



**Golder Associates**  
CONSULTING GEOTECHNICAL AND MINING ENGINEERS

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*LABOR (B, N, S)*

October 20, 1982

Our ref: G/82/338  
813-1162-1167

U.S. Nuclear Regulatory Commission  
Division of Contracts  
Washington, D.C. 20555

Attention: Mary Jo Mattia (Joyce Fields)

Subject: Contract No. NRC-02-81-037  
Technical Assistance for Repository Design  
September Progress Report - Letter #74

Madame:

Golder Associates is pleased to submit this progress report on the subject contract. Below is a breakdown by task of work performed, including personnel time and expenditures, from August 29, 1982 through October 2, 1982, as well as cumulative costs to date and projected costs for the remainder of the project. All costs are summarized in Table 1. Please note that costs shown in Table 1 are based on the accounting method and G&A and overhead rates given in the original contract. These costs will be modified upon approval of our proposed modification (reference your letter of October 13, 1982 and our letter #72).

TASK 1

Work has been completed on this task.

TASK 2

Work Performed Through October 2, 1982

Authorization to proceed on Task 2 under Contract Modification Number Four was transmitted to Golder Associates on September 14, 1982. The modifications are being incorporated into the draft text and this work was initiated during this reporting period. Informal review of these drafts are planned for this month.

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Personnel Time and Expenditures

	<u>Hours</u>	<u>Cost/Hour</u>	<u>Total Cost</u>	<u>Cumulative</u>
<u>Principal</u>				
A. Brown	2.0	\$26.44	\$ 52.88	
<u>Associate</u>				
R. Gates	47.0	\$25.48	\$ 1,197.56	
<u>Senior Geotechnical Engineer</u>				
L. Gonano	53.5	\$20.19	\$ 1,080.17	
W. Roberds	107.0	\$19.23	\$ 2,057.61	
<u>Hydrologist</u>				
F. Marinelli	28.0	\$12.98	\$ 363.44	
<u>Geological Engineer</u>				
F. Bauhof	64.5	\$12.26	\$ 790.77	
E. Wildanger	78.5	\$13.70	\$ 1,075.45	
<u>Geotechnical Engineer</u>				
W. Dershowitz	36.5	\$13.94	\$ 508.81	
K. Jones	82.0	\$13.70	\$ 1,123.40	
<u>Draftsperson</u>				
M. Northcraft	5.0	\$ 8.54	\$ 42.70	
L. Stockslager	50.0	\$ 6.73	\$ 336.50	
<u>Librarian</u>				
E. Eisenhood	15.5	\$ 8.54	\$ 132.37	
<u>Secretarial</u>				
H. deGraaff	11.5	\$ 7.21	\$ 82.92	
N. Henderson	47.5	\$ 8.17	\$ 388.08	
L. Wuellner	15.5	\$ 7.45	\$ 115.48	
Total Direct Labor			\$ 9,348.14	\$ 112,439.82
Labor Overhead (20.8% of \$9,348.14)			\$ 1,944.41	\$ 23,387.49
Travel			\$ 0.00	\$ 2,331.62

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	<u>Hours</u>	<u>Cost/Hour</u>	<u>Total Cost</u>	<u>Cumulative</u>
Other Direct Costs			\$ 265.56	\$ 14,899.35
Consultant - J. Daemen	4.0	\$35.00	\$ 140.00	\$ 140.00
General and Administrative (80.7% of \$11,292.55)			\$ 9,113.09	\$ 109,612.65
Total Costs			\$ 20,811.20	\$ 262,810.93
Fees (9.0% of \$20,811.20)			\$ 1,873.01	\$ 23,652.99
Total Costs and Fees			\$ 22,684.21	\$ 286,463.92

TASK 3

Work has been completed on this task.

TASK 4Work Performed Through October 2, 1982

Golder Associates received NRC's comments on the Task 4 draft report (reference NRC letter #53, dated August 25, 1982), and has responded to them. The report was forwarded to you on October 12, 1982.

Personnel Time and Expenditures

	<u>Hours</u>	<u>Cost/Hour</u>	<u>Total Cost</u>	<u>Cumulative</u>
<u>Secretarial</u>				
L. Wuellner	6.5	\$ 7.45	\$ 48.43	
Total Direct Labor			\$ 48.43	\$ 14,845.48
Labor Overhead (20.8% of \$48.43)			\$ 10.07	\$ 3,087.86
Travel			\$ 0.00	\$ 465.28
Other Direct Costs			\$ 6.30	\$ 814.61
General and Administrative (80.7% of \$58.50)			\$ 47.21	\$ 14,472.21
Total Costs			\$ 112.01	\$ 33,685.44
Fees (9.0% of \$112.01)			\$ 10.08	\$ 3,031.69
Total Costs and Fees			\$ 122.09	\$ 36,717.13

TASK 5Work Performed Through October 2, 1982

Task 5 is progressing effectively and within budget. An interim report on the results of Task 5 was forwarded to NRC in our letter #59.

NRC's authorization to proceed on Task 5 under Contract Modification Number Four was transmitted to Golder Associates on September 14, 1982. The modifications are being incorporated into the draft text and this work was initiated during this reporting period.

