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November 7, 1985  
5211-85-2178

Dr. Thomas E. Murley  
Region I, Regional Administrator  
U.S. Nuclear Regulatory Commission  
631 Park Avenue  
King of Prussia, Pa. 19406

Dear Dr. Murley:

Three Mile Island Nuclear Station Unit 1 (TMI-1)  
Operating License No. DPR-50  
Docket No. 50-289  
Main Steam Safety Valve Setpoint and Performance Evaluation

During the planned reactor trip from 40% power conducted on October 21, 1985, the Main Steam Safety Valves lifted during the initial pressure increase and a few Main Steam Safety Valves subsequently lifted at a lower pressure. Although the initial lift of all safety valves was anticipated, subsequent lifts of the Main Steam Safety Valves were not anticipated.

The Main Steam Safety Valves are set in accordance with the requirements of Section II of the ASME Code (reference FSAR 10.7.4) with a minimum setting of 1040 psig and a maximum setting of 1092 psig. Within this minimum/maximum allowable setting range the setpoints were selected so as to minimize pressure rise in the RCS following a Loss of Electrical Load (LOEL) transient. Also, maintaining a stagger between the setpoints shares the total relieving capacity across a range of set pressures.

Based on the above, GPUN will evaluate the Main Steam Safety Valve performance and setpoints within the Code allowable band of 1040 psig to 1092 psig to determine if they are appropriate for long term operation at full power. This evaluation will be completed prior to exceeding 75% power.

An issue that may affect the evaluation of the Main Steam Safety Valve setpoints is the Anticipatory Reactor Trip (ART) on Loss of Feedwater/Turbine Trip. This was installed per NUREG-0737, Item II.K.2.10. The reactor will now trip on a turbine trip whenever the ART is in effect. Currently the TMI-1 Technical Specifications require arming the ART on turbine trip above 20% power. The high pressure reactor trip setting was also reduced from 2390 psig to 2300 psig per NUREG-0737, Item II.K.3.7. The B&W Owners are developing

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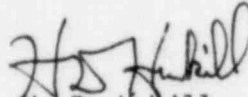
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November 7, 1985

justification for raising the 20% power setpoint that arms the ART on turbine trip. Also being developed is justification for raising the high pressure trip setpoint. GPUN is continuing to monitor this effort which may impact the Safety Valve setting within the Code allowable band.

Sincerely,

  
H. D. Hukill  
Director, TMI-1

HDH/CWS/spb:0392A

cc: W. Kane  
J. Stolz