

TECHNICAL MEETING MINUTES

DATE: July 24, 1997 (10:00 a.m. - 12:30 p.m.)
LOCATION: PNS Family Housing Office, Kittery, Maine
SUBJECT: Geochemical Modeling
ATTENDEES: Meghan Cassidy - USEPA Region I
Iver McLeod - MEDEP
Richard Heath - MEDEP
Dr. Andrew Reeve - University of Maine
Forest Lyford - USGS
Carolyn Lepage - SAPL TAG Consultant
Fred Evans - NORTHDIV
Todd Bober - NORTHDIV
Marty Raymond - Portsmouth Naval Shipyard
Linda Klink - Brown & Root Environmental
Jeff Orient - Brown & Root Environmental

GEOCHEMICAL MODELING

The MEDEP explained their position on geochemical modeling as an aid in determining whether the Navy modeling efforts are conservative as presumed. Specifically, partitioning coefficients (Kd values) used by the Navy were developed for freshwater conditions whereas actual site conditions are saline/brackish. The MEDEP has contracted Dr. Andrew Reeve of the University of Maine to conduct geochemical modeling. Dr. Reeve's initial efforts in geochemical modeling of lead supports the Navy's modeling results. Dr. Reeve will continue work in geochemical modeling of several other site contaminants of concern. The PHREEQC geochemical model is being utilized. This model is well established and highly accepted.

MEDEP will issue a letter documenting their current position on the Navy's modeling efforts. In summary, the letter will document :

- (1) the Navy does not need to conduct geochemical modeling;
- (2) the Navy does not need to further characterize the JILF but should include a discussion in the uncertainty section of the modeling report;
- (3) the Navy's method for identifying/ranking the contaminants of concern (COCs) is acceptable provided this method is not used to pursue a no further action decision without evaluating remaining contaminants;
- (4) it is acceptable for the Navy to continue with the Phase II modeling efforts.

If, upon completion of the Navy's Phase II modeling efforts, the Navy's Kd values appear to be too conservative, it may be possible for Dr. Reeve to calculate more realistic Kd values for the Navy's use in the modeling.

Carolyn Lepage was interested in the schedule for the Navy's Phase II modeling. A new schedule

has not yet been developed but the Navy will have this information for presentation at the August 1997 RAB meeting.

The Navy agreed to expand efforts in developing seep/sediment K_d values. The original plan, developed in the Phase I modeling work plan, was to develop site-specific, empirical K_d values from collected seep/sediment pairs. During today's meeting, the Navy agreed to additionally collect pore water/sediment samples to support K_d development for inorganics.



DEPARTMENT OF THE NAVY

NORTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
10 INDUSTRIAL HIGHWAY
MAIL STOP, #82
LESTER, PA 19113-2090

IN REPLY REFER TO

5090
Code 1823/FE

19 MAR 1998

Ms. Meghan Cassidy
U.S. Environmental Protection Agency, Region I
JFK Federal Building HBT
Boston, MA 02203-2211

Mr. Iver McLeod
Maine Department of Environmental Protection
State House Station 17
Augusta, ME 04333-0017

Subj: JULY 24, 1997 TECHNICAL MEETING MINUTES AT PORTSMOUTH
NAVAL SHIPYARD, KITTERY, ME

Dear Ms. Cassidy/Mr. McLeod:

Enclosed are the revised minutes for the July 24, 1997 Technical Meeting on Geochemical Modeling.

If additional information is required, please contact Ms. Marty Raymond at 207-438-2536 or myself at 610-595-0567, x159.

Sincerely,

Frederick J. Evans
FREDERICK J. EVANS, P.E.
Remedial Project Manager
By direction of the
Commanding Officer

Subj: JULY 24, 1997 TECHNICAL MEETING MINUTES AT PORTSMOUTH
NAVAL SHIPYARD, KITTERY, ME

Copy to:

NOAA (K. Finkelstein)
US Fish & Wildlife Service (K. Munney)
ME Dept. of Marine Resources (D. Card)
NH Fish & Game (J. Nelson)
Ms. Juanita Bell
Mr. Doug Bogen
Mr. Jeff Clifford
Ms. Michele Dionne
Ms. Eileen Foley
Ms. Mary Marshall
Mr. Phil McCarthy
Mr. Jack McKenna
Mr. Guy Petty
Mr. Onil Roy
Mr. Peter Vandermark
Ms. Carolyn Lepage
COMSUBGRU TWO (R. Jones)
PNS (Code 106.3R, M. Raymond)
PNS (Code 100PAO) w/o encl
Brown and Root Environmental (L. Klink, B. Horne)