Project Announcement

Committee on Future Options for Management in the Nation's Subsurface Remediation Effort

The Water Science and Technology Board (WSTB) of the National Research Council will undertake a study to improve hazardous waste management at sites where the presence of recalcitrant and/or poorly accessible contaminants is preventing site closure. Nationally, there are thousands of such sites that require long-term management, although the percentage that threatens public water supplies is unknown. A number of scientific and policy questions remain to be answered before site closure and long-term management of such sites can proceed in a way that minimizes risks in an environment of limited resources. The following questions will guide the WSTB committee:

Size of the Problem. At how many sites is residual contamination preventing site closure? At what percentage of these sites does residual contamination in groundwater threaten public water systems?

Current Capabilities to Remove Contamination. What is technically feasible in terms of removing a certain percentage of the total contaminant mass? What percent removal would be needed to reach unrestricted use or to be able to extract and treat groundwater for potable reuse? What should be the definition of "to the extent practicable" when discussing contaminant mass removal?

Correlating Source Removal with Risks. How can progress of source remediation be measured to best correlate with site-specific risks? Recognizing the long term nature of many problems, what near-term endpoints for remediation might be established? Are there regulatory barriers that make it impossible to close sites even when the site-specific risk is negligible and can they be overcome?

The Future of Treatment Technologies. The intractable nature of subsurface contamination suggests the need to discourage future contaminant releases, encourage the use of innovative and multiple technologies, modify remedies when new information becomes available, and clean up sites sustainably. What progress has been made in these areas and what additional research is needed?

Better Decision Making. Can adaptive site management lead to better decisions about how to spend limited resources while taking into consideration the concerns of stakeholders? Should life cycle assessment become a standard component of the decision process? How can a greater understanding of the potential to restore groundwater be communicated to the public?

The study is sponsored by the U.S. Army Environmental Command. Michael Kavanaugh of Malcolm Pirnie will chair the committee. The study directors are Laura Ehlers, WSTB senior staff officer, and Laura Helsabeck, WSTB staff officer. An expert committee of 15 members will meet six times over a 24-month period and produce a report in late 2011; the members of this multidisciplinary committee are:

Michael C. Kavanaugh (NAE), *Chair*, Malcolm Pirnie, Inc.
William A. Arnold, University of Minnesota
Kevin J. Boyle, Virginia Polytechnic Institute and State University
Barbara D. Beck, Gradient Corporation
Yu-Ping Chin, The Ohio State University
David E. Ellis, DuPont
Jerome B. Gilbert, NAE, J. Gilbert, Inc.
Marianne L. Horinko, The Horinko Group
Tissa H. Illangasekare, Colorado School of Mines
Paul C. Johnson, Arizona State University
Moshen Mehran, Rubicon Engineering Corporation
James W. Mercer, GeoTrans, Inc.
Kurt D. Pennel, Tufts University
Alan J. Rabideau, State University of New York at Buffalo
Allen M. Shapiro, U.S. Geological Survey