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March 4, 1986 5211-86-2035

Office of Nuclear Reactor Regulation Attn: J. F. Stolz, Director PWR Projects Directorate No. 6 U.S. Nuclear Regulatory Commission Washington, DC 20555

Dear Mr. Stolz:

Three Mile Island Nuclear Station Unit 1 (TMI-1)
Operating License No. DPR-50
Docket No. 50-289
Final Verification and Validation Report on
TMI-1 Safety Parameter Display System

During their audit of the TMI-1 Safety Parameter Display System on August 12, 13 and 14, 1985, the NRC Staff requested that GPU Nuclear Corporation provide a copy of the SPDS Final Verification and Validation Report upon its completion. NRC reiterated this request in a letter to GPUN dated December 23, 1985. In response, the subject report is attached.

The Verification and Validation (V&V) program was developed and implemented to provide a quality system through independent technical review and evaluation of SPDDS software. The V&V program consisted of three planned, systematic series of reviews and tests: (1) system requirements verification, (2) design verification, and (3) validation testing. As described in the Verification and Validation Report, the V&V program identified some significant improvements to the SPDS documentation and software. Several discrepancies were identified which are not directly related to the SPDS software; these discrepancies have been referred to and resolved by the SPDS design team, independent of the V&V program.

The Verification and Validation Report concludes that (1) the system requirements were adequately defined, (2) the SPDS software design complies with the system requirements, and (3) the validation testing demonstrated that the SPDS functions as designed.

8603100193 860304 PDR ADDCK 05000289 Sincerely,

Director, TMI-1

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