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Coplan TICKET

(Return to WM, 623-SS) L3

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Seth M. Coplan, Section Leader  
NTS Project Section  
Repository Projects Branch  
Division of Waste Management  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

GEOCHEMISTRY WORKSHOP - AGENDA REVISION

As a result of the conference call on June 25, 1984, between representatives of your staff, Los Alamos, and my office, we have revised the Geochemistry Workshop agenda originally transmitted to you in my letter of June 20, 1984 (WMPO:MBB-960).

We would appreciate your acknowledgement of the attached revision as soon as possible so that we can proceed with preparation for the workshop.

*Donald L. Vieth*  
Donald L. Vieth, Director  
Waste Management Project Office

WMPO:JSS-968

Enclosure:  
As stated

- cc:
- G. L. DePoorter, LANL, Los Alamos, NM
- D. T. Oakley, LANL, Los Alamos, NM
- N. K. Stablein, NRC, Silver Springs, MD
- P. T. Prestholt, NRC, Las Vegas, NV
- Carl Johnson, NWPO, Carson City, NV
- M. A. Glora, SAI, Las Vegas, NV
- J. S. Szymanski, WMPO
- M. B. Blanchard, WMPO

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NNWSI/NRC GEOCHEMISTRY WORKSHOP

July 10-12, 1984

LOS ALAMOS NATIONAL LABORATORY

Tuesday, July 10, 1984

- 8:00 Registration
- 8:15 Welcome, Introductions - M. Blanchard, D. Oakley
- 8:30 Technical Overview for Workshop - M. Blanchard
- 9:30 Break
- 9:45 LOS ALAMOS PRESENTATION  
Overview and Geochemistry Program Plan - G. DePoorter
- 10:15 NRC PRESENTATION  
Geochemical Issues Specific to NNWSI
- 10:45 Discussion - Los Alamos and NRC
- 11:45 Lunch
- 12:45 SESSION I. UNSATURATED ZONE PROCESSES  
Overview - R.S. Rundberg, Los Alamos
- 1:05 NRC Comments
- 1:15 Discussion - Los Alamos and NRC  
Discussion - Discussion Presentation  
Unsaturated zone transport (including vapor) -  
B.J. Travis  
Unsaturated zone water chemistry - A.E. Ogard
- Suggested discussion topics  
Relation between saturated and unsaturated zone  
geochemical processes.
- 2:45 BREAK
- 3:00 SESSION II. ROCK-WATER INTERACTIONS  
Presentations:  
Unsaturated zone travel time  
36Cl Experiment for ES - A.E. Norris  
Rock-water equilibrium - C.J. Duffy  
Reaction path calculations - J.F. Kerrisk
- 3:30 NRC Comments
- 3:40 Discussion - Los Alamos and NRC  
Suggested discussion topic  
Equilibrium vs. kinetic effects
- 4:45 End of Session

NNWSI/NRC GEOCHEMISTRY WORKSHOP

July 10-12, 1984

LOS ALAMOS NATIONAL LABORATORY

Wednesday, July 11, 1984

- 8:00 SESSION III. 3-D MINERALOGY AND SORPTION  
STRATIGRAPHY  
Mineralogy/Petrology Update - D.T. Vaniman
- 8:20 NRC Comments
- 8:30 Discussion - Los Alamos and NRC  
Discussion Presentation - Los Alamos  
Evaluation of Statistical Methods - K. Campbell  
Suggested Discussion Topics  
3-D Mineralogy and Sorptive Mineral Stratigraphy  
Fracture Mineralogy  
Determining paleo flow paths from present  
mineralogy
- 10:00 Break
- 10:15 SESSION IV. MINERAL STABILITY  
LOS ALAMOS PRESENTATION  
Mineral Stability
- 10:20 - 10:35 Hydrothermal Stability - C.J. Duffy  
10:35 - 10:50 Thermal Stability - D. Bish
- 10:50 NRC Comments
- 11:00 Discussion - Los Alamos and NRC
- 12:00 LUNCH
- 1:00 SESSION V. KEY RADIONUCLIDES AND SOLUBILITY  
Key Radionuclides - J.F. Kerrisk (Los Alamos)
- 1:10 NRC Comments
- 1:15 NRC PRESENTATION  
Solubility
- 1:35 Los Alamos Comments

Cont. Wednesday, July 11, 1984

- 1:45 EQ3/6. Geochemical Model - T. Wolery (LLNL)
- 2:00 NRC Comments
- 2:10 LOS ALAMOS PRESENTATION  
Solubility and Speciation
- 2:10 - 2:40 Solubility Calculations - J.F. Kerrisk
- 2:40 - 3:00 Solubility Measurements - Los Alamos
- 3:00 - 3:20 Solubility Measurements - LBL
- 3:20 Break
- 3:40 Discussion - Los Alamos and NRC  
Suggested Discussion Topics  
Key Radionuclides  
Solubility and speciation of key radionuclides
- 4:00 SESSION VI. REDOX CONDITIONS AND REDOX BUFFERING  
Los Alamos Presentation - A.E. Ogard
- 4:20 NRC Comments
- 4:30 Discussion - Los Alamos and NRC  
Suggested Discussion Topics  
Redox conditions in the unsaturated zone  
Redox buffering by Fe-Ti Minerals
- 4:45 End of Session

NNWSI/NRC GEOCHEMISTRY WORKSHOP

July 10-12, 1984

LOS ALAMOS NATIONAL LABORATORY

Thursday, July 12, 1984

- 8:00 SESSION VII. TRANSPORT MODELING AND MATRIX  
DIFFUSION  
Transport Modeling B.J. Travis
- 8:20 NRC Comments
- 8:30 Discussion - Los Alamos and NRC  
Discussion Presentation - Los Alamos  
Fracture Flow Experiments (Laboratory and ES)  
Diffusion Experiments (Laboratory and ES)  
Colloid size determination  
Discussion topics  
Matrix diffusion  
Vapor transport  
Aerosol transport of radionuclides
- 9:45 Break
- 10:00 SESSION VIII. SORPTION  
Update on Sorption - K.W. Thomas
- 10:35 NRC Comments
- 10:45 Discussion - Los Alamos and NRC  
Suggested Discussion Topics  
Sorpton measurements on crushed vs intact samples  
Batch vs. flow experiments  
Effects of water composition and redox conditions  
Sorpton kinetics  
Key Radionuclides
- 12:00 Lunch
- 1:00 Preparation of Minutes and closeout
- 3:30 Feedback and Discussion
- 4:45 End of Workshop