mentary for mechanical engineers but not thorough enough for chemical engineers. Some of the material in Chapter 5 is too elementary for nuclear and chemical engineers, but not detailed enough for mechanical engineers. The reviews of probability in Chapter 2 and system reliability in Chapter 3 are well done and form the basis for meeting the author's intent.

Chapter 5 classifies accidents by types, discusses some historical examples of each type and suggests means of calculating accident consequences. While the level of treatment may not be appropriate for the various audiences, the author has selected those types that might cause harm to the public and thus provides the basis of a good introductory text. Reference should be made to some of the modelling work done in recent years in dispersion of toxic gases and radioactivity. The subject matter of Chapter 6 (probabilistic risk assessment) could be expanded with examples drawn from the different disciplines.

On balance, the author has achieved a good starting point. Since the book is in paperback, it might be appropriate to repackage it into a two-volume set. The first volume might include the material of Chapters 2, 3, 5 and 6, while the second volume might be directed towards applications of the disciplines, including manufacturing and construction, as well as chemical, mechanical and nuclear.

LESLIE E. LAHTI

First Aid Manual for Chemical Accidents, M.J. Lefevre (revised by S.A. Conibear) Van Nostrand Reinhold, 2nd edn., 1989, ISBN 0-442-20490-6, 261 pages, $26.95 (paperback).

First Aid Manual for Chemical Accidents was written for first responders both medically trained and untrained. It was written for production workers in the factory, people in the production line and in the laboratory, people on farms or in forests who could suddenly be called up to render assistance to a victim of chemical poisoning. As encouraging as the foregoing statement is, drawn from the introduction to this book, I feel it is a little too optimistic to believe that the untrained responder could successfully pick up this book, locate the chemical of concern and find the right response action. It is just too much to ask for the untrained person. But it is not too much to ask of the trained emergency medical technician.

The book will provide a superb resource for the trained medical responder and probably should be in the library of every hazardous materials response unit, operated as they are normally by firemen who often are certified EMTs (emergency medical technicians). This is a very well conceived and well written book.

As a prelude to response, the authors have some GOLDEN RULES:

(1) Protect yourself from exposure.
(2) Terminate the victim's exposure and decontaminate him.
(3) Always treat the most urgent symptoms or signs first:
- Cessation of breathing
- Heart not beating
- Eye injury
- Skin contact
- Shock

(4) Call for help.

To use the manual, the steps are:

(1) Look up the substance (chemical of concern) in the main alphabetical chemical index. Pesticides may be found under their synonyms or commercial name; there are 600 commonly used industrial and agricultural chemicals listed.

(2) Using the appropriate number for the chemical of concern, turn to the "Symptoms Chapters" to verify that the victim's symptoms roughly correspond to those described for the chemical identified.

(3) If the two are in agreement, turn to the coloured page that reflects the exposures mode of concern:
- Inhalation – yellow page
- Injection – green page
- Skin contact – pink page
- Eye contact – blue pages.

(4) Quickly read over the information given and administer the proper first aid.

The manual is written in clear, concise language using lay terms. It is an excellent reference and should be kept easily accessible by all first responders.

GARY F. BENNETT

Design Considerations for Toxic Chemicals and Explosives Facilities, edited by R.A. Scott, Jr. and L.J. Doemeny, ACS Symposium Series # 345, American Chemical Society, Washington, DC, 1987, ISBN 0-8412-1405-0, 318 pages, $64.95.

This book was developed from a symposium sponsored by the Division of Chemical Health and Safety at the 194th meeting of the American Chemical Society held August 30–September 4, 1987 in New Orleans, Louisiana. It contains 21 papers presented at the symposium dealing with the combined hazards of toxic chemical and explosives facilities. The papers are divided into four sections, namely: blast pressure and fragmentation, thermal effects, chemical effects and other design considerations. The editors claim that the book is intended for anyone who designs chemical and explosive facilities or works