

It is with the above goals that the following nine chapters were written:

1. Introduction
2. Who or what is DOT
3. The key to compliance
4. General hazard awareness
5. How to use the hazardous materials table
6. Understanding the classification terms
7. Determining the proper shipping name
8. Rules for packaging, marking, labeling and placarding
9. Understanding the DOT Emergency Response Guidebook

Approximately the last half of the book is devoted to appendices:

1. Hazard material table; 49 CFR Ch. 1 (10-1-92) Sec 172.101 (a list of chemicals and their related transportation requirements)
2. Subchapter B of 49 CFR (10-1-92); Hazardous Materials Transportation and Pipeline Safety.

GARY F. BENNETT

Mining and its Environmental Impact, by R.E. Hester and R.M. Harrison (Eds.), Royal Society of Chemistry, Letchworth, UK, 1994, 164 pp., ISBN: 0-85404-200-8

Mining and its Environmental Impact is the first monograph in a new series to be published by the Royal Society of Chemistry "in response to the rapid growth of interest in the environment and the acute need for concise, authoritative and up-to-date reviews of topical issues."

This volume contains nine articles written by 20 American and British experts on the issue of concern to the mining industry. By title, these chapters are:

1. Mining Non-ferrous Metals
2. The Environmental Impact of Gold Mining in the Brazilian Amazon
3. Revegetation of Metalliferous Wastes and Land After Metal Mining
4. Vegetative Remediation at Superfund Sites
5. Green Coal Mining
6. Mining Emissions from Coal Mining
7. Constructing Ecosystems and Determining Their Connectivity to the Larger Ecological Landscape
8. The Discharge of Waters from Active and Abandoned Mines
9. Environmental Best-Practice in Metals Production.

Of greatest interest to me was the chapter, "Vegetative Remediation at Superfund Sites" by authors mainly associated with the Great Plains-Rocky Mountain Hazardous Substance Research Center headquartered at Kansas State University. Their articles focussed mainly on mining-generated sites in the American western states of South Dakota and Kansas. The first site is a former gold mining area where arsenic and cadmium are the principle concerns, and the other is a site where lead and zinc sulfide ores were mined and smelted over a long period of time. The chemical and

microbiological aspects of metal contaminated soils are considered and a model of which forms the basis for practical methods of remediation is presented. Uniquely discussed is cleanup via vegetation remediation.

GARY F. BENNETT

Handbook of Carcinogen Testing, 2nd edn., by H.A. Milman and E.K. Weisburger (Eds.), Noyes Data Corp., Park Ridge, NJ, 1994, US\$ 98.00, 856 pp., ISBN: 0-8155-1356-9

This book offers a total view of the bioassay method from initial phases to its application by determining the carcinogenicity of a chemical. Emphasis was placed in the first volume on correlation between structure and carcinogenicity, the Ames/Salmonella assay, mouse lymphoma and cytogenetics test, and tests for DNA damage.

In the second volume, information on the above topics has been updated and along with more recent advances has led to a chapter on "Alternatives to Animal Testing." Other new chapters deal with the analyses and possible reaction of the test chemical, on the immunological effects of the test chemical, and on the health and safety aspects of the bioassay process.

In view of the extensive use made by regulatory agencies and others of bioassay data in estimating risk, several chapters on exposure assessment, comparative risk, risk priorities, and risk communication were added to the second edition along with the economic aspects of the results of bioassay.

The length of the book (856 pages) indicates its completeness. There are 44 chapters written by a total of 88 authors. Major sections are entitled:

1. Predicting Carcinogenicity of Chemicals from their structure
2. Epidemiological Investigation
3. In Vitro Tests
4. Limited Bioassays
5. Long-Term Animal Bioassay
6. Bioassays for Insoluble Materials
7. Assays With Potential Utility
8. Risk Estimation
9. Regulatory Implications
10. Industry Perspectives.

GARY F. BENNETT

Groundwater Contamination and Control, edited by Uri Zoller, Marcel Dekker, Inc., New York, NY, 1994, 695 pp., US \$195, ISBN 0-8247-8991-1

This book has been written to provide a broad perspective on the sources contamination and nature of activities that affect groundwater quality. Authors from around