# Sandia National Laboratories

Albuquerque, New Mexico 87185

June 15, 1990

Mr. David H. Tiktinsky Office of Nuclear Material Safety and Safeguards Division of High-Level Waste Management U.S. Nuclear Regulatory Commission Mail Stop 6A-4 Washington, DC 20555

Dear Mr. Tiktinsky:

Enclosed is the May 1990 monthly report for FIN A1165. If you have any questions or comments, please feel free to contact me at (FTS) 844-5303, P. A. Davis at (FTS) 846-5421, or L. L. Price at (FTS) 844-6206.

Sincerely,

Evaristo J. Bonano, Supervisor Waste Management Systems Division 6416

EJB:6416

Enclosure

Copy to:

E. Davis

Office of the Director, NMSS

Attn: Program Support

Robert Browning, Director

Division of High-Level Waste Management

Seth Coplan

Division of High-Level Waste Management

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Division of High-Level Waste Management

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## SUMMARY SHEET

## May 1990 Monthly Report for FIN A1165

<u>Task</u>	<u>Activity</u>	<u>Costs</u>	
I	Licensing Methodology Assistance	\$	oĸ
II	Uncertainty Identification and Analysis	\$	oĸ
III	Probability Techniques	\$	oĸ
IV	Maintenance and Management of PA Codes	\$	oĸ
v	Technical Assistance for SCP Review	\$	oĸ
VI	Short Term Technical Assistance	\$	ОK

PROGRAM: Licensing-Methodology Assistance

FIN A1165

Task I

CONTRACTOR: Sandia National BUDGET PERIOD: 10/89 -

Laboratories

9/90

NMSS PROGRAM MANAGER: P. Brooks BUDGET AMOUNT: \$1K

CONTRACT PROGRAM MANAGER: E. J. Bonano FTS PHONE: 844-5303

PRINCIPAL INVESTIGATORS: P. A. Davis FTS PHONE: 846-5421

L. L. Price FTS PHONE: 844-6206

PROJECT OBJECTIVE

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

**ACTIVITIES DURING MAY 1990** 

Task I has been completed.

PROGRAM: Identification and Analysis of

Uncertainties

FIN A1165 Task II

CONTRACTOR: Sandia National BUDGET PERIOD: 10/89 -

Laboratories

9/90

NMSS PROGRAM MANAGER: P. Brooks BUDGET AMOUNT: \$37K

CONTRACT PROGRAM MANAGER: E. J. Bonano FTS PHONE: 844-5303

PRINCIPAL INVESTIGATORS: P. A. Davis FTS PHONE: 846-5421

L. L. Price FTS PHONE: 844-6206

## PROJECT OBJECTIVE

To identify, analyze, and recommend generic methodologies for treating uncertainties associated with performance assessments of HLW repositories.

### **ACTIVITIES DURING MAY 1990**

#### Subtask 2.1

I. Recommended techniques for assessing compliance with the EPA's HLW repository containment requirement (40 CFR 191.13)

A draft of this report was sent to the NRC on January 16, 1990. We received the NRC's comments on March 22, 1990. The NRC's comments have been addressed and this new draft is being proofread.

## Subtask 2.2/2.6c

I. Identification, evaluation, quantification, and reduction of uncertainty in HLW repository performance assessments.

A draft of this report was sent to the NRC on April 2, 1990. We are waiting for NRC comments. Internal SNL reviews have been completed.

#### Subtask 2.3

I. Elicitation and use of expert judgement in dealing with uncertainty in HLW repository performance assessments.

### Completed.

Subtask 2.4

I. Methods for analyzing uncertainty in HLW repository performance assessment models.

A draft of this report was sent to the NRC on February 7, 1990. We are waiting for NRC comments. Internal reviews of the report have been completed.

Subtask 2.5

Completed

Subtask 2.6

I. Recommended methodologies for the analysis of data and parameter uncertainty in HLW repository performance assessment.

Completed

IV. Uncertainty and sensitivity analysis in ground-water flow modeling.

A draft of this report was sent to the NRC on February 27, 1990, and we received NRC comments on May 23, 1990. Internal reviews of the report have been completed.

PROGRAM:

Probability Techniques

FIN A1165

Task III

CONTRACTOR:

Sandia National Laboratories

BUDGET PERIOD:

10/89 -9/90

P. Brooks

**BUDGET AMOUNT:** 

\$16K

NMSS PROGRAM MANAGER:

CONTRACT PROGRAM MANAGER: E. J. Bonano

FTS PHONE:

844-5303

PRINCIPAL INVESTIGATORS:

P. A. Davis

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846-5421

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## PROJECT OBJECTIVE

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

## ACTIVITIES DURING MAY 1990

## Subtask 3.2

I. Recommended techniques for estimating probabilities of events and processes affecting the performance of geologic repositories: assessing compliance with the EPA's containment requirements (40 CFR 191.13).

A draft of this report was sent to the NRC on February 21, 1990. We are currently waiting for NRC comments and are having the report reviewed.

PROGRAM:

Short-Term Technical Assistance

FIN A1165 Task VI

BUDGET AMOUNT: \$3K

## PROGRAM OBJECTIVE

To provide, on short notice, general technical assistance on HLW matters related to Tasks 1 through 5 that would not be provided in the normal course of the work in these tasks.

ACTIVITIES DURING MAY 1990

No activity this month