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9 June 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. 22 for the period 1-31 May 1987
on Task Orders No. 001, 002, 003 and 004, Contract NRC-02-85-
002. Also enclosed is the summary sheet for the May voucher.
Please call me if you have any questions.

Sincerely,

R. D. Hart
for
Roger D. Hart
Program Manager

WM-RES
WM Record File

D1016

ITASCA

WM Project 10, 11, 16

Docket No. _____

PDR ☒

*LPDR: B, N, S

Distribution:

* Tiktinsky

* Joan-Licket

(Return to WM, 623-SS)

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

Encl.
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WM Project: WM-10, 11, 16

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WM Record File: D1016

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ITASCA MONTHLY PROGRESS REPORT

Progress Report No. 22
NRC Technical Assistance
for Design Reviews

9 June 1987
Contract No. NRC-02-85-002

Reporting Period: 1 - 31 May 1987

1. INTRODUCTION

This progress report summarizes the work performed during May 1987 on NRC Contract No. NRC-02-85-002. During May, work progressed on Task Orders No. 001, 002, 003, and 004.

2. ACTIVITIES DURING THE REPORTING PERIOD

- A. On 4 May, the final report on "Code Verification of FLAC for Thermomechanical Analysis" was transmitted (Task Order No. 002).
- B. M. Board and J. Daemen attended the 5-7 May 1987 NRC/SRP Meeting on ESF Design in Houston, including a pre-meeting on 4 May. The trip report was sent to D. Tiktinsky on 18 May (Task Order No. 001).
- C. Authorization for Task Order No. 005 was received from E. Wiggins on 8 May; Itasca acceptance was transmitted on 12 May.
- D. On 11 May, a Request for Proposal for Task Order No. 006 was received from Paul Edgeworth. The proposal in response to this RFP was transmitted on 21 May.
- E. Itasca Document Review No. 001-02-31, "Task V, Engineering Study No. 8, In Situ Instrumentation" (SD-BWI-ES-017) was transmitted on 15 May. (Task Order No. 001)
- F. Progress Report No. 21 and Invoice No. 021-87-47 were transmitted on 19 May.

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- G. Authorization to review NNWSI document "Modification of Rock Mass Permeability in the Zone Surrounding a Shaft in Fractured, Welded Tuff" (SAND86-7001) was received on 22 May (Task Order No. 001).
- H. On 29 May, Itasca Document Review No. 001-02-35, "Modification of Rock Mass Permeability in the Zone Surrounding a Shaft in Fractured and Welded Tuff" (SAND86-7001) was transmitted (Task Order No. 001).

3.0 RESULTS

A. Documents Submitted in May:

- (1) Final Report, "Code Verification of FLAC for Thermomechanical Analysis" (Task Order No. 002)

Professional Labor	M. Mack	6 hours
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- (2) Itasca Document Review No. 001-02-31, "Task V, Engineering Study No. 8, In Situ Instrumentation" (SD-BWI-ES-017) [Task Order No. 001]

Professional Labor	M. Board	8 hours
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- (3) Itasca Document Review No. 001-02-35, "Modification of Rock Mass Permeability in the Zone Surrounding a Shaft in Fractured and Welded Tuff" (SAND86-7001) [Task Order No. 001]

Professional Labor	J. Daemen	2 hours
	L. Lorig	23 hours

B. Works in Progress:

- (1) incorporation of creep model into FLAC and MUDEC (Task Order No. 004)

Professional Labor	M. Mack	26.5 hours
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- (2) documentation of thermal logic in FLAC and MUDEC
(Task Order No. 002)

Professional Labor	M. Mack	1	hour
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- (3) identification and prioritization of major underground system components for NNWSI (Task No.003);

Professional Labor	J. Daemen	2	hours
	L. Lorig	11.5	hours

- (4) Itasca Document Review No. 001-02-36, "Final Preliminary Design Report — Permian Basin, Texas" (Report ES-225-01) [Task Order No. 001]

Professional Labor	M. Board	24	hours
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- (5) Itasca Document Review No. 001-02-37, "WIPP Documents" (Task Order No. 001)

Professional Labor	J. Daemen	2	hours
	L. Lorig	5	hours
	K. Wahi	31	hours

- (6) Review of STRES3D (Task Order No. 001)

Professional Labor	M. Christianson	64.5	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. However, written authorization for two document reviews has not been received. These documents are:

- (1) "Final Preliminary Design Report — Permian Basin, Texas" (Report ES-225-01); and
- (2) "STRES3D Users Guide and Manual" (St. John and Christianson, 1980).

6.0 ACTIVITIES PLANNED FOR THE NEXT REPORTING PERIOD

- A. Work will continue on preparation of the following tasks:
 - (1) BWIP Task V Engineering Study document reviews (Task Order No. 001);
 - (2) incorporation of creep model into FLAC and MUDEC (Task Order No. 004);
 - (3) documentation of thermal logic in MUDEC (Task Order No. 002);
 - (4) review of STRES3D (Task Order No. 001); and
 - (5) thermomechanical analysis for SRP (Task Order No. 005).
- B. Work to Be Completed in Next Reporting Period
 1. Itasca Document Review No. 001-02-36, "Final Preliminary Design Report — Permian Basin, Texas" (Report ES-225-01) [Task Order No. 001]
 2. Itasca Document Review 001-02-30, "Site Characterization Plan, Chapter 2.0 — Geoengineering (Controlled Draft 1) [Task Order No. 001]
 3. Final Draft, "Site Technical Position on In-Situ Testing at NNWSI" (Task Order No. 002)
 4. Final Draft, "Identification and Prioritization of Major Underground System Components for NNWSI" (Task No.003);
 5. Itasca Document Review No. 001-02-37, "WIPP Documents" (Task Order No. 001)

C. Planned Trips

No trips are scheduled for June.

7.0 MEETINGS/TRIPS DURING THE REPORTING PERIOD

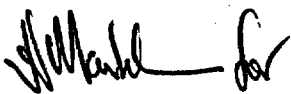
A. M. Board and J. Daemen attended the 5-7 May NRC/SRP Meeting on ESF Design in Houston, including a 4 May pre-meeting (Task Order No. 001)

Professional Labor	J. Daemen	32 hours
	M. Board	40 hours

8.0 SCHEDULE AND COST PROJECTION

The billing summary for the May invoice is attached. Also included are a labor hour summary by task and a summary of the expenditures versus budgets for each task and task order. Costs are well within the limit authorized for all task orders.

Respectfully submitted,


Roger D. Hart
Program Manager
9 June 1987

Attach.
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