

“The purpose of this Handbook is to help the reader gain a working knowledge of this massive work management program. The book attempts to distill this bundle of interlocking regulations to make them easier to understand and apply. It also discusses liability and enforcement issues.”

The book contains the following 12 chapters and 4 appendices:

1. Overview of RCRA: the hazardous waste program
2. The Identification of Hazardous Waste
3. Notification and Confidentiality of Hazardous Waste Management Activities
4. Generators of Hazardous Waste
5. Transporters of Hazardous Wastes
6. The Regulation of Treatment: Storage and Disposal Facilities
7. Standards for Specific Types of Transport, Storage and Disposal Facilities
8. Permit Requirements Under RCRA
9. Authorization of States to Implement a RCRA Subtitle C Waste Management Program
10. Inspection, Liability and Enforcement
11. The Used Oil Recycle Act of 1980
12. Underground Storage Tanks

Appendices: The Law

1. Resource Conservation and Recovery Act
2. Solid Waste Disposal Act Amendment of 1980
3. Used Oil Recycling Act of 1980
4. Hazardous and Solid Waste Amendments of 1980

This is an excellent book. The magnitude and complexity of the RCRA regulations are tremendous. The authors have done a good job making them digestible. The book is also current — a difficult task to accomplish in this rapidly evolving regulatory era. To this end, the authors have added an additional section on recent regulations governing used oil (that places it partially under the hazardous waste regulation).

GARY F. BENNETT

*Controlling Volatile Emissions at Hazardous Waste Sites*, by J.R. Erhenfeld, J.H. Ong, W. Farino, P. Spawn, M. Jasinski, B. Murphy, D. Dixon and E. Rissmann, Noyes Publication, Park Ridge, NJ, 1986, ISBN-0-8155-1063-2, 412 pages.

The Noyes Publication Company has again found, and combined into one book, some very interesting and useful U.S. EPA reports; the three reports published in this volume were:

1. Evaluation of Emission Controls for Hazardous Waste Treatment and Storage and Disposal Facilities (1984)

2. Evaluating and Selection of Models for Estimating Air Emissions from Hazardous Waste Treatment and Disposal Facilities (1984)
3. Physical-Chemical Properties and Categorization of RCRA Waste According to Volatility (1985)

As the U.S. EPA continues with its development of rules and regulations designed to protect environmental quality around hazardous waste landfills, I feel that air quality concerns, which have lagged behind concerns for groundwater contamination will catch up. I think the number of U.S. EPA reports I have seen regarding emissions of volatile compounds from landfills, modelling of those emissions and proposed controls is an indication they are catching up quickly.

In the first part of the book, the authors evaluate control of volatile organics after first catching your attention with data that volatile emission from TSDFs (treatment storage and disposal facilities) range from 1.6 to 5 million metric tons a year in the United States. For each principal type of hazardous waste management facility, sources of atmospheric emissions are described and controls representing different approaches are examined and compared.

The difficult area (problem) of modelling emission of volatile materials from TSDFs was examined in the second report published. Mathematical modelling techniques were described, in order to allow one to predict emissions of volatile materials from landfills, land farms surface impoundments, storage tanks, wastewater treatment facilities, and drum handling and storage facilities. Of all these sources, I might note that landfills present the greatest challenge because of the variety of chemicals, difficulty in accurately analyzing the off-gases, lack of knowledge of what is in the landfill, variability of meteorology, difficulties in air dispersion modelling and the problem modelling vapor diffusion through the soil. The modelling task is not easy, but proof of success may be field validation of the models which the authors discuss to a limited degree.

The final section of the book is a compilation of data from wastes defined under the Resource Conservation and Recovery Act (RCRA). The following data are given for more than 300 different chemicals: (1) molecular weight, (2) boiling point, (3) vapor pressure, (4) solubility, (5) logarithm of the octanol/water partition coefficient, (6) Henry's Law constant and (7) relative soil volatility. Diffusion coefficients for air and water and water phase mass transfer coefficients were also given for RCRA wastes which were identified as being highly volatile.

GARY F. BENNETT

*Hazardous Chemicals Data Book*, by G. Weiss, Noyes Publications, Park Ridge, NJ, U.S.A., 2nd edn., 1986, ISBN 0-8155-1072-1, 1069 pages, \$98.00.

The second edition of this book, based on the U.S. Coast Guard's data sys-