*Toxicological Chemistry: A Guide to Toxic Substances*, by Stanley E. Manahan, Lewis Publishers, Chelsea, MI, 1988, 310 pp., ISBN No. 0-87371-149-1, $45.00

According to the authors, "this book was written to bridge the gap between toxicology and chemistry", and this it does very well. The book was designed for readers in a variety of disciplines and provides a basic introduction to toxicology, chemistry, organic chemistry and biochemistry, so that readers without substantial expertise in one or more of the areas can understand the book. As a chemical engineer, I needed this background material, or at least the material in the following four chapters:
Chapter 1 – Toxicology and Toxicological Chemistry,
Chapter 2 – Exposure and Effects of Toxic Substances,
Chapter 4 – Biochemical Action and Transformation of Toxics,
Chapter 5 – Toxic Elements.
Of less interest to me, because I have a strong background in Chemical Engineering and Biochemistry, was Chapter 2 dealing with the Fundamentals of Chemistry (and biochemistry). The seven introductory chapters utilize the first 116 pages of the text of the book.

Of less utility are the remaining nine chapters, which are organized primarily in the basic classes of inorganic and organic chemical substances:
- Organometallic and organic metaloids
- Toxic inorganic compounds
- Toxic organic compounds and hydrocarbons
- Oxygen-containing organic compounds
- Nitrogen-containing organic compounds
- Organohalide compounds
- Sulphur-containing organic compounds
- Phosphorus-containing organic compounds
- Toxic natural products

My major criticism of the material in these chapters is the lack of depth of the discussion. Approximately one page (and not more than two pages) is devoted to benzene, formaldehyde, PCBs and dioxin. In this limited space, the author attempts to cover structure, physical properties, origin, use and toxicology – almost an impossible task. But to cover each chemical in depth would have resulted in a handbook of immense size. Obviously, the author's goal has been to provide of a survey text for the neophyte. So in balance, although I would have liked more detail of the chemicals of interest to me, the author has done quite well, given the limitations he faced.

The text was written from the perspective of a teacher, emanating almost

certainly (I believe) from the author's course notes from an environmental class. The book would be an excellent text for such a course, though I would supplement it with exercises to make it more useful.

GARY F. BENNETT

*Emergency Planning for Industrial Hazards*, by H.B.F. Gow and R.W. Kay (Eds.), Elsevier Applied Science, London, UK, 1989, ISBN 1-85166-260-X, 387 pp., £60,00.

This book contains 36 papers presented at the European Conference on Emergency Planning for Industrial Hazards. Organized by the Commission of the European Communities, this conference was held in Varese, Italy, in November 1987.

This reviewer is deeply involved in Emergency Planning in the United States and is acutely aware of the requirements (and problems) resulting from EPCRA passed by Congress in 1986 (Emergency Planning and Community Right-to-Know Act) but blissfully ignorant of what is happening in Europe. This book rectified that situation.

The conference was really a response to the European Communities' Directive on Major Accident Hazards of certain industrial activities. The directive requires that on-site and off-site emergency arrangements should be made for certain potentially hazardous industrial activities. The directive, however, did not specify the way in which these objectives are to be achieved, and one aim of the conference was to discuss the approach adopted by the various national authorities and other organizations to satisfy the requirements of the Directive.

The conference (and the resulting proceedings) was arranged in six main sessions dealing with organizational aspects, design of plants, exercises and auditing, appropriate techniques, lessons learned from past incidents and provision of information for the public.

The first two major sections of the text are: (1) Organisations Implementing Emergency Planning and (2) On-site and Off-site Emergency Planning Design. The four papers in the first session and the eight in the second gave an excellent overview of the planning activities of the various member countries of the European Community. The paper by Genesco of France entitled "Emergency and Intervention Plans: The French Experience" is a perfect example of the type of papers in this section. Other papers discussed planning activities in Germany, the Netherlands, the United Kingdom and Italy. Several papers take a more restrictive role and discuss emergency plans at single-site, major complexes of chemical plants or even single plants.

The third major section of the Proceedings deals with Exercising and Auditing Emergency Plans. Six excellent papers are included here, and for me