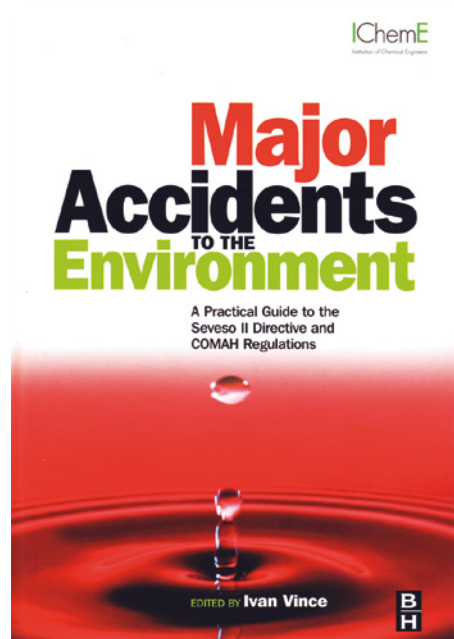


Major accidents to the environment



Ivan Vince; ISBN:
978-0-7506-8389-0;
Butterworth-Heinemann;
320pp; £63.99

PHOTOGRAPHS and video footage of the sea of red sludge engulfing the village of Kolontár in early October 2010 are already fading in our memories.

For the local residents and the surrounding ecosystem the impact will remain, possibly for many years. To what extent the scenario was predictable and which measures could and should have been taken to prevent or mitigate its effects will become clearer with the resulting investigations. What is already clear is that lessons could have been learned from similar events in the past.

The information and lessons in this book are a valuable resource for operators of major hazard establishments and their environmental and safety advisors when assessing the potential impact of their operations. Most process safety publications address scenarios of fire, explosion and toxic release. Releases to water and soil, although recognised by the Seveso II Directive as major accidents, are not generally well understood and predictively investigated. Ivan Vince's book fills this important gap.

Since the book's publication in 2008, major accidents to the environment (MATTEs) have continued to be reported. Worryingly, many releases of hazardous substances were due to corrosion of tanks and/or pipework.

In three sections plus extensive appendices, the book covers technical, legal and insurance aspects of MATTEs.

The treatment of technical aspects is general, which is useful for gaining an overview of a complex subject. Detailed engineering solutions are available in the literature references provided. The use of incident reports to illustrate specific cases makes the events both clear and memorable.

The section on legal aspects concentrates mainly on UK regulations and is therefore of limited interest and practical use to the non-UK reader. The sub-section covering transboundary pollution arising from MATTEs covers mainly the two UNECE conventions – to which the EU is a signatory. A small but significant omission is mention of the fact that the Seveso II Directive, too, covers transboundary major accidents.

While insurance is not directly preventative, it does enable remedial measures to be undertaken as soon as possible after a MATTE, preventing further contamination and reducing accumulation in the ecosystem. Therefore, operators need to understand how insurance policies function, what they cover and what they exclude.

Operators handling substances hazardous to the environment, or which are flammable and thus may lead to the release of contaminated fire-fighting water, should be aware of the environmental risks of their activities and take appropriate measures to prevent a MATTE. They should make emergency plans to respond to a release and mitigate the impact as far as possible. All of this requires a wide range of information. This book gives an insight into the diverse aspects of MATTEs. Operators of COMAH /Seveso II establishments and safety and environmental professionals should take account of the information and lessons presented in this publication. **tce**

Mark Hailwood, process safety expert, Karlsruhe, Germany

To order this title with a 15% discount, IChemE members should use the product code AKT3 at www.elsevierdirect.com

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CO₂ capture: technologies to reduce greenhouse gas emissions

Fabrice Lecomte, Paul Broutin, Etienne Lebas; ISBN: 9782710809487; Editions Technip; 204pp; €25.00

Aimed at a broad audience, CO₂ capture gives a general overview of the three main carbon capture and storage (CCS) pathways – post-combustion, oxy-combustion and pre-combustion. It looks at where, how and at what price the technology may be more widely implemented. As well as examining the technologies currently being trialled

and those still under development for each pathway, the authors look at the possible ways to address the technical and economic challenges currently associated with the technology.

Formulation and process development strategies for manufacturing biopharmaceuticals

Feroz Jameel (Editor), Susan Hershenson (Editor); ISBN: 978-0-470-11812-2; Wiley; 984pp; £117.00

This book is intended as a comprehensive

look at the growing area of producing and manufacturing biopharmaceuticals, right the way through from development to commercialisation. Each chapter is written by an expert in that area and authors hail from both industry and academia. The book is split into four main sections: *Pre-formulation and development of stability indicating assays*; *Development of a formulation for liquid dosage form*; *Development of formulation for lyophilised dosage form*; and *Manufacturing sciences*. It is aimed at those in the pharmaceutical and biotech industries and government and regulatory bodies.