

A1165

PDR-1
LPDR- Wm-10 (2)
Wm-11 (2)
Wm-16 (2)

Sandia National Laboratories
Albuquerque, New Mexico 87185

April 15, 1987

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

WM-RES
WM Record File
A-1165
SNL

WM Project 10, 11, 16
Docket No. _____
PDR _____
LPDR B.N.S.
Jean Ticket

Distribution:
WASTLER
(Return to WM, 623-SS)

Dear Ms. Wastler:

Enclosed is the summary of activities during March 1987 for FIN# A1165. If you have any questions please feel free to contact me at (FTS) 844-8368 or Robert Guzowski at (FTS) 844-3583.

Sincerely,

Robert M. Cranwell
Robert M. Cranwell, Supervisor
Waste Management Systems
Division 6416

RMC:6416

Enclosure

Copy to:
Office of the Director, NMSS
Attn: Program Support
Robert Browning, Director
Division of Waste Management
Seth Coplan
Division of Waste Management
John Randall
Division of Radiation Programs and
Earth Sciences
6400 R. C. Cochrell
6410 N. R. Ortiz
6416 R. M. Cranwell
6416 R. V. Guzowski

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PROGRAM: Licensing-Methodology Assistance

FIN#: A-1165
Task I

CONTRACTOR: Sandia National
Laboratories

BUDGET PERIOD: 10/86 -
9/87

NMSS PROGRAM MANAGER: S. Wastler

BUDGET AMOUNT: \$129K

CONTRACT PROGRAM MANAGER: R. M. Cranwell

FTS PHONE: 844-8368

PRINCIPAL INVESTIGATORS: R. M. Cranwell
R. V. Guzowski

FTS PHONE: 844-8368

FTS PHONE: 844-3583

PROJECT OBJECTIVE

To assist in the overall development and integration of the licensing assessment methodology.

ACTIVITIES DURING MARCH 1987

Work began on the interim report on the status of the integration project. A first draft was nearly completed, and a comparison was made between the computer codes included in the Aerospace waste-package methodology and the demonstration of that methodology. The results of the comparison will be included in the interim report. The final version of the report will be submitted with the April monthly.

The revised 189 for A1165 was completed. A copy was sent to S. Coplan in early April, and a copy was delivered to the NRC by R. Cranwell on April 7. The document is being reviewed by Sandia management.

The final draft of the uncertainty scoping document was completed. An internal Sandia technical review will be completed in early April, and the final version of the document is expected to be delivered to the NRC in mid-April.

R. Cranwell attended a meeting of the Nuclear Energy Agency (NEA) Performance Assessment Advisory Group (PAAG) on March 16 through 18 in Paris. The purpose of the meeting was to update the PAAG on developments in NEA-member countries in the area of performance assessment and to present and discuss proposed PAAG activities for the future. General topics of discussion included: (1) the needs and priorities for computer-related activities in system performance assessment, (2) identification and selection of scenarios for performance assessment of nuclear-waste disposal, (3) near-field studies/modeling, (4) international data bases and data banks, (5) international projects on model verification and validation, (6) uncertainty analyses, (7) the need for interaction between experimentalists and modelers, (8) the use of natural analogues in

model validation, (9) probabilistic system-assessment codes, and (10) in-situ research and investigations for geologic waste disposal.

Workshops and the formation of working groups or consultant groups in various areas of performance assessment also were discussed.

PROGRAM: Monitor/Review Aspects of DOE and
Other National and International
Waste Management Programs

FIN#: A-1165
Task II

CONTRACTOR: Sandia National
Laboratories

BUDGET PERIOD: 10/86 -
9/87

NMSS PROGRAM MANAGER: S. Wastler

BUDGET AMOUNT: \$101K

CONTRACT PROGRAM MANAGER: R. M. Cranwell

FTS PHONE: 844-8368

PRINCIPAL INVESTIGATORS: R. M. Cranwell
R. V. Guzowski

FTS PHONE: 844-8368
FTS PHONE: 844-3583

PROJECT OBJECTIVE

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

ACTIVITIES DURING MARCH 1987

No activity. Charges to this task were for work performed in previous months.

