

Sandia National Laboratories

Albuquerque, New Mexico 87185

June 10, 1986

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Ms. Sandra Wastler
Repository Projects Branch
Division of Waste Management
U.S. Nuclear Regulatory Commission
7915 Eastern Avenue
Silver Spring, MD 20910

Dear Ms. Wastler:

Enclosed is the summary of activities during May 1986 for the following tasks (A-1165): (I) Assisting in the Development of the Licensing Assessment Methodology (II) Monitor and Review Aspects of DOE programs; (III) Identifying Techniques for Probability Assignments; and (IV) Short Term Technical Assistance.

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
Division of Waste Management
Seth Coplan
Division of Waste Management
Hubert Miller
Division of Waste Management
Malcolm R. Knapp
Division of Waste Management
Enrico Conti, Branch Chief
Health Siting & Waste Management Division
John Randall
Division of Radiation Programs and
Earth Sciences
6400 R. C. Cochrell
6430 N. R. Ortiz
6431 R. M. Cranwell
6431 R. L. Hunter

WM-RES
WM Record File
A1165
SNL

WM Project 10,11,16
Docket No. _____
PDR ☒
LPDR ☒ (B,N,S)

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PDR WMRES EXISANL
A-1165 PDR

Distribution:
SWastler
SCoplan
(Return to WM, 623-SS)
Joan-ticket
NSH11
See

3142

Duda, L. E., 1984, Verification of the Network Flow and Transport/Distributed Velocity (NWFT/DVM) Computer Code, NUREG/CR-378, SAND83-1466, NRC, Washington, DC, 40 p.

Finley, N. C., and M. Reeves, 1982, SWIFT Self-Teaching Curriculum, Illustrative Problems to Supplement the User's Manual for the Sandia Waste-Isolation Flow and Transport Model (SWIFT), NUREG/CR-1968, SAND81-0410, NRC, 169 p.

Helton, J. C., and R. L. Iman, 1980, Risk Methodology for Geologic Disposal of Radioactive Waste: Sensitivity Analysis of the Environmental Transport Model, SAND79-1383, NUREG/CR-1636, Vol. 2, SNLA, 227 p.

Helton, J. C., and P. C. Kaestner, 1981, Risk Methodology for Geologic Disposal of Radioactive Waste: Model Description and User Manual for Pathways Model, SAND78-1711, NUREG/CR-1636, Vol. 1, SNLA, 166 p.

Helton, J. C., and N. C. Finley, 1982, PATH1 Self-Teaching Curriculum: Example Problems for Pathways-to-Man Model, NUREG/CR-2394, SAND81-2377, NRC, 108 p.

Iman, R. L., J. C. Helton, and J. E. Campbell, 1978, Risk Methodology for Geologic Disposal of Radioactive Waste: Sensitivity Analysis Techniques, SAND78-0912, NUREG/CR-0394, NRC, 107 p.

Iman, R. L., J. M. Davenport, and D. K. Zeigler, 1980, Latin Hypercube Sampling (Program User's Guide), SAND79-1473, Sandia Laboratories, 72 p.

Iman, R. L., J. M. Davenport, E. L. Frost, and M. J. Shortencarier, 1980, Stepwise Regression with PRESS and Rank Regression (Program User's Guide), SAND79-1472, Sandia Laboratories, 56 p.

Pepping, R. E., R. J. Campana, D. D. Jensen, and P. H. Raabe, 1981, Risk Analysis Methodology for Spent Fuel Repositories in Bedded Salt: Reference Repository Definitions and Contributions from Handling Activities, SAND81-0219, NUREG/CR-1931, SNLA, 432 p.

These twelve reports make up over one-fourth of the total NRC LAM documentation; however, several DOE reports may also have to be examined. Both Aerospace and Golder have recommended that DOE and other codes such as WAPPA and ORIGEN be included in the LAM. Currently no NRC documentation is available on these codes.

Work on this task will be slowed in June because of staff vacations.

PROGRAM: Monitor/Review Aspects of DOE
& other National and Inter-
national Waste Management
Programs

FIN#: A-1165
Task II

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

NMSS PROGRAM MANAGER: S. Wastler BUDGET AMOUNT: \$80K

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

PRINCIPAL INVESTIGATORS: R. L. Hunter FTS PHONE: 846-6337

PROJECT OBJECTIVES

To monitor and review the performance assessment aspects of DOE
and other national and international waste management programs.

