumetric basis. There will be no diluting effects based on the power uprate. Therefore, the chemical and contamination limits are not affected. An evaluation of a 7.4 percent power uprate showed no changes in the current circulating water (CW) flow rate. The evaluation also determined the total temperature rise across the condenser to be 16.7°F. This results in an increase in CW outlet temperature of approximately 1.5°F for a 7.4 percent power uprate. This temperature rise is expected to be much smaller for the 1.4 percent MUR power uprate. Therefore, the WPDES permit does not require modification as a result of the 7.4 percent uprate. The 1.4 percent MUR power uprate is expected to have much less of an impact on the thermal discharge and is bounded by the 7.4 percent evaluation. Therefore, the WPDES permit does not require modification for the 1.4 percent MUR power uprate either.

Normal annual radiological effluents were evaluated for an uprate to 1772 MWt. These effluents were described in Section III.3 of this attachment. Based on the evaluations performed for an uprated power of 1772 MWt, the liquid and gaseous radwaste system design will be capable of maintaining normal operational offsite releases and doses within the requirements of 10 CFR 20 and 10 CFR 50, Appendix I. Additionally, effluent increases are assumed to be proportional to the increase in power. Therefore, effluents from the MUR power uprate (1673 MWt) are bounded by this evaluation. Solid waste volume generation is expected to increase slightly. However, all solid waste is controlled within several state and federal regulatory limits through the KNPP Solid Radioactive Waste Process Control Program (reference VII.1).

**B. A discussion of the effect of the power uprate on individual or cumulative occupational radiation exposure.**

Normal operation radiation levels were originally evaluated at a core power level of 1721 MWt. Therefore, the original evaluation bounds the power level of the MUR power uprate (i.e., 1673 MWt). Therefore, there will be no changes in radiation zoning in the plant. Additionally, individual worker exposures will be maintained within the acceptable limits of the site ALARA program that controls access to radiation areas.

**Environmental Review Conclusions**

Thermal effluents may change slightly following the MUR power uprate. These changes have been evaluated at an uprated power of 1772 MWt. However, the KNPP WPDES permit does not contain thermal limits. The current WPDES permit remains valid for the 1.4 percent MUR power uprate. Radiological effluents were evaluated at an increased core power of 1772 MWt. All releases and doses will remain within regulatory limits. Radiation exposure was also reviewed. Original normal dose evaluations were based on a 1721 MWt core power level. Therefore, radiation exposure shielding design does not change. Additionally, the site ALARA program will continue to monitor and control personnel exposure such that the regulatory limits are not exceeded.

Based on the above, the proposed change does not involve a significant change in the types of or significant increase in the amounts of any effluents that may be released offsite or a significant increase in individual or cumulative occupational radiation exposure. Therefore, the proposed change meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22 (b), an environmental assessment of the proposed change is not required.