

NUCLEAR WASTE CONSULTANTS INC.

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November 19, 1986

009/2.3/TTI.009
RS-NMS-85-009
Communication No. 112

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: Trip Report - BWIP Hydrology Review Team Meeting, November 6-7, 1986

Dear Mr. Pohle:

This letter serves as the Nuclear Waste Consultants (NWC)/Terra Therma Inc. (TTI) trip report for the BWIP Hydrology Review Team Meeting held at the Willste Building, Silver Spring, Maryland, November 6-7, 1986. Nuclear Waste Consultants was represented by Mssrs. Adrian Brown and Mark Logsdon; Terra Therma was represented by Mssrs. Mike Galloway and Fred Marinelli, as requested by the NRC's BWIP Site Leads and endorsed by the NRC Project Officer. NWC considers that this meeting and the work that is anticipated to flow from it will be accountable under Subtask 2.3 of the current contract.

The purpose of the meeting was to develop and prepare for the December, 1986 BWIP Hydrology Data Review and to plan for the tentative NRC/DOE Workshop on BWIP Testing Strategy, including discussions of the strategy described in the NRC's BWIP Site Technical Position 1.1. During the course of the meeting, the NRC Staff determined that it was appropriate to discuss the June 13, 1986 review by NWC (NWC Communication No. 65) of the BWIP document "Groundwater Travel Time Analysis for the Reference Repository Location at the Hanford Site" (SD-BWI-TI-303). On Thursday afternoon, November 6, the NWC/TTI team was directed to prepare a presentation, to be made the following morning, to WMT/WMRP managers defending the analysis and conclusions of the original NWC review. The presentation was made by Mr. drian Brown on Novemembr 7, and a similar presentation was made by Mr. Brown to the entire BWIP team on the afternoon of November 7.

Attachment 1 to this trip report is the original agenda for the meeting. Attachment 2 is the set of summary meeting notes, signed by representatives of NWC, Williams and Associates, and the NRC Staff.

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November 12, 1986

Action from this meeting includes ongoing preparations for the scheduled Data Review, per the assignments shown on page 1 of Attachment 2. NWC is preparing additional documentation of its position on the review of the BWIP GWTT calculations, as agreed in the meeting. The NWC documentation will include both a re-review of its original computations, conclusions and internal technical reviews and an additional re-analysis of the impact of ranges of effective porosity estimates on the assessment of likely compliance with the NRC's GWTT criterion. The anticipated NWC product will comply with QA-Level 1 requirements of the NWC project-specific QA plan, which has been approved by the NRC and implemented by NWC since the submission of the original NWC review.

If you have any questions about this trip report, please contact me immediately.

Respectfully submitted,
NUCLEAR WASTE CONSULTANTS, INC.



Mark J. Logsdon, Project Manager

Att: Trip Report on BWIP Hydrology Review Team Meeting, November 6-7, 1986

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

cc: M. Galloway, TTI
L. Davis, WWL
J. Minier, DBS

ATTACHMENT 1



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

LOG-500N 1
11/6/86

BWIP HYDROLOGY REVIEW TEAM MEETING
NOVEMBER 6, 1986

Session 1: Data Review

Introduction (Weber)	8:00
Schedule for Data Review (Weber)	8:05
Conduct of Data Review (Hildenbrand/Weber)	8:15
Information to be Reviewed (Coleman/Group)	8:30
Review Documentation (Weber/Group)	8:45
Break	9:00
Review Responsibilities (Group)	9:15
QA Review Responsibilities (Kennedy)	9:45
Discussion	10:15
Data Review Wrap-up (Weber/Coleman)	11:00
Lunch	12:00

Session 2: SCP and Testing Strategy Meeting Preparation

Introduction (Weber)	1:30
Preparation Strategy (Hildenbrand/Weber)	2:00
Integrating with STP 1.1 (Verma/Group)	2:30
Performance Objectives (Weber/Group)	2:45
Reliability Levels (Weber/Group)	3:00
Break	3:15
Site Assessments (Coleman/Group)	3:30
Adjourn First Day	5:00

BWIP HYDROLOGY TEAM MEETING
NOVEMBER 7, 1986
(Continued from November 6)

Session 3: Creston Site Visit

Summary of In-Situ Contract (Chery)	8:00
Creston Site Visit	8:15
Discussion	8:30

Session 4: SCP Preparation (Continued)

