News and Notes

Environmental Health Criteria 5: Nitrates, Nitrites, and N-Nitroso Compounds

Published under the joint sponsorship of the United Nations Environment Programme and the World Health Organization, Geneva, World Health Organization, 1978, (ISBN 92 4 154065 6). 107 pages. Price: Sw. fr. 10. , US $ 5.00. French edition in preparation.

The fifth volume of the series on Environmental Health Criteria is concerned with the possible health risks of nitrates, nitrites and N-nitroso compound.

The groups of experts involved in the study of the available data on these substances noted that the current concentrations of nitrates and nitrites in food and water did not constitute a direct health risk for adults or older children, drew attention to the risk with a possible fatal result of high intakes of nitrates and nitrites in well water used for drinking or in making up baby foods and also in certain vegetables in infants, particularly those under three months of age. Attention is also drawn to the probable carcinogenic risk for man from exposure to N-nitroso compounds, most of which are mutagenic and some teratogenic in animal test systems.

The volume is based primarily on original publications and reviews, references to which are contained in the 500 item bibliography. Following a summary of the major issues and recommendations for further studies, the book reviews the chemical properties of the substances and the method of their analysis; their sources in nature and elsewhere; their transport cycle and transformation in food and other substances; their environmental levels and exposure of the population; and their metabolism. The effects of nitrates, nitrites and N-nitroso compounds are considered in both animals and man and the work concludes with an evaluation of the health risks to man of exposure to these substances.

The volume is based on reviews received from national institutions collaborating with the WHO Environmental Health Criteria Programme and on comments obtained from the United Nations Industrial Development Organization, the Food and Agriculture Organization of the United Nations, the United Nations Educational, Scientific and Cultural Organization, the International Atomic Energy Agency, the Commission of European Communities and nongovernmental organizations. The material was finalized by a group of experts under the auspices of WHO and its International Agency for Research on Cancer. The publication will be of interest to departments of the environment and of health protection, to national regulatory agencies, public health workers, toxicologists, oncologists, food protection officers, and to pharmaceutical and food additive manufacturers.

Health Implictions of Nuclear Power Production

Report on a Working Group, Brussels, 1-5 December 1975. Copenhagen, WHO Regional Office for Europe, 1978 (*WHO Regional Publications, European Series* No. 3: ISBN: 92 9020 103 7). 75 pages. Price: Sw.fr. 8. , US $ 4.00.

Many countries are becoming increasingly dependent on nuclear power to augment their energy resources and others are giving serious consideration to nuclear power generation. Because the general public is frequently apprehensive about the safety of nuclear installations, and in order to provide health authorities with sound, unbiased information for use in management and decision making, the WHO Regional Office for Europe organized a Working Group to study, discuss, and appraise the effects on man and the environment of nuclear power production. This meeting was attended by experts in health administration, health physics, human biology, environmental science and technology, and nuclear engineering from 12 European countries and the United States of America, together with representatives of various intergovernmental and nongovernmental organizations.

The discussions focussed mainly on the risks to man from low level radiation as well as on the environmental aspects of the entire nuclear fuel cycle, and touched upon the likelihood and consequences of nuclear and non-nuclear accidents, sabotage of nuclear power plants, and thefts of fissionable material. The Working Group also examined measures designed to protect nuclear power workers and the general population. Other topics discussed included the handling, storage, and disposal of radioactive waste, cost-benefit evaluation of nuclear power, human error and structural failure in the production of accidents, and radiobiological/epidemiological evidence for health injury.

The comprehensive report on this Working Group, issued first as a document, deals with health aspects of radiation; the nuclear fuel cycle; health and safety regulations; accidents in the nuclear fuel cycle; radiation exposures from normal operations; environmental effects of nuclear power generation; proliferation of nuclear explosives; and informing the public. The report contains also a number of important recommenda-

tions regarding nuclear power generation and concludes with an extensive list of references, an annex giving some important definitions, and a list of the participants in the Working Group.

This publication should prove useful both to health authorities and all those concerned with the development or production of nuclear power.