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October 14, 2004

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

Subject: Request for Exemption from 10CFR72.236(f)

References: USNRC Docket No. 72-1014, TAC L23657  
HI-STORM 100 Certificate of Compliance 1014  
HI-STORM License Amendment Request 1014-2, Revision 2, Supplement 6

Dear Sir:

Our License Amendment Request 1014-2 describes the use of an active cooling system we refer to as the Supplemental Cooling System (SCS). As described in Appendix 2.C of the proposed HI-STORM FSAR, the SCS is an electrically powered system that circulates water across the MPC shell outer surfaces and rejects heat absorbed by the circulating water to the ambient via an air-to-water type heat exchanger. The use of the SCS is mandated during post-backfill on-site loading operations that utilize the HI-TRAC transfer cask when high burnup (> 45 GWD/MTU) fuel assemblies are loaded in the contained Multipurpose Canister (MPC).

In accordance with the provisions of 10 CFR 72.7, we request an exemption from the requirements of 10 CFR 72.236(f) to allow the use of the SCS as described in our LAR 1014-2. Our request is based on the following features of and operating conditions for the SCS:

1. Consistent with its safety function, the SCS is classified as Important to Safety Category B [proposed FSAR, Section 2.C.5].
2. The active components (i.e., electric motors) of the SCS must be connected to redundant power sources to ensure uninterrupted operation [proposed FSAR, Section 2.C.2(i)].
3. Compared with the storage system licensed life of 20 years and design life of 40 years, the operations involving the SCS occur over a relatively short period of 1 to 3 days. Operation of the SCS will be observed at all times, by virtue of the nature of the on-site loading operations involving the HI-TRAC, so that any interruption of operation will be immediately detected and corrected.
4. The large thermal capacity of the HI-TRAC transfer cask and its contents will suppress rapid temperature changes, so that any short interruption of SCS operation will not result in large fuel cladding temperature rises.

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5. Thermal analysis [proposed FSAR, Section 11.2.16] has demonstrated that, were SCS operation to be interrupted for an extended period of time, the fuel cladding temperatures would remain below short-term allowable limits.

Based on these considerations, we believe that an exemption from the requirements of 10CFR72.236(f) is warranted and will not "endanger life or property or the common defense and security and (is) otherwise in the public interest." We request that this request be approved and the exemption issued by the NRC concurrent with the approval of LAR 1014-2.

Sincerely,

Evan Rosenbaum, P.E.  
Project Manager, LAR 1014-2

Approval:

Stefan Anton, Dr.-Ing.  
Licensing Manager

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emcc: Mr. Christopher Regan, USNRC  
HUG Main and Licensing Groups  
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