

Sandia National Laboratories

Albuquerque, New Mexico 87185

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April 15, 1986

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A1158
SNL

WM Project 10, 11, 16
Docket No.

PDR ✓
LPDR B, N, S

Neil M. Coleman
Hydrology Section
Geotechnical Branch
Division of Waste Management
U.S. Nuclear Regulatory Commission
7915 Eastern Avenue
Silver Spring, MD 20910

Distribution:

Coleman
5/11
(Return to WM, 623-SS)

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Dear Mr. Coleman:

Enclosed is the monthly report on FIN A-1158, Repository Site Definition and Technology Transfer for March 1986. Please feel free to contact me if you have any questions or comments.

Sincerely,

Robert M. Cranwell

Robert M. Cranwell, Supervisor
Waste Management Systems
Division 6431

RMC:6431:jm

Enclosure

Copy to:

Office of the Director, NMSS
Attn: Program Support
Robert Browning, Director
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PDR WMRES EXISANL
A-1158 PDR

PROGRAM: FIN: A-1158, Tasks I - V

CONTRACTOR: Sandia National
Laboratories

BUDGET PERIOD: 10/85 -
9/86

NMSS PROGRAM MANAGER: N. M. Coleman TOTAL BUDGET AMOUNT: \$486K

CONTRACT PROGRAM MANAGER: R. M. Cranwell FTS PHONE: 844-8368

PRINCIPAL INVESTIGATOR: G. F. Wilkinson FTS PHONE: 844-0074
C. P. Harlan FTS PHONE: 844-8164

Administrative Issues Concerning FIN A-1158 for March 1986

As mentioned in the February monthly report, we are in the process of dividing case 0976.000 into five subcases to correspond with the five individual tasks involved in FIN A-1158. Revision to the SNLA accounting system to reflect this change has not yet been completed, but should appear within the next month or two. Consequently, costs for Tasks II - IV are included as one item for this month.

PROGRAM: Repository Site Definitions

FIN#: A-1158
Task I

CONTRACTOR: Sandia National
Laboratories

BUDGET PERIOD: 10/85 -
9/86

NMSS PROGRAM MANAGER: N. M. Coleman BUDGET AMOUNT: -0-

CONTRACT PROGRAM MANAGER: R. M. Cranwell FTS PHONE: 844-8368

PRINCIPAL INVESTIGATORS: G. F. Wilkinson FTS PHONE: 844-0074
C. P. Harlan FTS PHONE: 844-8164

PROJECT OBJECTIVE

To develop RSDs for candidate host media and provide data for use in developing and testing performance assessment methodologies for the various media.

ACTIVITIES DURING MARCH

No activity.

PROGRAM: Technology Transfer

FIN#: A-1158
Task II

CONTRACTOR: Sandia National
Laboratories

BUDGET PERIOD: 10/85 -
9/86

NMSS PROGRAM MANAGER: N. M. Coleman BUDGET AMOUNT: 115K

CONTRACT PROGRAM MANAGER: R. M. Cranwell FTS PHONE: 844-8368

PRINCIPAL INVESTIGATORS: G. F. Wilkinson FTS PHONE: 844-0074
C. P. Harlan FTS PHONE: 844-8164

PROJECT OBJECTIVE

To provide technical support for the transfer of the capability to use the information, analytical techniques, and tools developed for the NRC under the Performance Assessment Methodology Development program (FIN A-1266).

ACTIVITIES DURING MARCH 1986

SWIFT II Self-Teaching Curriculum (STC)

Comments resulting from the NRC's review of the draft SWIFT II STC were received and addressed. All comments were incorporated with the exception of the recommendation that additional discussions be added to Problems 7 and 8 to describe relevant groundwater scenarios that can be studied using SWIFT II. As stated in the introduction, the SWIFT II code was specifically developed for use in simulating the transport of radionuclides dissolved in groundwater. Consequently, the sample problems were developed to address only this application. We do not feel that possible additional applications should be discussed in this document.

SWIFT II Seminar

At the request of the NMSS Project Manager (PM), the SWIFT II technology transfer seminar has been postponed. Course materials which were in preparation for the seminar will be completed and maintained until another date is scheduled.

TOUGH Code Documentation

Dr. Pruess has completed incorporation of SNLA's comments on the TOUGH code user's guide. The document is now being re-typed, and a revised copy will be transmitted to SNLA within the next few weeks. At that time, it will be forwarded to the NRC for review.

PROGRAM: Maintenance of Computer Codes

FIN#: A-1158
Task III

CONTRACTOR: Sandia National
Laboratories

BUDGET PERIOD: 10/85 -
9/86

NMSS PROGRAM MANAGER: N. M. Coleman BUDGET AMOUNT: \$245K

CONTRACT PROGRAM MANAGER: R. M. Cranwell FTS PHONE: 844-8368

PRINCIPAL INVESTIGATORS: G. F. Wilkinson FTS PHONE: 844-0074
C. P. Harlan FTS PHONE: 844-8164

PROJECT OBJECTIVE

To implement a quality assurance program to maintain computer codes, detect and correct errors, document changes, and inform the NRC staff.

ACTIVITIES DURING MARCH 1986

User accounts for the INEL computer system were recently received, and a tape containing the SWIFT II code and eight sample problems has been sent for mounting. Once the code has received a quality assurance check, it will be made public. We will advise the NMSS PM of its availability for use at that time.

