

HIGHLIGHTS OF THE TECHNICAL SUPPORT PROJECT MEETING

This *Highlights* newsletter is produced by EPA's Technical Support Project (TSP) to disseminate site characterization and cleanup information relevant to site managers at EPA and state agencies.

2009 marks the fifth consecutive year that the TSP co-located their meeting with the conference of the National Association of Remedial Project Managers (NARPM) in order to improve technical outreach. Together, members of the three forums of the TSP—the Engineering, Ground Water, and Federal Facilities Forums—helped to offer nine training and panel sessions at the NARPM conference. The presentations and handouts from these sessions (See Acknowledgements, page 4) are available for download at www.epanarpm.org/2009. The forums also held business sessions and field trips to discuss ongoing work and examine various technical issues. This newsletter summarizes these discussions.

Multi-Increment Sampling (MIS) Pilot Testing

EPA Region 3 is planning to conduct pilot tests at three federal facilities to compare the analytical results of soil samples collected by MIS, composite sampling, and discrete sampling. The effects of grinding and field homogenization of the samples on results also will be assessed. The first pilot test is scheduled to begin this fall at a former skeet range at Fort Eustis, Virginia. Soil samples from several decision units—established based on ecological receptors—will be analyzed for lead and polycyclic aromatic hydrocarbons. Subsequent pilots will include sampling and analysis for munitions and explosives of concern (MEC). For more information on the pilots, contact Josh Barber (Region 3).

State Munitions Response Forum

Doug Maddox (Federal Facilities Restoration and Reuse Office [FFRRO]) announced that the State Munitions Response Forum (formerly the Munitions Response Committee) has reformed and will be addressing issues impacting MEC response actions. Steve Hirsh (Region 3) is EPA's regional representative to the state-run forum, which also includes representatives from EPA

headquarters, a number of states, the Department of Defense, and other federal agencies.

Munitions and Explosives of Concern Hazard Assessment (MECHA)

The MECHA methodology is a tool to assist site managers and regulators in evaluating explosive safety hazards to people at munitions response sites. Doug Maddox (FFRRO) asked that RPMs contact him if they have problems using MECHA. He also mentioned that MECHA training is being developed. Any regions interested in hosting the training should contact Doug. At least 15-20 students are needed to bring the class to a region.

New Green Remediation Projects

Carlos Pachon (EPA Technology Innovation and Field Services Division [TIFSD]) invited the Green Remediation Subcommittee—made up of members from the three TSP Forums, and others—to assist Headquarters in implementing several new green remediation projects. The first project involves developing a method for analyzing the environmental footprints of various remedial technologies. The second involves identifying points of contacts in each region who can assist



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Green Remediation Webinars

This fall, on October 8, November 12, and December 15, the Green Remediation Subcommittee plans to continue its series of “Webinars” on green remediation topics, based on the training course offered at the 2009 NARPM conference. Stay tuned to TechDirect and CLU-IN (www.cluin.org) for details on these 2-hour classes as they become available.

Next Meeting

The next TSP meeting is tentatively scheduled for the week of November 16, 2009. Plans are to meet jointly with the State Coalition for the Remediation of Drycleaners to share technical information on cleanup of sites contaminated with chlorinated solvents.

RPMs in conducting these evaluations at their sites. Headquarters also is producing fact sheets on best management practices for making remediation technologies greener, and would like the subcommittee’s assistance in reviewing them. Fact sheets ready for review address the topics of bioremediation and site investigation. Others are being drafted. The first completed fact sheet, Excavation and Surface Restoration, is available now at http://www.cluin.org/greenremediation/docs/GR_Quick_Ref_FS_exc_rest.pdf.

Vapor Intrusion (VI) Update

David Bartenfelder (Office of Superfund Remediation and Technology Innovation [OSRTI]) provided an update of VI activities at Headquarters. Dave noted that EPA’s 2002 *Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils* will not be finalized. Instead, the *VI Roadmap*, which is in development, will become a functional guidance document that replaces the draft 2002 guidance. It will restate the relevant parts of the 2002 guidance, while updating others. The roadmap will cover hazard identification, vapor source screening, exposure assessment, and risk decision making.

The *VI Frequently Asked Questions* is in the early stages of the review process. The 55 questions fall into seven categories: general information, site assessment, sampling and analytical considerations, risk assessment and toxicology, mitigation, post-construction management, and community involvement and outreach. A full regional review is planned for later this summer.

