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April 22, 1982

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Dr. John H. Buck  
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Dr. Reginald L. Gotchy  
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U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

In the Matter of  
Metropolitan Edison Company  
(Three Mile Island Nuclear Station, Unit No. 1)  
Docket No. 50-289 (Restart)



Administrative Judges Edles, Buck and Gotchy:

Please find enclosed, for your information, a copy of two recent letters from GPU Nuclear to the NRC Staff. The first letter, dated April 14, 1982, from R. J. Toole to R. C. Haynes of Region I, Office of Inspection and Enforcement, is captioned "Licensee Event Report No. 82-004." The second letter, dated April 16, 1982, from H. D. Hukill to Darrell G. Eisenhut, is captioned "Relief and Safety Valve Testing (NUREG 0737 II.D.1)." Both of the letters provide information to the Staff on results of the EPRI PWR Relief and Safety Valve Test Program as they apply to the pressurizer code safety valves at TMI-1.

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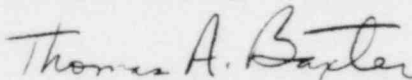
SHAW, PITTMAN, POTTS & TROWBRIDGE

A PARTNERSHIP OF PROFESSIONAL CORPORATIONS

Gary J. Edles, Esquire  
Dr. John H. Buck  
Dr. Reginald L. Gotchy  
April 22, 1982  
Page Two

The EPRI testing program was not completed prior to the close of the record before the Atomic Safety and Licensing Board, and that Board stated that it did not "... feel it necessary for the results of the tests to be reported to us." I.D., ¶ 1083. The enclosed information is being provided, nevertheless, because it relates to additional analysis and evaluations of the test results to determine the capability of the TMI-1 safety valves to perform in the "feed and bleed" cooling mode. This cooling mode is the subject of several of the Licensing Board's findings of fact on plant design and procedures issues.

Respectfully submitted,



Thomas A. Baxter  
Counsel for Licensee

TAB:jah

Enclosures

cc: per Certificate of Service

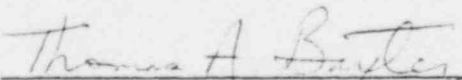
UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING APPEAL BOARD

In the Matter of	)	
	)	
METROPOLITAN EDISON COMPANY	)	Docket No. 50-289
	)	(Restart)
(Three Mile Island Nuclear	)	
Station, Unit No. 1)	)	

CERTIFICATE OF SERVICE

I hereby certify that copies of Licensee's letter to the Appeal Board with attachments were served this 22nd day of April, 1982, by deposit in the U.S. mail, first class, postage prepaid, to the parties on the attached Service List.

  
\_\_\_\_\_  
Thomas A. Baxter

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING APPEAL BOARD

In the Matter of	)	
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METROPOLITAN EDISON COMPANY	)	Docket No. 50-289
	)	(Restart)
(Three Mile Island Nuclear	)	
Station, Unit No. 1)	)	

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**GPU Nuclear**

GPU Nuclear  
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717-944-7621  
Writer's Direct Dial Number:

April 14, 1982  
5211-82-090

Office of Inspection and Enforcement  
Attn: R. C. Haynes  
Region I, Regional Administrator  
U.S. Nuclear Regulatory Commission  
631 Park Avenue  
King of Prussia, PA 19406

Dear Sir:

Three Mile Island Nuclear Station, Unit 1 (TMI-1)  
Operating License No. DPR-50  
Docket No. 50-289  
Licensee Event Report No. 82-004

This telecopy is to confirm the conversation between Mr. D. R. Haverkamp, Region 1 NRC and Mr. M. A. Nelson, PORC Chairman, TMI-1, at 1500 hours on April 13, 1982, that an item was discovered which is considered prompt reportable per TMI-1 Technical Specification 6.9.2.A (9).

Pressurizer code safety valves, representative of the TMI-1 Dresser model 31739A, were subjected to water flow during the EPRI valve tests being conducted in relation to NUREG 0737 task action plan item II.D.1. Although the EPRI tests were terminated prior to completion for long inlet piping configuration, the final EPRI results which were recently made available require evaluation to determine the ability of the TMI-1 safety valves to perform under feed and bleed cooling if the pressurizer PORV is isolated. Licensee is currently evaluating these test results (which NRC has received from EPRI as well) to determine whether and to what extent the EPRI test conditions are representative of Licensee's configuration. This report is being submitted pursuant to Technical Specification 6.9.2.A (9) in recognition that further analysis, evaluation and possible modifications may be necessary to prevent the occurrence of an unsafe condition at TMI-1 in the event this backup mode of feed and bleed cooling were to be utilized at TMI-1. Our schedule for corrective action will be reported in a followup report. TMI-1 continues to remain in an extended cold shutdown condition.

Additional information and proposed corrective action will be forwarded in the followup report within 14 days.

Sincerely,

*RJ Toole*  
R. J. Toole

Operations & Maintenance  
Director, TMI 1

*8204220423*  
*AND not designated*  
RJT/MAN/amh

cc D. R. Haverkamp GPU Nuclear is a part of the General Public Utilities System  
L. Barrett





GPU Nuclear  
P.O. Box 480  
Middletown, Pennsylvania 17057  
717-944-7621  
Writer's Direct Dial Number

April 16, 1982  
5211-82-076

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 Rating 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.

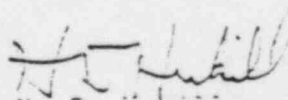
2. Safety valve testing for the Dresser safety valves representing TMI-1 were performed very late in the EPRI program. Several steam tests (drained loop seal) were performed at various ring settings to optimize valve performance (stable with rated lift). Blowdown settings were increased to achieve rated 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 15.5% 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). EPRI 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 ASME'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, consistent with item 1 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. Hickell  
Director, TMI-1

EDH:LWH:vjf

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