

flushing and bioremediation. Topics new to me included a discussion of brine- and sulfate-contaminated sites.

The book ends with four appendices: (1) Environmental Regulations, (2) Sensitive Habitats, (3) Major U.S. Chemical Waste Exchanges and (4) Offshore Releases of Oil.

Gary F. Bennett

Mixed Waste: Proceedings of the Third Biennial Symposium, Baltimore, Maryland, Aug. 1995, ASME, A.A. Moghissi, B. Love and R.K. Blauvelt, (Ed.), Cognizant Communication Corporation, Elmsford, NY, 1995, \$75.00, 800 + pages, ISBN: 1-88-2345-04-5.

U.S. government regulations governing the handling and disposal of hazardous waste and radioactive waste emanate from very different laws (RCRA and AEA); both sets of regulations are at the least onerous to comply with. But when a waste contains both radioactive and hazardous waste compounds, the regulations become very complex. And so does treatment. For example, treatment technologies that are applicable to radioactive waste are not necessarily useful for chemical waste.

This volume, the third in a series, contains 74 peer-reviewed and edited papers presented in August 1995 at an ASME-sponsored conference are classified by topic as follows:

- Program Activities
- Characterization
- Regulatory Activities
- Emerging/Innovative Treatment Technologies
- Vitrification
- Solidification/Stabilization
- Wet Oxidation
- Environmental Restoration/Decontamination and Decommissioning
- Storage and Disposal/Waste Minimization
- Treatment/Treatment Systems

The editors are to be complimented on the quality of the proceedings. The utilization of desk top publishing methods plus, I am sure, a good job by the editors resulted in a timely, yet attractive proceedings volume.

Gary F. Bennett

Biotechnology for Waste and Wastewater Treatment, N.P. Cheremisinoff, Noyes Publishing, Park Ridge, NJ, 1997, \$64.00, 231 pages, ISBN: 1-8155-1409-3.

In this book, Cheremisinoff discusses, in general terms, the practices used, or considered, for biological treatment of wastewater and hazardous waste. The technologies described involve conventional treatment processes (and variations thereof). The author claims *recent* research is covered; that may have been true when he wrote the book, but there is only a single reference from 1994; the rest of the references were much earlier.

The book has the following five chapters:

- Biotechnology for industrial and municipal WASTES
- Biological degradation of hazardous wastes
- Biological treatment of industrial wastes: mutant bacteria
- Nitrification and denitrification in the activated sludge process
- In-situ bioreclamation of contaminated groundwater

Gary F. Bennett

Pollution Prevention Software Systems Handbook. M.F. Wood, J.A. King and N.P. Cheremisinoff, Noyes Publishing, Park Ridge, NJ, 1997, \$84.00, 521 pages. ISBN: 1-8155-1405-0.

The *Pollution Prevention Software Systems Handbook* is an up-to-date review of major software products that are available for addressing waste management and pollution prevention problems/opportunities. In recent years, there has been an explosion in software systems applicable to the environmental consulting and management fields. The chemical industry early on recognized the value of the computer in process design and control applications, and particularly in project management for large scale operations. Environmental engineers, consultants and environmental managers have only come lately to rely and, indeed, demand more sophisticated software systems to address waste management and large-scale environmental management and project issues.

The first two chapters introduce the topics and provide an overview of computer systems available. The 'meat' of the book is found in the next eight chapters that contain, between them, over 90 software system descriptions in the following chapter titles:

- Cost Estimating Software
- Remediation Systems
- Tracking Systems
- Financial Analysis systems
- Environmental Costing Impact Analysis Systems
- Waste Reduction Systems

Gary F. Bennett