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30 June 1986
Ref. No. 1148-07-03
Project Letter No. 073

WM-RES
WM Record File
D1004
EI

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

Waste Management Engineering Branch
Division of Waste Management
U.S. Nuclear Regulatory Commission
7915 Eastern Avenue
Silver Spring, MD 20910

Distribution:
J Buckley Tan-ticket
SHH
(Return to WM, 623-SS) sf

Attention: Mr. John T. Buckley, Project Officer, Mail Stop 623-SS

Subject: Contract No. NRC-02-84-002
"Technical Assistance for In Situ Testing"
EI Project No. 1148
Monthly Progress Report Covering the Period of
01 May 1986 through 31 May 1986

Dear Mr. Buckley:

Enclosed is one 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
- Chief, High-Level Waste Technical Development Branch.

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

Sincerely,

ENGINEERS INTERNATIONAL, INC.

Madan M. Singh
Project Manager

MMS/PJH/bt

Enclosure

cc: Office of the Director, NMSS (Attn: Program Support Branch) - 1
Director, Division of Waste Management - 2
Contracting Officer - 1
High-Level Waste Technical Dev. Branch (Attn: Branch Chief) - 1

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ENGINEERS INTERNATIONAL, INC.

EI Project No. 1148

NRC Contract No. NRC-02-84-002

TECHNICAL ASSISTANCE FOR IN SITU TESTING

Monthly Report - 01 May 1986 through 31 May 1986

1.0 INTRODUCTION

This report covers the activities of Engineers International, Inc. (EI) during the period of 01 May 1986 through 31 May 1986. Professional personnel involved are Dr. Madan M. Singh and Messrs. Peter J. Huck, Robert A. Cummings, Swapan Bhattacharya, Charles H. Baker, and Amitabha Mukherjee.

By mutual agreement of the NRC Project Officer and the EI Project Engineer, reports are not submitted on a monthly basis during periods when no Task Orders are active.

2.0 PROJECT OBJECTIVE

This contract is intended to provide technical assistance to the NRC in reviewing plans and procedures for in situ testing that may be carried out in support of siting and design of a geologic HLW repository. Assistance is to be focused on underground stress, geotechnical instrumentation of test areas, rock mass strength, hydrological instrumentation of test areas, thermomechanical effects, excavation methods, and quality assurance for bulk measurements of geologic properties, as these relate to in situ testing.

Ultimately, these efforts are to aid the NRC in its responsibility for ensuring the proper siting, design, construction, operating, and decommissioning of geologic HLW disposal facilities such that the EPA limits for radionuclide release will not be exceeded.

3.0 ACTIVITIES DURING THE REPORTING PERIOD

3.1 Summary of Activities

Task Order 001. Task Order 001 has been completed.

Task Order 002. Task Order 002 has been completed.

Task order 003. Task Order 003 has been completed.

Task Order 004. Task Order 004 has been completed.

Task Order 005. Task Order 005 has been completed.

Task Order 006. Task Order 006 has been completed.

Task Order 007. Task Order 007 was reactivated.

Task Order 007 Document reviews and preparation for EA reviews continued. The EAs, planned to be issued by the DOE in May, were delayed.

3.2 Results

The status of all assignments on task order 007 is shown on the attached log.

4.0 DIFFICULTIES

No difficulties are presently identified.

5.0 ACTIVITIES PLANNED FOR NEXT REPORTING PERIOD

Salt

The review of background documents and NRC comments on the draft EA will continue. The final EA will be reviewed when issued. Messrs. Cummings and Baker will attend the NRC meeting in Silver Spring, MD, to review the final EA.

NNWSI

Mr. S. Bhattacharya will attend a meeting in Silver Spring, MD, to review the final EA when issued.

BWIP

Background documents will be reviewed. Mr. Amitabha Mukherjee will review the final EA and attend a meeting in Silver Spring, MD to review the final EA when issued.

6.0 MEETINGS/TRIPS DURING THE REPORTING PERIOD

None.

