

GPU Nuclear Corporation  
Post Office Box 480  
Route 441 South  
Middletown, Pennsylvania 17057-0191  
717 944-7621  
TELEX 84-2386  
Writer's Direct Dial Number:

October 2, 1984  
5211-84-2245

Office of Nuclear Reactor Regulation  
Attn: John F. Stolz, Chief  
Operating Reactors Branch No. 4  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Dear Sir:

Three Mile Island Nuclear Station, Unit 1 (TMI-1)  
Operating License No. DPR-50  
Docket No. 50-289  
Response to the NRR Safety Evaluation on the Seismic Capability  
of the Backup Incore Thermocouple Display System

Upon review of the Safety Evaluation by the Office of Nuclear Reactor Regulation of August 23, 1984 on the seismic capability of the backup incore thermocouple display system, GPUN has identified two points where further clarification appears to be needed.

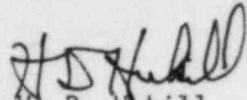
- 1) The voltmeter readings taken as part of the alternate method of obtaining backup incore thermocouple readings are read at Signal Conditioning Cabinet B2 located two floors below the Control Room in the Control Building. The thermocouple voltages are then converted to temperature and the information is relayed to the control room operator.
- 2) The test to compare the primary and backup readings described in the GPUN letter of May 31, 1984 will not allow verification and adjustment of the voltage to temperature conversion equation at temperatures ranging from 200°F to 2300°F. GPUN committed to perform a test comparing the computer readings with the results of the portable voltmeter at various power ranges during the Start-up

8410100167 841002  
PDR ADOCK 05000289  
P PDR

A001  
110

and Test Programs. Temperature will vary from approximately 525°F to 610°F. Any change to the conversion equation over this range would be insignificant. The non-linear thermocouple behavior at high temperatures is a generic problem and cannot be demonstrated during any Start-up and Test Program and is unrelated to the seismic capability of the display. Installation of the qualified voltmeter prior to plant startup will result in cancellation of the test.

Sincerely,

  
H. D. Hukill  
Director, TMI-1

HDH:SMO:vjf

cc: R. Conte  
J. Van Vliet