In addition, the following draft documents are in peer review:

- *Indoor Air Background Levels of Contaminant Vapors*
- *U.S. EPA’s Vapor Intrusion Database: Preliminary Evaluation of Attenuation Factors*
- *Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils*

There are two VI workgroups open to participation by EPA regional and Headquarters staff: the Vapor Intrusion Forum, which addresses technical issues; and the Vapor Intrusion Enforcement Workgroup. Contact Dave Bartenfelder for more information on the VI Forum and James Miles (Office of Enforcement and Compliance Assistance) regarding the VI Enforcement Workgroup.

FFRRO Update

John Reeder (Director, FFRRO) announced that his office has set a goal of 30 construction completions from 2010 through 2012, a sharp increase from previous years. The number of sites achieving site-wide ready for anticipated reuse also will increase. John also discussed the joint FFRRO/OSRTI memorandum on OSWER Directive 9283 1-33 (released June 26 after the meeting and available at http://www.epa.gov/oerrpage/superfund/health/conmedia/gwdocs/rem_sel.htm), which summarizes key CERCLA policies for groundwater restoration. The purpose of the memorandum is to assist the Regions in making groundwater restoration decisions pursuant to CERCLA and the National Contingency Plan. In addition, John said he was recently informed that federal agencies are inconsistent in their use of the Uniform Federal Policy (UFP) for Quality Assurance Project Plans and suggested that RPMs report such inconsistencies to Kevin Oates (FFRRO).

Hydrogeology of Igneous and Metamorphic Rocks in a Piedmont Setting—Water Supply and Contaminant Migration

Tom Crawford and Dr. Randy Kath of the University of West Georgia and Ben Bentkowski (Region 4) led members of the Ground Water and Engineering Forums to rock outcrops around Lawrenceville, Georgia, to examine features that can help predict good well performance. The outcrops exhibited secondary porosity structures such as joints and faults, contacts, compositional layering, and foliation. Water supply wells installed in the igneous and metamorphic rocks, which have little primary porosity, can have significantly different yields, depending on whether or not they intersect these secondary porosity features. At the final stop near a municipal well, representatives of the U.S. Geological Survey displayed or summarized the various geophysical techniques they used to characterize bedrock in the area and to better understand the interconnectivity of the water supply wells. These techniques included logging open coreholes with resistivity, natural gamma, temperature, fluid resistivity, 3-arm calipers, electromagnetic flowmeters, heat pulse meters, directional borehole

Dr. Kath discusses the secondary porosity evident in the weathered-rock contact between an amphibolite and the underlying hornblende gneiss layer.



radar surveys, and digital acoustic televiewers. Characterization activities also included aquifer tests and comparing the ages of chlorofluorocarbons in ground water and atmospheric samples.

Tour of the Savannah River Site (SRS)

The Federal Facilities Forum and Region 4 organized a tour of treatment facilities at the SRS, a Department of Energy facility in Aiken, South Carolina. SRS has produced nuclear materials for defense since 1951. Led by SRS personnel, who provided historical context and technology information, participants viewed a number of cleanup facilities and activities including:

- underground stripping system at the M Area settling basin
- decontamination and decommissioning of materials production at the M-area reactor
- use of BaroBalls™ for passive removal of vadose-zone vapors at a metals burning pit
- vitrification of radioactive wastes at the S-area defense waste processing facility
- J-area processing facility for salt waste, a radioactive byproduct of nuclear material production
- Z-area processing facility for saltstone, a treated waste consisting of a solid mixture of salt solution, slag, flyash, and cement

Participants also toured a nuclear reactors and other site operations.

Announcing New Technical Documents!

Look for these new and soon-to-be published technical documents written or reviewed by the TSP forums:

Indoor Air Mitigation Approaches

This “Engineering Issue,” published at the end of 2008, was co-authored by former Engineering Forum member Ray Cody (Region 1) and Ron Mosley (Office of Research and Development) and reviewed by the Engineering Forum. It presents the “state of the science” regarding management and treatment of vapor intrusion into building structures and is available at <http://www.epa.gov/nrmrl/pubs/600r08115/600r08115.pdf>.

