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for inclusion

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

Sandia National Laboratories
Albuquerque, New Mexico 87185

WM DOCKET CONTROL
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August 15, 1987
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WM-RES
Record File
A1165
SNL

WM Project 10, 11, 16
Docket No.
PDR
LPDR (B, 1, 5)

Dr. Daniel Galson
Repository Projects Branch
Division of Waste Management
U.S. Nuclear Regulatory Commission
7915 Eastern Avenue
Silver Spring, MD 20910

Division
D-Galson
Trans-ticket
(ret. to WM, 623-SS)

Dear Dr. Galson:

Enclosed is the summary of activities during July 1987 for FIN# A1165. If you have any questions please feel free to contact me at (FTS) 844-8368 or Robert Guzowski at (FTS) 846-5448.

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
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Earth Sciences
6400 R. C. Cochrell
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WM Project: WM-10, 11, 16
PDR w/encl
(Return to WM, 623-SS)

WM Record File: A1165
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*See Ltr. to Galson
from Cranwell
8-15-87*

PROGRAM: Licensing-Methodology Assistance

FIN#: A-1165
Task I

CONTRACTOR: Sandia National
Laboratories

BUDGET PERIOD: 10/86 -
9/87

NMSS PROGRAM MANAGER: D. Galson

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: 846-5448

PROJECT OBJECTIVE

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

ACTIVITIES DURING JULY 1987

Final revisions were made to a scoping document entitled "Treatment Of Uncertainty In The Performance Assessment Of Geologic High-Level Radioactive Waste Repositories" by R. M. Cranwell and E. J. Bonano. A copy of the completed document was sent to the NRC in July.

The interim report for the licensing assessment methodology was completed during July. A copy of the document accompanies this monthly report.

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: D. Galson

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: 846-5448

PROJECT OBJECTIVE

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

ACTIVITIES DURING JULY 1987

No activity.

PROGRAM: Probability Techniques

FIN#: A-1165
Task III

CONTRACTOR: Sandia National
Laboratories

BUDGET PERIOD: 10/86 -
9/87

NMSS PROGRAM MANAGER: D. Galson

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: 846-5448

PROJECT OBJECTIVE

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

ACTIVITIES DURING JULY 1987

All of the NRC and Sandia review comments on the Probability Techniques Report were incorporated into the document or otherwise addressed. Some of the responses from publishers to letters requesting permission to use copyrighted figures have not been received. These publishers will be called in early August in an attempt to speed-up their responses.

The geochemistry chapter (Chapter 10) of the Probability Techniques Report was completed. This chapter along with the rest of the report was submitted for Sandia management review. A copy of the completed report, with a draft version of the geochemistry chapter, will be sent to the NRC in August.

Robert Wright, formerly with the NRC, was contacted about writing a summary document on the use of subjective probabilities in geoscience assessments by the U.S. government. Methods of dealing with subjective probabilities have been developed and used by the U.S. Geological Survey (USGS) to estimate oil resources and by the U.S. Department of Energy (DOE) in the National Uranium Resource Evaluation (NURE) to estimate uranium resources. Dr. Wright is well qualified for this task in that he personally was part of the NURE effort, and he knows the personnel, now retired, who developed the methods for the USGS and the DOE. A contract is expected to be placed in time for work to begin in October.

PROGRAM: Identification And Analysis
Of Uncertainty

FIN#: A-1165
Task IV

CONTRACTOR: Sandia National
Laboratories

BUDGET PERIOD: 10/86 -
9/87

NMSS PROGRAM MANAGER: D. Galson

BUDGET AMOUNT: -0-

CONTRACT PROGRAM MANAGER: R. M. Cranwell

FTS PHONE: 844-8368

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

FTS PHONE: 844-8368
FTS PHONE: 846-5448

PROJECT OBJECTIVE

To identify and analyse the uncertainties associated with the postclosure performance assessments of HLW repositories in geologic media.

ACTIVITIES DURING JULY 1987

No activity.

PROGRAM: Integration And Application Of
Waste-Package Methodology

FIN#: A-1165
Task V

CONTRACTOR: Sandia National
Laboratories

BUDGET PERIOD: 10/86 -
9/87

NMSS PROGRAM MANAGER: D. Galson

BUDGET AMOUNT: -0-

CONTRACT PROGRAM MANAGER: R. M. Cranwell

FTS PHONE: 844-8368

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

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FTS PHONE: 846-5448

PROJECT OBJECTIVE

To integrate the waste package performance-assessment methodology with the SNLA methodologies and to apply the waste-package methodology to bedded salt and tuff. Where pertinent, experimental tests relevant to the models contained in the methodology will be identified, designed, and carried out.

ACTIVITIES DURING JULY 1987

No activity.

PROGRAM: Short-Term Technical Assistance

FIN#: A-1165
Task VI

CONTRACTOR: Sandia National
Laboratories

BUDGET PERIOD: 10/86 -
9/87

NMSS PROGRAM MANAGER: D. Galson

BUDGET AMOUNT: \$50K

CONTRACT PROGRAM MANAGER: R. M. Cranwell

FTS PHONE: 844-8368

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

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PROJECT OBJECTIVE

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

ACTIVITIES DURING JULY 1987

Modifications were made to Sandia's initial responses to the questionnaires on scenarios for the bedded-salt methodology, the basalt methodology, and the preliminary work on scenarios for a repository in unsaturated tuff. These questionnaires were received from the Performance Assessment Advisory Group of the Nuclear Energy Agency. The completed forms were sent to the NRC in July.

A draft document containing suggestions for guidance in reviewing a site characterization plan was completed and sent to the NRC. The areas covered were preclosure, scenario development, sensitivity and uncertainty analysis, code documentation, and software QA.