ACTIVITIES DURING MAY 1986

No activity.

PROGRAM: Probability Techniques

FIN#: A-1165
Task III

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

NMSS PROGRAM MANAGER: S. Wastler BUDGET AMOUNT: \$163K

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

PRINCIPAL INVESTIGATORS: R. L. Hunter FTS PHONE: 846-6337

PROJECT OBJECTIVES

To identify techniques for assigning probabilities to geologic processes and events.

ACTIVITIES DURING MAY 1986

The experts continue to work on the preparation of new chapters and on review of the draft report, but no Sandia staff work was done on this task in May.

LBL has notified us that their investigation of our concerns about the original Chapter 3 of the probability report is complete. They are crediting our account with the full amount that was paid to them. Meanwhile, K. K. Wahi is working on an entirely new Chapter 3. No further charges will be made to NRC for his work.

PROGRAM: Short-Term Technical Assistance FIN#: A-1165
Task IV

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

NMSS PROGRAM MANAGER: S. Wastler BUDGET AMOUNT: \$50K

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

PRINCIPAL INVESTIGATORS: R. L. Hunter FTS PHONE: 846-6337

PROJECT OBJECTIVES

To provide general technical assistance on waste-management matters on the request of the NMSS PM.

ACTIVITIES DURING MAY 1986

No activity.

A-1165, Task I
 1183.010
 May 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)	1.0	2.8
II. Direct Loaded Labor Costs	14.0	34.0
Materials and Services	0.0	0.0
ADP Support (computer)	0.0	0.0
Subcontracts	14.0	40.0
Travel	0.0	2.0
Other	-1.0	-1.0
TOTAL COSTS	27.0	77.0

Other = rounding approximation
 by computer

III. Funding Status

Prior FY Carryover	FY86 Projected Funding Level	FY86 Funds Received to Date	FY86 Funding Balance Needed
50K	200K	150K	None

A-1165, Task II
1183.020
May 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	0.2
II. Direct Loaded Labor Costs	0.0	2.0
Materials and Services	0.0	0.0
ADP Support (computer)	0.0	0.0
Subcontracts*	-4.0	21.0
Travel	0.0	0.0
Other	0.0	-1.0
TOTAL COSTS	-4.0	22.0

Other = rounding approximation
by computer

III. Funding Status

Prior FY Carryover	FY86 Projected Funding Level	FY86 Funds Received to Date	FY86 Funding Balance Needed
-0-	80K	80K	None

* This represents a reimbursement of charges for Ellen Quinn.

A-1165, Task III
 1183.030
 May 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	4.3
II. Direct Loaded Labor Costs	1.0	47.0
Materials and Services	0.0	0.0
ADP Support (computer)	0.0	0.0
Subcontracts*	3.0	70.0
Travel	0.0	1.0
Other	0.0	1.0
TOTAL COSTS	4.0	119.0

Other = rounding approximation
 by computer

III. Funding Status

Prior FY Carryover	FY86 Projected Funding Level	FY86 Funds Received to Date	FY86 Funding Balance Needed
143K	163K	20	None

*Charges were received for R. J. Wright.

A-1165, Task IV
1183.040
May 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	2.9
II. Direct Loaded Labor Costs	0.0	35.0
Materials and Services	0.0	1.0
ADP Support (computer)	0.0	0.0
Subcontracts	0.0	1.0
Travel	0.0	3.0
Other	0.0	0.0
TOTAL COSTS	0.0	40.0

Other = rounding approximation
by computer

III. Funding Status

Prior FY Carryover	FY86 Projected Funding Level	FY86 Funds Received to Date	FY86 Funding Balance Needed
-0-	50K	50K	None

A-1165

TOTAL FOR 1183.010, 1183.020, 1183.030, 1183.040

May 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)	1.0	10.2
II. Direct Loaded Labor Costs	15.0	118.0
Materials and Services	0.0	1.0
ADP Support (computer)	0.0	0.0
Subcontracts	13.0	132.0
Travel	0.0	6.0
Other	<u>-1.0</u>	<u>1.0</u>
TOTAL COSTS	27.0	258.0

Other = rounding approximation
by computer

III. Funding Status

Prior FY Carryover	FY86 Projected Funding Level	FY86 Funds Received to Date	FY86 Funding Balance Needed
193K	493K	300K	None