



Metropolitan Edison Company
Post Office Box 542
Reading Pennsylvania 19603
215 929-3601

January 4, 1979
GQL 0007

Director of Nuclear Reactor Regulation
Attn: R. W. Reid, 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
Containment Purging

In response to your letter of November 29, 1978, concerning containment purging during normal plant operation, Met-Ed has reviewed all Engineered Safeguards Actuation Systems (ESAS) circuits to ensure that overriding of one safety actuation signal does not also cause the bypass of any other safety actuation signal. The results of this review indicate that no ESAS circuits with manual override can be bypassed during normal operation. The trip functions of the high and low pressure injection actuation signals are bypassed whenever the reactor is to be depressurized below the trip point of the bistables. Bypassing must be initiated manually for each channel within a fixed pressure band above the protective system bistable trip point. The high pressure actuation signal may be bypassed only when the reactor pressure is 1,650 psi or less, and the low pressure actuation signal may be bypassed only when the reactor pressure is 900 psi or less. The bypass is automatically removed when the reactor pressure exceeds the 1,650 and 900 psi values. The trip functions of the Reactor Building isolation and cooling can only be bypassed after actuation (Re: TMI-1 FSAR Sec. 7.1.3.3.6). The status of each ESAS bypass circuit is indicated on the Control Room console.

The Radiation Monitor circuitry provided with a manual override feature and associated with containment purge was also reviewed. Results of this review indicate that although the high radiation actuation signal which causes the purge valves to close can be bypassed, bypassing it does not defeat the ES actuation which causes the purge valves to close at 4 psi Reactor Building pressure. As stated above, the ESAS circuits for the Reactor Building isolation and cooling can not be bypassed without having first actuated an ESAS signal. Therefore, the system design assures that during normal operation, conditions will not exist that would prevent actuation of the purge valves. TMI-1 Appendix B Tech Specs (2.3.2 B and C) require that the radiation monitors associated with containment purge and the purge exhaust valves be operable, and that the purge exhaust valves be interlocked to close on receipt of a high radiation signal from the reactor building exhaust monitor. In addition, bypassing the radiation monitoring circuitry associated with containment purge annunciates in the control room.

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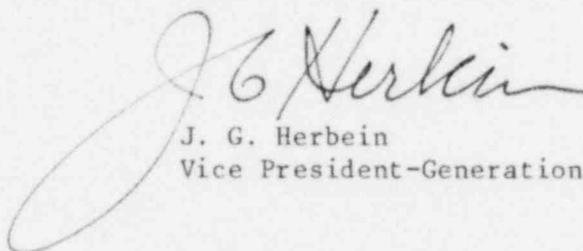
Based on the above, Met-Ed has determined that the design and use of all ESAS and Radiation Monitoring bypass circuitry in TMI-1 is such that TMI-1 will have the protection needed during postulated accident conditions.

It is Met-Ed's position that the TMI-1 Technical Specifications and the TMI-1 FSAR, as reviewed and approved by NRC, provide adequate justification to continue unlimited purging. Met-Ed intends to conduct purging in accordance with current Technical Specifications.

However, being fully responsive to your letter of November 29, 1978, Met-Ed is at the present time in contact with the TMI-1 purge valve manufacturer to establish a schedule for determining if the purge valves are capable of closing against the dynamic forces of a design basis LOCA. Met-Ed is also pursuing obtainment of an evaluation of the impact of purging during operation on ECCS performance and an evaluation of the radiological consequences of any design basis accident requiring containment isolation occurring during purge operations.

It is anticipated that by March 16, 1979, Met-Ed will have sufficient information to provide NRC with a detailed schedule for performing and/or submittal of the results of, the above evaluations.

Sincerely,



J. G. Herbein
Vice President-Generation

JGH:RJS:cdf