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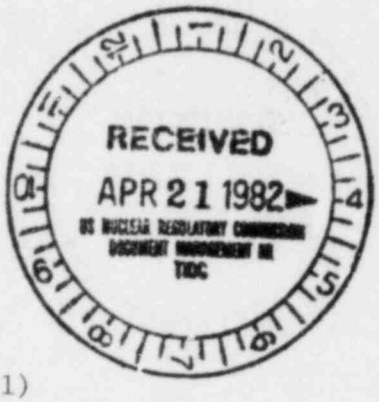

Office of Nuclear Reactor Regulation
Attn: Darrell G. Eisenhut, Director
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Sir:

Three Mile Island Nuclear Station, Unit 1 (TMI-1)
Operating License No. DPR-50
Docket No. 50-289
Relief and Safety Valve Testing (NUREG 0737 II.D.1)

In accordance with NUREG 0737, Item II.D.1, as revised on September 29, 1981, the following information is submitted concerning the preliminary assessment of the EPRI PWR Safety and Relief Valve Test Program and the potential effects that this testing may have on TMI-1.

Output to date of the EPRI program which are of interest and are applicable are:

a. Valve Selection/Justification Report
b. Test Condition Justification Report
c. B&W Plant Condition Justification Report
d. Safety and Relief Valve Test Report
e. Application of RELAP 5/MOD 1 for Calculation of Safety and Relief Valve Discharge Piping Hydrodynamic Loads

These documents were transmitted to you by Mr. David Hoffman of Consumers Power Company on April 1, 1982 on behalf of the participating PWR utilities and are incorporated by reference herein as part of our preliminary response.

In August, 1981, and December, 1981, testing of Relief and Safety Valves, respectively, was completed per the scope of the aforementioned EPRI Program. Based on preliminary review of these results, a general evaluation has been performed on a plant specific basis and the following assessments have been made:

1. Results of the Relief Valve Testing conducted at the Marshall Steam Electric Station and the Wyle/Norco facility indicate preliminarily the Dresser 31533 VX-30 performed favorably on all Steam, Water and transition

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tests (Note: The valve did not perform favorably on cold loop seal tests but TMI-1 has no upstream loop seal). Items which may be discovered during a more specific review of tests will be evaluated and reported by July 1, 1982.

2. Safety valve testing for the Dresser safety valves representing TMI-1 were performed very late in the EPRI program. Several steam tests (drained loop seal) were performed at various ring settings to optimize valve performance (stable with rated lift). Blowdown settings were increased to achieve rated lift.

On two of the loop seal-steam tests the valve exhibited an instability during loop seal discharge, stabilized on steam and had a maximum blowdown of 13.8%. The valve also exhibited instability during loop seal discharge in the transition test and then stabilized on steam and closed on water with 13.9% blowdown. The valve had stable performance during the 650°F water test and had a 18.5% blowdown.

We are further evaluating the test results including results applicable to other safety valve inlet configurations. Our evaluation to date has concluded that the Dresser model 31739A performance may be improved if moved from the long inlet configuration to a short inlet configuration (improved performance during subcooled water blowdown). GPUN has initiated further evaluation, planning, scheduling and engineering activities associated with such a modification in conjunction with the completion of the plant specific evaluations. In addition, in the ASLB's December 14, 1981 Partial Initial Decision on Plant Design and Procedures, the Board found that adequate core cooling could be maintained, among other ways, by feed and bleed cooling. These findings also suggest that further evaluation is appropriate.

3. Discharge piping and support evaluations will be pursued concurrent with relief and safety valve evaluations. The complete results of relief and safety valve performance testing are necessary for accurate analysis and assessment of the discharge piping. A firm schedule has not been established for the completion of this effort. However, concurrent with item 2 above, our valve operability evaluation efforts are underway to define a specific schedule which will be reported to you in a timely manner prior to July 1, 1982.

Sincerely,

H. D. Hukill
Director, TMI-1

HDH:LWH:vjf

cc: J. F. Stolz
R. C. Haynes