Contractor Responsibilities (Weber/Group)	9:15
Lunch	12:00
Numerical Experiments (Code11/Weber)	
- Summary	1:00
- Contractor Involvement	1:30
Discussion	2:00
Break	3:00
Summary of Meeting (Weber/Group)	3:15
Adjourn	4:15

ATTACHMENT 2

SUMMARY MEETING NOTES OF NRC BWIP HYDROLOGY REVIEW TEAM MEETING
NOVEMBER 6-7, 1986

Introduction

The NRC BWIP Hydrology Review Team was met on November 6-7, 1986, to prepare for the upcoming BWIP Hydrology Data Review (December 2-5, 1986), to discuss the strategy for hydrologic testing described in NRC's BWIP Site Technical Position 1.1, and to discuss a review of "Groundwater Travel Time Analysis for the Reference Repository Location at the Hanford Site" (SD-BWI-TI-303) prepared by Nuclear Waste Consultants, Inc. (NWC). These notes summarize the results of the meeting.

Data Review

The Hydrology team proposed review teams for the upcoming BWIP Hydrology Data Review as follows:

A. Monitoring Installations

Lead: Mike Galloway, Terra Therma Inc. (for NWC)
Members: Roy Williams, Williams and Associates (W&A)
Fred Marinelli, Terra Therma Inc. (for NWC)
Michael Weber, NRC

B. Geologic Information (Related to Hydrogeologic Models)

Lead: Roy Williams
Members: Paul Davis, Sandia National Laboratory (SNL)
Mark Logsdon, NWC
Michael Weber, NRC
Harold LeFevere, NRC

C. Hydraulic Head Data

Lead: Gerry Winter, W&A
Members: Paul Davis, SNL
Mike Galloway, Terra Therma (for NWC)
Adrian Brown, NWC
Neil Coleman, NRC
Dale Ralston, W&A
Harold LeFevere, NRC

D. Hydrogeologic Laboratory Testing Data (if available)

Lead: Adrian Brown, NWC
Members: Neil Coleman, NRC
Michael Weber, NRC
Gerry Winter, W&A

E. Hydraulic Testing Data

Lead: Dale Ralston, W&A
Members: Paul Davis, SNL
Fred Marinelli, Terra Therma (for NWC)
Adrian Brown, NWC
Harold LeFevere, NRC
Michael Weber, NRC

F. Hydrochemistry Data

Lead: Mark Logsdon, NWC
Member: Neil Coleman, NRC

STP 1.1

The group concluded that STP 1.1 still provides a viable strategy for hydrologic testing at the Hanford site, although it could be supplemented to provide for characterization of effective porosity and resolution of other significant aspects of site hydrogeology. The strategy is compatible with both deterministic and deterministic-stochastic approaches to predict groundwater travel times.

NWC's REVIEW OF SD-BWI-TI-303

The group discussed the review performed by NWC of the document entitled "Groundwater Travel Time Analysis for the Reference Repository Location at the Hanford Site" (BWI-SD-TI-303). Adrian Brown summarized NWC's review and the technical details of NWC's calculations of pre-waste emplacement groundwater

travel times for the Hanford site. The discussion resulted in the following positions:

NWC (as stated in NWC's review of June 13, 1986)

It is unlikely that the Hanford site meets the 1000-year pre-emplacment groundwater travel time criterion based on an analysis using existing information.

NRC Staff

Available information is insufficient to determine whether the Hanford site meets the 1000-year pre-emplacment groundwater travel time criterion.

The NRC staff position is endorsed by Williams and Associates and Paul Davis of the Sandia National Laboratory. NRC staff will request that NWC respond to comments made about the NWC analysis as directed by the NRC staff. NWC's response will identify the assumptions upon which their analysis is based, the supporting data, and a discussion of the uncertainties associated with the groundwater travel time calculations.

Approvals

For Nuclear Waste Consultants, Inc.: Mary London ^{Project Manager} 86/11/07

For Williams and Associates, Inc.: Roy E. Williams 86/11/07

For the NRC staff: Silak R. Verma 86/11/07

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U.S NUCLEAR REGULATORY COMMISSION
DIVISION OF WASTE MANAGEMENT

TRIP REPORT
BWIP HYDROLOGY REVIEW TEAM MEETING
SILVER SPRING, MARYLAND
NOVEMBER 6-7, 1986

TECHNICAL ASSISTANCE IN HYDROGEOLOGY
PROJECT B - ANALYSIS
RS-NMS-85-009

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NOVEMBER 20, 1986

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