

Encl in pocket

PDR-1
LPDR- Wm-10 (2)
Wm-11 (2)
Wm-16 (2)

NUCLEAR WASTE CONSULTANTS INC.
8341 So. Sangre de Cristo Rd., Suite 14
Littleton, Colorado 80127
(303) 973-1496
WM DOCKET CONTROL CENTER

'87 ABR 23 A11:53

Encl in
Pocket

April 15, 1987

009/1.4/WWL.003
RS-NMS-85-009
Communication No. 152

U.S. Nuclear Regulatory Commission
Division of Waste Management
Geotechnical Branch
MS-623-SS
Washington, DC 20555

Attention: Mr. Jeff Pohle, Project Officer
Technical Assistance in Hydrogeology - Project B (RS-NMS-85-009)

Re: Semi-Annual Update of NNWSI Conceptual Model Evaluation Report

Dear Mr. Pohle:

This cover letter transmits to the NRC staff Water, Waste and Land's (WWL) semi-annual update of the Conceptual Model Evaluation Report (Subtask 1.4). The report has received a management and technical review by M. Logsdon of Nuclear Waste Consultants. The reports have been completed under WWL's quality assurance procedures in compliance with NWC's project-specific QA Plan.

The update report includes updates on the status of conceptualizations of four processes which appear to be potentially important at NNWSI:

- o Precipitation/Infiltration
- o Recharge
- o Diversion of Infiltration
- o Vapor-Phase Transport.

In addition, Section 6.0 of the report describes the work planned for four technical reports under Subtask 1.5 and initial proposals for additional topics to be pursued in preparation for the NNWSI SCP review. These technical reports will be described in subsequent Task Description Summaries, as directed by the NRC Project Officer at the March program planning meeting.

8706030362 870415
PDR WMRES EECNWC1
D-1021 PDR

WM-RES
WM Record No
D1021
NWCI

WM Project 10, 11, 16
Docket No. _____

PDR ✓
LPDR ✓ (B, N, S)

Distribution:
x Pohle _____

87040177

H

Sac
3820

April 15, 1987

Submission of this update report completes the contract deliverable for Subtask 1.4 at this time. WWL will update the Numerical Evaluation of Conceptual Models Report on a semi-annual basis, as directed in the current contract.

If you have any questions concerning this letter or the attached report, please contact me immediately.

Respectfully submitted,
NUCLEAR WASTE CONSULTANTS, INC.



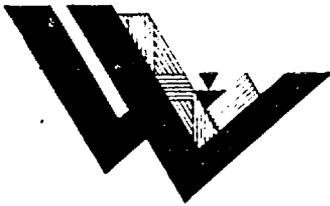
Mark J. Logsdon, Project Manager

Att: NNWSI Conceptual Model Evaluation - Semi-Annual Update Report

cc: US NRC - Director, NMSS (ATTN: PSB)
DWM (ATTN: Division Director) - 2
Mary Little, Contract Administrator
WMGT (ATTN: Branch Chief)

M. Galloway, TTI
J. Minier, DBS

bc: L. Davis, WWL



Water, Waste & Land, Inc.
CONSULTING ENGINEERS & SCIENTISTS

April 3, 1987



Nuclear Waste Consultants, Inc.
ATTN: Mark Logsdon
8341 So. Sangre de Cristo Rd., Suite 14
Littleton, CO 80127

Re: Subtask 1.4, Conceptual Model Evaluation (Update)
Letter Report for Contract NRC-02-85-009 (WWL #4001)
Technical Assistance in Hydrogeology - Project B - Analysis

Dear Mark:

Attached is the update to our Subtask 1.4 report on the Evaluation of Conceptual models as required by our subcontract with Nuclear Waste Consultants. After your review of this report please forward it to Jeff Pohle at the U.S. Nuclear Regulatory Commission.

The report has been divided into the following sections:

1.0 INTRODUCTION

2.0 PRECIPITATION/INFILTRATION

3.0 RECHARGE RATE

4.0 DIVERSION OF INFILTRATION

5.0 VAPOR TRANSPORT

6.0 DETAILED WORK PLAN FOR NUMERICAL EVALUATION

6.1 Technical Report #7 - An Overview of Recharge Estimates

6.2 Technical Report #8 - The Use of Environmental Tracers for the Estimation of Recharge: A Summary

6.3 Technical Report #9 - Analysis of Data Available for the Evaluation of Flow and Transport at Yucca Mountain

6.4 Technical Report #10 - Capillary Barrier Effects at Hydrogeologic Unit Interfaces in the Unsaturated Zone at Yucca Mountain

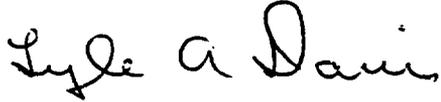
6.5 Additional Topics

REFERENCES

As you will notice we have tried to include all of the topics which are listed in the Trip Report for your planning meeting of March 17-19, 1987. If you have questions or if we can in any way be of assistance to you during your review of this document, do not hesitate to contact us.

Sincerely,

WATER, WASTE & LAND, INC.

A handwritten signature in cursive script that reads "Lyle A. Davis". The signature is written in dark ink and is positioned below the typed name of the company.

Lyle A. Davis, P.E.
Project Manager