



12 November 1987

David Tiktinsky - SS623
U.S. Nuclear Regulatory Commission
Division of Waste Management
Washington, D.C. 20555

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

Dear David:

Enclosed is Progress Report No. 27 for the period 1-31 October 1987 on Task Orders No. 001, 002, 005, and 006, Contract NRC-02-85-002. Also enclosed is the summary sheet for the October voucher. Please call me if you have any questions.

Sincerely,


Roger D. Hart
Program Manager


cc: R. Ballard, Engineering Branch
Office of the Director, NMSS
E. Wiggins, Division of Contracts
DWM Document Control Room

Encl.
rdh/ks

8712160045 871112
PDR WMRES EECITAS
D-1016 PDR

88132285
WM Project: WM-10, 11, 16
PDR w/encl
(Return to WM, 623-SS)

WM Record File: D-1016
LPDR w/encl



ITASCA MONTHLY PROGRESS REPORT

Progress Report No. 27
NRC Technical Assistance
for Design Reviews

12 November 1987
Contract No. NRC-02-85-002

Reporting Period: 1 - 31 October 1987

1.0 INTRODUCTION

This progress report summarizes the work performed during October 1987 on NRC Contract No. NRC-02-85-002. During October, work progressed on Task Orders No. 001, 002, 005, and 006.

2.0 ACTIVITIES DURING THE REPORTING PERIOD

- A. R. Hart and B. Brady attended the 60% Design Review ESF-Comment Resolution Meeting in Houston, 28 September to 2 October. The trip report was submitted on 13 October (Task Order No. 001).
- B. On 1 October, a list of recommended documents for review was transmitted to J. Buckley (Task Order No. 006).
- C. Progress Report No. 26 and Invoice No. 26-87-145 was submitted on 12 October.
- D. On 12 October, the trip report for Itasca participation in the DOE Briefing on Seismic/Tectonic Strategies and the NNWSI Appendix 7 Site Visit (21-25 September, in Las Vegas) was submitted (Task Order No. 001).
- E. M. Board, K. Wahi, D. Tiktinsky and J. Buckley visited the Strathcona Mine and the Mines Research Department of Falconbridge Limited, Sudbury, Ontario, Canada, 20-22 October 1987. The trip report was submitted on 28 October (Task Order No. 001).

3.0 RESULTS

A. Documents Submitted in October

The following trip reports were submitted (Task Order No. 001):

1. 60% Design Review ESF-Comment Resolution Meeting (Houston, 28 September - 2 October)
2. DOE Briefing on Seismic/Tectonic Strategies and the NNWSI Appendix 7 Site Visit (Las Vegas, 21-25 September)
3. Visit to the Strathcona Mine and the Mines Research Department of Falconbridge Limited (Sudbury, Ontario, Canada, 20-22 October)

B. Works in Progress

1. analysis of continuum vs discontinuum modeling for BWIP (Task Order No. 005)

Professional Labor	M. Board	48 hours
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2. thermomechanical analysis for BWIP (Task Order No. 005)

Professional Labor	M. Board	56 hours
	M. Mack	3 hours
	D. Russell	42 hours
3. SRP in-situ testing point paper (Task Order No. 002)

Professional Labor	B. Brady	100 hours
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4. sensitivity analyses for key joint parameters at BWIP (Task Order No. 005)

Professional Labor	M. Christianson	37 hours
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5. analyses of DOE's proposed conceptual design for SRP (Task Order No. 005)

Professional Labor	R. Hart	11 hours
	M. Mack	31 hours

6. Document Review 006-01-39, "Summary Review of NNWSI Thermomechanical Analysis Documents" (Task Order No. 006)

Professional Labor	L. Lorig	52 hours
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7. NNWSI in-situ testing point paper (Task Order No. 002)

Professional Labor	L. Lorig	1.5 hours
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4.0 QUALITY ASSURANCE

Correspondence logs were monitored and BWIP, NNWSI and SRP documents were received and catalogued.

5.0 DIFFICULTIES

No specific difficulties were encountered during this reporting period.

6.0 ACTIVITIES PLANNED FOR THE NEXT REPORTING PERIOD

- A. Work will continue on preparation of the following tasks.

