

11. Federal Facility Compliance Act
12. Toxic Substances Control Act
13. Pesticides
14. Pollution Prevention Act
15. Occupational Safety and Health Act
16. Liabilities and Enforcement

To assist readers, a comprehensive table of contents and index are provided.

GARY F. BENNETT

Environmental Oxidants, by J.O. Nraigu and M.S. Simmons (Eds.), Wiley, New York, NY, \$100.00, 1994, 630 pp., ISBN: 0-471-57928-9

This book provides a broad overview of the environmental chemistry and toxicology of oxidants and their role in pollution/pollution control. The topics covered include the evolution, production, distribution and fate of oxidants in the atmosphere, hydrosphere and biosphere; the influence of human activities on oxidative processes in the atmosphere; oxidative stress at the cellular, systemic and ecosystem levels; and the use of oxidants in wastewater treatment processes.

The book has 20 separate chapters of approximately equal length (30 pp. each) covering (as noted above) a wide variety of topics.

I was particularly interested in the two chapters near the end since I am cognizant of the literature in those two areas:

- (1) Use of ozone and other strong oxidants for hazardous waste management
- (2) The selective catalytic reduction of NO_x emissions from utility boilers.

Both chapters were well-done, but due to space limitations shorter (and less complete) than I would have liked.

Other chapters discuss:

- (1) Photosynthetic oxygen evolution
- (2) Oxidants in the unpolluted marine atmosphere
- (3) Ozone formation in urban plumes
- (4) The impact of dynamics and transport on stratospheric ozone and other constituents
- (5) Health effects and toxicology of ozone and nitrogen dioxide
- (6) Some hematological effects of oxidants.

GARY F. BENNETT

Remediation of Hazardous Waste Contaminated Soils, by D.L. Wise and D.J. Trantolo (Eds.), Marcel Dekker, Inc. New York, NY, 1994, \$195.00, 952 pp., ISBN: 0-8247-9160-6

This book is the eighth volume of Marcel Dekker's Environmental Science and Pollution Control Series. It contains 36 diverse chapters written by over 70 contributors on a wide variety of timely remediation topics.

The book has five major sections entitled:

- (1) Engineering issues in waste remediation
- (2) Specific case studies in hydrocarbon remediation
- (3) Bioremediation strategies
- (4) Traditional soil-specific technologies
- (5) Developing methods

While I could quarrel with the placement of some papers under the above topics, I cannot object to the variety, quality and compilation of the papers. The editors have selected authors well and with the publisher's permission (I assume) given them enough space to cover these topics well (hence producing a very long book). Too often, I feel, contributors are given page limits too small to allow them to do justice to their topic; such is not the case here.

The topics span a wide (interesting) range starting with a chapter entitled "Ethical Responsibilities of Environmental Engineers" and ending with "DCR (dispersing by chemical reaction) Technology in the Field of Environmental Remediation." In between are numerous chapters on bioremediation, soil gas venting, soil washing and wet air oxidation. The strength of the book (as evidenced by the large number of chapters on the topic) is bioremediation. Several chapters contain useful cost data.

GARY F. BENNETT

Risk Management of Chemicals, by M.L. Richardson (Ed.), Royal Society of Chemistry, Cambridge, UK, 1992, 392 pp., ISBN: 0-85186-467-8

In 1992, the Royal Society of Chemistry had a conference entitled "Risk Management of Chemicals – Can Chemicals be Used Safely?" This book contains 23 papers presented at this conference.

The conference goal (and the aim of this book) was to highlight the essential role of chemistry and related scientific disciplines in the multidisciplinary approach to risk management as applied to chemicals and the underlying chemistry.

The papers are grouped under four headings:

- (1) Setting the scene
- (2) Managing risk in manufacture
- (3) Risk management from waste
- (4) Managing risk during chemical use

The papers are particularly wide-ranging. Most were written by UK personnel but there were papers from the United States, Republic of China, Bulgaria, the Netherlands, Switzerland, India, Sweden, and Germany.

The book concluded with an epilogue of the editors, a reading list and an index. The latter is surprising since most conference volume editors do not take time to prepare an index.

GARY F. BENNETT