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AIR POLLUTION

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Introduction

The problem of air pollution has existed for centuries. Smoke, ash, sulfur dioxide and other products of simple combustion have long been recognized as a nuisance, and a costly one. At the present time, the belief that air pollution not only is a source of discomfort but also may constitute a menace to human health has grown to a conviction. Serious air pollution episodes have certainly resulted in increased mortality, and independent investigations have suggested a possible relationship between chronic exposure to a polluted atmosphere and such diseases as acute bronchitis and primary lung cancer.

There is a distinction between the pollution of air in a factory or other occupational environment, where the workers—usually healthy adult males—are exposed only during their working hours, and the pollution of the general environment, which exposes an entire population group for an indeterminate period of time. Such a general exposure constitutes a problem in public health, and is properly a matter of concern to public health authorities.

The control of air pollution is no longer concerned merely with the products of simple combustion of conventional fuels. Industrial effluents discharged into the atmosphere are increasing in amount, in diversity and in complexity. As a consequence of developing industrialization, of the expanding use of internal combustion engines, and of the greater densities of population exposed to air pollutants, the seriousness of the situation is rapidly increasing, and the difficulties of applying effective controls are becoming progressively greater.

This monograph brings together a body of recent information on a number of aspects of air pollution for the benefit of public officials, and in particular public health officials, who are faced with the necessity of taking appropriate and effective action. In order to ensure that the material included herein faithfully reflected world trends in air pollution research, the individual chapters were submitted to a panel of experts in the field, five of whom contributed to the monograph. These authorities, who attended a meeting of the WHO Expert Committee on Environmental Sanitation in 1957, are as follows : Dr E. C. Halliday, Head, General Physics Division, National Physical Research Laboratory, Council of Scientific and Industrial Research, Pretoria, Union of South Africa ; Dr Harry Heimann, formerly Chief, Operational Research Section, Air Pollution Medical Program, US Public Health Service, Washington, D.C., USA ; Dr E. Leclerc, Professor of Industrial Chemistry and Sanitary Techniques, University of Liège, Belgium ; Dr Louis C. McCabe, President, Resources Research Inc., Washington, D.C., USA ; Dr Albert

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