

**Stabilisation/Solidification Treatment and Remediation: Advances in S/S for Waste and Contaminated Land**, A. Al-Tabbaa, J.A. Stegemann (Eds.). A.A. Balkema Publishers/Taylor & Francis Group, London, UK (2005). 498 pp. (CD included), Price: US\$ 179.00, ISBN: 04-1537-460-X

This book contains 39 papers, summaries of four keynote lectures and seven State of Practice reports presented at the international conference held at the University of Cambridge, UK, in April 2005.

The scope of the technology is profiled in the book's preface as follows:

"Stabilisation/Solidification (S/S) has emerged as an efficient method for the treatment of certain hazardous wastes and contaminated ground and has become widely used. S/S technologies include a wide range of similar processes that involve mixing inorganic cementitious or pozzolanic binders, such as Portland cement, coal fly ash or blast furnace slag, into the waste or soil to transform it into a solid material of low leachability. The treated waste product encapsulates potentially hazardous contaminants, reducing contact between the waste and any potential leachant. In addition to physical encapsulation, various waste-binder interactions occur to chemically immobilise contaminants in the product, further reducing the potential for pollutant transfer into the environment."

The papers in the proceedings have been published under six major topic headings as follows:

- Binders and technologies selection: applicability of different types of binders and binder systems to wastes and contaminated soils.
- Testing, QA/QC and guidance documents: suitability of current test methods for evaluating performance of S/S systems, performance criteria, properties of correctly treated S/S materials and guidance for the use of S/S.
- Long-term performance and environmental impact: properties and degradation mechanisms of S/S materials in the long term, ageing of S/S materials and sustainability issues.

- Case studies: commercial in situ and ex situ applications of S/S to a wide range of waste sites and contaminated land.
- Stabilisation of uncontaminated materials: learning from stabilisation of uncontaminated materials and correlations with S/S of contaminated materials.
- Beyond conventional S/S: emerging S/S materials and techniques including biological stabilisation techniques.

The State of Practice reports that complete the book are listed below. These reports would constitute a book by themselves. One of the editors, Al-Tabbaa, was the author or co-author of all seven reports:

- Binders and technologies—basic principles
- Binders and technologies—research
- Binders and technologies—applications
- Testing and performance criteria
- Long-term performance and environmental impact
- Quality assurance and quality control
- Good practice guidance documents

The topics of the papers and the contaminants discussed are numerous. I was tempted to list the types of sites and the contaminants found therein, but decided not to because the scope of contaminants discussed is extensive, ranging from lead contamination at firing ranges to gas plant wastes.

Finally, I note the publisher has supplied a CD which is in a pocket inside the book. This CD contains the book's contents.

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23 November 2006

Available online 8 December 2006

doi: 10.1016/j.jhazmat.2006.11.064