PROGRAM: Probability Techniques

FIN#: A-1165
Task III

CONTRACTOR: Sandia National
Laboratories

BUDGET PERIOD: 10/86 -
9/87

NMSS PROGRAM MANAGER: S, Wastler

BUDGET AMOUNT: \$150K

CONTRACT PROGRAM MANAGER: R. M. Cranwell

FTS PHONE: 844-8368

PRINCIPAL INVESTIGATORS: R. M. Cranwell
R. V. Guzowski

FTS PHONE: 844-8368
FTS PHONE: 844-3583

PROJECT OBJECTIVE

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

ACTIVITIES DURING MARCH 1987

The Geochemistry chapter (Chapter 10) of the Probability Techniques Report was reviewed by R. Guzowski, R. Cranwell, M. Siegel, R. Hunter, and N. Ortiz. After a meeting to discuss the review comments of the above personnel, the decision was made to substantially rewrite the chapter. This work will be done by M. Siegel and a subcontractor. Completion of the rewrite is expected by the end of May.

With the exception of the Geochemistry chapter, the report was submitted to Sandia technical review in early April. Management review will begin in May.

The revised 189 for A1165 was completed. A copy was sent to S. Coplan in early April. The document is being reviewed by Sandia management.

PROGRAM: Short-Term Technical Assistance

FIN#: A-1165
Task IV

CONTRACTOR: Sandia National
Laboratories

BUDGET PERIOD: 10/86 -
9/87

NMSS PROGRAM MANAGER: S. Wastler

BUDGET AMOUNT: \$58K

CONTRACT PROGRAM MANAGER: R. M. Cranwell

FTS PHONE: 844-8368

PRINCIPAL INVESTIGATORS: R. M. Cranwell
R. V. Guzowski

FTS PHONE: 844-8368
FTS PHONE: 844-3583

PROJECT OBJECTIVE

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

ACTIVITIES DURING MARCH 1987

R. Cranwell, R. Guzowski, E. Bonano, and P. Davis completed the Five-Year Work Plan Proposed Statement Of Work. A copy of this document was sent to the NRC in early April along with the revised version of the A-1165 189.

A-1165, Task I
 1183.010
 March 1987

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)	0.4 ---	2.6 ---
II. Direct Loaded Labor Costs	7	27
Materials and Services	1	6
ADP Support (computer)	0	0
Subcontracts	2	14
Travel	1	1
G&A	1	5
Other (computer roundoff)	0	0
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TOTAL COSTS	12	53

III. Funding Status

Prior FY Carryover -----	FY 87 Projected Funding Level -----	FY 87 Funds Received to Date -----	FY 87 Funding Balance Needed -----
\$4K	\$129K	-0-	\$125K

A-1165, Task II
 1183.020
 March 1987

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)	0.1 ---	0.8 ---
II. Direct Loaded Labor Costs	1	10
Materials and Services	0	0
ADP Support (computer)	0	0
Subcontracts	1	15
Travel	1	2
G&A	0	3
Other (computer roundoff)	0	-1
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TOTAL COSTS	3	29

III. Funding Status

Prior FY Carryover -----	FY 87 Projected Funding Level -----	FY 87 Funds Received to Date -----	FY 87 Funding Balance Needed -----
\$51	\$101K	-0-	\$50K

A-1165, Task III
 1183.030
 March 1987

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)	0.6 -----	1.2 -----
II. Direct Loaded Labor Costs	6	11
Materials and Services	0	0
ADP Support (computer)	0	0
Subcontracts	2	8
Travel	0	1
G&A	1	1
Other (computer roundoff)	0	1
	-----	-----
TOTAL COSTS	9	22

III. Funding Status

Prior FY Carryover -----	FY 87 Projected Funding Level -----	FY 87 Funds Received to Date -----	FY 87 Funding Balance Needed -----
-0-	\$150K	-0-	\$150K

A-1165, Task IV
 1183.040
 March 1987

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)	0.1 -----	0.7 -----
II. Direct Loaded Labor Costs	1	8
Materials and Services	0	0
ADP Support (computer)	0	0
Subcontracts	0	0
Travel	0	1
G&A	0	1
Other (computer roundoff)	0	2
	-----	-----
TOTAL COSTS	1	12

III. Funding Status

Prior FY Carryover -----	FY 87 Projected Funding Level -----	FY 87 Funds Received to Date -----	FY 87 Funding Balance Needed -----
\$8K	\$58K	-0-	\$50K

A-1165

Total for 1183.010, 1183.020, 1183.030, and 1183.040.

March 1987

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)	1.2 ---	5.3 ---
II. Direct Loaded Labor Costs	15	56
Materials and Services	1	6
ADP Support (computer)	0	0
Subcontracts	5	37
Travel	2	5
G&A	2	10
Other (computer roundoff)	0	2
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TOTAL COSTS	25	116

III. Funding Status

Prior FY Carryover -----	FY 87 Projected Funding Level -----	FY 87 Funds Received to Date -----	FY 87 Funding Balance Needed -----
\$138K	\$513K	-0-	\$375K