Personnel Time and Expenditures

	<u>Hours</u>	<u>Cost/Hour</u>	<u>Total Cost</u>	<u>Cumulative</u>
<u>Associate</u>				
R. Gates	4.0	\$25.48	\$ 101.92	
<u>Senior Geotechnical Engineer</u>				
G. Denby	2.0	\$20.43	\$ 40.86	
L. Gonano	6.0	\$20.19	\$ 121.14	
W. Roberds	2.0	\$19.23	\$ 38.46	
<u>Geotechnical Engineer</u>				
J. Kleppe	107.0	\$14.42	\$ 1,542.94	
<u>Computer Analyst</u>				
C. Berner	60.5	\$14.42	\$ 872.41	
<u>Quality Assurance Officer</u>				
H. Delaney	9.0	\$15.14	\$ 136.26	
<u>Librarian</u>				
E. Eisenhood	2.0	\$ 8.54	\$ 17.08	
<u>Secretarial</u>				
H. deGraaff	1.5	\$ 7.21	\$ 10.82	
L. Wuellner	4.5	\$ 7.45	\$ 33.53	
Total Direct Labor			\$ 2,915.42	\$ 43,269.52
Labor Overhead (20.8% of \$2,915.42)			\$ 606.41	\$ 9,000.06
Travel			\$ 0.00	\$ 473.75
Other Direct Costs			\$ 278.44	\$ 2,749.12

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	<u>Hours</u>	<u>Cost/Hour</u>	<u>Total Cost</u>	<u>Cumulative</u>
General and Administrative (80.7% of \$3,521.83)			\$ 2,842.11	\$ 42,181.55
Total Costs			\$ 6,642.38	\$ 97,674.00
Fees (9.0% of \$6,642.38)			\$ 597.81	\$ 8,790.66
Total Costs and Fees			\$ 7,240.19	\$ 106,464.66

TASK 6Work Performed Through October 2, 1982

Projects 1 through 15 have been previously completed under Task 6.

Project 16 consists of reviewing two ONWI Draft Technical Reports. This review is progressing effectively. Golder Associates is also performing Project Nos. 17, BWIP Exploratory Shaft Review, and 18, BWIP Design Review, under Task 6.

Personnel Time and Expenditures (Project 16)

	<u>Hours</u>	<u>Cost/Hour</u>	<u>Total Cost</u>	<u>Cumulative</u>
<u>Associate</u>				
R. Byrne	100.0	\$23.56	\$ 2,356.00	
<u>Senior Seismologist</u>				
R. Hofmann	1.0	\$21.64	\$ 21.64	
<u>Hydrologist</u>				
F. Marinelli	1.5	\$12.98	\$ 19.47	
<u>Geotechnical Engineer</u>				
K. Jones	1.5	\$13.70	\$ 20.55	
<u>Librarian</u>				
E. Eisenhood	4.0	\$ 8.54	\$ 34.16	
<u>Secretarial</u>				
H. deGraaff	14.0	\$ 7.21	\$ 100.94	
L. Wuellner	3.0	\$ 7.45	22.35	
Total Direct Labor			\$ 2,575.11	\$ 3,875.06

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	<u>Hours</u>	<u>Cost/Hour</u>	<u>Total Cost</u>	<u>Cumulative</u>
Labor Overhead (20.8% of \$2,575.11)			\$ 535.62	\$ 806.01
Travel			\$ 0.00	\$ 0.00
Other Direct Costs			\$ 66.43	\$ 407.34
General and Administrative (80.7% of \$3,110.73)			\$ 2,510.36	\$3,777.62
Total Costs			\$ 5,687.52	\$8,866.03
Fees (9.0% of \$5,587.52)			\$ 511.88	\$ 797.95
Total Costs and Fees			\$ 6,199.40	\$9,663.98

Personnel Time and Expenditures (Project 17)

	<u>Hours</u>	<u>Cost/Hour</u>	<u>Total Cost</u>	<u>Cumulative</u>
<u>Associate</u>				
R. Talbot	6.0	\$22.60	\$ 135.60	
<u>Senior Geotechnical Engineer</u>				
L. Gonano	14.5	\$20.19	\$ 292.76	
W. Roberds	10.0	\$19.23	\$ 192.30	
<u>Geological Engineer</u>				
F. Bauhof	23.0	\$12.26	\$ 281.98	
<u>Geotechnical Engineer</u>				
W. Dershowitz	31.5	\$13.94	\$ 439.11	
<u>Secretarial</u>				
N. Henderson	13.0	\$ 8.17	\$ 106.21	
Total Direct Labor			\$ 1,447.96	\$ 1,447.96
Labor Overhead (20.8% of \$1,447.96)			\$ 301.18	\$ 301.18
Travel			\$ 0.00	\$ 0.00
Other Direct Costs			\$ 156.70	\$ 156.70

