

Book Reviews

What You Need to Know to Live with Chemicals, by R.I. and S.L. Freudenthal, Hill and Garnett Publ., Inc., P.O. Box 180, Greens Farms, CT 06436, ISBN 0-9623813-0-6, 192 pp, paperback, 1989, \$14.95.

Documentation that the public does not have, trust or respect for the chemical and related industries was recently given in *THE WALL STREET JOURNAL*, issues of 7 and 15 November 1989.

One aspect of such distrust, toxicity, is the focus of this volume, written by a highly respected toxicologist and his wife.

We question their laudable efforts to "teach chemistry" to uninformed persons with little or no chemical background, although we agree such enlightenment is highly desirable. Schools and colleges are the proper places for safety education.

The chapters "Risky Living", "Risk Assessment" and "Regulations and Regulators" leave the impression that the writers feel drastic revision of the present regulatory system, such as Food and Drug Administration and others which must be careful to balance many factors (including political), is in order. This reviewer is fully aware of the spotty inspection and enforcement in the fields of chemical health and safety.

This volume is almost entirely oriented towards toxicity. Very real hazards from flammability, explosibility, and runaway reactions are largely ignored. A more balanced "real-world" treatment would be useful and appreciated in the next edition.

Overall, this book is interesting, but hardly classic. The paperback cover results in most welcomed relief from high price.

HOWARD H. FAWCETT

Dioxins and Furans, by Todd Paddock, Academy of Natural Sciences, 19th and Parkway, Philadelphia, PA 19103, ISBN 0-910006-08-3, 101 pp., paperback, 1989, \$10 U.S. and Canada; \$15 International.

Although much has been studied and written about these compounds, many aspects are unsettling even today. The author, who is on the staff of the Academy, has compiled an excellent review of present knowledge. Included are such items as the formation of these compounds from combustion of PCBs and other substances, the burning of paper and certain plastics, and the accumulation in fish and aquatic birds. He notes that only 20 of the 210 chlorinated

dioxins and furans are considered “extremely toxic”, with 2,3,7,8-tetra-TCDD the most toxic. In humans, the considered half-life is about six years due to its fat solubility.

Virtually Safe Lifetime Daily Dose of 2,3,7,8-TCDD has been established at 6 femtograms/kg day by the U.S. EPA.

Especially valuable is the extensive reference source of this book; it occupies 20 pages.

Hopefully this book will inspire further constructive discussions on these compounds and related compounds.

The modest price of the book should generate wide readership.

HOWARD H. FAWCETT

Environmental Impacts of Hazardous Waste Treatment Storage and Disposal Facilities, by R.N. Salcedo, F.L. Cross Jr. and R. Chrismon, Technomic, Lancaster, PA, ISBN 87762-627-8, 160 pp, \$49.00.

This is an excellent book about the problems associated with siting hazardous waste facilities. The authors, starting with the observation that “there is a tremendous mismatch between the type of information generated by the Federal Resource Conservation and Recovery Act (RCRA) permitting process regarding proposed hazardous waste TSDf’s, and the type of information which citizens, local officials, and siting boards need to evaluate those facilities”, go on to build a case that the type of information most useful in siting situations is that more closely associated with Environmental Impact Statements.

The book contains a lot of information that would be useful to either the proponents of a site, or to the ‘not in my backyard’ parties (NIMBYs) who might also become involved in the decision process. The information includes not only the standard “what is a hazardous waste, and how do you treat it” type data, but also incorporates interesting information on environmental impact considerations, risk assessment and risk management, generator liability considerations, and “human factors: understanding the public”. Contributing to the book’s attractiveness is its being extremely well referenced (one of the chapters has 136 expanded references), and its being a manageable only 160 pages. Time spent reading this book would be time well spent for anyone involved in siting hazardous waste facilities.

HARRY M. FREEMAN