Modeling Remedial Actions at Uncontrolled Hazardous Waste Sites, by S.H. Boutwell, S.M. Brown, B.R. Roberts and D.F. Atwood, Noyes Publications, Park Ridge, NJ, U.S.A., 1986, ISBN 0-8155-1084-5, 440 pages, \$48.00.

This book is the combination of four U.S. Environmental Protection Agency reports written to present guidance on the selection and use of models for evaluating the effectiveness of remedial action at uncontrolled hazardous waste sites. The four volumes were:

- Volume 1 Selection of Models for Remedial Action Assessment
- Volume 2 Simplified Methods for Subsurface and Waste Control Actions
- Volume 3 Numerical Modeling of Surface, Subsurface and Waste Control Actions
- Volume 4 Analytical and Numerical Models for the Evaluation of Remedial Actions in Surface Water

Model application guidance includes: (1) the general capabilities of different types of models; (2) factors to consider when linking different models to assess complicated sites and remedial action conditions, (3) the steps to follow in applying models for remedial action assessment, (4) user expertise and resource requirement, (5) alternative ways of analyzing remedial action performance, and (6) key assumptions and limitations affecting the use of specific models.

GARY F. BENNETT

RCRA Hazardous Wastes Handbook, by R.M. Hall, Jr., T. Watson, J.J. Davidson, D.R. Case and N.S. Bryson, Government Institutes, Inc., Rockville, MD, 6th edn., 1987, ISBN 0-86587-047-0, 552 pages, \$89.00.

The hazardous waste management program established by the U.S. Environmental Protection Agency (U.S. EPA) in accordance with requirements of the Resource Conservation and Recovery Act (RCRA) is the largest regulatory program ever undertaken by the agency. RCRA was passed in October 1976, but it was not until May 19, 1982, that the U.S. EPA promulgated regulations implementing the law; these regulations went into effect on November 19, 1981, carrying with these numerous important compliance requirements for firms generating, handling or disposing of hazardous wastes.

Since 1976, the U.S. Congress has amended the act: in 1981 and again in 1984. Meanwhile, the U.S. EPA has continued to add to its RCRA hazardous waste program implementing regulations. These additions have included hundreds of technical amendments covering well over a thousand pages of fine print in the Federal Register.

According to the authors:

"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)