

# U.S. EPA TECHNICAL SUPPORT PROJECT SEMI-ANNUAL MEETING BUSINESS SESSION MINUTES

April 25-28, 2000  
Washington, DC



## U.S. EPA TECHNICAL SUPPORT PROJECT CO-CHAIRS

### Engineering Forum:

Jo Ann Cola, Region 9 • Camille Hueni, Region 6 • Steve Kinser, Region 7

### Ground-Water Forum:

Curt Black, Region 10 • Kathy Davies, Region 3

### Federal Facilities Forum:

Meghan Cassidy, Region 1 • Steve Hirsh, Region 3 • Craig Thomas, Region 5

**CONTENTS**

GROUND WATER FORUM ..... 1

    Low-Flow Sampling, Rich Freitas, U.S. EPA/Region 9 ..... 1

    DNAPL Webpage ..... 1

    RCRA Environmental Indicators ..... 2

    Funding Cut Implications for Future Meetings ..... 3

    Fall Meeting ..... 3

    Request for ORD Support for Research Items ..... 3

    Other ..... 3

    Action Items ..... 5

FEDERAL FACILITIES FORUM ..... 8

    Regional Round-Up ..... 8

    Participation Agreements ..... 9

    Forum Wrap-Up ..... 10

ENGINEERING FORUM ..... 11

## GROUND WATER FORUM

### Low-Flow Sampling, Rich Freitas, U.S. EPA/Region 9

Rich Freitas asked the Forum about their experiences with low-flow sampling. He has a deep well with a 20-foot screen that brackets sand and clay units. If a low-flow pump is placed at the clay unit, concentrations of the contaminant are non-detectable; if a conventional pump is used, there are detectable concentrations. Screen lengths and where the sample is collected within them make a difference when using the low-flow technique.

In some flow systems, the low-flow technique is actually a point sampler and depending upon where the contamination is, it can be missed—especially in heterogenous stratigraphies. Conventional techniques probably wouldn't miss it, but the result would be a diluted average. In other systems—even with low-flow techniques—an average, rather than a point sample would result.

Doug Yeskis mentioned a modeling study to model low-flow versus conventional techniques. The model assumes an aquifer with a ground-water flow velocity of 50 ft/day. The study models three withdrawal rates, 250 mL/min, 500 mL/min, and 1 R/min, taken at three points—the top, middle, and bottom of the screen. Results show that while a lot of the water comes from directly across the screen, it also comes from other points along the screen. They are having problems with determining how to model the water inside the casing.

### DNAPL Webpage

Co-chair Curt Black (Region 10) indicated that the main reason why the Forum was concerned about the DNAPL paradigm was that it was put on an EPA website. This gave it the illusion that it was EPA policy—even though that was not the intent. To illustrate, Black pointed out quotes from Evan Nyer in *Ground Water Monitoring and Remediation* that criticized both the paradigm and putting it up on a website without proper review.

Bob Hall (Chief, Corrective Action Branch), whose staff developed the webpage, stated that whether or not the theory warrants further discussion, the bottom line is whether sound long-term remedial decisions are being made. He stated the RCRA Program is on the line now in making corrective action decisions, and one of the environmental indicators for the program is to make the determination that ground-water contamination migration is under control. If when saying this DNAPL is omitted, trouble will result. He acknowledged that the method of presenting the theory may not have been the best, but it is now out there for discussion. He asked the Forum how to proceed.

Co-chair Kathy Davies (Region 3) felt that two issues exist: 1) the scientific issue regarding the validity of the theory; and 2) the issue of how groups should carry out discussion forums without giving the public the impression that the discussion carries an EPA final policy implication. Luanne Vanderpool (Region 5) noted that when she saw the webpage, her impression was “EPA speaks,” rather than a theory presented for comment and discussion. Perhaps a better discussion forum would be email? Bob Hall disagreed. He believes that a website could be set up and used for open discussion, but it would have to be set up carefully with full disclaimer that it was for exchange of ideas only and not a mechanism for policy “test balloons.”

