

November 7, 1995

EA 95-238

Mr. James Knubel
Vice President and Director, TMI
GPU Nuclear Corporation
Three Mile Island Nuclear Station
P. O. Box 480
Middletown, PA 17057-0191

SUBJECT: INSPECTION REPORT NO. 50-289/95-16

Dear Mr. Knubel:

This letter refers to the announced inspection conducted by NRC inspectors from September 25-29, 1995, at the Three Mile Island, Unit 1 Nuclear Station (TMI) in Middletown, Pennsylvania, and from October 10-11, 1995, at the GPU Nuclear (GPUN) Office in Parsippany, New Jersey. The purpose of the inspection was to determine whether activities authorized by the license were conducted safely and in accordance with NRC requirements. The inspection findings were discussed with members of your staff at the TMI site exit meeting on September 29, 1995, and during a telephone exit conducted on October 19, 1995.

Our inspectors reviewed TMI's and GPUN's activities in response to the recent crack identified in the reactor coolant system drain line on September 9, 1995, while in the process of cooling down for the Cycle 11 refueling outage. Although the root cause has not yet been identified with certainty, the inspectors determined that TMI and GPUN generally demonstrated good performance in evaluating the potential root cause, verifying the structural integrity of the other drain lines, and in developing and implementing corrective actions. In contrast to this good performance, the inspectors identified errors and weaknesses in GPUN's control and oversight of the design control process, including: (1) failures in the design verification process, (2) discrepancies with design-related documents, and (3) apparent weaknesses in engineering management's control of the design process. More significantly, while reviewing GPUN's response to past problems with the drain lines, the inspectors identified activities that appear to be in violation of NRC requirements.

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Based on the results of this inspection, two apparent violations were identified and are being considered for escalated enforcement action in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions" (Enforcement Policy), (60 FR 34381; June 30, 1995). Specifically:

- During performance of ASME Section XI inservice inspections in 1988 and 1990, TMI site engineering personnel identified distorted pipe supports on the 'B' and 'D' RCS drain lines. In 1990, GPUN performed a structural analysis of the drain lines that demonstrated that the piping exceeded allowable stress values specified in the design code of record. The lines were returned to service in the as-found condition and have operated since that time with no additional evaluation, monitoring, or inspection. This is an apparent violation of the requirements of 10 CFR 50.55.a.
- As a result of the 1990 drain line analysis, GPUN developed a modification of the drain line pipe support configurations to eliminate the overstress condition. This modification was documented in a letter, dated August 27, 1990, transmitted from GPUN in Parsippany, New Jersey, to the TMI site. The modification was never implemented, and GPUN could provide no documentation to demonstrate how the modification was dispositioned. Furthermore, GPUN's design verification process failed to identify a major error in the 1990 analysis that resulted in significantly underestimating the level of overstress in the pipe. This is an apparent violation of 10 CFR 50, Appendix B, Criterion III, Design Controls.

Because these are apparent violations, no Notice of Violation is presently being issued for these inspection findings. In addition, please be advised that the number and characterization of apparent violations described in the enclosed inspection report may change as a result of further NRC review.

A closed predecisional enforcement conference to discuss these apparent violations has been scheduled for December 18, 1995, at 9:00 a.m.. The decision to hold a predecisional enforcement conference does not mean that the NRC has determined that a violation has occurred or that enforcement action will be taken. This conference is being held to obtain information to enable the NRC to make an enforcement decision, such as a common understanding of the facts, root causes, missed opportunities to identify the apparent violation sooner, corrective actions, significance of the issues and the need for lasting and effective corrective action. In particular, at the conference please be prepared to discuss the basis for returning the RCS to service when your analysis indicated that the design code of record for the drain lines was not satisfied, the reason why the drain line modification was not implemented in 1990, and the lack of information to indicate how the modification was dispositioned.

Additionally, be prepared to address the actions taken or planned to ensure the following: (1) that similar situations do not exist in which safety-related systems are returned to service while in noncompliance with the design code of record; (2) that modifications to safety-related systems are properly

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initiated, reviewed, implemented and/or dispositioned, before returning the system to service; (3) that design verification reviews are effective in identifying and correcting design errors, and (4) that procedures and documents utilized in the design process are correct.

In addition, this conference provides an opportunity for you to point out any errors in our inspection report and for you to provide any information concerning your perspectives on: (1) the severity of the violation(s), (2) the application of the factors that the NRC considers when it determines the amount of a civil penalty that may be assessed in accordance with Section VI.B.2 of the Enforcement Policy, and (3) any other application of the Enforcement Policy to this case, including the exercise of discretion in accordance with Section VII.

You will be advised by separate correspondence of the results of our deliberations on this matter. No response regarding these apparent violations is required at this time.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

Sincerely,

(original signed by)

James T. Wiggins, Director
Division of Reactor Safety

Docket No. 50-289

Enclosures:

1. Inspection Report No. 50-289/95-16
2. Copy of Enforcement Policy (60 FR 34387, June 30, 1995)

cc w/encls:

E. L. Blake, Shaw, Pittman, Potts and Trowbridge (Legal Counsel for GPUN)
Commonwealth of Pennsylvania
J. C. Fornicola, Director, Licensing and Regulatory Affairs
M. J. Ross, Director, Operations and Maintenance
TMI-Alert (TMIA)
J. S. Wetmore, Manager, TMI Licensing Department

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