ELSEVIER

Journal of Hazardous Materials 114 (2004) 247–249

Journal of Hazardous Materials

www.elsevier.com/locate/jhazmat

Book reviews

G.J. Hathaway, N.H. Proctor, Proctor and Hughes Chemical Hazards of the Workplace, 5th ed., Wiley, Hoboken, NJ, 2004, US$ 150.00, ISBN 0-471-26883-6.

Written for health professionals who need toxicological data on workplace hazardous chemicals, this volume updates the 600 entries in the previous edition and adds 25 new compound profiles.

The book begins with a short but excellent review of the process of setting exposure limits and the toxicological concepts governing that process.

The bulk of the book, not surprisingly, is devoted to the profile of chemicals. Information given for each chemical is as follows:

- Synonyms
- Physical form
- Uses
- Exposure
- Toxicology
- References

The toxicology discussion "...emphasizes human studies and cases rather than animal data wherever possible." The discussion includes toxicological concepts, clinical manifestations of exposure, the diagnosis of occupational disease and industrial aspects of chemical exposure.

G.F. Bennett

Available online 25 September 2004

doi:10.1016/j.jhazmat.2004.07.011

S.M. Victor, E.K. Mark (Eds.), Proceedings of the Seventh International In Situ and On-site Bioremediation Symposium, Battelle Memorial Institute, Columbus, OH, 2003,US$ 295.00, CD-ROM, ISBN 1-57477-139-6.

Battelle has taken a leadership role in sponsoring remediation conferences and subsequently publishing the proceedings in a timely fashion, with the timeliness enhanced by the use of a CD-ROM publication medium. The speed of publication, minimization of costs, compactness of information, and a searchable database have overcome my personal desire to utilize only print copies of information. The amount of material that can be supplied on a CD-ROM is staggering – this disc contains the contents of 306 separate papers presented at the seminar. Proceedings are also available on CD-ROM for the four previous conferences.The papers which are fully searchable are categorized as follows (with the number of papers in each category following the chapter title):

- Bioremediation of Halogenated Compounds (47)
- In Situ Substrate Injection (21)
- Bioremediation of Perchlorate and Other Energetic Compounds (14)
- Bioremediation of Creosote, Chlorophenols, and Pesticides (11)
- Remediation Approaches for Petroleum-Contaminated Soils and Groundwater (44)
- Phytoremediation (15)
- Fungal Technologies (9)
- Natural Attenuation, Long-Term Monitoring, and Site Closure (33)
- Environmental Forensics and Novel Methods in Support of Site Remediation (16)
- PCBs/Dioxins, EDCs, and PAHs (11)
- In Situ Biobarriers and Role of Electron Shuttles forBioremediation (15)
- Treatment of Metals and Mining Waste (15)
- Bioremediation of Landfills, Leachates, and Nitrate-Contaminated Groundwater (10)
- Remediation of Wetlands, Sediments, and Lagoons (14)
- Landfarming, Biopiles, Composting, and Bioreactors (17)
- Bioavailability Considerations and Contaminant TreatabilityStudies (13)

The only negative that I found in reviewing this information is a problem that I encounter commonly as an editor when papers are submitted by foreign professionals. That problem is the quality of writing in the English language. Though not severe, there are lapses in the writing which I suspect occurred because the papers were not edited for English. That

0304-3894/$ – see front matter © 2004 Elsevier B.V. All rights reserved.

comment aside, I commend Battelle for their information processing procedures.

Gary F. Bennett

Available online 27 September 2004

doi: 10.1016/j.jhazmat.2004.07.012

David Casavant, Emergency Preparedness Fox Facilities: A Guide to Safety Planning and Business Continuity, ABS Consulting, Government Institutes, Rockville, MD, 2003, Cost: $125.00 (US), 325 pp., 8 1/2 in. × 11 in. format, ISBN 0-86587-843-9.

This book is one of several emergency preparedness publications that have been spawned by the 9/11 disaster – but it goes beyond addressing terrorist-caused problems as "The author identifies and examines nineteen natural and non-natural emergencies – defined as anything that disrupts an organization – including power outages, chemical spills, bomb threats, riots or demonstrations, workplace violence, fire, drought, blizzards, or floods. He provides two case studies for each emergency event to illustrate important emergency preparedness concepts, and he provides detailed instructions on what to do in each emergency."

"This book references and explains all relevant OSHA requirements, including the completion os OSHA Forms 300, 301, and 300A after an accident. It includes a companion CD-ROM that contains the forms and templates that safety and risk professionals need to prepare for an emergency and to create a complete emergency preparedness plan. An annual emergency assessment form, emergency action plan template, post-event assessment form, correspondence log, OSHA recordkeeping form, and more are included."

The book has eight chapters as follows:

1. Understanding emergencies and disasters,
2. Natural events,
3. Non-natural events,
4. The basic stages of planning,
5. Creating the emergency action plan,
6. Practice makes perfect: training and drills,
7. Post-event restoration,
8. Guidelines for emergency mitigation.

There is an Appendix covering approximately 100 pages. The first section contains an example emergency action plan with page titles for all the important information the company should record. This plan is inclusive of virtually all potential disaster possibilities from chemical spills to tornadoes. Included also is a checklist for an annual audit.

Supplied, too, are OSHA forms for reporting work-related injuries and illnesses. Following this section is a list of helpful websites and a list of potentially helpful organizations.

Gary F. Bennett

Available online 25 September 2004

doi:10.1016/j.jhazmat.2004.07.018

I.J. Tinsley, Chemical Concepts in Pollutant Behavior, 2nd ed., Wiley, Hoboken, NJ, 2004, pages 407, US$89.95, ISBN 0-471-09525-7

Tinsley writes that he has developed his text over time for a course he has taught about 27 years. He notes that "the content of the course has changed dramatically over this time as the field matured, however, the objective to demonstrate chemical factors determining environmental behavior has remained the same."

The key element in this book is following a chemical's fate and transport after release into the environment. Where does a released chemical go, how fast does it travel, what are its sinks and ultimately its fate? Tinsley discusses these topics in a logical fashion. Each concern is reviewed and applicable equations developed so the students, especially those in chemistry and chemical engineering, should be able to follow the topics developed.

Chapter 2, entitled "Physical Chemical Parameters," has the following concepts developed: equilibrium vapor pressure, aqueous solubility, Henry's Law Constant, octanol–water partition coefficient, and acids and bases: dissociation constants.

Following this fundamental chapter are succeeding chapters dealing with the following topics:

– Sorption,
– Evaporation,
– Absorption and bioconcentration,
– Photochemical processes,
– Redox processes,
– Hydrolysis,
– Metabolic transformation,
– Synthesis.

The publisher notes that "while taking up traditional problems of interactions between water, soil, and air, the text also explores discussions of uptake by plants from soil and absorption by foliage from the air. Though the text remains focused on compound behavior, the author takes a holistic approach to the subject, emphasizing its interdisciplinary nature."

The book is well written, well referenced and the topics logically developed. Missing, however, in my opinion, are problems for student assignment.

Gary F. Bennett

Available online 27 September 2004

doi: 10.1016/j.jhazmat.2004.07.019