

their book being adopted as a textbook if homework problems were supplied and the reference deficiency corrected.

All in all, a very good book and one I strongly recommend for industrial air pollution control engineers.

GARY F. BENNETT

*Hazardous and Industrial Wastes: Proceedings of the Twenty-Fifth Mid-Atlantic Industrial Waste Conference*, edited by A.P. Davies, Technomic Publishing, Lancaster, PA, 1993, 590 pages, price US\$ 85.00, ISBN 1-56676-067-4

The Mid-Atlantic Industrial Waste Conference is an annual gathering of consultants, industrial environmental managers, regulators and academicians. This year, the organizing committee focused on industrial waste treatment, site remediation and waste management. In addition, there were sessions on solidification, incineration, air quality, waste minimization and legal issues. The majority of the papers are technical in nature, divided between state-of-the-art and state-of-practice.

A total of 58 papers presented at this conference are published in these proceedings.

GARY F. BENNETT

*Book of Lists for Regulated Hazardous Substances*, Editorial Staff, Government Institutes, Rockwell, MD, 1993, 427 pages, price US\$ 67.00, ISBN 0-08658-337-2

From the Introduction:

“The objective of this reference book is to compile under a single cover those environmental, health, and safety lists that are often referenced in regulatory compliance and implementation literature. The major areas (laws) covered here are RCRA, CERCLA, SARA, CAA, CWA, SDWA, TSCA and OSHA.”

Given the mind-boggling number of chemicals regulated by the US EPA under a seemingly infinite number of laws, it is very helpful to have chemical lists from each law gathered together in one place. Government Institutes staff has done a real service by compiling the book.

GARY F. BENNETT

*Combustion Ash/Residue Management: An Engineering Perspective*, by D.H. Goodwin, Noyes Publications, Park Ridge, NJ, 1993, 85 pages, price US\$ 45.00, ISBN 0-8155-1328-3

Fly ash — a hazardous waste or not? Currently, the US EPA has not classified it as such, and the author of this book concurs that is a proper decision. And he is well qualified to do so, judging by the number of citations in the book to his own work on fly ash.

This book by the author's own admission is a defense of that "non-hazardous determination" policy. In it, he proves a technical assessment of combustion residues, environmentally benign characteristics and a blueprint to achieve ash utilization.

I believe Goodwin accomplishes his stated goals, and does it in six relatively short chapters entitled:

1. Fundamental concepts
2. Governmental regulations (both Federal and State)
3. Regulatory testing
4. Disposal consideration
5. Utilization methodology
6. Lessons and outlooks

GARY F. BENNETT

*Illustrated Handbook of Physical Chemical Properties and Environmental Fate of Organic Chemicals, Vol. III, Volatile Organic Chemicals*, by D. MacKay, W.Y. Shiu and K.C. Ma, Lewis Publishers, Boca Raton, FL, 1993, 916 pages, price US\$ 95.00, ISBN 0-87371-973-5

This series of handbooks brings together physical–chemical data for similarly structured groups of chemical substances which influence their fate in the multimedia environment of air, water, soils and sediments and their resident biota. To assist scientists and engineers in environmental assessments, this handbook contains compilations of physical–chemical property data for series of chemicals, such as (in this volume) volatile organic compounds (VOCs).

The unique aspect of this book is the use of QSPR (quantitative structure–property relationship) analyses. The ultimate goal of employing this technique is to deduce physical–chemical properties, environmental partitioning and reaction tendencies and even uptake and effect on biota.

For the series of chemicals presented, QSPR plots were prepared by plotting properties governing environmental (solubility, vapor pressure,  $K_{OW}$ , etc.) against the LeBas molar volume. Fugacity Level III distributions for four emission scenarios in a general environment are given for most compounds.

In addition to these processes, data given for each chemical in the following groups: hydrocarbons, ethers and halogenated hydrocarbons include: chemical name; CAS number; structure; molecular mass; molar volume; melting and boiling points; water solubility; octanol–water partition coefficient; vapor pressure; organic carbon–water partition coefficient; bioconcentration factor; Henry's law constant; dissociation constant; estimated half-lives in air, water, soil and sediments.

Multiple values are given for many of the properties, illustrating the variance of reported data in the literature. However, a recommendation of the best value is given. Complete reference citations are given for all data sources.