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Monthly Highlights

for

July 1984

Application of RAMONA-3B to BWR ATWS*
(FIN 4-3273)

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* Work performed under the auspices of the U.S. Nuclear Regulatory Commission.

Application of RAMONA-3B to BWR ATWS

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This project provides detailed, best-estimate, BWR ATWS analyses for the NRC Severe Accident Sequence Analysis (SASA) Program. In particular, several Browns Ferry Unit 1 MSIV closure ATWS analyses are being performed using the RAMONA-3B code with three-dimensional neutron kinetics. These calculations will not only improve understanding of the BWR behavior during an ATWS, but they can also be used for benchmarking similar calculations performed elsewhere by using the point kinetics codes such as RELAP5 and BWR-LACP.

The major activities performed during July 1984 are noted below.

1. Generation of Browns Ferry Cycle 5 Nuclear Data
(G. C. Slovik and E. Cazzoli)

Initial BLEND calculation produced thirteen cross section sets for the Browns Ferry Cycle 5 core. These sets were generated from the macroscopic cross sections obtained by running the CASMO code.

Examination of the above thirteen sets showed some inconsistencies which have been traced to the interpolation/extrapolation methodology used in BLEND. Corrections are made to the appropriate sections of BLEND.

2. Browns Ferry MSIV Closure ATWS Calculation
(L. Neymotin and E. Cazzoli)

Sensitivity studies are in progress to quantify the effect of steam condensation on the HPCI and RCIC jets. The jet lengths are being varied to obtain the upper and lower bounds of steam condensation, and eventually, the reactor power.

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FINANCIAL STATUS

Agarwal

JUNE 1984

ACCOUNT . TITLE
004662 APPLICATION OF ROMONA TO BWR ATWS

NRC FIN
A-3273

SUPERVISOR : RC

PRINCIPAL INVESTIGATOR [REDACTED]

	CURR MO EXP	YTD EXPENSE	% FUNDS RECEIV
DIRECT SALARIES :	15,300.	42,365	
TRAVEL EXPENSES :	0.	0.	
MATERIAL & SERVICES :	315.	712.	
SUBCONTRACTS :	0.	0.	
WAGE SUPPORT :	5,472.	6,374.	
INDIRECT SALARIES :	1,050.	6,610.	
OVERHEAD :	6,491.	23,347	
TOTAL :	29,431.	[REDACTED]	

FUNDS RECEIVED
150,000.