

Research Council of Canada and the Quebec Ministry of the Environment. “The overall objective of this workshop was to give an overview of ecotoxicity testing applied to contaminated site management and to update the needs of management relative to contaminated sites.”

The editors have published 21 papers from this workshop. The papers are divided into three major groups (each group was supplied with an introduction by one of the editors):

- *Part I: Ecotoxicity Tools and Novel Approaches*
- *Part II: Risk Assessment Approaches for Contaminated Sites*
- *Part III: Case Studies Showing Applications of Toxicological and Ecotoxicological Risk Methods to Contaminated Sites and Remediation Technologies Management*

“Part I of this book emphasized the many laboratory and field ecotoxicity tools that are now available to study contaminated sites and the potential effects on receptors.”

“Part II of this book introduces the central issues and approaches in assessing risk at contaminated sites, from the use of generic soil guideline values to site-specific ecological risk assessment.”

“Part III has six case studies that show the potential use of the risk assessment process and how risk assessment leads to new options for site restoration.”

I fully agree with the comments made by the editors of the Wiley “Ecological and Environmental Toxicology Series” that sponsored this book: “This is a book that everyone involved in development of contaminated sites should read. The editors of this informative and comprehensive book have managed to bring within one cover, details of the scientific tools and approaches for contaminated site assessment, including a host of effects-based methodologies. This book has been written as a reference source. This book provides an overview of the diversity of interrelated issues that one needs to understand in order to address the concerns and issues pertaining to contaminated sites. Furthermore, the text is exemplified using case study examples to unravel the complexity and interwoven nature of the subject area.”

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doi: 10.1016/S0304-3894(02)00363-1

### **Abstracts of Remediation Case Studies—Volume 6**

Prepared by the member agencies of the Federal Remediation Technologies Roundtable, U.S. EPA, Washington, DC, July 2002, Free, 125 pp., 8.50 × 11 format, catalog number: EPA-542-R-95-001

This report is the sixth in a series of volumes on remediation technologies produced by U.S. governmental agencies that include: U.S. EPA, DOE, DOD, DOI, Departments of the Navy, Air Force and Army, and NASA. The case study reports and abstracts in this and previous volumes are organized by technology and cover a wide variety of in situ and ex situ treatment technologies as well as some containment remedies.

The case studies contain, where available, cost and performance data for full-scale remediation efforts as well as the results of large-scale demonstration programs. Contaminants addresses include: chlorinated solvents, petroleum hydrocarbons and benzene, toluene,

ethylbenzene and xylenes, polycyclic aromatic hydrocarbons, pesticides and herbicides, metals, and radioactive materials. A partial list of the projects is as follows:

1. In situ soil treatment: soil vapor extraction, photocatalysis, electrokinetic remediation.
2. Ex situ soil treatment: bioremediation, thermal desorption.
3. In situ groundwater treatment: DNAPLs, bioremediation, cosolvent flushing, permeable reactive barriers, phytoremediation.
4. Ex situ groundwater treatment: pump-and-treat soil vapor extraction, pump-and-treat in situ chemical oxidation and soil vapor extraction.
5. Ex situ debris–solid media treatment: reactor surface contaminant stabilization, lead TechXtract chemical decontamination, En-Vac robotic wall scabbler.
6. Containment: alternative landfill capping, contaminated soil pile polymer capping.

My copy of this book was accompanied by a CD-ROM which contained reports of 313 remediation technology case studies including the 29 reports in Volume 6 cited above. This volume contains an appendix summarizing these 313 studies with the following information given for each: site name, location; cleanup technology; media; contaminants; year operation began and year published.

When I received my copy of the book, the U.S. EPA also sent me two interesting flyers. The first entitled the Field Analytic Technologies Encyclopedia (FATE) is an on-line encyclopedia developed jointly by the U.S. EPA and the U.S. Army Corps of Engineers that provides information about the many tools that are now available to streamline site investigation and cleanup. FATE includes up-to-date information about technologies that can be used in the field to characterize contaminated soil and groundwater, monitor the progress of remedial efforts, and support decisions about site cleanups. It also has relevant and useful resource links and downloadable training modules. Its website is <http://www.epa.gov/tiofate/clu-in.org>.

A second inclusion with my book was a page discussing internet seminars: technical presentations delivered to your desktop. These seminars are live, 2-h events covering various technical topics related to hazardous waste characterization, monitoring, and remediation. Past seminars are archived and may be retrieved at U.S. EPA's website <http://clu-in.org/studio>. Archived topics include seminars on: field analytical technologies for VOCs in groundwater, enhanced in situ bioremediation of solvents in groundwater, in situ chemical oxidation, permeable reactive barriers, and phytotechnologies. The foregoing is only a partial list of the 12 seminars in EPA's database.

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doi: 10.1016/S0304-3894(02)00364-3

### **Ammonia Plant Safety & Related Facilities**

Richard B. Strait (Ed.), American Institute of Chemical Engineers, New York, NY, 2002, US\$ 250.00, 322 pp., 8 × 11 format, ISBN 0-8169-0878-8

This book contains 29 papers presented at the AIChE's 46th Annual Ammonia Safety Symposium which was held in Montreal, Que., Canada, in September 2001. The sympo-