Docket No. 50-289

Mr. T. Gary Broughton Vice President and Director, TMI-1 GPU Nuclear Corporation Three Mile Island Nuclear Station P. O. Box 480 Middletown, Pennsylvania 17057-0191

Dear Mr. Broughton:

SUBJECT: NRC INSPECTION NO. 50-289/94-03

This letter refers to the safety inspection of engineering and technical support activity related to the General Public Utilities Nuclear Corporation (GPU) and Three Mile Island Nuclear Station, Unit 1 (TMI-1) conducted by Mr. A. Lohmeier of this office during the period February 7-11, 1994, in Middletown, Pennsylvania. At the conclusion of the inspection, his findings were discussed with members of the TMI-1 engineering and licensing staff.

The scope of this inspection included review of your engineering and technical support effectiveness in monitoring transient operation of primary system components and piping. As the plant ages, it is important to identify the number and severity of operating transients for which the components and piping have been designed, and whether operation has been consistent with the design transients. Effective performance in these areas by your engineering and technical support personnel is important to the continuing safe operation of the plant and protection of public health and safety.

Based on the results of this inspection, it was determined your engineering and technical support staff was addressing the retention of cyclic operating data for those components designed for limited numbers of cycles, consistent with the technical specification requirements.

In reviewing the results of transient cycle expenditure evaluation, it was noted by the inspector that the number of transients experienced to date is only a fraction of that predicted. Furthermore, the number of transients predicted to occur over the 40-year plant lifetime is significantly below the limit for which the reactor cooling system was designed.

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The inspector found TMI-1 comprehensively demonstrated that the cumulative usage factor (CUF) for 40 years operation were calculated to be within the limiting value of 1.0 for most reactor coolant system (RCS) components. Where operating changes warranted reanalysis, and it was found that some component parts had total CUFs exceeding 1.0, changes in operation provided for amelioration of the transient severity or frequency so that the CUF could be reduced to below the limiting value. TMI-1 demonstrated that it had available the means to evaluate extraordinary transients beyond those in the original functional design basis, and provide for appropriate corrective action accommodations.

The inspector found there was little progress to report on resolution of unresolved item 50-289 URI 93-016-01, related to absence of a surveillance program for inservice inspection. We understand that the delay is due to a reorganization of the assessment group and that resolution is expected to be completed by September 30, 1994.

The results of this inspection were discussed with your engineering and licensing staff at the exit meeting. No violations were found during this inspection, and no response to this letter is required. Your cooperation with us is greatly appreciated.

Sincerely, Original Signed By

Michael C. Modes, Chief

Materials Section Engineering Branch

Division of Reactor Safety

Enclosure: NRC Inspection Report No. 50-289/94-03

cc w/encl:

M. J. Ross, Operations and Maintenance Director, TMI-1

J. Fornicola, Licensing and Regulatory Affairs Director

J. Wetmore, Manager, TMI-1 Licensing Department

E. L. Blake, Jr., Esquire

TMI-Alert (TMIA)

K. Abraham, PAO (2)

Public Document Room (PDR)

Local Public Document Room (LPDR)

Nuclear Safety Information Center (NSIC)

NRC Resident Inspector

Commonwealth of Pennsylvania

bcc w/encl:

Region I Docket Room (with concurrences)

J. Rogge, DRP

bcc w/encl (VIA E-MAIL):

V. McCree, OEDO

J. Stolz, PD I-4, NRR

R. Hernan, PD I-4, NRR

M. Shannon, NRR/ILPB

J. Strosnider, NRR

K. Wichman, NRR

R. Parkhill, NRR

J. Fair, NRR

RI:DRS Lohmeier Alp K for a. 2 3/4/94 H.DRS Modes 3/ 1/94

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