December 18, 1991

Docket No. 50-289
License No. DPR-50
EA 91-143

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

Gentlemen:

Subject: NOTICE OF VIOLATION
(NRC Inspection Report No. 50-289/91-27)

This letter refers to the NRC inspection conducted between October 9-23, 1991 at the Three Mile Island Nuclear Station, Unit 1, Middletown, Pennsylvania. The inspection report was sent to you on November 6, 1991. The inspection was conducted to review the circumstances associated with an event which occurred at the facility, while the reactor was in the refueling mode, involving the movement of a fuel assembly at a time when the Reactor Building was not isolated. The event, and the associated violations of NRC requirements, were identified by your staff and reported to the NRC resident inspector shortly after its occurrence, as well as in a Licensee Event Report (LER) sent to the NRC on November 7, 1991. On November 20, 1991, an enforcement conference was conducted with you and other members of your staff to discuss the violations, the causes and your corrective actions.

The movement of fuel was done as a part of the performance of a surveillance procedure used to test the refueling system interlocks. The test is designed to verify that the refueling bridge hoist will shift to slow speed when lowered down to a certain height above the fuel and remain in slow speed while raising a fuel assembly out of the core. During the performance of this test, which lasted for approximately ten minutes, one irradiated fuel assembly was fully withdrawn from the core, then reinserted back into the core. At the time, there was a direct access path from the containment to the atmosphere and the Auxiliary Building, since the inner and outer doors of both the personnel hatch and the emergency hatch were open. This constituted a violation of a technical specification limiting condition for operation.

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This violation was principally caused by the deficient performance by operations staff, including the refueling bridge crew, as well as operations staff located in the control room. Specifically, both the control room staff and refueling bridge crew (a licensed Senior Reactor Operator and Reactor Operator) did not adequately prepare for the evolution and did not have a thorough understanding of the prerequisites for the surveillance procedure. If the individuals had completely reviewed the procedure, they would have been aware that the test required the movement of a fuel assembly, and therefore would not have continued with the procedure until containment integrity had been established. Furthermore, the control room staff failed to question the refueling bridge crew's actions when they requested the location of the first fuel assembly to be moved without containment integrity established.

In addition to these concerns, the NRC is also concerned that the specific surveillance procedure performed by the refueling bridge crew did not have a specific caution or warning stating that those Reactor Building hatch doors must be closed (and other appropriate prerequisites specified in the fuel shuffle procedure met) prior to moving any fuel as part of the test. An adequate review of the procedure was not accomplished prior to its approval and issuance, particularly the required safety review performed by the Plant Review Group (PRG). This failure to conduct an adequate safety review to ensure the adequacy of the surveillance procedure, constitutes the second violation of NRC requirements, also set forth in the enclosed Notice.

The NRC recognizes that the safety consequences of the violation of the technical specification were minimal, since the condition existed for a short period, and was within those conditions assumed in the Final Safety Analysis Report (FSAR) since the FSAR does not take credit for the isolation of the Reactor Building in the analysis of the fuel handling accident, but credits the Reactor Building Purge Exhaust System for providing a filtered release path in the event of this accident. Nonetheless, the NRC has a significant regulatory concern with the deficient performance by the operations staff in this case, as well as the procedural inadequacies and inadequate safety assessments that contributed to this occurrence. These findings indicated a significant lack of attention toward licensed responsibilities. Therefore, the violations have been classified in the aggregate as a Severity Level III problem in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions." (Enforcement Policy), 10 CFR Part 2, Appendix C (1991). The violations demonstrate the importance of (1) appropriate performance of duties by the operations staff to ensure that equipment is properly controlled, and the facility is operated and maintained safely and in accordance with the Technical Specifications, and (2) meticulous attention to detail during the performance of safety reviews at the facility to ensure procedures are properly reviewed, and appropriate cautions are included, as warranted.

