

INTERIM REPORT

Accession No. _____

Contract Program or Project Title: Advanced Reactor Safety Analysis
Technical Assistance, Reactor Projects

Subject of this Document: Monthly Highlights for April, 1980

Type of Document: Monthly Highlights

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Date of Document: May 9, 1980

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Washington, D. C. 20555

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

Prepared for
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555
Under Interagency Agreement DE-AC02-76CH00016
FIN No. A-3000

NRC Research and Technical
Assistance Report

8006200 022

MONTHLY HIGHLIGHTS

for

April 1980*

PROGRAM: Advanced Reactor Safety Analysis
Technical Assistance, Reactor Projects
Fin No. A-3000

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

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MONTHLY HIGHLIGHTS

TASK I. ACCIDENT ANALYSIS (R. A. Bari)

No progress this month.

TASK II. POST-ACCIDENT CONTAINMENT ANALYSIS (W. T. Pratt)

FFTF Containment Venting (S. S. Tsai)

We were requested to provide comments on recent FFTF Project responses to five NRC informal questions. In this regard, a memorandum providing further comments on the FFTF containment venting/filtering system has been completed and transmitted to NRC/DPM.

TASK III. PLANT DYNAMICS AND RELIABILITY ANALYSIS (R. A. Bari)

FFTF Natural Circulation Test Program (K. R. Perkins)

Interaction with the SSC Code Development and Verification Group has been continuous as they develop their FFTF test predictions. The SSC group has used our previous IANUS calculations to benchmark their FFTF model (BNL-NUREG-27116) and the exchange has proved mutually beneficial in developing understanding of the codes and test predictions.

TASK IV. REACTOR PHYSICS (H. Ludewig)

CDS Core Calculations (H. Ludewig)

Cross-section libraries have been created using the 1-DX code. Separate libraries have been created for the driver fuel zones, blanket zones, and central zones. This initial library has 50 groups. Fewer groups will be used for subsequent calculations when the composition (plutonium and fission product content) and the spectral shape is known for the various zones. Currently, the burnup calculations are being set up and will be carried out in (R-Z) geometry using the 2-DB code.

DIF-3D (A. Mallen)

The test problems have been executed and currently a 60° (HEX-Z) model of the GE CDS core is being set up.

Distribution

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