

*Microbial Control of Pollution*, edited by J.C. Fry, G.M. Gadd, R.A. Herbert, C.W. Jones and I.A. Watson-Craik, Symposium 48, Society for General Microbiology, Cambridge University Press, Port Chester, NY, 1992, US\$ 110.00, 343 pp., ISBN 0-521-42078-4

This publication arose from a meeting of the Society for General Microbiology at the University of Cardiff in Wales in March 1992. The purpose of that meeting was to review the role which microorganisms play in controlling pollution. The broad structure of this symposium volume remains essentially similar to earlier ones. The initial chapters attempt to set the general scene as perceived by industrialists and academics. The remaining chapters cover detailed aspects of a range of special cases.

The overview of the book was found in the first chapter, entitled "Holistic Environmental Biotechnology". In that chapter, W. Verstraete and E. Top of the Laboratory of Microbial Ecology, University of Ghent (Belgium), "Center for Environmental Sanitation" write:

"The main areas in which environmental biotechnology is currently well established are discussed, i.e., potable water production, wastewater purification, solid waste treatment, soil and sediment clean-up, and air and off-gas treatment. Some new developments are discussed such as the introduction of organisms and genes in mixed cultures, the application of radical generating enzyme systems to degrade recalcitrant pollutants, and the use of bio-pesticides. The development of test-kits and test-systems, the production of stocks for back-up in case of major ecological disasters, and the marketing of biodegradable plastics are described as technical innovations in the field of biotechnology".

Given this overview, it is useful to list the several paper titles found in the text.

1. Holistic environmental biotechnology
2. Bioremediation of oil spills, with particular reference to the spill from the Exxon Valdez
3. Bacterial degradation of xenobiotics
4. Microbial control of heavy metal pollutants
5. Pollution control using microorganisms and magnetic separation
6. The degradation of cyanide and nitriles
7. Landfill co-disposal of wastewater and sludges
8. Aerobic and photosynthetic treatment of animal slurries
9. Anaerobic digestion of agricultural and food processing effluents
10. Nitrogen removal from water and waste
11. Land reclamation and restoration
12. Microbial degradation of synthetic polymer

Each of the several articles I read was very well researched and accompanied by an excellent and extensive bibliography.

GARY F. BENNETT

*Hazardous Materials and Hazardous Waste Management: A Technical Guide*, by G. Woodside, John Wiley and Sons, Inc., New York, NY, 1993, US\$ 49.50, 383 pp., ISBN 0-471-54676-3

The genesis of this book was a series of papers pertaining to hazardous waste written by the author and presented at conferences in 1989 and 1990. Because of the expressed interest of colleagues on the topic, the author surveyed faculty and co-workers about the type and complexity of material that would be useful to them.

This survey produced *Hazardous Materials and Hazardous Waste Management: A Technical Guide*. It covers aspects of how to manage hazardous materials and hazardous waste. Topics are covered discretely so a professor, using the book as a text, can pick and choose among the chapters.

The rationale for coupling the two topics: (1) hazardous waste and (2) hazardous materials, was to give students and professionals a sense of the interconnection between the regulations governing the two.

The book has 18 chapters under five major headings plus two appendices (the latter deal with non-governmental regulatory standards [ANSI, ASTM, NFPA, API and UL]). The four major sections by title are as follows:

1. Hazardous Materials and Hazardous Waste: an Overview
2. Workplace Management of Hazardous Materials and Hazardous Waste
3. The Technology of Managing Hazardous Materials and Hazardous Waste
4. Assessing and Managing Environmental Contamination
5. Hazard Assessment and Emergency Response

To cover all the topics listed above is a challenging task. In the main, the author has done well. There are, of course, topics that I found totally lacking in coverage and others covered too briefly – but as I have stated before, it is easy for a reviewer to criticize an author who has limited space. More importantly, what is given is generally well done.

If the author wants this book adopted as a text, however, she should have included some exercises/problems with it. Moreover, too many of the references are to US government reports (EPA, DOE, etc.) – they are often hard to obtain. The conventional literature (periodicals) is more accessible.

GARY F. BENNETT

*World-Wide Limits for Toxic and Hazardous Chemicals in Air, Water and Soil*, by Marshall Sittig, Noyes Data Corp., Park Ridge, NJ, 1994, US\$ 98.00, 792 pp., ISBN 0-8155-1344-5

In this book, the author has summarized the permissible limits for more than 1000 chemicals in workplace air, in ambient air, in water of various types and in soils. Included are regulatory limits (lists) from all pertinent (US) states and 25 foreign countries and organizations.

Each entry for the listed chemicals starts with alternative names for the chemical in question and these names are cross-indexed. Following the chemical name are numerical identifiers from Chemical Abstract Services (CAS numbers). They are followed by RTECS number (Registry of Toxic Effects of Chemical Safety and Health). The third identifying number, when available, is from the joint effort of the