INTERIM REPORT

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ORNL/CSD/INF-80/8

Contract Program or Project Title:

Program for Standardized Analysis of Fuel Shipping Containers

Subject of This Document: Technical Progress

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UNION CARBIDE CORPORATION, NUCLEAR DIVISION
operating the
Oak Ridge Gaseous Diffusion Plant • Oak Ridge National Laboratory
Oak Ridge Y-12 Plant • Paducah Gaseous Diffusion Plant
for the
DEPARTMENT OF ENERGY

INTERIM REPO...

PROGRAM FOR THE STANDARDIZED ANALYSIS OF FUEL SHIPPING CONTAINERS

Quarterly Summary

July 1, 1980, to September 30, 1980

Personnel Time -- 468 man-hours

(a) This Quarter	$12,135*
(b) Fiscal Year-to-Date	281,436
(c) Projected to End of Fiscal Year	281,436
(d) Obligated for FY 1981	35,846

*Includes $9,300 in credit received from BNL.

QUARTERLY REPORT ON PROGRAM FOR THE STANDARDIZED ANALYSIS OF FUEL SHIPPING CONTAINERS

All activity during this quarter has been solely directed towards documentation of various portions of the SCALE manual. Some work was performed in July on finalizing the documentation for the control modules CSAS1 and CSAS2. Then, with the supplemental funding provided in September, documentation efforts on MORSE-SGC/S, MARS, JUNEBUG, ORIGEN-S, AND KENO-V were resumed. The MARS subroutine library is the geometry package used in MORSE-SGC/S and JUNEBUG.

A meeting between UCC-ND staff and NRC staff was held at ORNL on September 29 to discuss the status of this program and the SCALE project in general. Attendees at the meeting were:

W. R. Lahs, NRC
R. H. Odegaarden, NRC
C. V. Parks, UCC-ND
G. E. Whitesides, UCC-ND
W. D. Turner, UCC-ND
T. J. Hoffman, UCC-ND
S. K. Iskander, UCC-ND
W. E. Ford, UCC-ND

Items discussed at this meeting which apply directly to this program are listed below.

1) The format for the SCALE manual was reviewed and agreed upon. A draft of the Table of Contents for the SCALE manual is attached as Appendix A.

2) It was determined that the CSAS1/CSAS2 documentation (NUREG/CR-2000) should be revised to conform to the agreed-upon format for the SCALE manual.

3) A general discussion was held on the research needs for cask analysis in the areas of heat transfer and shielding.

4) W. R. Lahs provided S. K. Iskander with an updated version of the MARC code.

APPENDIX A

SCALE MANUAL

Section and Page Numbering Scheme

Objectives:

1. Overall sequential continuity.

2. Potential for insertions on the page, section, and module level.

Approach:

Label criticality safety control module writeups C1, C2, ...; shielding control module writeups S1, S2, ...; heat transfer control module writeups H1, H2, ...; functional module writeups F1, F2, ...; miscellaneous writeups M1, M2, ...

Section #'s C1.1, ...C1.10.

Page #'s by section C1.1.1, C1.1.2.

Appendices will be denoted as C1.A, C1.B, etc.

Features:

Allows 1. add-on of modules by type,
2. add-on of sections by module, and
3. insertion of pages by section, additional pages will require renumbering section or adding suffix to page number, e.g., C1.1.23a.