Davies suggested that two letters be composed. One would address the discussion process issue and would not be directed at the Corrective Action group, since they are not in a position to affect Agency

policy on that issue. The other would be a letter with review of the underlying science of the theories posted on the webpage.

Hall pointed out that the DNAPL theory is currently under peer review by 10 external experts. Their comments are due in mid-May. He can extend the deadline if the Forum wanted to voice their input. The Forum indicated that reviewers would need to see all the backup data, or as much as available. Hall agreed commit the necessary resources from his branch to supply the Forum with the data available in his office.

Randy Breeden (Region 8) suggested that it still a good idea to get outside input, data, and experiences, since the Corrective Action group received positive as well as negative feedback.

As a suggestion for the group to consider Dennis Goldman (NGWA) suggested the possibility that NGWA host the discussion as a neutral party. Black agreed to call Goldman to discuss the mechanisms.

Helen Dawson (Region 8) volunteered to review the science issues and get back to the Forum on the June 1 conference call. Breeden volunteered to write the letter on the discussion process in time to discuss on the June 1 conference call.

## **RCRA Environmental Indicators**

Kathy opened the discussion with Region 3's concerns. RCRA has issued guidance on environmental indicators, and the technical staff in Region 3 are concerned about using this guidance to determine whether or not potentially impacted surface water should be investigated at a number of RCRA priority sites. One of the methods suggested is if there is a well near the surface water, then the parameters found in that well are compared to 10 times the relevant standard (ambient water quality standards, MCLs, MCLGs, etc.). If the concentrations in the well are 10 times the relevant standard, then the surface water needs to be investigated. If they are less than 10 times the relevant standard, then the surface water does not need immediate investigation.

Bob Hall clarified that the "10 times or less rule" does not mean that the Agency does not require an investigation of the surface water, it means they can consider the ground-water plume under control for purposes of their GPRA requirements. It's a screening tool, not a risk assessment.

Davies is concerned with having a guidance that is being used (and perhaps misused) that doesn't have a scientific founding. She cited an instance in Region 3 where a PRP presented them with a protocol for determining whether to look at surface water and how to do it. This produced concern over whether the Agency itself shouldn't have a protocol rather than letting PRP's suggest them.

Ali Tavelli (Wyoming DEQ ) indicated that at the RCRA training given in Region 8, participants were told that this rule was a "bullet" they could use with owner operators. They did not have to use the guidance, but if they didn't, they would have to document what they used in lieu of it to make their determination. They go the impression that if they did use they did use the guidance, they didn't have to say anything.

Hall asked the Forum members how many have seen situations where the 10:1 dilution rule from the well to the surface body does not apply. Their response was that a number of such situations exist. The Forum further pointed out that the well used in the determination may not be situated in the most contaminated part of the plume.

It was suggested that everyone read the guidance and be prepared to comment on it as a technical topic of the June 1 conference call. The guidance is on the RCRA corrective action web page ([www.epa.gov/correctiveaction](http://www.epa.gov/correctiveaction)).

*Question:* Where did the factor of 10 come from? There is an issue of scale: if the water body is small, it will be more likely that the contaminants will be detected coming in to the surface water body.

*Answer:* Bob Hall stated yes the guidance is in place because decisions must be made now, but they have left the door open for modification if suggestions can be made.

### **Funding Cut Implications for Future Meetings**

Kathy Davies announced that Richard Steimle (TIO) has indicated that the cut in funding for Superfund activities would impact future Forum meetings. Steimle has suggested that the Forums meet once a year or once every 9 months. Davies said that she and Co-chair Curt Black indicated that they still would like two meetings per year. This can happen, but it means cutting back on contractor support at the meetings.

There is still some money for invitational travel. Kathy asked which Regions had sufficient conference facilities to host a conference. Holding TSP meetings at a Regional office would reduce the cost of the meetings. Regions 4, 5, 6, 8, 9, and 10 indicated that they could host a TSP meeting.