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	<u>Hours</u>	<u>Cost/Hour</u>	<u>Total Cost</u>	<u>Cumulative</u>
Consultant - J. Daemen	6.0	\$35.00	\$ 210.00	\$ 210.00
General and Administrative (80.7% of \$1,749.14)			\$ 1,411.55	\$ 1,411.55
Total Costs			\$ 3,527.39	\$ 3,527.39
Fees (9% of \$3,527.39)			\$ 317.47	\$ 317.47
Total Costs and Fees			\$ 3,844.86	\$ 3,844.86

Personnel Time and Expenditures (Project 18)

	<u>Hours</u>	<u>Cost/Hour</u>	<u>Total Cost</u>	<u>Cumulative</u>
<u>Principal</u>				
D. Pentz	159.0	\$27.64	\$ 4,394.76	
<u>Senior Geotechnical Engineer</u>				
W. Roberds	27.0	\$19.23	\$ 519.21	
<u>Hydrologist</u>				
F. Marinelli	4.5	\$12.98	\$ 58.41	
<u>Geotechnical Engineer</u>				
W. Dershowitz	39.0	\$13.94	\$ 543.66	
<u>Librarian</u>				
E. Eisenhood	1.0	\$ 8.54	\$ 8.54	
<u>Secretarial</u>				
H. deGraaff	1.5	\$ 7.21	\$ 10.82	
L. Wuellner	8.0	\$ 7.45	\$ 59.60	
Total Direct Labor			\$ 5,595.00	\$ 5,595.00
Labor Overhead (20.8% of \$5,595.00)			\$ 1,163.76	\$ 1,163.76
Travel			\$ 1,788.50	\$ 1,788.50
Other Direct Costs			\$ 150.11	\$ 150.11

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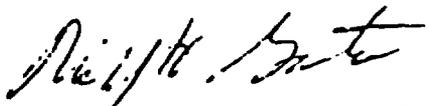
October 20, 1982

	<u>Hours</u>	<u>Cost/Hour</u>	<u>Total Cost</u>	<u>Cumulative</u>
Consultant - J. Daeman	10.0	\$50.00	\$ 1,270.00	\$ 1,270.00
	22.0	\$35.00		
General and Administrative (80.7% of \$6,758.76)			\$ 5,454.32	\$ 5,454.32
Total Costs			\$ 15,421.69	\$ 15,421.69
Fees (9% of \$15,421.69)			\$ 1,387.95	\$ 1,387.95
Total Costs and Fees			\$ 16,809.64	\$ 16,809.64

Golder Associates appreciates the opportunity to submit this progress report. Should you have any questions concerning the above, please contact me.

Sincerely,

GOLDER ASSOCIATES

  
Richard H. Gates, Ph.D., P.E.  
Project Manager

WJR/lw

Attachment

cc: Director, Office of NMSS  
(Attn: Program Support Branch)

Director, Division of Waste Management  
John B. Martin

Mr. Lud Hartung  
Project Manager

NRC-02-81-037

TABLE 1  
PROJECT COSTS THROUGH OCTOBER 2, 1982

TASK	CURRENT MONTH	CUMULATIVE TO DATE		TOTAL TO DATE	FY 82 PROJECTIONS TO END OF PROJECT			TOTAL CONTRACT LIMIT
		FY81	FY82		OCTOBER	NOVEMBER	DECEMBER	
Task 1		\$ 51,892	\$ 24,344	\$ 76,236	Complete			\$ 76,236
Task 2	\$ 22,684	36,739	249,725	286,464	\$ 20,000	\$ 2,560		309,024
Task 3			77,702	77,702	Complete			77,702
Task 4	122		36,717	36,717	54			36,771
Task 5	7,240		106,465	106,465	7,000	3,000	\$ 579	117,044
Project 1		2,829		2,829	Complete			2,829
Project 2		4,983		4,983	Complete			4,983
Project 3		2,700	5,436	8,136	Complete			8,136
Project 4		9,892		9,892	Complete			9,892
Project 5		2,721		2,721	Complete			2,721
Project 6		3,133		3,133	Complete			3,133
Project 7		6,482		6,482	Complete			6,482
Project 8		275		275	Cancelled			275
Project 9		9,636	54	9,690	Complete			9,690
Project 10		13,057	3,085	16,142	Complete			16,142
Project 11			3,194	3,194	Complete			3,194
Project 12			5,899	5,899	Complete			5,899
Project 13			6,778	6,778	Complete			6,778
Project 14			11,000	11,000	Complete			11,000
Project 15			5,000	5,000	Complete			5,000
Project 16	6,199		9,664	9,664	336			10,000
Project 17	3,845		3,845	3,845	7,155			11,000
Project 18	16,810		16,810	16,810	12,190			29,000
Task 6 Total	26,854	55,708	70,765	126,473	45,000	45,000	13,739	230,212
TOTAL	\$ 56,900	\$144,339	\$565,717	\$710,056	\$ 72,054	\$ 50,560	\$ 14,318	\$846,989
Travel Funds (Tasks 1-5)				\$ 8,005				\$ 21,321

Note: These costs are based on actual total direct labor and direct costs, using VA accounting method and original contract G&A and OH rates. These costs will be modified upon NRC approval of our proposed modification (reference your letter of October 13, 1982 and our letter #72).