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Journal of Hazardous Materials 118 (2005) 267–270

Journal of Hazardous Materials

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Book reviews

Lawrence K. Wang, Yung-Tse Hung, Howard H. Lo, Constantine Yapijakis (Eds.), Handbook of Industrial and Hazardous Wastes Treatment, second ed., Marcel Dekker, New York, NY, 2004, ISBN 0-8247-4114-5, 1355 pp., US$ 265.00.

Review of a text this large is a daunting task, but in this case a pleasurable one. The editors have solicited (and in many cases participated in writing themselves) an impressive number of chapters describing a plethora of wastes and their treatment. By my count, there are 23 specific industrial waste streams discussed. Also reviewed are two non-specific streams, leachate and stormwater. Finally, there are general discussions of waste topics of a more universal nature. The various chapters were submitted by authors from 12 countries.

The coverage of the topics at hand and individual chapters varied in quantity, quality, and depth. One of the best chapters (in my estimation) was the one dealing with the "Treatment of Pharmaceutical Wastes." This chapter was comprehensive and well referenced. The most impressive aspect of this chapter (for me, at least) was the inclusion of numerous design examples (unfortunately this feature occurred in few other chapters in the text). The editors suggest the book be used as a college text book and their inclusion of 14 discussion topics and problems at the end of this chapter certainly enhances that feature. However, no other chapter that I found in my reading included this very beneficial section.

As noted, the editors have included chapters on a large number of waste streams such as the previously noted pharmaceutical waste. Also covered are the following waste sources: refinery, metal finishing, photographic processing, soap and detergent, textile, phosphate production, pulp and paper, dairy processing, seafood processing, meat, palm oil, olive oil, potato, pesticide, livestock, soft drink, bakery, explosives, foods, rubber, timber, and power. In addition to the above noted waste streams, there are chapters on two general wastes: stormwater and landfill leachate treatment. These chapters are generally descriptive with no attempt to discuss theory. Interspersed among the specific waste treatment chapters are more general topics such as:

- Implementation of industrial ecology for industrial hazardous waste management
- Bioassay of industrial and hazardous waste pollutants
- In-plant management and disposal of industrial hazardous substances
- Application of biotechnology for industrial waste treatment
- Site remediation and groundwater decontamination
- Pollution prevention
- On-site monitoring and analysis of industrial pollutants

Personally, I would have divided the book into two major sections with the above noted chapters coming first in section one and the industry-specific chapters following.

The editors have compiled a most comprehensive book. The topics covered omit few waste streams; each chapter is generally well referenced. Pollution prevention has been discussed in Chapter 21 as well as being referenced in several other waste-specific chapters. I only found discussion of costs in the chapter on seafood wastes. It would have been helpful to have that topic as well as pollution prevention discussed in all chapters.

Not surprisingly, for a work this large, I have some criticisms:

- The authors used a non-parallel structure in the titles of the various chapters; i.e., seafood processing wastewater treatment versus treatment of textile wastes;
- Numerous line diagrams were "fuzzy;"
- The index at the end of the book was not even close to being complete;
- The final chapter on food waste was much too short.

However, it is easy to criticize a book of this magnitude. The above criticisms are really minor. The book is excellent and should, I feel, be included in most libraries. Whether or not it will find adoption as a college text is problematical.

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8 October 2004
Available online 8 December 2004
doi: 10.1016/j.jhazmat.2004.10.011