Book reviews


This report was produced by a World Health Organization Expert Committee whose aims were 'to lay down general principles for the prevention and abatement of pollution, to delineate the functions of health authorities in this field, and to provide guidelines for the control of adverse effects of pollutants on man's health and well-being'. After a general statement of the problem and a discussion of present practices in pollution control the report goes on to discuss policy formation. In later sections technical and organizational aspects of control programmes and international collaboration are discussed, and the final section deals with conclusions and recommendations.

The following points are made in the report—environmental pollution is a complex subject and its scientific investigation requires a multidisciplinary approach; the development of effective pollution control programmes depends upon collaboration between public authorities, industry, and the public, and between politicians, scientists, and administrators. At the national level, health aspects of pollution control should be given high priority, and public health authorities should have a key role in the development and implementation of control programmes. In particular, there is a need for adequate financial support and a supply of competent manpower. Risk/benefit, cost/benefit, and cost/effectiveness studies are difficult to carry out, but they are an essential preliminary to wise policy decisions. Policies should be forward-looking and aim where possible at the prevention of pollution. At a technical level, pollution control depends upon suitable monitoring of pollutant sources and of pollutant levels in the environment. Much work needs to be done on the health effects of low levels of pollutants especially where there is long-term exposure. Pollution of the environment often has consequences that cut across national frontiers—for example, pollutants in the air and in rivers. International organizations such as WHO have an important role to play in pollution control and in promoting exchange of information, co-ordinating research, and determining standard practices.

At times the report makes heavy reading, but overall it does provide a useful statement of principles and recommended practices for pollution control which should be of value to politicians, scientists, and administrators concerned with the problem.

C. H. Walker


The first Conference of Industry and Tropical Health was held in 1950, and the eighth, the subject of this volume, in April 1973. It was attended by 97 delegates representing 50 industries and government bureaux. Twenty-two papers were delivered during six sessions, including some topics pertinent to environmental conditions other than tropical, ranging from hazards of living and working in the Arctic to the health risks associated with oil drilling operations over the floor of the North Sea. The papers can be divided into four main groups.

The first group of papers deals with the development of health services in the developing countries. Dr Hughes outlines the role of private industry in providing health care in developing countries, and advocates that there should be a shift away from the paternal attitude to a locally orientated service, and also from personal curative medicine to environmental sanitation, industrial hygiene and other preventive aspects of occupational health, with the aim of getting the maximum benefit to the largest number of people. Dr Wood discusses his experience in developing co-operative health services in Tanzania, and comes to nearly the same conclusions.

The eleven papers in the second group deal with communicable diseases and environmental hazards. Three papers review the epidemics of Shiga dysentary in 1969 in Central America, the pandemic of cholera in 1973, and dengue fever in Colombia in 1971. Such epidemics are a warning that old diseases can reappear with particular violence and with drastic effects on economy and development. Another important conclusion shown by the papers on 'Treatment of Typhoid' and 'Problem of Plasmodium Falciparum Resistance to 4- aminoquinoline drug', is that the emergence of resistant strains would present a serious public health hazard. Two papers are of interest in this group. One by Michelson discusses the control of medically important snails and advocates integrated control measures 'focused on environment, human populations, and snail hosts' as the measures of choice. The other, by Leithead, reviews the problems associated with heat stress and evaluates the known heat stress indices used. He also discusses some alternative approaches.

The third group of five papers deal with specific occupational health problems. One paper discusses the health problems of offshore operations. It seems that they are just curtain raisers to more severe hazards if man
continues to venture into more hostile environments. The survey of noise exposure conducted among Iranian oil workers in 1972 shows clearly that the problem of noise in the oil industry has acquired new dimensions especially with the emergence of modern refineries. Thus the need for comprehensive hearing programmes becomes more evident. Of interest also is a paper dealing with the serious and growing problem of alcoholism in industry in the USA, which costs the nation about 15 billion dollars a year in a 'colossal hangover'. The important conclusion is that alcoholism is a disease which is treatable but is fatal if not treated.

The two papers in the fourth group discuss general subjects. One reports a high prevalence of adult lactose intolerance in non-Caucasians. The second paper, reviews post-transfusion hepatitis in the USA and recommends the use of the test for hepatitis B antigen to screen potentially infectious blood. This is a subject of interest especially with the increase in the use of blood transfusions.

