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November 12, 1998

1920-98-20654

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

Gentlemen:

Subject: Three Mile Island Nuclear Station, Unit 1 (TMI-1)
Operating License No. DPR-50
Docket No. 50-289
Reply to Notice of Violation

Reference: NRC Letter dated October 15, 1998 "NRC Inspection
Report No 50-289/98-06 and Notice of Violation"

The referenced letter enclosed a Notice of Violation in regard to a change to the makeup system cross-connect valves. Pursuant to the provisions of 10 CFR 2.201, Attachment I to this letter provides the GPU Nuclear response to the Notice of Violation.

Sincerely,

James W. Langenbach
Vice President and Director, TMI

MRK

Attachments

cc: TMI Senior Resident Inspector
TMI-1 Senior Project Manager
Region Administrator
File No. 97062

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NOTICE OF VIOLATION

GPU Nuclear Corporation
Three Mile Island Nuclear Station

Docket No. 50-289
License No. DPR-50
EA No. 98-456

During an NRC inspection conducted between August 10 and 27, 1998, a violation of NRC requirement was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," NUREG-1600, the violation is listed below:

10 CFR 50.59 states, in part, that changes to the facility as described in the safety analysis report may be made without prior NRC approval, unless the proposed change involves a change in the technical specifications incorporated in the license or an unreviewed safety question. A change shall be deemed to involve an unreviewed safety question if a possibility for malfunction of a different type than any evaluated previously in the safety analysis report may be created.

Contrary to the above, in October 1997, a change to the facility as described in Section 6.1, Emergency Core Cooling systems, of the TMI-1 Updated Final Safety Analysis Report (UFSAR), involving an unreviewed safety question, was made without prior Commission approval. The change, which involved cross connecting the previously separate suction lines of the three high pressure injection pumps by opening valves MU-V69A and MU-V69B, created the possibility for a malfunction of a different type than any previously evaluated in the UFSAR in that a new potential for failure of the "C" makeup pump due to gas entrainment from the makeup tank was created.

This is a Severity Level IV violation (Supplement 1)

GPU NUCLEAR RESPONSE TO THE NOTICE OF VIOLATION

GPU Nuclear acknowledges that the violation occurred as stated in the Notice of Violation presented in NRC Inspection Report No. 50-289/98-06.

Reason for the violation:

The reason for the violation was described in LER 98-09 as follows: "The preparer and the reviewers of the safety evaluation failed to recognize that the limiting single failure was not assumed in the gas entrainment analysis and that such an assumption was required if the MU/HPI [Makeup and Purification/High Pressure Injection] System lineup were revised to operate with a common MU/HPI suction header." Therefore, the basis for the 50.59 evaluation documented in SE 000211-015 was incorrect.

Corrective steps that have been taken and the results achieved:

The condition cited in the violation was corrected on August 20, 1998 when the Makeup Tank (MUT) operating limit to prevent gas entrainment was revised. The revised operating limit

restores the validity of the original basis for the determination in the safety evaluation that the change did not involve an unreviewed safety question (USQ).

Corrective steps that will be taken to avoid further violations:

1. A permanent resolution, to either adopt the temporary change or to revise the MUT pressure/level limits analysis as appropriate along with establishing procedure controls to address the failure of a Borated Water Storage Tank (BWST) suction valve (MU-V-14A or MU-V14B), will be determined and implemented by December 20, 1998.
2. A review of the configuration control process, including the calculation process, will be conducted to determine if improvements are necessary to ensure appropriate and consistent application of the single failure criteria. This review will be completed by July 1999 and any resulting recommendations will be implemented by December 1999.
3. The guidance for the preparation of safety evaluations will be reviewed to determine if enhancements are necessary to improve quality and consistency. This review will be completed by July 1999 and any resulting recommendations will be implemented by December 1999.
4. Written guidance will be provided for all Responsible Technical Reviewers (RTRs) and Independent Safety Reviewers (ISRs) by December 1, 1998 to heighten their awareness of the need to ensure that the most limiting single failure has been identified.

The date when full compliance will be achieved:

Plant operation and design were in full compliance with the requirements of 10CFR50.59 on August 20, 1998 when the basis for the 50.59 evaluation (SE 000211-015) was restored.