

Book Reviews

The Assessment of Major Hazards (Symposium Series No. 71), Institution of Chemical Engineers, Rugby, 1982, 428 pages, £22.00.

This book is a collection of papers given at a conference held in Manchester (U.K.) in April 1982. Of the 23 papers presented 6 are concerned with pool fires and fireballs, 4 are on releases from pressurized vessels, 2 on dense gas dispersion, and 11 on miscellaneous topics to do with chemical plant hazards. As with most conferences, there are a few papers that say little, but the majority are good, one or two are excellent. This is a contentious subject, both technically and politically, and much circumspection is evident in some of the papers. However, the more that is published the greater are the opportunities for people to examine the implications of hazard assessment, and to appraise the assumptions. The work reported here is very much on the applications side of the subject, and makes a useful contribution.

R.F. GRIFFITHS

Comparative Risks of Electricity Generating Fuel Systems in the U.K., by R.A.D. Ferguson, Peter Peregrinus Ltd., Stevenage, U.K., and New York, 161 pp., £30.00 (U.K.), £34.50 (overseas).

This report was undertaken by The Energy Centre of The University of Newcastle upon Tyne, under contract to the United Kingdom Atomic Energy Authority. Three fuel cycles are considered, namely coal, oil, and nuclear. The authors effectively review existing data and estimates of fatalities and health effects for the whole range of activities involved, including fuel extraction, preparation and transport, and electricity generation. The risks considered are categorised into four classes: occupational accidents, occupational disease, public accidents and public disease. These are kept distinct, the author having avoided the trap of trying to express all risks on a common scale. Other studies of risk have not always been so well conceived. The author acknowledges that risks will have different rankings on a numerical scale depending on what choice is made for the measure against which to compute the level of detriment. In this case the study relates the detriment to the electricity output in gigawatt years. This is in many ways a sensible choice, but the results would have been enormously more interesting if the dependence of risk ranking on the various possible measures had been made explicit; this would have been possible given the data available to the study. An extensive list of people who helped the author is given, and their participation results in the inclusion of rather a lot of "private communications" in

the reference lists; the material involved is not accessible very easily, which is a pity. Improbable catastrophes are considered separately from other risks, and the treatment is necessarily less extensive. Since this is a topic of major public concern the study is unlikely to have much influence in that sector compared with that of the major studies carried out in the last decade. Ferguson has obviously worked hard on this project and the report contains a great deal of data of use in risk-comparison studies. The overall approach is sensible, with much care being taken to stress the limitations and uncertainties in the estimates. The cost of the report reflects, presumably, the publisher's sense of the likely market, and its size. Those directly involved in the field will want to read the report, which is a commendable piece of work, but not all that many will be able to justify purchasing their own copy.

R.F. GRIFFITHS

Sourcebook on Asbestos Diseases: Medical, Legal and Engineering Aspects,
G.A. Peters and B.J. Peters, Garland STPM Press, New York, 1980, ISBN
0-8240-7175-1, 457 pages incl. index, price \$46.00.

Anyone undertaking any serious study of asbestos will find this book very valuable. The bias is towards legal aspects, as one might expect from the fact that the authors are both in the legal profession in California (although G.A. Peters is also a registered professional engineer and a licensed psychologist). It is principally United States law that is described, so this section will have a narrower readership than the rest of the book. The main sections deal with Products, Medical Aspects, Controls and Protection, Legal Aspects, Warnings, and a Personal Questionnaire (for claims). There is a massive chronological bibliography, of 162 pages, and the International Labor Organisation's classification of radiographs of pneumoconioses (1971) is reprinted as an appendix. This is indeed a sourcebook of some weight, and should find a niche on the bookshelves of those concerned with this important topic. The price is reasonable.

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