

Sandia National Laboratories

Albuquerque, New Mexico 87185

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August 17, 1983

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A-1166

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Ms. M. J. Wise  
High-Level Waste Licensing  
Management Branch  
Division of Waste Management  
U.S. Nuclear Regulatory Commission  
7915 Eastern Avenue  
Silver Spring, MD 20910

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Dear Ms. Wise:

Enclosed is the monthly report for FIN A-1166, Maintenance of  
Computer Programs, for July 1983.

Please call or write if you have any questions or comments.

Sincerely,

*Nestor R. Ortiz*  
Nestor R. Ortiz, Supervisor  
Fuel Cycle Risk Analysis  
Division 6413

NRO:6413:flp

Copy to:  
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A-1166 PDR

PROGRAM:	Maintenance and Validation of Computer Programs	FIN#:	A-1166
CONTRACTOR:	Sandia National Laboratories	BUDGET PERIOD:	10/82 - 9/83
NMSS PROGRAM MANAGER:	M. J. Wise	BUDGET AMOUNT:	\$306K
CONTRACT PROGRAM MANAGER:	N. R. Ortiz	FTS PHONE:	844-5644
PRINCIPAL INVESTIGATORS:	P. A. Davis	FTS PHONE:	846-5421

#### PROJECT OBJECTIVES

The objective is a maintenance task that will ensure that the Sandia computer programs remain consistent with current operating systems, are as error-free as possible, and have up-to-date documentation for NRC. There is also a validation assessment task to identify real physical situations which could provide data for validation of the Sandia computer program.

#### ACTIVITIES DURING JULY 1983

1. The sample problems of the fixed network code (NWFT/DVM) user's manual were exercised using the generalized network code (NWFG/DVM). The generalized network results show radionuclide discharges slightly later than the fixed network code. This is due mainly to the differences in calculating the radionuclide migration path length. Differences in the treatment of the source term are being investigated. The results of the investigation will be presented in the next monthly report.
2. The in-house review of the SWIFT II verification and validation document was completed. The reviewers provided extensive comments. The document was also reviewed by one of our consultants. We expect to start re-writing the final report the first week of September.
3. The INTRACOIN problems 1, 2 and 3 will be exercised using the NWFT/DVM and NWFG/DVM codes. The input data setup was started during the month of July.
4. The updates of the SWIFT I code sent to NRC have been placed in a computer tape. Additional corrections to SWIFT I are expected as a result of the verification and validation efforts.