1. sensitivity analyses for key joint parameters at BWIP (Task Order No. 005)
2. analyses of DOE's proposed conceptual design for SRP (Task Order No. 005)
3. thermomechanical analysis for BWIP (Task Order No. 005)

4. SRP in-situ testing point paper (Task Order No. 002)
5. Document Review NO. 006-01-42, "STRES3D and Link to Thermal Output of FLAC" (Task Order No. 006)
6. Document Review No. 006-01-40, "HEFF User's Manual" (Task Order No. 006)

B. Activities to be completed in November:

1. continuum versus discontinuum modeling for BWIP (Task Order No. 005)
2. "Site Technical Position on In-Situ Testing at NNWSI" (Task Order No. 002)
3. Document Review 006-01-39, "Summary Review of NNWSI Thermomechanical Analysis Documents" (Task Order No. 006)

7.0 MEETINGS/TRIPS DURING THE REPORTING PERIOD

- A. R. Hart and B. Brady attended the 60 Percent Design Review ESF - Comment Resolution Meeting in Houston, 28 September to 2 October (Task Order No. 001).

Professional Labor reported in Progress Report No. 26.

- B. M. Board and K. Wahi visited the Strathcona Mine and the Mines Research Department of Falconbridge, Limited, in Sudbury, Ontario, 20-22 October (Task Order No. 002)


Professional Labor	M. Board	32 hours
	K. Wahi	25 hours

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12 November 1987
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8.0 SCHEDULE AND COST PROJECTION

The billing summary for the October invoice is attached. With the completion of Task Order No. 003 in September, we have included the remaining fee for that task order on the October invoice. All task orders remain well within the allotted budgets.

Respectfully submitted,



Roger D. Hart
Program Manager

12 November 1987

attach.
rdh/ks

VOUCHER

Payor's Name and Address

U.S. Nuclear Regulatory Commission
Division of Accounting
Office of the Controller
ATTENTION: GOV/COM Accounts Section
Washington, D.C. 20555

Payee's Name and Address

Itasca Consulting Group, Inc.
P.O. Box 14806
Minneapolis, Minnesota 55414

- (a) Contract Number: NRC-02-85-002
- (b) Title of Project: Technical Assistance
for Design Reviews of High-Level Waste
Geologic Repositories
- (c) Voucher Number: 27-87-159
- (d) Date of Voucher: November 11, 1987
- (e) Contract Amount: \$1,312,270.80
- (f) Fixed Fee: \$ 104,981.66

Individual to contact:

John J. Markham (612-623-9599)

(g) This voucher represents reimburseable costs from October 1 thru October 31, 1987

	<u>AMOUNT BILLED</u>	
	<u>(k) Current Period</u>	<u>(l) Inception to Date</u>
(h) <u>DIRECT COSTS</u>		
(1) Direct Labor	<u>\$ 10,977.00</u>	<u>\$ 140,464.29</u>
(2) Materials, Supplies and Noncapitalized Equipment	<u>-0-</u>	<u>-0-</u>
(3) Consultants	<u>3,901.69</u>	<u>103,393.20</u>
(4) Travel - Domestic	<u>511.31</u>	<u>27,139.59</u>
(5) Subcontract	<u>-0-</u>	<u>31,682.82</u>
(6) Other Costs	<u>895.88</u>	<u>12,007.16</u>
TOTAL DIRECT COSTS	<u>\$ 16,285.88</u>	<u>\$ 314,687.06</u>
(i) <u>INDIRECT COSTS</u>		
G & A Expense 102% of Cost Element (1)	<u>\$ 11,196.54</u>	<u>\$ 146,658.33</u>
TOTAL DIRECT AND INDIRECT COSTS	<u>27,482.42</u>	<u>461,345.39</u>
(j) FIXED-FEE EARNED	<u>2,605.09</u>	<u>37,287.85</u>
(m) TOTAL AMOUNTS CLAIMED	<u>30,087.51</u>	<u>498,633.24</u>
(n) ADJUSTMENTS	<u>-0-</u>	<u>-0-</u>
(o) GRAND TOTALS	<u>\$ 30,087.51</u>	<u>\$ 498,633.24</u>

ITASCA

PDA
LPDR - WM-10
WM-11
WM-16

WM Record File
DW 16

WM Project 10, 11, 16
Docket No. _____

PDR
X LPDR (B, N, S)

Distribution:

X DTiktinsky Joan ticket

(Return to WM. 623-SS)

fcg

WM DOCKET CONTROL
CENTER

87 NOV 16 P1:44

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