

BOOK REVIEWS

MARTIN T. KATZMANN (1985). *Chemical Catastrophes: Regulating Environment Risk through Pollution Liability Insurance*. Huebner Foundation Studies, Wharton School, University of Pennsylvania. 177 pages, \$25.00.

In his attempt to deal with the many complex problems connected with environmental risk management in the United States the author found himself under way on "an exciting intellectual excursion" across an ever-changing landscape sketched in his own words as follows:

"In analyzing pollution risks, one encounters the cutting edge of a large number of disciplines: toxic torts, one of the most rapidly evolving areas of the common law; behavioral decision theory, an empirical field that has shaken the foundations of our understanding of risk taking; reliability analysis, a set of statistical and simulation techniques designed for the analysis of failures of complex systems such as weapons and nuclear power plants; environmental toxicology, which identifies the effect of small doses of chemicals on human health; and groundwater hydrology, which is beginning to deal with the flows of toxicants hidden underground."

The book describes both the history and present state of the chemical industry's catastrophe potentials—mostly those due to waste disposal, to a far lesser extent those due to the actual production process or products themselves—their impact on legislation, on business policies of the producers, on insurance and reinsurance as well as on public opinion with all the consequences and interrelationships.

While clearly favouring the private insurance market mechanism over bureaucratic regulation the author also deals with a number of aspects which render the insurability of chemical catastrophes questionable. Nevertheless, an optimistic belief that the private insurance industry will be able to cope with the whole thing shines unremittingly, such optimism not necessarily being universally shared.

There are some attempts at several places in the book to tackle things with probabilistic models or mathematical formulae (particularly from decision analysis and reliability theory), such approaches remaining, however, rather rudimentary. The whole book is above all descriptive: possible quantitative and technical approaches are merely hinted at. The actuarial reader becomes more and more aware of a basic question, namely: Do actuarial methods really have any chance whatsoever to deal efficiently with this kind of horrible modern risk situation, i.e. extremely low frequency, immense severity, long latent consequences and above all each incident having its own new and unique characteristics, or do they merely act as a tranquilizer which makes the sight of the monster more bearable?

ERWIN STRAUB