

INTERIM REPORT

July 22, 1980

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Contractors Report No. \_\_\_\_\_

Contract Program or Project Title: Experimental Criticality Data for Code  
Validation

Subject of this Document: Progress reported for June 1980

Type of Document: Informal monthly progress report

Author(s): S. R. Bierman

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Responsible NRC Individual and NRC Office or Division: \_\_\_\_\_

Donald E. Solberg, Chief, Systems Performance Research Branch, SAFER:RES

This document was prepared primarily for preliminary or internal use. It has not received full review and approval. Since there may be substantive changes, this document should not be considered final.

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Prepared for  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

NRC FIN No. B2094

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INTERIM REPORT

NRC Research and Technical  
Assistance Report



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July 3, 1980

Mr. Donald E. Solberg  
Fuel Cycle Research Branch  
Division of Safeguards, Fuel Cycle  
and Environment  
Office of Nuclear Regulatory Research  
Nuclear Regulatory Commission  
Mail Stop 1130  
Washington, DC 20555

Dear Mr. Solberg:

Subject: Review of Program - Experimental Criticality Data  
for Code Validation (Fin. No. B2094, TDO-777)

Criticality experiments with steel reflecting walls were completed with 2.35 wt%  $^{235}\text{U}$  enriched  $\text{UO}_2$  rods in water at a water-to-fuel volume ratio of 1.6. A photo ready copy of the report covering the experiments on multiclusters of 2.35 wt% and 4.31 wt%  $^{235}\text{U}$  enriched  $\text{UO}_2$  rods in water at the 1.6 water-to-fuel volume ratio was transmitted to NRC Document Control for publication and distribution.

The experimental assembly is currently being modified to permit measurements being made near optimum moderation with the steel reflecting walls. These experiments are scheduled to be completed during July.

A chart indicating the spending for the current month and the total spending for the fiscal year to date is enclosed.

Very truly yours,

S.R. Bierman, Project Manager  
Criticality Analysis

SRB:lt

Enclosure

cc: Mr. Richard H. Odegaarden

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# MONTHLY PROGRESS/VARIANCE REPORT

DATE PREPARED: 10/17/79	PROJECT TITLE: Criticality Data for Code Validation
SPONSOR: GJBC	PROJECT START DATE: 7/1/75
PROJECT FUNDING: \$500.7K*	PROJECT COMPL DATE: Continuing
PROJECT MANAGER: S.R. Bicknell	LEAD LINE MANAGER: E.D. Clayton
PROJECT NO.: TD 6777	

\* Includes \$50.7K carry over from FY-1979.

## 1. MAJOR OBJECTIVES

The procurement of experimental criticality data for use as confirmatory benchmark type data in criticality assessment of fuel element shipping casks.

## 2. PROJECT COSTS

