

human factors, training, company standards and audits. A key element to any effective process safety management system is the investigation of incidents. The authors stress the importance of recording "near-misses" in order to learn valuable lessons so that major incidents are averted. Finally, the importance of sharing information among companies and colleagues is encouraged and some available on-going programs/seminars are highlighted (including organizing sponsors with addresses).

The information is well presented and should be a valuable reference book for anyone in management.

LESLIE E. LAHTI

Environmental Impact of Hazardous Waste Treatment Storage and Disposal Facilities, by R.N. Salcedo, F.L. Cross Jr. and R.L. Chrismon, Technomic Publishing Co., Lancaster, PA, 1989, ISBN 0-87762-627-8, 160 pp., \$49.00.

This is an extremely interesting book, although it deviates considerably from the title. Indeed, I found the parts of most interest were those not connected with environmental impact at all. One unusual section, on 55-gal drum reconditioning, came from the second of the three authors, whom I believe I have met in my capacity as "drum reconditioning" consultant to a very large U.S. 55-gal drum reconditioner. With my background in consulting, my interest in this poorly publicised field is not surprising.

The drum chapter is unusual because few authors write about the topic and fewer still are aware of the industry and its environmental problems. Although I am delighted that this subject has been covered, the author has missed almost all the important literature on drum site environmental impacts, including an excellent U.S. EPA report by Touhill, Schukrow & Associates. Neither have they discussed the numerous Superfund sites that former drum reconditioning facilities have spawned. Indeed, this chapter, unlike the others, has no references to the literature, or footnotes. It does, however, have an excellent checklist for site inspection, that I wish I had had access to when I was active as a drum industry consultant.

Other chapters of tangential interest (to this reviewer), include a discussion of incineration, one State's handling of the hazardous waste problems and waste management alternatives, including a discussion of recycling and waste exchanges.

The magnitude and sources of the country's hazardous waste problems are covered very well, followed by four chapters: understanding the public, the ABC's of EIS's (Environmental Impact Statement), environmental impact considerations, and liability for improper management of hazardous substances.

So indeed, environmental impact is discussed but at times, especially con-

cerning the air quality aspects of disposal facilities (and the monitoring thereof), but not as well as I would have liked. In my opinion, much more could have been written on the air quality aspects and the air quality monitoring TDSF's. One final note; the authors include a most useful glossary which allows the novice reader to comprehend the bewildering variety of acronyms being used in the environmental field today.

GARY F. BENNETT

Treatment of Hazardous Petrochemical and Petroleum Wastes: Current, New and Emerging Technologies, by D.J. Burton and K. Ravishankar, Noyes Data Corp., Park Ridge, NJ, 1989, ISBN 0-8155-1215-5, 270 pp., \$56.00.

The U.S. EPA has been directed by RCRA to consider banning land disposal of a large number of hazardous wastes. The process for enforcing this requirement of the law was to consider one-third of the potential candidates for banning in each successive year. Refinery sludges from API separators and air flotation systems are in the third round. It is anticipated that oil refineries will soon be required to find a new method of disposal for these wastes. This book is consequently very timely.

The book resulted from an API-sponsored study of the industry and its disposal practices and contains the following chapters:

Chapter 1: Brief overview of the wastes generated in the petroleum refining industry with emphasis on quantity generated, characteristics, current waste treatment methods, and problems of waste disposal.

Chapter 3: Assessment of new and emerging technologies and their application in the petroleum refining industry.

Chapter 4: Economic analysis of technologies under consideration.

Chapter 5: Specific conclusions.

GARY F. BENNETT

Reclamation and Reprocessing of Spent Solvents, by A.R. Tarrer, B.A. Donahue, S. Dharavaram and S.B. Joshi, Noyes Data Corp., Park Ridge, NJ, 1989, ISBN 0-8155-1222-8, 190 pp., \$42.00.

Given the public interest in recycling, I anticipate that the U.S. Congress will soon mandate industrial hazardous waste recycling when they re-authorize the Resource Conservation and Recovery Act; solvents are a prime (and logical) candidate for recycling.