Obtaining Assistance from the EPA Technical Support Centers

This fact sheet, prepared by Engineering Forum members, Mike Gill (Region 9 Superfund Technical Liaison) and Nate Nemani (Region 5), explains how to obtain site-specific technical assistance from experts at EPA’s three main Technical Support Centers—Engineering; Ground Water and Ecosystems Restoration;

and Site Characterization and Restoration. Available assistance includes review of site documents, evaluation of remedial technologies, interpretation of data and models, and help with treatability studies. The fact sheet is available at http://www.epa.gov/tio/tsp/download/tech_support_center_assist.pdf.

Assessment and Delineation of DNAPL at Hazardous Waste Sites

Kathy Davies (Region 3) co-wrote this fact sheet with Dr. Bernie Kueper (Queen’s University). It summarizes the many advances in characterization tools, site investigation approaches, and knowledge of dense non-aqueous phase liquid (DNAPL) source zone architecture that have been developed. The fact sheet has completed review and is expected to be available this summer.



Participants on the SRS field trip stop at the P-Area operable unit, which is scheduled for decommissioning and demolition.

DNAPL Remediation: Selected Projects Where Regulatory Closure Goals Have Been Achieved

The Ground Water Forum has reviewed the draft final version of this 53-page document, which highlight sites where DNAPL source reduction has been demonstrated as an aid in meeting regulatory cleanup goals. The document is undergoing final review at Headquarters, and is expected to be available this summer.

Practical Process for Conducting Five-Year Reviews at Ground Water Sites

Ground Water Forum members have drafted a technical companion document to the *Comprehensive Five-Year Review Guidance*. The draft document provides guidelines and strategies for addressing technical issues in conducting five-year reviews at sites with contaminated ground water. It also includes a suggested planning process to follow based on selected regional practices. The draft was recently distributed within EPA and to external reviewers for comment. Look for this companion document to be available for use in 2010.

Federal Facilities RPM Survey Being Developed

The Federal Facilities Forum is assisting the Federal Facilities Restoration and Reuse Office (FFRRO) with designing a survey of federal facilities RPMs. The survey will seek information on workload, resource needs, informal dispute resolution, the Military Munitions Response Program, and a number of other topics specific to work at federal facilities.

New Co-Chairs

Congratulations to Donna McCartney (Region 3) and Clint Sperry (Region 7) who were recently elected co-chairs of the Engineering and Federal Facilities Forums, respectively. They replace outgoing co-chairs Gary Miller (Region 6), Paul Ingrisano (Region 2), and Ginny Lombardo (Region 1) whose dedication and service to the forums is much appreciated.

Acknowledgements

The following members and friends of the TSP forums played an essential role in planning and delivering training sessions, panel sessions, and field trips during the 2009 NARPM conference. The TSP greatly appreciates their contributions. The TSP also gratefully acknowledges the assistance provided by Gary Turner and Linda Fiedler of OSRTI in coordinating the joint participation of NARPM and the TSP!

Federal Facilities Forum

Federal Facilities Panel Session: Paul Ingrisano (Region 2), Mary Cooke (FFRRO), Stuart Hunt (Federal Facilities Enforcement Office [FFEO]), David Kling (FFEO), Monica McEaddy (FFRRO), John Reeder (FFRRO), Daniel Rodriguez (Region 2)

In-Situ Bioremediation of Perchlorate in Groundwater: Erica Becvar (U.S. Air Force), Paul Hatzinger (Shaw Environmental Group, Inc.), Tom Krug (Geosyntec), Andrea Leeson (Strategic Environmental Research and Development Program), Hans Stroo (Strategic Environmental Research and Development Program), Ginny Lombardo (Region 1), Harry Craig (Region 10)

Introduction to the Visual Sample Plan (VSP) Software and the Unexploded Ordnance (UXO) Module: John Hathaway (Pacific Northwest National Laboratory), Barry Roberts (Sandia National Laboratory), Ginny Lombardo (Region 1), Harry Craig (Region 10)

Radiation Safety—Overview for Environmental Professionals: Lawson Bailey (Tetra Tech NUS Inc.), Guy Cooley (Tetra Tech NUS Inc.), Steve Tzhone (Region 6)

Superfund Radiation Policy and Case Studies Panel Session: Stuart Walker (OSRTI), Kathy Setian (Region 9), Betsy Donovan (Region 2), Constance Jones (Region 4), Andrew Bain (Region 9), Michele Dineyazhe (Region 9), Mark Purcell (Region 6), Steve Tzhone (Region 6)

Savannah River Site Field Trip: Jim Barksdale and Rob Pope (Region 4), Laurie Posey (Savannah River Site)

