- The US CDC centers for public health preparedness: building a nationwide exemplar network
- Responding to a biological incident
- Radiological countermeasures: candidates for inclusion in a state strategic stockpile
- State and local levels of preparedness for terrorist incidents: the current – and sobering – US picture
- Important steps in respiratory protection: development of a selection guide for environmental and public health employees
- A summary of a recent counter-terrorism exercise

I skipped about in the book reading papers of interest to me. Most were generally well written, while the odd one contained typos that crept into the proceedings inevitably. That minor criticism aside, Fingas and his staff are to be congratulated for the work that annually produces this conference and its most excellent proceedings.

G.F. Bennett*
Department of Chemical and Environmental Engineering
The University of Toledo, Mail Stop 305
Toledo, OH 43606-3390, USA

* Tel.: +1 419 531 1322; fax: +1 419 530 8086
E-mail address: gbennett@eng.utoledo.edu

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K.E. Roehl, T. Meggyes, F.-G. Simon, D.I. Stewart (Eds.), Long-Term Performance of Permeable Reactive Barriers, Elsevier, Amsterdam, 2005, 346 pp., Price: US$ 120.00, GBP 75, € 110, ISBN 0-444-51536-4.

This book is the seventh in the series "*Trace Metals and Other Contaminants in the Environment*" to be published by Elsevier. In it are described methods for the evaluation and enhancement of the long-term performance of permeable reactive barrier (PRB) systems especially those primarily designed to treat heavy metal-contaminated groundwater; the focus is on those waters contaminated with uranium. The work discussed in the book originated mainly from research performed in a collaborative project funded by the European Commission. This project, entitled "Long-Term Performance of Permeable Reactive Barriers Used for Remediation of Contaminated Groundwater," was operational between the years 2000 and 2003. Processes that impacted barrier performance and techniques to enhance the long-term efficiency of PRB systems were studied.

Major topics discussed in the book are as follows:

- Selection and characterisation of suitable reactive materials.
- Characterisation of the relevant contaminant attenuation processes.
- Developing new contaminant-binding chemical compounds ("ligands").
- Accelerated testing methods to assess the long-term performance of the attenuation mechanisms in PRBs.
- Evaluation of the influence of site characteristics on PRB performance.
- Monitoring of existing and new field installations.
- Coupling of electrokinetic techniques and PRB systems.
- Large-scale laboratory and field tests and their results.

The above topics are covered in 12 chapters whose titles are listed below:

1. Permeable reactive barriers.
2. Construction methods of permeable reactive barriers.
3. Materials and processes for uranium removal from contaminated water.
4. Behaviour of uranium in elemental iron and hydroxyapatite reactive barriers: column experiments.
5. Laboratory tests using natural groundwater.
6. On-site column experiments.
7. New barrier materials: the use of tailored ligand systems for the removal of metals from groundwater.
8. Electrokinetic techniques.
9. Mecsek Ore, Pecs, Hungary case study.
10. Experimental iron barrier in Pecs, Hungary.
11. Installation and operation of an adsorptive reactor and barrier (AR&B) system in Brunn am Gebirge, Austria.
12. Regulatory and economic aspects.

The final chapter ends with an "outlook" section that states the following: "PRB technology is a promising approach for the integrated management of polluted groundwater." And so it is, but not in all cases, as each potential application has to be evaluated individually for cost and feasibility.

The last chapter discusses regulatory and economic aspects. German regulations are covered in the regulatory sections, while the economic data appear to be North America generated. Cost data include PRB capital investment and operating and maintenance (both are given in $/m^3 for over 20 sites).

G.F. Bennett*
The University of Toledo
Department of Chemical and Environmental Engineering
Mail Stop 305, Toledo, OH 43606-3390, USA

* Tel.: +1 419 531 1322; fax: +1 419 530 8086
E-mail address: gbennett@eng.utoledo.edu

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