Nuclear

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4410-89-L-0044/0460P

US Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

Dear Sirs:

Three Mile Island Nuclear Station, Unit 2 (TMI-2)
Operating License No. DPR-73
Docket No. 50-320
Polar Crane Operations

GPU Nuclear letter 4410-88-L-0165, dated October 20, 1988, requested approval to use the Polar Crane Auxiliary Hook in fast speed provided certain conditions were met. Prior to submittal of that letter, GPU Nuclear had received NRC authorization to use the Polar Crane Auxiliary Hook for defueling-related activities. However, use was limited to the slow speed (4 inches/minute) when raising loads in the Reactor Vessel (reference GPU Nuclear letter 4410-87-L-0168, dated November 4, 1987). By the letter of October 20, 1988, GPU Nuclear requested NRC approval to use the Polar Crane Auxiliary Hook in the fast speed contingent upon installation of overload control devices. The benefits associated with this change would be improved defueling efficiency and reduced radiation exposure to personnel. The NRC approved the request on December 30, 1988.

The referenced letter of November 4, 1987, stipulated "To prevent accidental 'runaway' movement of the auxiliary hoist when it is handling a load inside the RV, an individual will be stationed at a polar crane power disconnect switch or circuit breaker (either inside or outside the Reactor Building) to cut power if such an event occurs."

Due to the required length of the tools used for defueling activities in the Reactor Vessel Lower Head and other in-vessel defueling activities, the Polar Crane is increasingly in demand as the service crane does not have adequate hook height. Therefore, a "breaker watch" must be on station virtually all of the time. As indicated in our submittal of October 20, 1988, the overload control system for the Polar Crane, which has been installed, is similar to the system that has been successfully used for several years on the Reactor Building Service Crane and does not require a "breaker watch."

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GPU Nuclear has evaluated the contribution to the margin of safety by the Polar Crane "breaker watch". With the addition of the redundant overload sensors, which are fast acting, the "breaker watch" provides no perceptible increase in the margin of safety. Therefore, GPU Nuclear is deleting this requirement and thereby reduce overall occupational exposure during Polar Crane operations. The deletion of the general requirement for a "breaker watch" has been discussed previously with the NRC Site Representative. As an additional measure of conservatism, a "breaker watch" will be established and the Polar Crane Auxiliary Hook will be operated in the slow speed only when the load is greater than 10,000 lbs.

Sincerely,

M B Roche

M. B. Roche
Director, TMI-2

JJB/emf

cc: F. I. Young - Senior Resident Inspector, TMI
W. T. Russell - Regional Administrator, Region I
J. F. Stolz - Director, Plant Directorate I-4
L. H. Thonus - Project Manager, TMI Site