### **Fall Meeting**

The Federal Facilities Forum is responsible for selecting a location for the Fall 2000 TSP meeting. Currently the Forum is considering Charleston, South Carolina, and San Diego, California, in conjunction with local Navy facilities. There was some discussion by the Ground Water Forum about piggy backing with the Technology Information Exchange Conference being held in Augusta, Georgia in November, but the expressed preference of the Forum was Charleston.

NGWA likely will be sponsoring two concurrent 2-day training sessions at the fall meeting. One would be a beginning to intermediate level geostatistics course; the other would be an intermediate to advanced level geochemistry course. Attendance for the courses is not free but NGWA could reduce the fee to about one-third of its usual cost if a large group wanted to take the courses.

### **Request for ORD Support for Research Items**

Luanne Vanderpool (Region 5) brought up the list of research items that she generated last December that the Forum wanted ORD to consider supporting. The list has been passed on to the ORD regional contact. Steve Mangion (Region 1, Superfund Technical Liaison) suggested adding passive diffusion samplers to the list. More study is needed on usability and a good QAPP for using the samplers does not exist.

### **Other**

Steve White (USACE) mentioned that the Corps of Engineers has issued an engineering pamphlet, *Operation and Maintenance of Extraction and Injection Wells at HTRW Sites EP-1110-1-27* (January 27, 2000). It can be downloaded from <http://hq.environmental.usace.army.mil/library/guide/ep.html>

Linda Fieldler (TIO) announced that there is a new RCRA policy on what constitutes substantial treatment for re-injection of treated ground water. She also announced the first training workshop on *Engineered In Situ Bioremediation of Chlorinated Solvents* will be held at the International Environmental Technology Expo 2000, June 5-7 in Atlantic City, New Jersey. The workshop is free for federal employees.

Henry Schuver will supply an electronic copy of the Environmental Indicators Guidance to Diane Dopkin (EMS) for distribution to the Forum.

Bernie Zavala will supply an electronic copy of revised draft outline *Effect of Microscale vs. Macroscale Characterization on Risk Exposure Assessment* to Diane Dopkin for distribution to the Forum.

**Action Items**

Action Item	Action	Status as of Spring 2000 Meeting	Sponsor/Support
(1) <i>ORD research priorities</i>	The Forum will work on the priorities for each FY at the Spring TSP meeting. Pre-work by co-chairs will be coordinated with conference calls prior to meeting to optimize use of meeting time.	Done. The Forum adopted a list of research priorities during the Spring meeting business session.	New volunteers are needed yearly—this could be you!
(2) <i>Ground-Water Sampling Guidelines Paper</i>	Prepare SOPs for sampling.	Final internal draft of SOPs will be ready on May 18, 2000. The workgroup will review the draft in June before it goes out to the Forum at the end of June.	<u>Bernie Zavala and Doug Yeskis/Kathy Davies, Ruth Izraeli, Dick Willey, Kevin Willis</u>
(3) <i>Action items list</i>	The Co-chairs will distribute an updated action item list before and after each TSP meeting	Done. Action items are distributed as part of meeting minutes.	<u>Curt Black and Kathy Davies</u>
(4) <i>Contaminated Aquatic Sediment Remedial Guidance Workgroup (CASRGW)</i>	A series of documents is anticipated Dave Drake will keep the Forum informed of progress and future activities of CASRGW, constituted to develop Superfund guidance addressing sediment sites.	Sediments 101 is expected Summer 2000.	<u>Dave Drake</u>
(5) <i>Ground Water/Surface Water Workshop</i>	Proceedings of the workshop documents will be posted on CLU-IN and distributed to workshop participants and Forum members.	Document will be in production with EMS starting in May 2000.	<u>René Fuentes and Dick Willey</u>
(6) <i>Uncertainties in Time Frames Issue Paper.</i>		Received modified outline from SPRD-Ada on April 25, 2000. Expect draft document to be ready in August 2000	<u>Ruth Izraeli/Kay Wischkaemper, Kathy Davies, Helen Dawson, Vince Malott, Dave Wilson, Luanne Vanderpool, and Kevin Willis</u>
(7) <i>Monitoring of Field Parameters Issue Paper</i>	SPRD-Ada is drafting a revised outline. The draft outline will be distributed to the Forum at the end of June 1999.	SPRD-Ada sent draft to the workgroup for comment on September 1. SPRD-Ada will produce a second draft to send to the whole forum.	<u>Bernie Zavala and Doug Yeskis/Mark Filippini</u>
(8) <i>Site Characterization for MNA of Chlorinated Solvents Issue Paper</i>		A detailed outline is being produced by the Forum. SPRD-Ada will complete it for review	<u>Bill Brandon/Herb Levine, Dave Kargbo, Dave Petrovsky, and Doug Yeskis</u>
(9) <i>OERR's Direct Push Technology Workgroup</i>	Originally, Rob Hitzig was writing guidance on expanding HRS scoring to allow for DPT data. Eric Koglin is seeking Forum input on an Air Force workplan.	Continuing. Have limited the workgroup to addressing ground-water sampling issues. Dave Nielsen was asked to address technical issues. States are being surveyed on the use of DPT. The workgroup will be moving forward later this winter. Zavala will keep the Forum informed.	<u>Bernie Zavala/Mark Filippini, Judy Canova</u>

