

- Identification numbers: CAS, RTECS, ICSC, UN, EC
- Synonyms
- Type of hazard: fire, explosion
- Types of exposures: skin, eyes, inhalation, ingestion
- Spillage disposal
- Packaging and labeling
- Storage
- Physical properties
- Dangers: physical, chemical, exposure limits, exposure risk
- Environment data

GARY F. BENNETT

*Treatment Technologies*, by US Environmental Protection Agency, Office of Solid Waste, republished by Government Institutes, Rockville, MD, 1990, ISBN 0-86587-220-1, 238 pp., \$ 59.00.

This background document on treatment technologies was issued by the US EPA in 1990, and republished in August by Government Institutes. Why, I do not understand?

Government Institutes states that they 'determined that it [the US EPA report] contained information of interest to the regulated community outside of [the US] EPA'. Of interest it may be, of applicability the technologies are, but of discussion in depth, it is not.

In 238 double-spaced typewritten pages, 26 technologies for the treatment of wastewater and hazardous wastes are covered, starting with Aerobic Biological Treatment and ending with Chemical Reduction. What is written is fine, but of so limited in nature as to be trivial—almost an encyclopedic capsule rather than a textbook treatise. I am of the opinion 99% of the potential readers are well beyond the discussion provided.

Consequently, I cannot recommend this book to the reader of the *Journal of Hazardous Materials* — a surprising statement from me and the first such negative comment on a Government Institutes book which generally range from excellent to superb.

GARY F. BENNETT

*Controlling Volatile Organic Compound Emissions From Industrial Wastewaters*, by J. Elliot and S. Watkins, Noyes Data Corp., Park Ridge, NJ, 1990, ISBN 0-8155-1261-9, 363 pp., \$ 48.00.

This book, the reproduction of a Radian Corporation Report to the US EPA, presents a description of sources of organic-containing wastewater, volatile organic compound (VOC) emission estimation procedures for treatment and collection system units and available VOC emission control strategies. In addition, secondary impacts and the control costs associated with stream stripping are presented.

Data are given that (a) allow estimation of emissions of VOCs from the collection and treatment of industrial wastewaters and (b) give best available control technology (BACT) and lowest achievable emission rate (LAER) for controlling emission of VOCs from industrial wastewaters.

The book begins with a description of the industries generating volatile organics: (a) organic chemicals, plastics and synthetic fibers manufacturing; (b) pesticides manufacturing; (c) pharmaceuticals manufacturing; (d) hazardous waste treatment, disposal and storage facilities; (e) pulp, paper and paper board; and (f) builders' paper and board mills industry.

Next the book outlines sources of emissions during wastewater collection and treatment: drains, manholes, junction boxes, lift stations, trenches, sumps, weirs, oil/water separators, equalization basins, clarifiers, biological treatment basins, treatment tanks and surface impoundments.

The real 'meat' of the book is found in the next three chapters (4-6) where the authors discuss (a) VOC emission control equipment; (b) environmental impact of steam stripping; and (c) cost analysis of steam stripping systems. Seven appendices give data and calculational procedures to back up the rest of the book. Of special note, for me is the steam stripping unit operation, a process not well covered in the literature.

GARY F. BENNETT

*Safe Laboratories: Principles and Practices for Design and Remodeling*, by P.C. Ashbrook and Malcolm M. Renfrew (Eds.), Lewis Publishers, Inc., Chelsea, MI, 1991, ISBN 0-87371-200-5, 166 pp., \$ 49.95 (Northern America) (\$ 59.95 outside).

This vital and often overlooked procedure for the design and reconstruction of laboratories is often a second thought, with little attention to economics or safety.

Two chemists and educators, both with flawless credentials and experience, assembled 22 co-authors to approach the problems. This reviewer is favorably impressed with the volume. The 18 chapters are grouped into five sections, with general classifications as Different Perspectives on Design of Safe Laboratories; Generic Issues Affecting Design of Safe Laboratories; Ventilation and Fume Hoods, Putting Principles into Practice; and Working Together to De-