

*Industrial and Hazardous Waste Treatment*, by N.L. Nemerow and A. Dasgupta, Van Nostrand Reinhold, ISBN 0-442-31934-7, 1991, 743 pp., US\$ 95.00

Nemerow is a well-known author, having published three texts and innumerable papers in the past. Indeed one chapter in the book lists 11 of his published technical papers. Clearly he is a long-standing contributor to the field of industrial pollution control.

The book is a massive tome on the subject. Its 32 chapters are divided into four major sections:

1. Basic knowledge and practice
2. Theories
3. Application
4. Major industrial wastes

It is only in the last section of the book that one finds a discussion of hazardous waste, a discussion that occupies only approximately 70 pages — too short from my perspective to be highlighted in the book's title.

The strength of the book as I view it is derived from Nemerow's extensive consulting experience that is reported as case histories resplendent with data, observations, problems observed and solved, results, etc. For this reason alone the book is worth purchasing by practicing engineers.

On the downside, its major weakness is its reprinting (I believe) of some of the authors' very old material. Clearly the authors have used old, if not ancient, references. This would be permissible (for not all old material is irrelevant) if more recent references and experiences also were given. But too often they were not.

For example, pretreatment as a US EPA program is not mentioned. The authors do discuss the impact of industrial waste on sewers and present a model (industrial) sewer ordinance but all the references in this section are from 1958. Indeed the word pretreatment is not even found in the book's index.

Trickling filters are briefly covered (in three pages in Chapter 13), but plastic media are never mentioned. Indeed all the references to this topic are 1937 to 1960. Along the same critical line, I note that coil (vacuum) filter presses are discussed but not the newer technology — belt filter presses.

In contrast, the section on hazardous waste (Chapter 22) is fairly up-to-date and generally inclusive of most areas (although too short to be exhaustive). I was surprised that waste oils are listed as hazardous waste — they are not by federal regulation but are in several states. And the land bans on certain categories of hazardous waste, promulgated in accordance with the requirements, are not discussed. Generally when the authors dealt with liquid hazardous wastes, they did a reasonably good job. I wish they had not deviated into a discussion of Superfund and bioremediation. These are topics that demand extensive coverage to be adequately discussed; space was not available and they were not pertinent to (current) hazardous waste disposal practice.

My final comment — much good material and most excellent real working examples, but a thorough update of references and modernization of contents is required.