

A1165

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

Sandia National Laboratories

Albuquerque, New Mexico 87185
WM DOCKET CONTROL CENTER

May 15, 1987

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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 April 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

Wm-Res
WM Record File
A1165
SNL

WM Project 10, 11, 16
Docket No. _____
PDR ✓

Distribution:
SWastler

XL PDR ✓ (B, N, S)
Joan Ticker
SCoplan

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PDR WMRES EXIBANL PDR
A-1165

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WM Project: WM-10, 11, 16
PDR w/encl
(Return to WM, 623-SS)

WM Record File: A1165
LPDR w/encl

4057

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: \$50K

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 APRIL 1987

In an internal NRC memo, J. Trapp expressed concerns about the possible effects that a recently determined 20,000 year-old date for volcanic activity at the Lathrop Wells cone near NTS might have on the consequence calculations of volcanism used in the final environmental assessment (EA) for the Yucca Mountain site. Background material used for the EA conclusions was examined, and the concerns in the memo were addressed in a conference call on April 21 between J. Trapp and S. Coplan for the NRC and R. Cranwell and R. Guzowski for Sandia.

As a followup to the conference call, Sandia was asked to do a qualitative analysis of those factors that require assumptions in the calculation of release resulting from a dike intruding into a repository. In addition, a sensitivity analysis was performed on the parameters in the equation used by the DOE to calculate release in curies of a dike intersecting a repository. The NRC will be informed of the results of these analyses in early May.

R. Cranwell, R. Guzowski, E. Bonano, and P. Davis completed the Five-Year Work Plan Proposed Statement Of Work for addressing uncertainties in the areas of (1) the selection of scenarios for use in assessing the suitability of a proposed site, (2) the modeling used to assess the consequences of the proposed scenarios, and (3) the data and parameters used in the modeling effort. A copy of this document was sent to the NRC in early April.

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 APRIL 1987

R. Rechard and G. Barr completed the Sandia technical review of the Probability Techniques Report, except for the chapter on geochemistry (Chapter 10). During May, the review comments will be addressed, and the report will be prepared for Sandia management review.

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: \$50K

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 APRIL 1987

No activity.

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: \$125K

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 APRIL 1987

The revised 189 for A1165 was completed, and a copy was sent to S. Coplan in early April.

A paper by E. Bonano and R. Cranwell entitled "Sources/Treatment Of Uncertainties In The Performance Assessment Of Geologic Radioactive Waste Repositories" was completed. A copy of the paper accompanies this monthly.

Work continued on the interim report on the licensing assessment methodology, although the completion date of the report was delayed because of both the work on the five-year work plan and the high-priority work on assessing the possible impact of renewed volcanism done under Task 4. Completion of a draft of the report is now expected in the latter half of May.

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: \$125K

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

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A-1165

Total for 1183.010, 1183.020, 1183.030, and 1183.040.
April 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)	1.6 ---	6.9 ---
II. Direct Loaded Labor Costs	19	76
Materials and Services	1	6
ADP Support (computer)	0	0
Subcontracts	-5	32
Travel	4	8
G&A	1	11
Other (computer roundoff)	1	4
	-----	-----
TOTAL COSTS	21	137

III. Funding Status

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

* Includes \$138K for uncertainty task that will begin in May.

A-1165, Task IV
 1183.040
 April 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)	0.2 ---	0.9 ---
II. Direct Loaded Labor Costs	2	11
Materials and Services	0	0
ADP Support (computer)	0	0
Subcontracts	0	0
Travel	0	1
G&A	0	1
Other (computer roundoff)	1	2
	-----	-----
TOTAL COSTS	3	15

III. Funding Status

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

* Carryover to be used for uncertainty task.

A-1165, Task III
 1183.030
 April 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)	1.1 ---	1.2 ---
II. Direct Loaded Labor Costs	13	24
Materials and Services	0	0
ADP Support (computer)	0	0
Subcontracts	-3	5
Travel	0	1
G&A	1	2
Other (computer roundoff)	0	1
	-----	-----
TOTAL COSTS	11	33

III. Funding Status

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

A-1165, Task II
 1183.020
 April 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)	0.0 ---	0.8 ---
II. Direct Loaded Labor Costs	1	11
Materials and Services	0	0
ADP Support (computer)	0	0
Subcontracts	1	16
Travel	3	4
G&A	0	3
Other (computer roundoff)	0	0
	-----	-----
TOTAL COSTS	5	34

III. Funding Status

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

* Carry over to be used for uncertainty task.

A-1165, Task I
 1183.010
 April 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)	0.3 ---	2.9 ---
II. Direct Loaded Labor Costs	3	30
Materials and Services	1	6
ADP Support (computer)	0	0
Subcontracts	-3	11
Travel	1	2
G&A	0	5
Other (computer roundoff)	0	1
	-----	-----
TOTAL COSTS	2	55

III. Funding Status

<u>Prior FY Carryover</u>	<u>FY 87 Projected Funding Level</u>	<u>FY 87 Funds Received to Date</u>	<u>FY 87 Funding Balance Needed</u>
\$4K*	\$125K	\$125K	-0-

* Carryover to be used for uncertainty task.