

erence work in their field. The chapters in this 10-book American *tour de force* have been prepared by specialists, mostly non-medical, having excellent scientific credentials and industrial experience. Despite the very substantial cost of the series, few companies having serious occupational health departments regard the investment as an unnecessary one. Occupational physicians, recognising that their work must be underpinned by an adequate grasp of scientific and engineering principles as well as medical knowledge, are increasingly turning to this clear and comprehensive source of up to date information.

Volume III Part B of the Patty series deals with the biological responses evoked in those who are exposed to harmful agents and stresses in the workplace. As well as toxic chemicals, the agents considered here cover a wide range which includes: electrostatic and magnetic fields; ionising, non-ionising (including radio frequency) and optical radiation; abnormalities of posture and motion induced by neglect of ergonomic principles; mechanical vibration; repetitive motion; and shift work. Much of the well illustrated material is as applicable to the office environment as to the factory.

This book also provides a clear summary of toxicological principles, which usefully complements the information on individual chemicals provided in Volume II. Major areas of toxicology are presented clearly and rigorously, and include testing for various forms of toxicity, including carcinogenic and reproductive effects. There is an excellent, balanced chapter on the much misunderstood topic of cancer risk assessment and an introduction to neurotoxicology. Helpful guidance on the assessment of toxicological data for the evaluation of chemical safety is provided, and there is a detailed chapter on the use of biological response indicators in the assessment of exposure, dosage, and burden.

Astute readers will have noticed that the new book reviewed here (Volume III Part B) forms part of the *third* edition of Patty, although books from the *fourth* edition may have been on their shelves for some time. The reason is that the individual books which comprise this large series are launched one at a time, as necessary. Those which make up Volumes I and II have now reached the fourth edition, while Volume III consists of two books each in their third editions. Volume I is devoted to general principles and consists of two books, Parts A and

B. Six books comprise Volume II, dealing with the toxicology of specific chemicals. The two books which make up Volume III focus on various aspects of the theory and rationale underlying industrial hygiene practice.

G DIGGLE

**Recognition of Health Hazards in Industry.** By WILLIAM A BURGESS. (Pp 538.) 1995. New York: John Wiley. ISBN 0471-577162.

Recognition of hazards is an essential part of occupational health practice. Occupational hygienists refer to recognition, evaluation, and control of hazards as key elements in their discipline. Occupational physicians and nurses use their clinical skills to evaluate fitness for work and make recommendations on prevention of ill health from workplace hazards. In these and other areas of occupational health, an understanding of workplace processes and materials used is essential for a proper evaluation of the possible risks to health. This book is therefore a useful resource in that it provides information on some common and interesting industrial processes. There are several sections on the use of metals—from the production of metals and metal product fabrication to metal finishing. There are chapters on the electronics industry, chemical processes, paint manufacture, plastics, textiles, and more.

The book is well illustrated with flow diagrams, diagrams showing sections of degreasing tanks, furnaces, reactors, and other machinery, and plenty of photographs including a molding line, machining tools, welding, and the use of diamond saws. The photographs are good examples of the type used in the slide exam for the associateship of the Faculty of Occupational Medicine (AFOM). This should be sufficient reason for AFOM candidates to consider obtaining the book. Some of the flow diagrams are just a little too complicated—for example, the petroleum refinery, the sulphuric acid plant, and lead smelting. However, these processes are by nature complicated, and oversimplification of the flow diagrams will not necessarily help the understanding of such processes.

The author also provides lists of chemicals encountered in various industrial activities. For rubber products alone, there are

several tables showing the range of chemicals used as vulcanising agents, accelerators, and antioxidants. In the section on etching in the microelectronics industry, there is a list of different solutions used for etching a variety of materials. Obviously the health and safety practitioner performing risk assessments will need further information about the properties, toxicology, and epidemiology of these chemicals, and the extent of the worker exposure. The book has considered this by providing some information on the health effects. There are also exposure profiles indicating typical exposures in various industrial activities. Examples are results of personal sampling for dust and fume in copper smelting, concentrations of particulates in forging, and exposure to fumes and gases in welding.

Those who want to know more about processes as varied as arc welding, production of steel, and non-destructive testing of metals can refer to this book. Those with limited opportunities to visit places such as coal mines can read about what goes on in a coal mine and what hazards exist. And those who enjoy looking up exotic sounding terms such as carbon nitriding, gas carburising, annealing, scarfing, quenching, green sand molding, and hot box system will find them all included.

This is a gem of a book, very useful as a reference or for the enthusiast keen on understanding industrial processes. A must for all occupational health and safety practitioners.

T C AW

**The Health and Safety Manager's Yearbook.** A P INFORMATION SERVICES (Price £42.50.) 1996. London: AP Information Services. ISBN 0 9606247 59 4.

It is not often one can review the 1996 edition of a book in 1995! This *Handbook* is a directory of useful addresses and contact points for products and services across the full range of health and safety work. Introductory essays on topics of current concern are provided.

A useful source book which should be available to all who work in the Health and Safety area.

R L MAYNARD