

Standard Handbook of Hazardous Waste Treatment and Disposal, H.M. Freeman (Ed.), McGraw-Hill, New York, NY, 1989, ISBN 0-07-022042-5, 1120 pp., \$89.50.

“A monumental, definitive treatise on the topic” is about the best way I can describe this handbook – 1120 pages, 14 major sections, 74 total sections, and 103 contributors. Of those 103 contributors, I know many personally and more by reputation. The editor-in-chief, Harry M. Freeman, has assembled a thoroughly authoritative group of contributors, and the excellence of the book shows it. But, knowing the editor personally (he is a member of the editorial board of the *Journal of Hazardous Materials*), I would expect nothing less. The editor is a Research Program Manager with the U.S. Environmental Protection Agency (U.S. EPA), Risk Reduction Engineering Laboratory (formerly in the Hazardous Wastes Engineering Research Laboratory) in Cincinnati, Ohio, where he is responsible for various alternative technology research programs being supported by the U.S. EPA. The superb list of contributors from government, consulting and industry illustrates the value of those contacts.

As stated above, the book has 15 major chapters covering all aspects of hazardous waste disposal. These chapters are:

- (1) Laws and Regulations
- (2) Hazardous Waste Characteristics, Quantities and Treatment Capacities
- (3) Hazardous Waste Topics and Issues
- (4) Special Hazardous Wastes
- (5) Waste Minimization and Recycling
- (6) Hazardous Waste Recovery Processes
- (7) Physical and Chemical Treatment
- (8) Thermal Processes
- (9) Biological Processes
- (10) Land Storage and Disposal
- (11) Comprehensive Hazardous Waste Treatment Facilities
- (12) Remedial Action Techniques and Technology
- (13) Sampling and Analysis Techniques for Hazardous Wastes
- (14) Engineering Considerations

I wish I had had time to read every section completely, but I did not. I did, however, scan most segments of the book and read at least one section of every major chapter. Each chapter was well-written, comprehensive, generally consistent with each other chapter in its coverage. The book is a credit to both the editor and the publisher's professional editors, who undoubtedly provided assistance.

I taught a reading course on hazardous wastes this year, and this book was the major text for that course. The whole area of hazardous waste disposal, including the sins of the past (Chapter 12), is covered in the book. It will be a

mainstay of the literature of the hazardous waste treatment field for years to come.

GARY F. BENNETT

Chemistry for Protection of the Environment, Studies in Environmental Science, Vol. 34, Proceedings of the Sixth International Conference, Torino, Italy, September 1987, L. Pawlowski, E. Mentasti, W.J. Lacy and C. Sarzanini (Eds.), Elsevier, Amsterdam, 1988, ISBN 0-444-87130-6, 411 pp., Dfl 320 (\$168.50).

This international conference on protection of the environment was first held in 1967 in Poland to discuss the result of United States-Poland funded research projects. Subsequent conferences were held in 1979, 1981, 1982 and 1985.

This, the sixth conference, was held in Italy in 1987, and the Proceedings contain 85 papers submitted by authors from 15 different countries, with U.S. scientists providing almost half the papers. The conference evolved from a water pollution control focus in the early days into a multi-media focused conference in 1987; however, water-related concerns still dominate the proceedings, with three-quarters of the papers being water pollution-related. The rest of the papers were on solid/hazardous waste (15%) and air (10%) topics. Although not noted explicitly in the Proceedings, the very high quality of the research/writing presented leads me to believe that the papers were peer reviewed.

As a researcher with a rather broad interest in all environmental media (but often in rather specialized fields), I found several papers of real interest and read them with enthusiasm. These ranged from the removal of heavy metals from industrial wastewaters to solid waste and landfill-heavy metals leachate. The book contains new, relevant and interesting data for me, so I assume it would for others.

Unlike most conference Proceedings, the book was typeset, a process I prefer to photoreproduction. There is an author index but no subject index. One minor criticism is the quality of the editing. Many of the foreign (non-English speaking-authored) papers could have been edited better to improve the quality of the English.

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