Engineering Forum and Federal Facilities Forum

Green Remediation: What's Next: Shiann-Jang Chern (Region 9), Gregory Fife (Region 6), Michael Gill (Region 9 Superfund Technical Liaison), Ginny Lombardo (Region 1), Penelope McDaniel (OSRTI), Matthew Monsees (Region 4), Carlos Pachon (OSRTI), William Rothenmeyer (Region 8), Julie Santiago-Ocasio (Region 4), Karen Scheuermann (Region 9), Clint Sperry (Region 7), Donna Seadler Webster (Region 4), Stephanie Vaughn (Region 2), Suzanne Wells (OSWER)



Members of the Engineering and Federal Facilities Forums help present the “Green Bean” award to Karen Scheuermann (Region 9) for the best presentation at the Green Remediation Training.

Ground Water Forum and Engineering Forum

Practical Process for Conducting Five-Year Reviews at Ground Water Sites: Robert Alvey (Region 2), Michael Bailey (U.S. Army Corps of Engineers), Katrina Coltrain (Region 6), Mark Dannenberg (Region 2), René Fuentes (Region 10), Katherine Garufi (OSRTI), Marcia Knadle (Region 10), Vince Malott (Region 6), Barbara Vetort-Tiffany (Michigan DEQ), Don Williams (Region 6)

DNAPL Source Treatment Zone: Matthew Charsky (OSRTI), Jim Cummings (OSRTI), Kathy Davies (Region 3), Eva Davis (ORD- Ada), Ron Falta (Clemson University), Jeff Field (Region 7), Brian Looney (U.S. Department of Energy), Kira Lynch (Region 10), Charles Newell (Groundwater Services, Inc.), Kurt Pennell (Tufts University)

Containment Remedies Information Session: Eva Davis (Office of Research and Development [ORD], Randall Ross (ORD), Ravi Sanga (Region 10), Terry Burton (Region 6 Superfund Technical Liaison, Steven Chang (OSRTI), Michael B. Davis (Region 7), René Fuentes (Region 10), Mike Gill (Region 9 Superfund Technical Liaison), Kira Lynch (Region 10), Steve Mangion (Region 1 Superfund Technical Liaison), Donna McCartney (Region 3), Kevin Willis (Region 2)

Ground Water Forum

Applications of Advanced Geophysical Techniques for Superfund and RCRA Site Investigations: Robert Alvey (Region 2), Frederick Stumm (U.S. Geological Survey), John Williams (U.S. Geological Survey)

Hydrogeology of Igneous and Metamorphic Rocks Field Trip: Ben Bentkowski (Region 4), Kay Wischkaemper (Region 4), Tom Crawford and Randy Kath (University of West Georgia), Lester Williams, Melinda Chapman, and Michael Peck (USGS)

Technical Support Project Regional Contacts

	GROUND WATER FORUM	FEDERAL FACILITIES FORUM	ENGINEERING FORUM
REGION 1	Bill Brandon Yoon-Jean Choi	Carol Keating Ginny Lombardo Christine Williams	Jim Brown
REGION 2	Robert Alvey* Richard Krauser Michael Scorca Kevin Willis	Paul Ingrisano Daniel Rodriguez	Stephanie Vaughn*
REGION 3	Kathy Davies Joel Hennessy William McKenty	Joshua Barber Steve Hirsh Frank Vavra	Kevin Bilash Fred MacMillan Donna McCartney* Andrew Palestini Hilary Thornton*
REGION 4	Ben Bentkowski Dave Jenkins Bill O'Steen Kay Wischkaemper*	Jim Barksdale	Jon Bornholm Leo Romanowski Julie Santiago-Ocasio
REGION 5	Gwen Massenburg Dave Petrovski Luanne Vanderpool	Timothy Fischer	Nate Nemani Bernard Schorle David Seely
REGION 6	Dave Abshire Greg Lyssy Vince Malott	Richard Mayer Stephen Tzhone*	Terry Burton Raji Josiam Gary Miller
REGION 7	Dave Drake Lisa Gotto Jeff Johnson Dan Nicoski Bill Pedicino Brian Zurbuchen	Clint Sperry*	Don Bahnke Michael B. Davis
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REGION 10	Curt Black René Fuentes Marcia Knadle Howard Orlean Jonathan Williams Bernie Zavala	Harry Craig	Kira Lynch

* Denotes Forum Co-Chair