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

Dear Sir:

Subject: Three Mile Island Nuclear Station, Unit 1 (TMI-1)
Operating License No. DPR-50
Docket No. 50-289
Request for Approval to Use ASME Code Case N-498
"Alternative Rules for 10-Year Hydrostatic Pressure Testing for
Class 1 and 2 Systems, Section XI, Division 1"

Pursuant to 10 CFR 50.55a(g)(5)(iii), GPU Nuclear requests approval to implement the alternative rules of ASME Section XI Code Case N-498 for Class 1 and 2 systems which was approved by the ASME on May 13, 1991. The currently applicable Edition of the ASME Code Section XI for TMI-1 is the 1986 Edition. Code Case N-498 allows a VT-2 visual leakage examination to be performed at nominal operating pressure rather than at the Code required hydrostatic test pressure. The provisions of Code Case N-498 would be used in lieu of the 10-year hydrostatic pressure tests required by ASME Section XI Table IWB-2500-1, Category B-P, and Table IWC-2500-1, Category C-H. It is understood that Code Case N-498 has been reviewed by the NRC and found acceptable although approval has not been reflected in Regulatory Guide 1.147. It is also understood that approval for use has been granted to other licensees, e.g., Cooper, Salem-2, and WPPS-2.

Use of the alternative rules will reduce cost, critical path outage time, and total radiation exposure to personnel without reducing the level of quality or safety. Leakage would not be appreciably more apparent using the hydrostatic test as compared with the VT-2 visual examination allowed by Code Case N-498 because the applicable system hydrostatic test pressure would not apply significant additional stress to the piping. It is noteworthy that TMI-1 has completed thirteen (13) system hydrostatic tests to date and never found weld or piping throughwall leakage.

Personnel exposure dose savings would be associated with elimination of the need to install and remove hydrostatic test equipment, remove and blank relief

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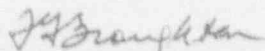
valves, and isolate and restore valve lineups required for the hydrostatic tests. System hydrostatic tests that would be affected are:

1. Main Steam System from the Once Through Steam Generator secondary side to: Main Steam Isolation Valves, the Emergency Feedwater Control Valves (EFCV), and the Main Feedwater Check Valves (FW-VI A/B);
2. Main Feedwater System;
3. Main Feedwater Injection System;
4. Main Feedwater Pumps and piping inside containment of Reactor Building Emergency Cooling System;
5. Reactor Building Spray System;
6. Reactor Building Recombiner System;
7. High Pressure Injection System;
8. Reactor Building Cooling System; and
9. Various Reactor Building penetrations.

The first system to which this Code Case would be applied is the Main Steam System. A Hydrostatic test of the Main Steam System requires gagging or blanking of the eighteen (18) Main Steam Safety Valves (MSSVs) to achieve the required hydrostatic test pressure. Gagging could potentially damage the MSSVs and would require a valve retest for operability. Blanking off the MSSVs would likely result in a need to retest some or all of the valves. An estimated four days of critical path time would be saved during an outage by using the alternative rules of Code Case N-498 rather than performing a hydrostatic test of the Main Steam System as required by the currently applicable 1986 Code Edition. In conclusion, there does not appear to be sufficient benefit to be gained to warrant the risks and resource impact associated with system hydrostatic tests.

Approval is requested by May, 1992 to facilitate the budgeting and scheduling of activities for the TMI-1 Cycle 10 Outage (10R) which is scheduled to begin in September, 1993.

Sincerely,


T. G. Broughton
Vice President and Director, TMI-1

MRK

cc: Region I Administrator
TMI-1 Senior Project Manager
TMI Senior Resident Inspector