7.0 SCHEDULE AND COST PROJECTIONS

The cost summaries to 31 May 1986, broken down by Task Order, are attached. The costs to date, and the cost projections for the next month, are also attached.

Respectfully submitted,

ENGINEERS INTERNATIONAL, INC.



Peter J. Huck
Project Engineer

PJH/bt

Attachments

STATUS - 1148 TASK 007

<u>Assign- ment</u>	<u>Subtask</u>	<u>Project</u>	<u>Description</u>	<u>Date Assigned</u>	<u>Date Sent to NRC</u>
01	02	SPRO	Draft EA review		4/07/86
01	02	SPRO	FEA & SCP Planning Meeting		4/10/86
02	01	NNWSI	Binnall et al 1985 - Crit Param		5/09/86
02	01	NNWSI	Langkopf & Gnirk - Rock Mass Class		5/09/86
03	01	SPRO	Bechtel - WIPP Prelim Design	4/20/86	
03	01	SPRO	USDOE - Summary WIPP Site/Validation	4/20/86	
03	01	BWIP	FEA Doc Review - Chap 1 - 4	4/20/86	
03	01	BWIP	FEA Doc Review - Chap 5 - 7	4/20/86	
03	01	NNWSI	FEA Doc Review - Chap 1 - 4	4/20/86	
03	01	NNWSI	FEA Doc Review - Chap 5 - 7	4/20/86	
03	01	SPRO	FEA Doc Review - Chap 1 - 4	4/20/86	
03	01	SPRO	FEA Doc Review - Chap 5 - 6	4/20/86	
03	01	SPRO	FEA Doc Review - Chap 7	4/20/86	
03	03	BWIP	FEA Doc Review Meeting	4/20/86	6/17/86
03	03	NNWSI	FEA Doc Review - Chap 1 - 4	4/20/86	6/11/86
03	03	NNWSI	FEA Doc Review - Chap 5 - 7	4/20/86	6/16/86
03	03	SPRO	FEA Doc Review - Chap 1 - 6	4/20/86	
03	03	SPRO	FEA Doc Review - Chap 7	4/20/86	
04	01	BWIP	SD-BWI-TI-274	5/13/86	7/01/86 (Projected)
04	01	BWIP	SD-BWI-ER-012 Rev. 1	5/13/86	6/17/86
04	01	BWIP	SD-BWI-DP-011 Rev. 2	5/13/86	7/01/86 (Projected)
04	01	BWIP	SD-BWI-ER-006	5/13/86	7/01/86 (Projected)
04	01	BWIP	RHO-BWI-SA-123	5/13/86	
04	01	BWIP	S.J. Mitchell - Eval DRZ	5/13/86	7/11/86 (Projected)
04	01	BWIP	SD-BWI-DP-041 - Rock Data	5/13/86	7/01/86 (Projected)
04	01	BWIP	J. Vasey - Design/Support Excav	5/13/86	
05	01	NNWSI	Keystone 6310-85-1	4/29/86	6/27/86

CONTRACT NO. NRC-02-84-002

PROJECT COSTS THROUGH MAY 1986

<u>Task</u>	<u>Current Month</u>	<u>Cumulative to Date</u>			<u>Total To Date</u>	<u>Cost Projection to June 1986</u>	<u>Total Contract Limit</u>
		<u>FY 1984</u>	<u>FY 1985</u>	<u>FY 1986</u>			
003	- 0 -	\$88,050.59	\$8,505.23	- 0 -	\$96,555.82	- 0 -	\$100,274.00
004	- 0 -	\$65,896.26	\$3,275.74	- 0 -	\$69,172.00	- 0 -	\$109,702.00
005	- 0 -	\$58,486.72	- 0 -	- 0 -	\$58,486.72	- 0 -	\$ 64,952.00
007	\$11,162.21	- 0 -	\$3,436.74	\$20,189.07	\$23,625.81	\$16,700.00	\$240,658.00

ENGINEERS INTERNATIONAL, INC.