

Critical Aspects of Safety and Loss Prevention

Trevor A. Kletz, Butterworths, Stoneham, MA, 1990, 349 pp., \$57.95

As described in the introduction by the author, this book is a collection of nearly 400 thoughts and observations on safety and loss prevention, illustrated by accounts of accidents. It is arranged in a dictionary format (although it is definitely not a dictionary) with some cross referencing among topics. The material is focused heavily on the chemical process industry.

Trevor Kletz is an author of many books and publications in this field. This text is a useful companion to other, more comprehensive, books on safety and loss prevention. The coverage tends to be more qualitative than quantitative and addresses both the scientific and human components. The scope of the book is very broad and covers such diverse areas as: audits, batch processes, alarms, humor, motivation, scale-up, and traps. Items are arranged in alphabetical order and the book is self-indexed (cross references are provided by italicized words in the text).

In using the book, one might pick a subject such as *centrifuges*. The section focuses on centrifuges that handle flammable liquids and discusses inerting, explosions and monitoring oxygen concentrations. A footnote refers the reader to the IChemE document titled "User Guide for the Safe Operation of Centrifuges." Italicized words in the section include: *nitrogen*, *oxygen*, *explosions*, *ignition*, *maintenance*, and *alarm*. Each of these words provide a cross reference to another topic covered by the book. The section on nitrogen points out its importance in inerting equipment while also discussing the hazard it can present to humans. The section on explosions briefly covers the topic and offers many other cross references to other parts of the book.

The titles include: the names of equipment such as *pumps* and *valves*; places where accidents have occurred such as *Flixborough* and *Seveso*; names of hazardous substances such as *asbestos* and *benzene*; topics such as *management* and *inspection*; and names of some people and organizations such as Du Pont or ICI. The topics, more likely to be covered by other texts (for example, fire and ex-

plosions), are covered only briefly in this book. The book instead tries to address subjects such as *contamination* and *accidental purification*, which are unlikely to be covered elsewhere. There are many examples of accidents to reinforce the importance of paying attention to details, and quite a bit of subtle humor. The only thing really missing is a general list of topics. Since there is no index nor table of contents, it is possible to miss some very useful information.

This book should definitely be used with other texts and can be viewed as a "practical appendix" to the more traditional texts on safety and loss prevention. As a consequence, it should not be the first book to be read on this subject but is an extremely valuable resource. It is a useful and enjoyable book and ought to be looked at by any serious practitioner with an interest in the area of safety and loss prevention.

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