NUCLEAR WASTE CONSULTANTS INC.

WM Project 10,11,16 Docket No. -

WM DOCKET CONTROL CENTER

8341 So. Sangre de Cristo Rd., Suite 6 Littleton, Colorado 80127 (303) 973-7495

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009/PM/NWC.005 RS-NMS-85-009 Communication No. 92

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)

SUMMARY OF FY86 ACTIVITIES

Dear Mr. Pohle:

Per our telephone conversation of today, please find attached a set of lists that outlines the major products of Contract No. RS-NMS-85-009 from October, 1985 - September, 1986. You will note that this is the 92nd written communication from NWC to you; the following lists include only the major technical and project management products from that more inclusive list.

I hope that the lists are helpful to your year-end record keeping. If you have any questions, please contact me.

Respectfully submitted, NUCLEAR WASTE CONSULTANTS

Jahl. Tozsolan Mark J. Logsdon, Project Manager

Att: Summary lists of major contract products, FY 1986

cc: US NRC - Director, NMSS (ATTN PSB)

DWM (ATTN Division Director)

Mary Little, Contract Administrator

WMGT (ATTN Branch Chief)

M. Galloway, TTI L. Davis, WWL

J. Minier, DBS

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# SUMMARY OF CONTRACT PRODUCTS, RS-NMS-85-009, FY 86

### I. GENERAL/PROJECT MANAGEMENT

- o 2 contractor/staff meetings in Silver Spring: 10/85; 4/86
- o Reviews of Draft GTP on GWTT
- o Review of Draft GTP on Disturbed Zone
- o Response to FOIA request
- o 3 contract modifications
- o Review of DOE (NNWSI) Issues Hierarchy paper
- o Initiation of computing capabilities at INEL o Participation in SWIFT II training in Silver Spring
- o Participation in RES symposium on model validation in Bethesda
- o Reviews of DEA's, FEA's and NRC Staff's comments on FEA
- o Review of Hydrology chapter of NUREG/CR-3964 "Techniques for Determining Probabilities of Events and Processes Affecting Performance of Geologic Repositories"
- o Review of proposed revisions to 10 CFR Part 60
- o Review of compliance aspects of the EPA Individual and Groundwater Protection Standards
- o Development and Documentation of Project-Specific QA Plan
- o Reviews of W&A papers on uncertainty and GWTT

## II. TASK 1 - NNWSI

- Subtask 1.1 NNWSI Bibliography and Site Familiarization Report
- o Subtask 1.2 NNWSI Data Inventory and Management System, including semi-annual update report
- o Subtask 1.3 Major, Formal Document Reviews
  - Conceptual Models of Flow in Unsaturated Zone, USGS
  - Hydrologic Mechanisms Governing Fluid Flow in Partially Saturated, Fractured, Porous Tuff at Yucca Mountain, Sandia
  - Effects of Percolation on Water-Travel Time in Deep, Partially Saturated Zones, Sandia
  - Fluid Flow in Fractured Rock Mass, Sandia
  - Preliminary Bounds on Expected Post-Closure Performance of Yucca Mountain Repository Site, Southern Nevada, Sandia
- o Subtask 1.4 NNWSI Conceptual Model Evaluations Report
- o Subtask 1.5 NNWSI Numerical Evaluations Mini-Reports
  - Theoretical Description of Steady, Downward Flow in Layered, Fractured, Unsaturated, Porous Media

- Groundwater Travel Time at Yucca Mountain, Nevada
- Estimates of Cumulative Radionuclide Flux at Yucca Mountain, Nevada

#### III. TASK 2 - BWIP

- o Subtask 2.1 BWIP Bibliography and Site Familiarization Report
- o Subtask 2.2 Data Inventory and Management System, including semi-annual update report
- o Subtask 2.3 Major, Formal Document Reviews
  - Test Plan for LHS Testing, BWIP
  - HEDCO, BWIP
  - Exploratory Shaft Test Plan, BWIP
  - PORFLO, BWIP
  - GWTT for Reference Repository Location at Hanford Site, BWIP
- o Subtask 2.3 2 Hydrology Workshops at Hanford 12/85; 9/86
- o Subtask 2.4 BWIP Conceptual Model Evaluations Report
- o Subtask 2.5 BWIP Numerical Evaluations Mini-Reports
  - Analysis of Flow Interior Heterogeneities GWTT
  - Analysis of Flow Interior Heterogeneities Cumulative Flux
  - Evaluation of Residual Thermal Effects
  - Relationship of Hydrodynamic Dispersion to Compliance with Overall EPA Release Standards
  - Analysis of Drilling Responses at the Hanford Site

#### IV. TASK 3 - SALT

- Subtask 3.1 SALT Bibliography and Site Familiarization Report
- o Subtask 3.2 SALT Data Inventory and Management System, including semi-annual update report
- o Subtask 3.3 Major, Formal Document Reviews
  - Travel Path/Travel Time Uncertainties at Salt Sites, ONWI
  - PTRACK, ONWI
  - NUREG/CR-3964, Sandia
- o Subtask 3.4 SALT Conceptual Model Evaluations Report
- o Subtask 3.5 SALT Numerical Evaluations Mini-Reports
  - Analysis of Potential for Unsaturated Flow within Evaporite Aquitard
  - Transport in Salt by Vertical Porous Media Flow
  - Transport Though Interbeds in HSU B by Horizontal Porous Media Flow

- Transport Through the Wolfcamp by Horizontal Porous Media Flow
  Analysis of Potential for Geothermally-Induced Groundwater
  Convection within the Evaporite Aquitard
  Subtask 3.5 Palo Duro Canyon Field Trip: DBS/NWC