PROGRAM: Code Validation and Verification FIN#: A-1158
Task IV

CONTRACTOR: Sandia National BUDGET PERIOD: 10/85 -
Laboratories 9/86

NMSS PROGRAM MANAGER: N. M. Coleman BUDGET AMOUNT: 87K

CONTRACT PROGRAM MANAGER: R. M. Cranwell FTS PHONE: 844-8368

PRINCIPAL INVESTIGATORS: G. F. Wilkinson FTS PHONE: 844-0074
C. P. Harlan FTS PHONE: 844-8164

PROJECT OBJECTIVE

To assemble the various tests that have been performed to help validate and verify various portions of relevant codes and recommend any additional feasible tests.

ACTIVITIES DURING MARCH 1986

A letter report outlining issues pertaining to software and hydrology which were discussed at the January 27-29 workshop on "Validation of Mathematical Models for Waste Repository Performance Assessment" was transmitted to the NMSS PM. Hydrologic issues raised at the workshop included porous media, fractured media, unsaturated flow in fractured rock, and ground-water flow models in general.

PROGRAM: Short-term Technical Assistance

FIN#: A-1158
Task V

CONTRACTOR: Sandia National
Laboratories

BUDGET PERIOD: 10/85 -
9/86

NMSS PROGRAM MANAGER: N. M. Coleman BUDGET AMOUNT: 39K

CONTRACT PROGRAM MANAGER: R. M. Cranwell FTS PHONE: 844-8368

PRINCIPAL INVESTIGATOR: G. F. Wilkinson FTS PHONE: 844-0074
C. P. Harlan FTS PHONE: 844-8164

PROJECT OBJECTIVE

Provide general technical assistance on waste management matters relating to Tasks I-IV.

ACTIVITIES DURING MARCH 1986

No activity.

A-1158, Task V
0976.050
March 1986

THIS IS AN ESTIMATE ONLY AND MAY NOT MATCH THE INVOICES SENT TO
NRC BY SANDIA'S ACCOUNTING DEPARTMENT.

	Current Month	Year-to-Date
I. Direct Manpower (man-months of charged effort)	0.0	0.6
II. Direct Loaded Labor Costs	0.0	5.0
Materials and Services	0.0	0.0
ADP Support (computer)	0.0	0.0
Subcontracts	0.0	0.0
Travel	0.0	0.0
Other	0.0	0.0
TOTAL COSTS	0.0	5.0

Other = rounding approximation
by computer

III. Funding Status

Prior FY Carryover	FY86 Projected Funding Level	FY86 Funds Received to Date	FY86 Funding Balance Needed
	39K		

A-1158

TOTAL FOR 0976.020, 0976.030, and 0976.040

March 1986

THIS IS AN ESTIMATE ONLY AND MAY NOT MATCH THE INVOICES SENT TO
NRC BY SANDIA'S ACCOUNTING DEPARTMENT.

	Current Month	Year-to-Date
I. Direct Manpower (man-months of charged effort)	2.2	9.0
II. Direct Loaded Labor Costs	18.0	75.0
Materials and Services	0.0	0.0
ADP Support (computer)	1.0	4.0
Subcontracts	5.0	-16.0
Travel	1.0	1.0
Other	-1.0	1.0
TOTAL COSTS	24.0	65.0

Other = rounding approximation
by computer

III. Funding Status

Prior FY Carryover	FY86 Projected Funding Level	FY86 Funds Received to Date	FY86 Funding Balance Needed
	447K		

A-1158, Task I
0976.010
March 1986

THIS IS AN ESTIMATE ONLY AND MAY NOT MATCH THE INVOICES SENT TO
NRC BY SANDIA'S ACCOUNTING DEPARTMENT.

	Current Month	Year-to-Date
I. Direct Manpower (man-months of charged effort)	0.0	0.0
II. Direct Loaded Labor Costs	0.0	0.0
Materials and Services	0.0	0.0
ADP Support (computer)	0.0	0.0
Subcontracts	0.0	0.0
Travel	0.0	0.0
Other	0.0	0.0
TOTAL COSTS	0.0	0.0

Other = rounding approximation
by computer

III. Funding Status

Prior FY Carryover	FY86 Projected Funding Level	FY86 Funds Received to Date	FY86 Funding Balance Needed
None	None	None	None

A-1158

TOTAL FOR 0976.010, 0976.020, 0976.030, 0976.040 & 0976.050

March 1986

THIS IS AN ESTIMATE ONLY AND MAY NOT MATCH THE INVOICES SENT TO NRC BY SANDIA'S ACCOUNTING DEPARTMENT.

	Current Month	Year-to-Date
I. Direct Manpower (man-months of charged effort)	2.2	9.6
II. Direct Loaded Labor Costs	18.0	80.0
Materials and Services	0.0	0.0
ADP Support (computer)	1.0	4.0
Subcontracts	5.0	-16.0
Travel	1.0	1.0
Other	-1.0	1.0
TOTAL COSTS	24.0	70.0

Other = rounding approximation
by computer

III. Funding Status

Prior FY Carryover	FY86 Projected Funding Level	FY86 Funds Received to Date	FY86 Funding Balance Needed
150K	486K	336K	-0-