Book review

Encyclopaedia of Occupational Health and Safety. Vol 2, L-Z. 3rd (rev) ed. Edited by J Parmeggiani. (XVIII + 1361 pages; figures; tables; photographs.) Geneva: International Labour Office, 1983.

The third edition of the *Encyclopaedia of Occupational Health and Safety* is a comprehensive work that will undoubtedly be regarded as one of the standard texts in this field for years to come. The contributions of over 900 specialist authors have ensured a balanced appraisal of diverse topics and each are presented in a readable, informative, and easily assimilated manner.

The various aspects of occupational health receive exhaustive coverage. The list of occupational diseases of the Employment Injury Benefits Convention 1964 (International Labour Office Convention 121) is examined from an international point of view and the different national approaches to the application of this schedule are contrasted. The limitations of such a fixed system have resulted in some nations adopting a "mixed" system comprising at least the list of the Convention and complemented by a framework that permits the occupational origin of diseases not included in the list to be established by legal precedence based on medical evidence.

The trends in the development of occupational health are explored. One trend identified is the current shift in emphasis from occupational to occupation related disease as a result of the reduction in the incidence of serious occupational disease achieved by improved control of occupational hazards. Another is the importance increasingly being attached to individual sensitivity as exposure to occupational hazards is reduced. Finally, attention is drawn to the manner in which the biological effects of new substances are studied in order to estimate in advance the degree of potential health hazard and to implement in advance the control measures required to prevent these hazards.

In most texts on occupational health, considerations of occupational safety and accident prevention receive scant attention despite their relative importance in practice. This volume redresses this balance quite admirably. The contribution dealing with acceptable risks is informative and concise but in view of society's growing mistrust of high technology and a great concern for the preservation of the environment, perhaps a lengthier discussion is warranted.

Occupational disorders of organ function are explained clearly. The noxious substances of aetiological significance in diseases of the lung, liver, and nervous system and the various tests used to assist in differential diagnosis are fully documented. Occupational skin diseases are quite properly treated in depth since they account for the overwhelming majority of all reported occupational disease. The hazards associated with lead and mercury are examined and the health and safety measures used to control these are emphasised.

There is a thorough review of pesticides. Their formulation, toxicity, route of absorption, and uses are considered together with an extensive tabulation of technical products classified by degree of hazard. Many other articles in the encyclopaedia deal with specific chemical compounds in use as bactericides, insecticides, fungicides, and herbicides. Articles on petrochemicals and petroleum refineries, as well as the section dealing with the pharmaceutical industry, are attractively presented and will be of interest to the non-specialist.

Practitioners will find much of interest in the presentation on toxicokinetics. The reader will obtain valuable background knowledge about the absorption, distribution, and excretion of toxic substances. Occupational physicians will find the contribution on susceptibility and hypersensitivity particularly informative. The causal mechanisms of hypersensitivity are discussed as well as the usefulness of relevant tests

in the pre-employment examination. Occupational hygienists will be pleased with the systematic treatment afforded to their subject, in particular laboratory techniques and survey methods are explained in considerable detail.

The industrial and medical uses of ionising radiation are reviewed extensively. A succinct explanation is given of the interaction of ionising radiation with tissue and of the biological effects that give rise to radiation injury. A lucid account is given of the rationale underlying the philosophy of radiation protection. The various detectors and survey instruments that are used for monitoring are described in detail. Information on the regulations relating to the transport and storage of radioactive materials will be a valuable source of reference, and the management of radioactive waste is discussed at length. A balanced appraisal of the usefulness and limitations of the concept of the radiation equivalence of chemicals is welcome since some hazards presented by chemical pollution may be much greater than those from radiation. Ultraviolet, visible, and infrared radiation are given ample scope, and some thought provoking points are made with regard to the carcinogenic effects of ultraviolet radiation.

It is encouraging to see women's employment problems given some attention since they account for more than 30% of the workforce in developed countries. Similarly, the presentation of a logical framework for workers' education is to be applauded since this important topic is in need of further consideration.

Articles are classified in alphabetical order, and they contain cross reference to other articles. The bibliographies that accompany every article will provide useful leads for further literature review. There is a good subject index.

The editor has selected his contributors well, and the end result is a thorough and competent survey of occupational health and safety.

IAN MATTHEWS