



20 September 1989

Nailem Tanious
U.S. Nuclear Regulatory Commission
Division of High-Level
Waste Management
Mail Stop 4H3
Washington, D.C. 20555

"NRC Technical Assistance
for Design Reviews"
Contract No. NRC-02-85-002
FIN D1016

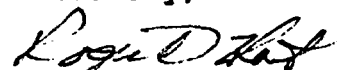
Dear Nailem:

Transmitted with this letter is Progress Report No. 49 for the month of August 1989. This is the last progress report that will be submitted under Contract No. NRC-02-85-002. Our contract expired on 21 August 1989, and our final reports have all been transmitted to you.

The four years that we have been involved with the NRC on this contract have been enjoyable and rewarding. During that time, we have completed sixty-seven document reviews and thirteen topical reports (ten of which have been made into NUREGs), and have attended numerous meetings with the NRC, DOE and other parties to the Nuclear Waste Policy Act. Importantly, we have been able to complete all the assigned tasks within budget. We are proud of the contributions we have made, and are thankful for the opportunity to have worked with NRC on the high-level waste program.

Please convey our sincere thanks to Raj, Jerry, Dinesh, John Buckley, John Peschel, Dave Tiktinsky, and all other NRC staff members that we have worked with on this project. We hope to have the opportunity to work with you all again.

Sincerely,


Roger D. Hart
Project Manager

cc: M. Mace, Division of Contracts
DWM Document Control Room

encl.
rdh/ks

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..ITASCA MONTHLY PROGRESS REPORT

Progress Report No. 49
NRC Technical Assistance
for Design Reviews

20 September 1989
Contract No. NRC-02-85-002

Reporting Period: 1 - 31 August 1989

1.0 INTRODUCTION

This progress report summarizes the work performed during August 1989 on NRC Contract No. NRC-02-85-002. During August, work progressed on Task Order No. 007.

2.0 ACTIVITIES DURING THE REPORTING PERIOD

- A. On 1 August, a letter with calculations of indirect cost rates was transmitted to T. Hagen, Contracting Officer.
- B. On 15 August, notification of change in NRC Billing Office was received from Contracting Officer, T. Hagen; acknowledgement of receipt was returned.
- C. On 15 August, Draft Topical Report No. 006-01-T8, "Performance Confirmation Test Needs for Repository Seals" was transmitted (Task Order No. 007).
- D. Draft report "Verification of Thermal Logic in the Three-Dimensional Distinct Element Code 3DEC" was transmitted on 16 August (Task Order No. 007).
- E. Draft Topical Report No. 006-01-T4, "Analysis of Emplacement Borehole Rock and Liner Behavior for a Repository at Yucca Mountain" was transmitted on 16 August (Task Order No. 007).
- F. On 21 August, Draft Topical Report No. 006-01-T2, "Variation of Heat Loading for a Repository at Yucca Mountain" was transmitted (Task Order No. 007).

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- G. On 21 August, Draft Topical Report No. 006-01-T9, "Extrapolation of Short-Term Test Data for Assessment of Long-Term Seal Performance" was transmitted (Task Order No. 007).
- H. On 21 August, Draft Topical Report No. 006-01-T12, "UDEC (Universal Distinct Element Code), Version ICG1.5" was transmitted (Task Order No. 007).
- I. Progress Report No. 48 and Invoice No. 48-89-287 were transmitted on 24 August.

3.0 RESULTS

A. Tasks Completed During the Reporting Period

- 1. Topical Report No. 006-12-T2, "Variation of Heat Loading for a Repository at Yucca Mountain" was transmitted (Task Order No. 007)

Professional Labor T. Brandshaug 114.0 hours

- 2. Topical Report No. 006-01-T4, "Analysis of Emplacement Borehole Rock and Liner Behavior for a Repository at Yucca Mountain" (Task Order No. 007)

Professional Labor B. Dasgupta 37.0 hours
 L. Lorig 32.5 hours

- 3. Topical Report No. 006-01-T8, "Performance Confirmation Test Needs for Repository Seals" (Task Order No. 007)

Professional Labor J. Daemen 56.0 hours
 L. Lorig 3.0 hours

- 4. Topical Report No. 006-01-T9, "Extrapolation of Short-Term Test Data for Assessment of Long-Term Seal Performance" (Task Order No. 007)

Professional Labor J. Daemen 55.0 hours
 L. Lorig 3.0 hours

5. Topical Report No. 006-01-T12, "UDEC (Universal Distinct Element Code), Version ICG1.5" (Task Order No. 007)

Professional Labor	M. Board	74.0 hours
	R. Hart	53.0 hours
	L. Lorig	37.5 hours
	T. Maly	11.5 hours
	J. Markham	25.5 hours
	D. Russell	23.5 hours

6. "Verification of Thermal Logic in the Three-Dimensional Distinct Element Code 3DEC" (Task Order No. 007)

Professional Labor	M. Christianson	82.0 hours
	M. Mack	115.5 hours

B. Works in Progress

Topical Report No. 006-01-T13, "NUREG Documentation of FLAC" (Task Order No. 007)

Professional Labor:	M. Board	94.0 hours
	B. Brady	83.5 hours
	P. Cundall	10.0 hours
	T. Maly	11.0 hours
	D. Russell	27.5 hours
	J. Tinucci	96.0 hours

4.0 QUALITY ASSURANCE

Correspondence logs were monitored and NRC and NNWSI documents were received and catalogued.

5.0 DIFFICULTIES

No specific difficulties were encountered during the reporting period.

6.0 ACTIVITIES PLANNED FOR THE NEXT REPORT PERIOD

August is the last reporting period, with the contract terminating on 21 August 1989. (Topical Report No. 006-01-T13, "NUREG Documentation of FLAC" was completed and submitted on 20 September 1989).

7.0 MEETINGS/TRIPS DURING THE REPORTING PERIOD

There were no meetings or trips in August.

8.0 SCHEDULE AND COST PROJECTION

The billing summary for the August invoice is attached. Total project billing was \$1,042,779.20. This is \$22,507.97 below the total authorized for all seven task orders.

Respectfully submitted,



Roger D. Hart
Program Manager
20 September 1989

attach.
rdh/ks