<i>(10) Guidance on Long-Term Monitoring for MNA</i>	Herb Levine and Steve Mangion are writing this guidance document with support of co-authors from NERL-Las Vegas and SPRD-Ada.	Final internal draft to be completed by May 18. The document will be available for Forum review in June.	<u>Herb Levine/Steve Mangion, Jeff vanEe, Steve Acree</u>
<i>(18) Inactive "members"</i>	Regional members will contact inactive members in their region or contact co-chairs with names for removal	Continuing . Please call your co-chairs with updates.	
<i>(12) Marketing the Ground Water Forum</i>	Update the TSP brochure and pursue other avenues to market the Forum.	Continuing. Plan now to just type in the original TSP brochure. Then distribute for review. Ideas for updated graphics?	<u>Kevin Willis</u>
<i>(13) Strategy for Post Construction Completion Sites and O&amp;M</i>	Performance monitoring and optimization for GW networks temporally and spatially. Examine intrinsic conflict between optimization (low gradients) and demonstration of hydraulic control	May 15, 2000 meeting with Kathy Yager.	<u>Dave Wilson/René Fuentes, Kay Wischkaemper, and Kathy Davies, Judy Canova, Barb Vetort</u>
<i>(14) National tracking progress/effectiveness of RCRA corrective actions with hydraulic control</i>	Brief problem statement has been developed. Target morphed into review of 5-Year Review Guidance. Hope to add value to similar RCRA product, especially the concept of forming TEAMS with expertise to make "plume controlled" assessments		<u>René Fuentes/Curt Black</u>
<i>(15) Effect of microscale vs. macroscale characterization on risk exposure assessment</i>	Draft issue paper proposal on comparability of temporary sampling points for use in risk calculations	Now identifying issues. The scope was developed at the spring meeting.	Bernie Zavala, René Fuentes, Kathy Davie, Rich Freitas, Dick Willey, Mavis Kent
<i>(16) Issue of Indoor Air Quality and relation to underlying GW contamination</i>	To scope the issue of quantifying volatilization of VOCs from ground water to the vadose zone and indoor air and to assemble a workgroup.	There is interest in the project from OSW and the Forum. Helen Dawson distributed a draft issue paper outline at the spring meeting.	<u>Helen Dawson/Edgar Ethington, Ruth Izraeli, Randy Breeden</u>
<i>(17) Innovations in Site Characterization: Geophysical Investigations at Hazardous Waste Sites - EPA-542-R-99-xxx</i>			<u>Brian Lewis</u>
<i>(18) 1% Solubility Rule - App</i>	The Ground Water Forum will examine Rule Use and Usability	Develop 5 questions for feedback from regional forum members including the number of sites in each region.	Judy Canova, Kathy Davies , Dick Willey, Greg Lyssy, Helen Dawson, Rich Freitas
<i>(19) RCRA/CERCLA Handbook on Ground Water Monitoring and Site Characterization</i>		The chapters on sampling and site characterization are at a stage where they could benefit from Forum review	<u>Dean Maraldo/René Fuentes, Mark Filippini, Brian Lewis, Dave Wilson</u>
<i>(21)QA/QC Questions and Diffusion Samplers</i>		Dave Wilson is conducting an individual review and will report back	<u>Dave Wilson</u>

