It is this latter topic that will probably be of most interest to readers of this journal, as the problem of cleanup of uncontrolled hazardous waste sites and detoxification of hazardous wastes are addressed. Perhaps PCBs, kepone and dioxin could be successfully and economically detoxified by genetically manipulated organisms.

## GARY F. BENNETT

## Practical Waste Management, by J.R. Holmes (Ed.), John Wiley and Sons, New York, NY, 1983, 565 pages, \$70.95.

A few years ago, there would have been nothing in a text on solid waste management that would merit review in this journal, as normal (residential and commercial) waste disposal is not a topic ordinarily discussed here. But modern waste texts should, and this one does, deal with conveyance, treatment and disposal of hazardous wastes.

Four chapters of this United Kingdom, multi-authored book deal with hazardous waste and its disposal. The first of these chapters was written by A. Parker of Harwell Laboratory, where much of the U.K. hazardous materials and hazardous wastes research is being carried out. Parker discusses leachate production in general, but since U.K. landfills often (by design) contain hazardous waste (called co-disposal), he discusses the retention capacity of these sites for halogenated organics, cyanides, heavy metals, etc.

The second chapter in the text dealing with hazardous wastes (actually the tenth chapter in the book) is by Khan. Khan's message is very clear and well-telegraphed by the title of his chapter, "Co-disposal of Wastes a Positive View of Sanitary Landfill by a Pollution Control Official." In the middle of his chapter he writes:

"A waste disposal facility operated on a strictly scientific basis and taking domestic waste and a calculated percentage of industrial hazardous waste and non-hazardous waste in both liquid and dry solids can provide a realistic, local, safe waste disposal outlet for many industries in the region."

Seemingly out of place in this chapter are several pictures of hazardous waste disposal "gone wrong". Indeed that topic was the subject of Khan's 1981 U.S. paper at the Conference on the Management of Uncontrolled Waste Sites. Perhaps he should have been asked to author a second chapter on this topic.

The 13th chapter is on the "Carriage and Transport of Liquid Waste," by H.W. Luther of Waste Management Ltd. He comprehensively reviews the safe transport of liquid hazardous wastes including current legislation, vacuum tanker design, placarding and training of drivers.

The final chapter having to do with hazardous wastes is closely allied to the one previously discussed, as it is on "Liquid Disposal Techniques." Its author, J.L. Willets of Streetly Construction Materials Ltd., has reviewed biological and physical treatment, filtration, ventralization, encapsulation, incineration, recovery, landfill, sea and deepwell disposal.

Although the material on hazardous wastes comprised only 75 pages of this 565 page-book, it is a good addition. Not sufficient reason or length for those dealing in hazardous waste to buy the book — but sufficiently comprehensive for those dealing with normal refuse to be aware of the problems of, and some of the solutions to, hazardous waste generation, handling and disposal.

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