



to CENG

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20 April 1984
Ref. No. 1085-20

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Waste Management Engineering Branch
Division of Waste Management
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Attention: Mr. David Tiktinsky, Project Officer
Mail Stop 623-SS

Subject: NRC Contract No. NRC-02-82-030 (EI Project No. 1085)
"Technical Assistance For Design Reviews"
Monthly Technical Report Covering the Period of
01 March to 31 March 1984

Ladies and Gentlemen:

Enclosed please find one (1) copy of the subject report as required by the contract. As required, the following persons are being sent copies:

- Office of the Director, NMSS
- Director, Division of Waste Management
- Contracting Officer

Should you have any questions, please do not hesitate to contact the undersigned.

Sincerely,

ENGINEERS INTERNATIONAL, INC.

V. Rajaram
V. Rajaram
Project Manager

WM Record File

WM Project No.
Docket No.

PDR

LPDR

VR/ja
Enclosure

Distribution:

cc: Office of the Director, NMSS
(ATTN: Program Support Branch)
Director, Division of Waste Management
Contracting Officer

- 1 (Return to WM, 623-SS)
- 2
- 1

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ENGINEERS INTERNATIONAL, INC.

EI Project No. 1085

NRC Contract No. NRC-02-82-030

TECHNICAL ASSISTANCE FOR DESIGN REVIEWS

Twentieth Monthly Report - 01 March to 31 March 1984

1.0 INTRODUCTION

This progress report covers the activities of Engineers International, Inc. (EI) during the period 01 March to 31 March 1984. Professional personnel involved were Mr. Bhattacharya and Dr. Rajaram. The hours spent on the project by both professional and non-professional personnel are given in Table 1.

2.0 PROJECT OBJECTIVE

The objective of this contract is to provide technical assistance to the NRC in reviewing site characterization plans and other documents related to repository design and construction to ensure the safety of personnel, and the protection of the population and environment from radionuclide release.

3.0 ACTIVITIES DURING THE REPORTING PERIOD

3.1 Summary of Activities

Task Order 004

Documents related to the design of a repository in tuff were obtained and reviewed. Emphasis was placed on the rock mechanics data gathering efforts at the Nevada Nuclear Waste Storage Investigations (NNWSI).

Task Order 005

A draft letter report entitled "Assessment of Water Intrusion into Geologic High Level Waste Repositories in Bedded Salt, Dome Salt, Tuff, and Basalt" was submitted to the NRC on 19 March 1984.

Task Order 007

Comments on the report entitled "Draft Exploratory Shaft Test Plan for the Basalt Waste Isolation Project (BWIP)" were incorporated, and a final report sent to the NRC on 23 March 1984.

TABLE 1

Staff Hour ExpendituresTask Order 004

<u>Name</u>	<u>Title</u>	<u>Task I</u>	<u>Task II</u>
V. Rajaram	Project Manager	25	-
S. Bhattacharya	Mining Engineer	38	-
S. Dahl	Librarian	3	-
C. Kantowski	Technical Typist	<u>3.5</u>	<u>-</u>
	TOTAL	69.5	-

Task Order 008

A draft letter report was mailed to the NRC on 02 March 1984, providing a critical review of "Statement of Work for Architect/Engineer Services: Conceptual Design of a High-Level Nuclear Waste Repository in salt, Revision 4, 02 September 1984.

3.2 Results

Task Order 004

The relationship between the rock mechanics data gathering efforts at the NNWSI and the design information needs was reviewed.

Task Order 006

Comments from Adrian Brown, EI consultant, were incorporated and a draft final report entitled "Assessment of Water Intrusion into Geologic High-Level Waste Repositories in Bedded Salt, Dome Salt, Tuff, and Basalt" was submitted to the NRC.

Task Order 007

This task order has been completed.

Task Order 008

Submission of a final letter report incorporating NRC comments on the draft letter report will complete this task order.

4.0 QUALITY ASSURANCE

The quality assurance program continues to be followed. This includes logs of all documents received from the NRC, a document sign-off sheet accompanied by appropriate signatures for EI documents, and a document control log listing all letters and reports sent by EI in chronological order, each having a reference number.

5.0 DIFFICULTIES

None.

6.0 ACTIVITIES PLANNED FOR THE NEXT REPORTING PERIOD

Task Order 004

Incorporation of NRC comments on the "Disturbed Rock Zone from A Rock Mechanics Standpoint" is planned.

Task Order 006

NRC comments on the draft letter report will be incorporated and a final letter report submitted.

Task Order 008

A final letter report will be prepared after receiving NRC comments on the draft letter report.

7.0 MEETINGS/TRIPS DURING THE REPORTING PERIOD

There were no meetings or trips during the reporting period.

8.0 SCHEDULE AND COST PROJECTIONS

Schedule projections for the various task orders are attached. Cost projections are being mailed under separate cover.

VR/cgk