The NRC recognizes that actions were initiated to correct these violations and prevent recurrence. These corrective actions, which were described at the enforcement conference, included: (1) counseling of the operators involved, as well as all fuel handling personnel, prior to any further movement of fuel; (2) initiating a Plant Incident Report which was reviewed by all operations personnel; (3) initiating a Temporary Change Notice to the surveillance procedure incorporating additional warnings and precautions; and (4) reviewing the related surveillance procedure with the objective of strengthening the procedure, and incorporating human factors recommendations.

Although a civil penalty is normally issued for a Severity Level III problem, I have been authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Nuclear Reactor Regulation, Regional Operations and Research, to mitigate the penalty in its entirety and issue the enclosed Notice of Violation (Notice) for these violations. In deciding to mitigate the penalty, the escalation and mitigation factors set forth in the enforcement policy were considered in the manner described below.

The event and violations were identified by your staff and the NRC was promptly notified. Therefore, 50% mitigation of the base civil penalty on this factor is warranted. Although your short term corrective actions were considered prompt and included actions to prevent recurrence, your long term corrective actions were narrowly focused on the refueling surveillance procedure, and did not include a review of other plant procedures, or the PRG procedure review process, to assure that similar problems did not exist and to prevent them from occurring in the future, therefore, no adjustment of the civil penalty on this factor is warranted. Your past performance in all areas, including the operations and outage planning areas, has been good, as evidenced by Category I ratings in all SALP areas during the last SALP assessment, and therefore, 50% mitigation of the base civil penalty on this factor is warranted. Full 100% mitigation on this factor is not warranted since three examples of deficiencies involving inadequate procedural guidance and review, similar to Violation B of the enclosed Notice, were identified in two inspection reports in 1990, and a Licensee Event Report (LER) in 1991. (Reference: Severity Level IV violation in IR 50-289/90-15; an additional example in IR 50-289/90-18; and LER 91-003-00.) The other escalation and mitigation factors were considered, and no adjustment on these factors was warranted.

As to the apparent violation associated with the reporting pursuant to 10 CFR 50.72, the NRC has considered the arguments on both sides and decided not to issue a citation. However, discussions with the Office for Analysis and Evaluation of Operational Data (AEOD) are continuing to determine if additional guidance on reporting requirements in this type matter is needed.

You are required to respond to the enclosed Notice and, in preparing your response, you should follow the instructions specified therein. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. After reviewing your response to this Notice, including your proposed corrective actions, and the results of future inspections, the NRC will determine whether further enforcement action is necessary to ensure compliance with NRC regulatory requirements.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosure will be placed in the NRC's Public Document Room.

The responses directed by this letter and the enclosure are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, Pub. L. 96-511.

Sincerely,

ORIGINAL SIGNED BY
WILLIAM F. KANE

Thomas T. Martin
Regional Administrator

Enclosure: Notice of Violation

cc:
R. E. Rogan, TMI Licensing Director
C. W. Smyth, Manager, TMI-1 Licensing
M. Ross, Operations and Maintenance Director, TMI-1
J. A. Knubel, Licensing and Regulatory Affairs Director
E. L. Blake, Jr., Esquire
TMI-Alert (TMIA)
Public Document Room (PDR)
Local Public Document Room (LPDR)
Nuclear Safety Information Center (NSIC)
Commonwealth of Pennsylvania

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To concur 11/21/91 DRS

RI:OE	RI:OE	RI:DRS	RI:DRS	RI:DRS
Easlick	Holody	Eselgroth	Bettenhausen	Hodges
11/21/91	11/26/91	11/26/91	11/26/91	11/26/91

RI:DRP	RI:DRP	RI:RC	RI:DRA
Ruland	Hoh	Smith	Kane
11/27/91	11/27/91	11/27/91 telephone concurrence	11/27/91

RI:RA	OE	DEDO
Martin	Lieberman	Sniezek
11/27/91	11/ /91	11/ /91

Read by phone on 12/18/91 DJM 12/18/91

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