This volume impinges on many facets of health in the tropics and elsewhere. Thus it could be of value to readers with different interests whether these be industrial medicine, industrial hygiene, tropical medicine, preventive medicine, or epidemiology. Finally, the critical discussion at the end of each session is quite illuminating and brings the papers into perspective.

M. KHOGALI

National Coal Board Medical Service Annual Report 1972-73. (Pp. 25; £1.00).

This year's Annual Report has a pleasing familiarity and is once again attractively produced and written. Only once is the word 'anticipate' used where 'expect' is meant and only once is 'most' used where 'very' is appropriate. The burden of routine examination of young persons is lamented once again and it is a pleasure to find that dermatitis seems at last to be dying out while nyctagmus has been eradicated. The satisfactory reduction of cases of beat disease and tenosynovitis was mentioned last year. Those of us who work in mining areas have long been aware that elderly miners tend to be deaf. This problem is now beginning to receive attention.

The major part of the Report is devoted to pneumoconiosis and the authors look forward with some impatience to the day when the new standard for dust concentration (the mass of respirable dust) introduced in 1970, will begin to influence its prevalence. Driveways in stone are now the only working places showing substantial excesses of dust (present in nearly 40% of such driveways).

Prevalence of pneumoconiosis varies from 2.7% in the South Midlands to 25-5% in West Wales and had been falling since surveys started in 1959. In 1972, however, there was, for the first time, a slight increase in prevalence compared with 1967, mainly among men over the age of 55. The Report states that ageing of the population is 'highly unlikely' to account for this change although prevalence and age have been closely related in every survey. This statement seems to be based on calculation of the average age of employed miners, which is not really a true indication of the number of elderly men in an industry undergoing drastic changes.

The Progression Index is referred to but not defined in the report. It is the total number of steps of radiological progression observed in a comparison of radiographs of men who were face workers at the time of the first radiograph, determined by two independent radiologists whose opinions are summated, and expressed as a number per 100 men examined. The Progression Index for 50 different collieries is calculated and illustrated in a figure which compares 1967 with 1972. Considerable concern is expressed because this comparison demonstrates an increasing Progression Index in many collieries. However, a more profound examination of the published figures of both Progression Indices and prevalence rates at specified collieries suggests that much of the increase in both could be due to transfer of elderly workers from pits which have been closed, and that the author's concern is probably not justified. In the opinion of this reviewer the conquest of pneumoconiosis in the collieries is not so far off as this report seems to suggest.

G. L. LEATHART

National Radiological Protection Board. The work of the NRPB 1970/73. (£1.00). HMSO. 1974.

The NRPB was established in 1970 to undertake research and to provide information, advice, and technical services related to the protection of mankind from radiation hazards. This report gives a broad account of the Board's first three years. There are 251 paragraphs, all numbered in case you need to quote chapter and verse, although fortunately the text does not read like an Act of Parliament!

The list of 115 publications by members of the Board's staff gives an impressive summary of their activities, chiefly in public and occupational health, backed by research in radiation physics and biology. Specific topics of interest include accidents involving workers in nuclear energy establishments and estimations of the radiation hazards from the use of gypsum as a building material, travel in Concorde, and TV sets. One is pleased to learn that fall-out from nuclear deposition of caesium-137 and strontium-90 at least shows no increase since 1966.

The Board's routine services in 1973 included 800 surveys of premises and 500 000 personal film badge measurements. Of the latter 90 indicated doses exceeding the quarterly maximum permissible dosage of 3 rems; it appears that industrial radiography is the chief culprit. Apparently the film badge is to be replaced by a thermoluminescent dosemeter and it will be very interesting to see how well the highly centralized and automated system works in practice.

One's personal reaction to this report is to wish that all our environmental hazards were tackled as objectively and systematically. However, one looks in vain for any attempt to tackle the problem of a really serious accident at a nuclear power station or weapons establishment. We have learnt to quantify radiation hazards. Surely we now need to study with the same objectivity the overall hazards of nuclear energy. If the methodology does not exist it needs to be created. It will be disappointing if the next three-year report does not have something to say on this topic.

M. J. DAY