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December 14, 1979

Mr. Darrell G. Eisenhut, Acting Director
Division of Operating Reactors
U. S. Nuclear Regulatory Commission
7920 Norfolk Avenue
Bethesda, Maryland 20014

Subject: BWR Owners' Group Implementation of NUREG-0578 Requirement 2.1.2.

References: (1) Letter, D. G. Eisenhut to T. D. Keenan, NRC response to Owners' Group positions on NUREG-0578, November 14, 1979.

(2) Letter, T. D. Keenan to H. R. Denton, NUREG-0578 Implementation, November 16, 1979.

(3) Letter, H. R. Denton to All Operating Nuclear Power Plants, "Discussion of Lessons Learned Short Term Requirements," October 30, 1979.

Dear Mr. Eisenhut:

Your letter of November 14, 1979 (Reference 1) responded to our BWR Owners' Group generic positions on NUREG-0578 requirements, and requested that certain of those positions be modified and resubmitted. It is the intention of this letter to address your concerns on one of those issues, specifically Item 2.1.2 of NUREG-0578, Performance Testing of Relief and Safety Valves.

The BWR Owners' Group wishes to continue to be fully responsive to the lessons learned from TMI, and we believe that individually and jointly we are making our very best efforts to meet the NUREG-0578 implementation schedule. Unfortunately, as stated in Reference 2, time did not permit us to respond to your November 14 letter as a unified body within the fifteen day period required by Reference 3 for individual utility commitment letters. As a result, our member utilities responded individually on the items in your letter where there were disagreements with our previous positions. Since your review of those responses is well underway with individual companies, we do not see a need formally to revise the Owners' Group positions at this time. Doing so, in my judgement, would cause additional complexities at a time when swift, decisive action is called for to meet your final positions.

The Owners' Group is, however, moving aggressively forward on the issue of S/RV Performance Testing (2.1.2.). The remainder of this letter is a status report on that issue.

The conditions under which BWR relief and safety valves would be expected to experience liquid and two-phase flow are divided into two categories: (1) high

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pressure conditions, and (2) low pressure conditions. The high pressure conditions would result from a failure to shut off the high pressure injection systems and the feedwater system prior to the water level in the vessel reaching the main steam lines. The low pressure conditions would result from intentionally establishing alternate shutdown cooling through the relief valves with makeup from the low-pressure ECCS, or from the inadvertant overfilling of the vessel by the low-pressure ECCS.

The Owners' Group will conduct a test program to address those conditions which could result in liquid flow through the relief and safety valves at low pressure conditions. We have authorized General Electric to prepare the total program plan, and work is already underway. We have had in-depth discussions with two prospective contractors for the low-pressure test and have scheduled an Owners' Group meeting for early January to make the necessary decisions on this issue.

Engineering evaluations are currently underway to address the high pressure condition by upgrading to safety grade the high level trips for high pressure injection and reactor feedwater systems, which already exist in most Boiling Water Reactors. These safety grade trips will preclude the conditions of liquid and two-phase flow through the relief and safety valves at high pressures, and it is our understanding of the intent of your November 14 comments that the high-level safety-grade trips will eliminate the need for a high pressure liquid and two-phase test.

Because of the engineering evaluation required for consideration of a high level trip on the high pressure injection and feedwater systems, we will not be able to make a commitment by January 1, 1980, on implementation of this feature. We are currently evaluating it and will make a commitment by January 31, 1980, if it is found to be feasible.

Our response schedule has been discussed between our subgroup chairman and Mr. Verrelli of your staff. It was agreed that by January 31, 1980, we will present our commitment to address the high pressure, two-phase flow conditions with a safety grade trip. If that approach is chosen, a system description and an implementation schedule will be presented. At the same time, we will present our program for testing valves under the low pressure conditions. This presentation will include the scope of testing and analysis to be performed, and a schedule for completion of testing and analysis.

It is our understanding that this commitment and the response schedule discussed above satisfies the January 1, 1980, implementation requirement for Item 2.1.2. in NUREG-0578 for all member companies of our Owners' Group.

Sincerely,

Thomas D. Keenan, Chairman
General Electric Boiling
Water Reactor Owners' Group

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