July 23, 1984 NRC/TMI 84-056

Distribution Docket No. 50-320 NRC PDR Local PDR DCS TMI Site r/f TMI HQ r/f BSnyder PGrant TPoindexter MMasnik RWeller. AFasano RCook LChandler, ELD ACRS **HDenton** 1&F M-Town Office

Docket No. 50-320

GPU Nuclear Corporation
ATTN: Mr. B. K. Kanga
Director, TMI-2
P. O. Box 480
Middletown, Pennsylvania 17057

Dear Sir:

Subject:

MAC FORM 318 (10-80) NRCM 0240

Three Mile Island Nuclear Station, Unit 2

Operating License No. DPR-73

Docket No. 50-320

Recovery Operations Plan Change Request Nos. 20 and 22

Reference: Letter from B. K. Kanga to P. J. Grant, same subject, dated

July 20, 1984.

The referenced letter requests deletion of Recovery Operations Plan Sections 4.1.1.1.3 and 4.1.1.1.j.2 which specify the operating pressure band for the Standby Pressure Control (SPC) System in-service nitrogen supply bank and dissolved gas concentration limit for the SPC system water surge tanks.

Section 4.1.1.1.j.2 is intended to assure that water in the SPC system meets appropriate quality requirements for injection into the reactor coolant system (RCS). Since the RCS will be opened to the containment atmosphere after head removal, the staff agrees that the limits on dissolved gas concentration are no longer applicable and should be deleted.

Section 4.1.1.1.j.3 specifies a nitrogen bank pressure band to assure an injection rate of 80 gpm while maintaining RCS pressure at 100 + 10 psig, and assuring that interconnected systems with lower design pressures will not be overpressurized. The 80 gpm injection rate is based on compensating for the design maximum shrink while maintaining RCS pressure at 100 psig. After discussing the proposed change with members of your staff, we have concluded that maintaining the upper pressure limit is appropriate. We agree that the lower limit of 225 psig is no longer appropriate since the SPC system will be used as a source of borated makeup water. It will not need to provide the 80 gpm injection rate to maintain RCS pressure when the reactor vessel head is removed. However, based on discussions with your staff, a minimum pressure will be required in the nitrogen banks to provide the motive force to inject sufficient water into the RCS which will lower the level in SPC-T-3 to allow

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starting the SPC charging pumps. A minimum pressure of 50 psig as specified in your proposed operating procedures would be appropriate. It may be possible to remove the limit in the future if analysis or testing can demonstrate that gravity flow from the SPC system to the RCS is sufficient.

We are approving the changes discussed above and are enclosing the amended sections to the Recovery Operations Plan as approved Change No. 21.

Sincerely,

Philip J. Grant Acting Deputy Program Director THI Program Office

Attachment: As stated

cc: R. Rogan

J. Barton

A. Hiller

J. Byrne

R. Freemerman

Service Distribution List

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NRC FORM 318 (10 80) NRCM 0240

BORON INJECTION (Continued)

- h. At least once per 24 hours by verifying the BWST temperature is at least 50°F when the outside air temperature is less than 50°F.
- At least once per 12 hours (when system is in operation) by verifying that the standby reactor coolant system pressure control system:
 - Surge tank water volume is filled to between 55% and 80% of tank capacity and the tank is pressurized to the operating RCS pressure ± 25 psig but not higher than 600 psig.
 - Isolation valves on the discharge side of the water filled tank nearest the reactor coolant system are open.
 - The in-service nitrogen supply bank is pressurized to between 50 and 400 psig.
- j. At least once per 7 days by verifying that the standby reactor coolant system pressure control system surge tanks and the charging water storage tank contain borated water with;
 - A boron concentration of between 3000 and 5000 ppm.
 - 2. Deleted
- k. At least once per 31 days by verifying that the standby reactor coolant system pressure control system isolation valve on the discharge side of the water filled tank nearest the reactor coolant system closes automatically on a tank low level test signal.

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