

BROOKHAVEN NATIONAL LABORATORY
ASSOCIATED UNIVERSITIES, INC.

Upton, New York 11973

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Department of Nuclear Energy

September 17, 1980

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Dr. L. S. Tong, Assistant Director
Division of Reactor Safety Research
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Long Sun.

At the suggestion of your staff, we have contacted several simulator manufacturers to determine their interest in collaborating with our staff in improving existing reactor simulators, as proposed in our earlier letter of May 10, 1980.

We contacted representatives of the Link Division (Link) of Singer Company of Silver Spring, Maryland, and Electronic Associates Inc. (EAI) of West Long Branch, New Jersey. These two firms have manufactured most of the current existing reactor simulators at utilities in the United States. Both companies expressed wholehearted willingness to cooperate with our staff in the development of improved software for existing simulators so that they could simulate additional transients as well as small LOCA events and perform as a more predictive type engineering simulator. This will enable reactor operators to simulate many abnormal occurrences in a realistic manner during their training.

Both firms indicated their desire to participate with us in providing the interface and linkage between their control console signals and the AD-10 digital system on to which we would provide the software to solve reactor kinetics and thermal hydraulics equations in a rapid manner. Both firms would be willing to provide us services such as the following: (1) detailed description and method to optimize the interface between the AD-10 system, an ordinary differential equation solver, and the simulator reactor control system; (2) review and advice during various stages of our development of the software package for the AD-10, and (3) recommendations on simulation modeling in a real time environment.

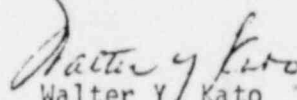
It is estimated that such services, of about a little over one man-year of effort from each company, would cost about \$100,000 per year per company. If funding is available, it would be proposed to use these services from both firms in order to insure that the AD-10 and the BNL-developed software would be able to function compatibly with current reactor simulators.

Dr. L. S. Tong
September 17, 1980
Page Two

If you or your staff have any questions regarding this matter, please contact me or Dr. Wolfgang Wulff, who will be the Principal Investigator for the Simulator Improvement Program.

With best personal regards,

Sincerely yours,


Walter Y. Kato
Deputy Chairman

WYK/dt

cc: R. J. Cerbone
S. Fabic ✓
H.J.C. Kouts
T. Murley
W. Wulff