

INTERIM REPORT

Accession No. \_\_\_\_\_

Contract Program of Project Title: Thermal Hydraulic LMFBR Safety Experiments

Subject of this Document: May Monthly Highlight Letter

Type of Document: Monthly Highlight Letter

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Date of Document: May 1979

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Upton, New York  
Associated Universities, Inc.  
for the  
U.S. Department of Energy

Prepared for  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555  
Under Interagency Agreement EY-76-C-02-0016  
NRC Fin No. A-3024

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NRC Research and Technical  
Assistance Report

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7908020283

Monthly Highlights

for

May 1979\*

Thermal Hydraulic LMFBR Safety Experiments  
Budget Activity 60-19-20-01

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NRC Research and Technical  
Assistance Report

\*Work carried out under the auspices of the United States Nuclear Regulatory Commission.

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1.1 Hydrodynamic Dispersion (T. Ginsberg, G. A. Zimmer, J. J. Barry, and J. Chen, Lehigh University)

Work continued in wiring the instrumentation and control of the gamma traversing apparatus to the computer.

1.2 Dispersion in Boiling Pools (T. Ginsberg and J. C. Chen, Lehigh Uni.)

Discussions were held with the Raytheon Corporation on design of a microwave heating system for the boiling dispersion experiments. A number of concepts were proposed, the main feature of which is the simplicity of the generated electromagnetic field. A system is being sought in which the power density distribution in the boiling system is approximately calculable using available analytical techniques. Several concepts appear promising.

1.3 Heat Transfer in Boiling Pools (G. A. Greene and C. E. Schwarz)

A draft copy of the informal report, "Heat Removal Characteristics of Volume-Heated Boiling Pools With Inclined Boundaries," has been transmitted to the NRC staff.

1.4 Two-Phase Solidification (G. A. Greene and M. S. Kazimi, MIT)

A formal report on the completed two-phase solidification dynamics simulation tests is in preparation. Planning for the fuel relocation simulant tests with wall melting is beginning.

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