- |                                                                                                               |                                                          |                                                                                       |                                                                |
|---------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------------------------------------------|----------------------------------------------------------------|
| <i>(22) ITRC - Review of teaching Materials for Biodegradation Course</i>                                     | Concepts on Source Zone Biodegradation and OERR Training |                                                                                       | Randy Breeden                                                  |
| <i>(23) Suggested process to follow for introduction of new theories and scientific discussion within EPA</i> |                                                          | Strawman proposal will be put forth on June 1 conference call.                        |                                                                |
| <i>(24) Technical Review of the OSW-RCRA Corrective Action "NAPL" Website materials</i>                       |                                                          |                                                                                       | Helen Dawson                                                   |
| <i>(25) Geostatistics/Optimization</i>                                                                        |                                                          | Will describe Kathy Yager's scope and review on June 1 conference call.               | Dave Wilson, Rich Freitas, Kay Wischkaemper, Luanne Vanderpool |
| <i>(26) Handbook of RCRA Ground water Policy</i>                                                              |                                                          | Vince Malott and Greg Lyssy will examine the handbook and raise any issues they have. | <u>Vince Malott and Greg Lyssy</u>                             |

## FEDERAL FACILITIES FORUM

### Regional Round-Up

Federal Facilities Forum Co-Chair Meghan Cassidy (Region 1) welcomed the Forum members to the meeting. To open discussions, Forum members identified the issues of most concern in their regions and states:

#### Region 1 (reported by Meghan Cassidy):

- C Formerly used defense sites (FUDS) and related national policy under development
- C Site characterization and remediation optimization
- C Institutional controls (ICs) and related memoranda of agreement (MOAs)
- C Unexploded ordnance (UXO) and explosives in ground water, and alternative approaches for associated enforcement (particularly at the Massachusetts Military Reservation)

#### State of Massachusetts, Department of Environmental Protection (reported by Bob Campbell):

- C U.S. Air Force funding to support records of decision (RODs), and nearly-completed RODs for Hanscom AFB
- C Anticipated National Priorities List (NPL) delisting of the Fort Devens Sudbury Training Annex in Maynard, MA
- C Difficulty with the U.S. Navy in funding issues and willingness to progress in site cleanups
- C UXO problems at Nomans Land Island (a non-NPL site), and the U.S. Fish and Wildlife's reluctance to conduct additional site characterization at this site despite the State's request

#### Region 2 (reported by Bill Roach):

- C UXO issues at the island of Vieques (off Puerto Rico)
- C Initiation of an early property transfer process at Griffith AFB
- C UXO cleanup issues at sites with ongoing feasibility study work
- C Full-time equivalent (FTE) resources for Base Realignment and Closure (BRAC) sites

#### Region 3 (reported by Steve Hirsh):

- C Resources and work loads
- C Minimal progress in completing cleanups at federal facilities and the pressure to meet cleanup goals
- C Transfer of sites with UXO in residential areas
- C UXO site transfers and changing land use
- C Historic preservation and tribal burial issues at sites
- C U.S. Congressional legislation to allow funding from the Defense Environmental Restoration Account for production of drinking water from treatment facilities at Aberdeen Proving Ground, MD

#### State of Virginia, Department of Environmental Quality (reported by Bob Weld):

- C Current development of MOAs for IC monitoring at two military sites in the State of Virginia
- C Pending grant application with the U.S. EPA to conduct preliminary assessment/site inspections (PA/SIs) at FUDS

