Nuclear

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4410-88-L-0050/0370P

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
Use of Core Bore Machine for Dismantling
Lower Core Support Assembly

For purposes of information, GPU Nuclear is providing notification of our plans to use the core bore machine at selected ligament intersections to section the Lower Grid Rib Section (LGRS) portion of the Lower Core Support Assembly (LCSA). This activity will enable the TMI-2 defueling evolution to continue in an expeditious manner. Based on the below analysis, GPU Nuclear has determined that this activity does not constitute an unreviewed safety question pursuant to 10 CFR 50.59.

GPU Nuclear letter 4410-87-L-0189, dated December 28, 1987, requested use of the core bore machine for dismantling and defueling the LCSA. This request was approved via NRC letter NRC/TMI-88-003 dated January 8, 1988. The referenced GPU Nuclear letter stated that the core bore machine would be used to bore through all 52 incore spiders and then completely bore (i.e., sever from the LCSA) up to 15 outer periphery incore guide tubes. Additionally, the referenced GPU Nuclear letter stated that the support posts would be bored through to the lower grid forging with 16 outer periphery support posts being completely bored through the lower grid forging.

Following the activities described above, GPU Nuclear had planned to use the Automatic Cutting Equipment System (ACES) for cutting the LCSA as addressed in GPU Nuclear letter 4410-88-L-0005, dated January 18, 1988. Use of the core bore machine to date has been generally successful. Thus, in addition to the ongoing activities described in the above referenced GPU Nuclear letter, GPU Nuclear plans to use the core bore machine to section the LGRS at additional

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selected ligament intersections. The planned severances are similar to those currently being performed at the support posts except that support posts do not exist below the intersection locations where the additional severances will be performed. The severed section(s) of the LGRS have the potential to fall approximately 5-1/2 inches to the flow distributor plate. This planned activity will not impair the capability of the flow distributor to absorb the impact energy of such a load drop. The LGRS is below the top of the incore guide tubes; thus, no axial loads on the guide tubes can result. Consequently, no axial loads can be transmitted to the incore nozzles in the lower head region. Potential lateral loads on the incore guide tubes will be absorbed by the incore guide tube support plate and the elliptical flow distributor. Therefore, the planned activity will not affect the integrity of the reactor vessel.

The operational limitations established for the core bore machine operation, as stated in the referenced GPU Nuclear and NRC letters, will continue to apply during the described activity. Based on the above, GPU Nuclear has concluded that this activity is bounded by the evaluations in the referenced GPU Nuclear and NRC letters.

This operation does not increase the consequences or the probability of an accident previously evaluated, create the possibility for an accident of a different type then those previously evaluated, or reduce the margin of safety as defined in the Technical Specifications. In addition, this operation does not require a change to the Technical Specifications. GPU Nuclear has concluded that the core bore machine can be used for the operation described without presenting an undue risk to the health and safety of the public and this activity does not constitute an unreviewed safety question pursuant to 10 CFR 50.59.

Sincerely,

F. R. Standerfer
Director, TMI-2

RDW/emf

cc: Senior Resident Inspector, TMI - R. J. Conte
Regional Administrator, Region 1 - W. T. Russell
Director, Plant Directorate IV - J. F. Stolz
Systems Engineer, TMI Site - L. H. Thomas