

September 21, 2001

Dr. Aris Christou
Professor and Chair
Department of Materials and Nuclear Engineering
University of Maryland
College Park, MD 20742

Dear Dr. Christou:

It has come to our attention that the A.J. Clark School of Engineering is considering closing and dismantling the University of Maryland 2x4 Thermal hydraulic Loop Facility (UM 2x4 Loop). The UM 2x4 Loop and its control room are located in Rooms 1200, 2200 and 2127 in the East wing of the Chemical and Nuclear Engineering Building (Building 090 on the campus map). The UM 2x4 Loop is a reduced height, reduced pressure facility. It is a scale model of the Three Mile Island Unit 2 (TMI-2) Babcock and Wilcox (B&W) lowered-loop pressurized water reactor (PWR).

As you are aware, NRC has relied on the loop to advance our understanding of thermal-hydraulic phenomena that occur in nuclear power plants during postulated scenarios in order to help resolve safety issues. The loop has also generated data used in developmental assessment activities to help improve the quality of our analysis tools.

NRC has relied on the loop facility and UMD staff to perform the following activities:

- Small Break LOCA System Response (1985-1990)
- Cold Shutdown Conditions (1990-1991)
- Heating of Primary System Components (1992-1993)
- Boron Dilution Investigations (1993-1996)
- Boron Mixing Investigations for Code Verification (1997 to 2000)

Presently, the international community is experiencing a trend of shutting down integral test facilities, which severely limits the ability of NRC and the community to respond to emerging safety issues in a timely manner. Both capital costs and time delays prohibit the option of relying on construction of a new facility in response to an emerging issue. NRC is reviewing the available resources and the planned activities to determine future use of the loop.

Please contact me if you have any questions or would like to schedule a meeting to discuss my concerns.

Sincerely,

/RA/

Ashok C. Thadani, Director
Office of Nuclear Regulatory Research

cc: W. D. Travers
C. Paperiello

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