#### Region 4 (not reported)

#### Region 5 (reported by Gary Schafer):

- C Current dispute on the quality of ecological risk assessment, and potential dispute on grid spacing for UXO characterization and removal at the Savanna Army Depot, IL

- C Disagreement with the U.S. Air Force approach to monitoring optimization
- C Contamination from polychlorinated biphenyls (PCBs) in paint, and the associated inability to transfer properties with this problem
- C Pending legislation in the State of Illinois designating a separate landfill for waste from the U.S. Department of Defense (DOD) and requiring public meetings for any activity at hazardous waste sites
- C FTE resources for BRAC sites

Region 6 (reported by Chris Villarreal and Laura Stankosky):

- C Use of the Community Environmental Response Facilitation Act (CERFA) process at the Longhorn Army Ammunition Plant, TX (a non-BRAC site) for transfer of property from one federal agency to another
- C Perchlorate contamination and impacts of the San Gabriel Basin Water Quality Initiative
- C Conflicting intentions for the use of ground water at adjacent U.S. Air Force bases
- C Applicability of the CERCLA work load model provided by Renee Wynn (Federal Facility Restoration and Reuse Office [FFRRO]) for oversight of federal facilities
- C Ground-water contamination impacts on indoor air

Region 7 (reported by Scott Marquess):

- C FUDS policy and sites entering the FUDS Program
- C Cooperative agreements with states to conduct site assessments
- C Conducting PA/SIs on FUDS within regional federal facility groups
- C Monitored natural attenuation (MNA) for explosives in ground water
- C Installation of a permeable reactive barrier at a Region 7 site this summer

Region 8 (reported by Jim Kiefer):

- C FTE resources for BRAC sites
- C Complications of site cleanup following early transfer property at Tooele Army Depot, UT
- C Current efforts of the U.S. Department of Energy (DOE) and EPA to develop an agreement for EPA to serve as cleanup contractor at the Rocky Flats Plant in Colorado

Region 9 (reported by Glenn Kistner):

- C FTE resources for BRAC sites
- C Land use covenants for all IC decisions in the State of California
- C Dioxin formation from incinerators
- C UXO site cleanup standards under development in the State of California, and associated non-restricted use of properties
- C Current approach for federal facility site cleanup in the State of California, whereby the State is not signing federal facility agreements (FFAs)
- C PCB contamination at sites located in U.S. trust territories

Region 10 (reported by Harry Craig)

- C Current schedule for cleanup of tank waste at the DOE facility in Hanford, WA
- C Accomplishments set forth by the Fort Wainright, AK, ROD
- C Ongoing dispute regarding UXO removal versus remediation at the Umatilla Army Depot, OR
- C Ongoing dispute at Adak Naval Air Station, AK, regarding the adequacy of site characterization
- C Issues addressed by the Range Rule Workgroup, and developments at the recent UXO meeting in Dallas, TX
- C Repeated U.S. Army peer review at a single site
- C Recent improvements in geophysical work for UXO detection at the Umatilla Army Depot, OR

## **Participation Agreements**

Cassidy requested Forum members who have not already done so to complete and return to EMS, Inc. a completed Federal Facilities Forum participation agreement. All state representatives have submitted their agreements; however, only eight agreements have been submitted by regional members. The Forum's willingness to contribute to the efforts of FFRRO and other Agency program offices is required to demonstrate the continued need for program funding, in light of ongoing budgetary cutbacks within EPA. In addition, contributions made by the Forum are viewed favorably by the Federal Facility Leadership Council.

## **Forum Wrap-Up**

Forum Co-Chairs are examining various options available for the date and location of the next TSP meeting. Two-day training sessions on geochemistry and geostatistics, provided by the National Ground Water Association (NGWA), are anticipated during the next meeting. Although the attendance of state Forum representatives at the training will be funded by the NGWA, the availability of funding for EPA attendance is unclear. The planning of future TSP meetings also will need to reflect recent budgetary reductions in contractor support from the Technology Innovation Office.

## **ENGINEERING FORUM**

The Engineering Forum did not request minutes of their business sessions.