

Baker

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March 30, 2001

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Commander
Atlantic Division
Naval Facilities Engineering Command
1510 Gilbert Street (Bldg. N-26)
Norfolk, Virginia 23511-2699

Attn: Mr. Christopher T. Penny
Navy Technical Representative
Code 18231

Re: Contract N62470-95-D-6007
Navy CLEAN, District III
Contract Task Order (CTO) 0034
TWFF Groundwater Model
Naval Station Roosevelt Roads (NSRR)
Groundwater Model Teleconference Discussion – January 11, 2001

Dear Mr. Penny:

Transmitted under the cover of this letter are the final minutes from the TWFF Groundwater Model Teleconference Discussion call held on January 11, 2001. The comments from the draft minutes have been incorporated into the final minutes.

Sincerely,

BAKER ENVIRONMENTAL, INC.



Mark E. Kimes, P.E.
Activity Coordinator

MEK/lp
Attachment

cc: Ms. Madeline Rivera - NSRR (w/attachment)
Mr. Tim Gordon - USEPA Region II (w/attachment)
Mr. Greg Eades - Booz, Allen & Hamilton (w/attachment)
Mr. Rick Kuhlthau - Booz, Allen & Hamilton (w/attachment)
Mr. Joe Etheridge - Baker Environmental (w/attachment)
Mr. David Back - Baker Environmental (w/attachment)
Mr. John Tomik - CH2M Hill (w/attachment)
Mr. Kevin Cloe - LANTDIV (w/attachment)

**U.S. NAVAL STATION - ROOSEVELT ROADS
TOW WAY FUEL FARM
GROUNDWATER MODEL TELECONFERENCE DISCUSSION
JANUARY 11, 2001
ISSUES SUMMARY**

Participants:

Mr. Christopher T. Penny	U.S. Navy (LANTDIV)
Mr. Kevin Cloe	U.S. Navy (LANTDIV)
Mr. Mark Kimes	Baker Environmental, Inc.
Mr. Joe Etheridge	Baker Environmental, Inc.
Mr. Mike Klausmeier	Baker Environmental, Inc.
Mr. David Back	Baker Environmental, Inc.
Mr. John Tomik	CH ₂ M Hill
Mr. Tim Gordon	U.S. EPA
Mr. Rick Kuhlthau	Booz, Allen & Hamilton, Inc.
Mr. Greg Eades	Booz, Allen & Hamilton, Inc.

Minutes:

This is a synopsis of what was discussed in the teleconference on groundwater modeling for the TWFF. The conference started at 10:00 a.m. and ended at approximately 11:00. Mr. Kimes started by giving a brief overview of the "Talking Points" that were distributed prior to the teleconference. The talking points included information on various aspects of the model. Since Mr. Kuhlthau was unfamiliar with MODFLOW-SURFACT, it was agreed that Mr. Kuhlthau would ask questions as individual points were discussed. Mr. Klausmeier proceeded to discuss objectives of the model. He reiterated that the model was in support of the remedial design for the TWFF.

Mr. Kuhlthau asked if the model would be able to handle multiphase (i.e. Dissolved phase constituents). Mr. Back said the model is primarily designed for a single phase and can only do one phase at a time. However in general, the model can do dissolved transport and simulate mobile groundwater phase, gas phase, or NAPL phase in the saturated or unsaturated zones.

Mr. Penny asked if the model has the ability to simulate dissolved constituent transport at a future date. Mr. Back said the model has the ability to simulate transport at a later date.

Mr. Eades asked if the model will be able to simulate the entire site or individual zones. Mr. Back informed us that it has the ability to do both, however the model will look at the entire site first before narrowing in on individual zones.

Mr. Klausmeier informed us that the model would be set on a 25' x 25' grid with up to six layers depending on the contaminant distribution. The boundary conditions to the west and north portions of NSRR consist of marshlands. To the south and east is the ocean and tidal influences would be investigated.

Mr. Gordon rejoined the conference call after being dropped off at 10:14 a.m. He was connected back in at 10:30 a.m. Mr. Gordon was briefed on what he had missed and discussion on the model continued.

Mr. Penny suggested that Baker and BAH have opportunities in the future to discuss developments in the model as it progresses. Mr. Penny suggested that we finish discussion on the talking points then set a schedule to continue communications in the future.

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Mr. Kuhlthau asked about calibration of static flow and steady state equilibrium. Mr. Back said that those conditions would be addressed before moving into the transient model calculations. The model would superimpose the NAPL on top of the groundwater to determine recovery.

Mr. Kuhlthau asked about three-phase saturation data and relative permeabilities for the model. Mr. Back said that general information was available but site specific information may not be available.

Mr. Penny identified that a field effort was being planned to collect data. Mr. Etheridge said that a work plan was under development to address perceived data gaps identified in previous meeting at EPA's New York office. The timing of the field effort would be such that basic information needed for inclusion in the model may be collected during this field mobilization.

Mr. Kuhlthau believed conceptual approach was appropriate and could be used as a steady tool as well as a predictive tool. Mr. Back believed a phased approach to using existing data before seeking additional field data is appropriate.

Mr. Penny said data is available to Baker and their modelers. The work plan will point out what we will be obtaining in the field. BAH can comment on approach and recommend additional data needs at that point to complete the model.

This wrapped up the technical discussion associated with the model and talking points. The discussion then turned to future schedules and possible deliverables associated with the model.

It was agreed that by February 28 a "working" document would be released to EPA for comments. The working document will include sections 1 through 3 of the talking points. The working document will be available on NSRR website and hard copies will be sent to Messieurs Gordon, Eades, and Kuhlthau.

A teleconference is tentatively scheduled for March 15 at 10:00 a.m. to discuss comments on the "working" document and future movement on the model development.

Tentative Schedule

February 28 - "Working" document on groundwater development (Sections 1 - 3) due to EPA.

March 15 - Teleconference on EPA's comments to "working" document (10:00 a.m.).