

May 12, 1999

EA No. 98-432

Mr. J. Langenbach  
Vice President and Director  
GPU Nuclear, Inc.  
Three Mile Island Nuclear Station  
P. O. Box 480  
Middletown, Pennsylvania 17057-0480

SUBJECT: NON-CITED VIOLATION - NRC INSPECTION REPORT NO. 50-289/98-09

Dear Mr. Langenbach:

This letter refers to the subject inspection conducted between December 27, 1998, and January 30, 1999, at the Three Mile Island Nuclear Station in Middletown Pennsylvania. We discussed the findings with members of your staff on February 12, 1999, and forwarded the subject report to you on March 5, 1999. During the inspection we identified an apparent violation of 10 CFR 50.59 related to changes you made in November 1997 to the loss of feedwater (LOFW) accident analysis and emergency feedwater (EFW) system testing acceptance criteria used to ensure system capability to meet the analysis requirements. We found that you lowered the minimum required EFW flowrate through the new LOFW analysis from 500 gpm to 480 gpm. Further, you made this change without conducting an evaluation to determine that it did not involve an unreviewed safety question (USQ). We questioned whether this reduction in flow changed the design basis of the EFW system with respect to the ability of the turbine driven pump to supply 100 percent of the required flow, as discussed in the TS bases. If the safety margin were reduced, 10 CFR 50.59 would require that you obtain prior NRC approval through a license amendment prior to implementing the lower flow rate. On April 23, 1999, we conducted a predecisional enforcement conference with you and members of your staff to discuss the apparent violation, its causes, and your corrective actions. 1/0

The NRC staff has determined that the reduction in the LOFW accident EFW flowrate requirement from 500 gpm to 480 gpm did not involve a USQ and therefore did not require NRC review prior to implementation. We based this determination on a review of the information you provided at the conference, and NRC and GPUN documentation from 1979 through 1986. Specifically, your restart report and letter dated April 29, 1985, provided information indicating that the turbine driven pump was never credited as 100 percent capacity for the design basis LOFW accident and that, following the 6R refueling outage, the system was single failure proof, allowing any two of the three EFW pumps to supply the required LOFW flow. Therefore, the change did not reduce the margin of safety defined in the TS bases.

However, we did find that you failed to conduct a safety evaluation as required by 10 CFR 50.59 prior to implementing changes to LOFW calculations and EFW testing acceptance criteria. Further, we note that you have documented this NRC identified, non-willful failure to conduct

9905210023 990512  
PDR ADOCK 05000289  
G PDR

1E:01

this safety evaluation in your corrective action program under CAP 1999-0311, dated April 2, 1999. There was low safety consequence to the issue, as we noted in Inspection Report 50-298/98-03, in that your testing demonstrated that the EFW system could provide necessary LOFW flow with any two of the three pumps and no operability questions existed.

In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions" ( Enforcement Policy,) NUREG-1600, we determined that a Severity Level IV violation of NRC requirements occurred. This violation is being treated as a Non-Cited Violation (NCV), consistent with Appendix C of the Enforcement Policy. The NCV is described above and in the subject inspection report. If you contest the violation or severity level of the NCV, you should provide a response within 30 days of the date of this letter, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001; with a copies to the Regional Administrator, Region I; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the TMI facility.

Further, at the conference you acknowledged that the UFSAR and TS bases were unclear relative to how the EFW system met the design basis flow and pump capability requirements. This letter confirms your commitments made at the conference to rewrite the EFW TS bases and system description in UFSAR Chapter 10, and to provide training to clarify the intent that any two of the three installed pumps have the capability to supply either or both OTSGs with water at greater than the total flow requirements as defined in your UFSAR Chapter 14 LOFW analysis.

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

Sincerely,

**Original Signed By:**

Richard V. Crlenjak, Deputy Director  
Division of Reactor Projects

Docket Nos.: 50-289; 50-320

cc w/encl:

M. J. Ross, Director, Operations and Maintenance

D. Smith, PDMS Manager

M. Laggart, Manager, Licensing and Vendor Audits

J. Wetmore, Manager, Nuclear Safety and Licensing

E. L. Blake, Shaw, Pittman, Potts and Trowbridge (Legal Counsel for GPUN)

TMI-Alert (TMIA)

Commonwealth of Pennsylvania

Distribution w/encl:

Region I Docket Room (with concurrences)  
 Nuclear Safety Information Center (NSIC)  
 PUBLIC  
 NRC Resident Inspector  
 H. Miller, RA/J. Wiggins, DRA  
 P. Eselgroth, DRP  
 N. Perry, DRP  
 C. O'Daniell, DRP  
 D. Holody, EO, RI  
 T. Walker, ORA

Distribution w/encl (VIA E-MAIL):

M. Tschiltz, OEDO  
 E. Adensam, PD1, NRR  
 T. Colburn, PD1, NRR  
 H. Pastis, PD1, NRR  
 S. Weiss, NRR  
 L. Thonus, NRR  
 R. Correia, NRR  
 G. Hubbard, NRR  
 W. Kane, NRR  
 B. Sheron, NRR  
 D. Dambly, OGC  
 J. Lieberman, OE  
 D. Holody, EO, RI  
 T. Walker, ORA, RI  
 DOCDESK  
 Inspection Program Branch, NRR (IPAS)

DOCUMENT NAME: G:\BRANCH7\TMI\TMINCV.WPD

To receive a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure "E" = Copy with attachment/enclosure "N" = No copy

OFFICE	RI/DRP	RI/DRP	C RI/ORA	NRR/DSSA	NRR/PD1	RI/DRP
NAME	WSchmidt	PEselgroth	TWalker	GHubbard	EAdensam	RCrienjak
DATE	05/11/99	05/11/99	05/11/99	05/11/99	05/12/99	05/12/99

OFFICIAL RECORD COPY

*concurrent  
 by phone call  
 with Eselgroth  
 on 5/12 OWB*