FEDERAL REMEDIATION TECHNOLOGIES ROUNDTABLE

REMEDIATION TECHNOLOGY ASSESSMENT REPORTS –

A TECHNOLOGY SELECTION AND DESIGN RESOURCE

What are Remediation Technology Assessment Reports?
Remediation technology assessment reports provide an analysis of remedial technologies based on their use at numerous hazardous waste cleanup sites. These reports contain information about the application of a specific technology, such as bioremediation, or about a common contaminant, such as arsenic, and provide summary findings based on practical field experience.

What information does the website contain? The website contains a compilation of multi-site remediation technology assessment reports to view or download that have been prepared by federal agencies and a state coalition, the Interstate Technology and Regulatory Council. The website identifies the report title, provides a brief description, and indicates the name of the agency that prepared the report, as well as the year published. As of September 2003, the website included 52 remediation technology assessment reports available at www.frtr.gov/multisitereports.htm.

Criteria Used in Identifying Remediation Assessment Reports:

- Addresses treatment or containment technologies
- Based on assessment of performance at multiple sites
- Published recently (within past 10 years)
- Provide guidelines for technology selection and design

Examples of Remediation Assessment Reports

Engineered Approaches to In Situ Bioremediation of Chlorinated Solvents: Fundamentals and Field Applications

Evaluation of Performance and Longevity at Permeable Reactive Barrier Sites

Engineering and Design: Soil Vapor Extraction and Bioventing

Application Guide for Bioslurping

Technical Protocol for Implementing Intrinsic Remediation with Long-Term Monitoring for Natural Attenuation of Fuel Contamination Dissolved in Groundwater

Technical/Regulatory Guidance for Surfactant/Cosolvent Flushing of DNAPL Source Zones

Why develop a website on Remediation Technology Assessment Reports? The Federal Remediation Technologies Roundtable added these reports to its website as part of an ongoing effort to provide cost and performance information on remediation technologies. Many of these remedial technologies have matured from an emerging developmental stage (bench- or pilot-scale) to larger-scale field demonstration and to more common use for full-scale cleanups. As the technology matures, valuable information on remedy selection, design, and implementation can be gained by evaluating the technologies that have been applied at multiple cleanup sites. Often, examining technology performance at a single site does not provide sufficient information to assess the potential use of the technology at other sites, due to differences in site conditions or project objectives. Remediation technology assessment reports, based on applications at multiple sites, provide a broader perspective about technology use that can help with selection and implementation of smarter solutions for site cleanup.

What types of information does a Remediation Assessment Report provide? The reports provide technology performance data for the

http://www.frtr.gov/multisitereports.htm

technology or contaminant of focus, and allow comparisons to be made across remediation sites. The reports vary in scope and may include a discussion of selection considerations, implementation considerations, or extend to design parameters for the technology. Reports providing only information on technology descriptions, literature surveys, application surveys, regulatory assessments, or presumptive remedies are not included on the web site.

Who would use these reports? The website on remediation assessment reports has been developed for use by a wide audience, including site managers, regulators, technology providers, and engineering consultants, as well as others with an interest in hazardous waste site investigation and cleanup.

Who has prepared these reports? All of the reports on the website were prepared by federal agencies or states, including:

- Environmental Protection Agency
- Department of Defense
- Army Corps of Engineers
- Navy
- Air Force
- Interstate Technology and Regulatory Council

State reports have been provided by the Interstate Technology and Regulatory Council (ITRC), a state-lead coalition of regulators, industry experts, citizen stakeholders, academia, and federal partners that work together to achieve regulatory acceptance of environmental technologies. Additional information about ITRC is available at <www.itrcweb.org>.

Technologies/contaminants covered in remediation technology assessment reports compilation:

- Air Sparging
- Arsenic
- Bioremediation
- Containment - Barrier Walls
- Containment - Caps
- Dense Non Aqueous Phase Liquids
- Flushing
- In Situ Chemical Oxidation
- Incineration (on-site)
- In-Well Air Stripping
- Monitored Natural Attenuation
- Multi-Phase Extraction
- Permeable Reactive Barriers
- Phytoremediation
- Soil Vapor Extraction (SVE)
- Soil Washing
- Solidification/Stabilization
- Thermal Desorption
- UST Sites/Fuel-Contaminated Sites

What is the FRTR? This web site on multi-site remediation technology assessment reports has been developed under the auspices of the Federal Remediation Technology Roundtable (FRTR). The FRTR works to promote interagency cooperation among federal agencies to advance the use of remediation technologies for cleaning up hazardous waste sites. Primary members of the FRTR include the U.S. Departments of Defense, Energy, and Interior, National Aeronautics and Space Administration, and the U.S. Environmental Protection Agency.

Since its inception more than ten years ago, collaborative efforts among member agencies have included preparing cost and performance remediation case study reports, developing on-line screening matrices for evaluating and selecting cleanup technologies, and initiating projects for improving existing technology operations. Under the cost and performance effort, the FRTR has published more than 340 case studies on remedial technology use at specific sites and more than 120 reports on site characterization and monitoring technologies.

How do I submit new reports or provide feedback? To provide feedback or to propose adding new reports to the compilation, please contact John Kingscott of EPA's Office of Superfund Remediation and Technology Innovation at (703) 603-7189 or by e-mail to kingscott.john@epa.gov.

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United States
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