

Book Reviews

The Health and Safety of Workers: Case Studies in the Politics of Professional Responsibility, by R. Bayer (Ed.), Oxford University Press, Oxford, UK, 1988, ISBN 0-19-505365-6, 308 pp., \$ 35.00.

Hastings Institute, a research center that examines ethical questions in medicine, the life sciences and the professions, is the source of this highly unusual book. It consists of six major chapters, each of which is a detailed historical examination of the moral components of various aspects of three major occupational/human diseases, now well recognized but having long been deliberately neglected.

In the introduction, it is noted that few critical voices were raised by engineers, scientists and physicians engaged by private industry against known human exposures that produced high economic return at the expense of illness, suffering and even death. The book then proceeds to three lengthy monographs on coal mining, lead and asbestos, each of which were (and are) positive good instruments for society but also serious human hazards unless properly controlled. The three concluding chapters deal with the burden of engineers, scientists and physicians in dealing with these three subjects from a regulatory and control viewpoint.

Coal, a vital force in energy for nearly two centuries, was long known to pose hazards to those involved with its extraction from the earth and ultimate use. Safety concerns, such as explosions, cave-ins and faulty trams were the most obvious, but diagnosis of the health disorders linked to coal dust was not popular until the twentieth century, when 'coal-miners' disease' became the focus of intense socio-political as well as medical controversy.

Lead-related diseases were recognized in antiquity, but the use of lead increased dramatically in the nineteenth and twentieth centuries, in ceramics, in paint and in the auto-motive industry. Lead-poisoned workers and miners displayed blue-lined gums, wrist drop, severe nausea and neurotic disorders. The long route, beginning in the 1920s, by which tetraethyl lead was elevated to such an apparently essential component of gasoline, in spite of known and documented hazards even then, would make a real world 'Who done it?' script of wide interest.

Asbestos has only recently been appreciated as a serious human hazard, although in 1899 post-mortem examination by Montague Murray in London suggested the serious result of exposure. In 1902 England's Inspector of Factories included the preparation and weaving of asbestos fibers as among the most injuries processes known. Private interests created the circumstances within which a systematic suppression of scientific evidence protected industry from the threat of public response. The struggle to classify asbestos as

causing lung cancer is a long one, and is well documented. Even today, the often unnecessary and very costly removal of asbestos from many places where it needed only to be properly sealed and secured, and the reduction by half of the permissible limit value for asbestos in air clearly shows the subject is still not resolved.

By comparing past histories with ideal avenues of approaches which could have greatly expedited and aided the evolution of relief for workers, engineers are noted as still accepting the first code, 'which made loyalty to the employer the engineer's first professional obligation'. 'Whatever the numerator is in an engineering equation, the denominator is always a dollar mark'.

Scientists and occupational health physicians are believed to be not so limited, and have the possibility for more independent expression of concern about how particular production processes might subject workers to hazards. However, the three major studies suggest that those in the employ of the private sector are not very likely to act publicly to defend the health interests of workers, when such action conflicts with the interests of their employers.

Even when consensus is finally achieved on occupational hazards, the very serious barrier remains 'What is a "safe" exposure limit?' Regulators cannot delay controlling harmful exposures until true scientific consensus exists, which it rarely does.

The references to all six chapters are unusually complete and well presented.

This book is very sobering, and should be read by regulators, industry and association 'health and safety' personnel, and by anyone sincerely concerned with human exposures to suspect or known toxic materials. It is hoped the book will be updated and expanded.

The papers in this book illuminate why neither appeals to professional ethics alone, nor calls for technocratic solutions based on more complete empirical evidence can be an adequate response to the hazards faced by workers and the public. Considering that relatively few of the 7 million known chemicals are well established for human toxicity and exposure limits, much remains to be accomplished if the health of people exposed to dangerous materials is considered paramount by our society.

HOWARD H. FAWCETT

Chemicals, The Press, and the Public: A Journalist's Guide to Reporting on Chemicals in the Community, by Bud Ward (Ed.), Environmental Health Center, 1050-17th St., Suite 770, Washington, DC, 119 pp, \$ 9.95.

In 1988, the National Safety Council (a 75-year-old public service non-profit organization with an excellent chemical section) established the Environmental Health Center to coordinate efforts for better reporting and understanding