

tion in animals and the correspondence to human carcinogenicity in a presentation entitled: "Overview, Fact, Myth and Speculation".

Indeed the Toxic Substance Control Act was discussed extensively in one of the papers in the information systems section on the data needed to predict chemical hazards. The author, M.C. Bracken of the Mitre Corporation in McLean, Va., stated: "The opportunity now exists for the first time, to establish an effective system for retrieval of toxicological and other scientific data which is responsive to the needs of those involved in the study and regulations of chemical substances. As defined in this paper, an effective system is one which provides a comprehensive data base and the capability to perform data correlations to assist in the assessment of health and environmental effects." The author then goes on to discuss a chemical substance information network, as the best method for providing large volumes of information. This network would have the following elements: (A) Core Components: (1) laboratory animal data base, (2) TSCA information, (3) chronic testing support system, (4) bibliography search, (5) toxicology data, (6) clinical structure/nomenclature system; (B) External Components: (1) PARCS, (2) NOHS, (3) STORET, (4) AEROS, (5) BLS, (6) other federal agencies, (7) product composition system.

One other paper in the information session entitled: "A Toxicity Estimation Media", by K. Enslein and P.N. Craig of Genesee Computer Inc., Rochester, N.Y., and Franklin Institute, Philadelphia, Pa., respectively, developed a statistical model to allow for estimation of acute toxicity for rat oral LD₅₀ based only on the chemical structure, partition coefficient and molecular weight of the compound. A final paper in this section by M.I. Spann et al. of the National Library of Medicine, Bethesda, Md., was on the use of computerized methods to predict metabolic pathway and metabolites.

As stated above with the implementation of TSCA and its requirements for tests of present and future chemicals to determine that human and environmental risk, this book respects a timely and useful contribution to the literature, especially to toxicologists who must design and interpret the tests. However, engineers and environmental scientists, who will have to interpret the significance of the data from tests, would be well advised to read several of these papers, in order to be able to converse with and understand their medically-oriented colleagues.

GARY F. BENNETT

Toxic Chemical and Explosives Facilities, by Ralph A. Scott, Jr., American Chemical Society, 1979, 352 pp., \$32.00.

This book is Serial 96 in the ACS Symposium Series, "founded in 1974 to provide a medium for publishing symposia quickly in book form". The organisers clearly tried hard to find a common theme for a disparate collection of subjects and one wonders about the wording of the call for papers. More than half the book is given over to munitions problems, the rest ranges to de-

sign of specialised chemical laboratories, with monitoring of anticholinesterase compounds dragged in, apparently, by the short hairs. To what readership is it addressed?

Under such a title, one might expect to find (but does not) reference to industrial chemicals, biochemicals, even radioactive materials; conversely, general design topics which might conceivably be addressed include aerodynamic containment, air filtration, the effluent problems in modern society. Indeed, the deficiency is brought out with unconscious humour in the preface, where consecutive sentences set out the need — and the performance: “To understand the threat to employees . . . , it is necessary to understand . . . the difficulties of identifying illnesses caused by exposure to toxic substances, and the ways of controlling and quantitatively measuring these hazards so that the risk to employees is minimised. The establishment of multilevel regulatory controls depending on the estimated degree of exposure risk and the amount of toxicological information available is presented.”Rhubarb.

This lack of focus is a pity, because the individual contributions are generally thoughtful and based on good practical experience and judgment. One notes that the “camera-ready form” was for most papers received several weeks after the symposium; this practice presumably reflects points made in discussion as well as accounting for the meticulous and over-detailed presentations.

An accepted function of symposia is bringing together practitioners to canvass individual responses to current perceptions and the domestic standards, programmes, or legislation, to which these give rise. Nevertheless, if a book is to be more than a record of such transitory discussions, it should seek to pull out and evaluate some of the underlying philosophy, assumptions, principles of more lasting value. Accordingly, the book would have benefitted even from an edited summary by chairman or rapporteur.

One need not be surprised at the omission. The range is daunting and one doubts if many individuals have enough detailed and up-to-date experience to evaluate the papers individually and evenly: otherwise there is a real danger of over-emphasising the familiar and ignoring the unfamiliar. Where they exist, the individual summaries are a help, but even so are uneven in length, while the treatment ranges from shallow moralising, through the pedestrian, to succinct, novel and interesting description.

Intelligent editing would have remedied such faults. (It would also have avoided the blow-by-blow commentary on a movie film of unsuppressed explosions in tanker systems: the mere reader is left to guess.)

Those with interests tackled by the more isolated papers (e.g. lightning hazards, toxicological testing, and laboratory design) would probably seek guidance in familiar tribal areas.

Explosives processors would find the volume more to their taste. Their major emphases stem from history and some nasty accidents — super-caution in the operation of plant; scrupulous testing of formulations both for inherent sensitivity and for the effects of adventitious impurities and materials in contact. Given the dramatic results, one can easily understand an attitude which clings

to the well-established (“boxwood mallet on York stone”) practice and advances made with the wariness of a cock pheasant in October. A primary requirement must be to avoid propagation to other explosive holdings. One thing seems certain — no-one is going to reduce current safety standards, so the aim must be more economic approaches and a smaller number of workpeople exposed to hazard. The authors of the munitions papers collectively give a good perspective of the developing US scene which will be of interest to those organisations with similar requirements and in many ways is a good primer.

At \$32.00, an expensive curate’s egg.

F. MORGAN

Hazardous and Toxic Effects of Industrial Chemicals, Sittig, Marshall, Noyes Data Corporation, Park Ridge, N. J. 07656, 1979, 460 pages, \$ 42.

The purpose of this book is to be a working guide to hazardous chemicals to give first warning signals to the industrial hygienist to allow him to assess the status of potentially dangerous substances. To accomplish the goal, 250 chemicals are listed alphabetically. For each (where available) the following information is given:

Description: derivative, chemical structure and systematic chemical name

Synonyms

Potential occupational exposures (i.e. industries in which used)

Permissible exposure times (threshold limit values)

Routes of entry (inhalation, skin contact, etc.)

Harmful effects (local, systemic, etc.)

Medical surveillance

Special tests (medical)

Personal protective methods

Bibliography (short list of references)

As intended, the book does provide a handy and concise compendium of industrial hygiene information. Just having all threshold limit values (TLV) for 250 chemicals in one guide is useful. To this, however, the author has added effects, medical surveillance, personnel protective methods, etc. However, two pages per chemical is not sufficient to discuss in depth a chemical’s health aspects, so the reader, after consulting this “first source” most likely will want to turn to the references which have been cited or one of the three major federal (US, EPA and NSOSH) reports used to compile the book.

Because Noyes uses advanced composition and production methods that enhance rapid publication of manuscripts, the material is thoroughly up-to-date with some 1978 reference citations; in this rapidly developing field, timeliness is of the essence.

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