STATEMENT SUBMITTED TO THE SUBCOMMITTEE ON SCIENCE, RESEARCH, AND DEVELOPMENT BY DR. RENE DUBOS, THE ROCKEFELLER UNIVERSITY, AUGUST 9, 1966

The following statement appears on page 9 of the Advisory Panel's report on The Adequacy of Technology for Pollution Abatement:

No evidence has yet been produced that low levels of pollution have unfavorable effects on human health.

Similar skepticism concerning the potential health dangers of air pollution has been expressed elsewhere by Prof. A. Wolman. In his usual pithy manner, Professor Wolman suggested that air pollution is principally an "esthetic affliction."

If exhaust gases emitted by a diesel bus had a fragrant aroma, or worse yet, led to physiological addiction, not many people would complain about traffic fumes.

There is no doubt unfortunately that air pollution is more than an esthetic affliction, and that it always results in various forms of physiological suffering and economic loss. How then to account for the statement made by Professor Wolman? a statement which is the more surprising because he is such a great scholar and has associations with Johns Hopkins University and its prestigious school of medicine and public health.

The reason for the failure to demonstrate convincingly the dangers of environmental pollutants is that biomedical scientists have become conditioned to regard as really valid only the type of information they can derive from orthodox laboratory techniques. This attitude has led them to emphasize the pathological effects that occur rapidly and that are the manifestations of fairly direct and clear cause-effect relationships. Admittedly, the effects of environmental pollutants are not very impressive in this light. In fact, one might well gain the impression that air pollution is of no consequence because experimental animals and probably human beings also readily develop tolerance and even cross tolerance to the acute injurious effects of a variety of irritating substances.

The dangers to health posed by the usual levels of environmental pollution, and of air pollution in particular, are not readily detected because they are always delayed and often extremely indirect in their mechanism. Indeed, as already mentioned, exposure to low levels of certain air pollutants induces tolerance against the acute toxic effects of higher concentrations; but this very tolerance produces various types of tissue damage and other chronic pathological effects that become noticeable only later in life or even in subsequent generations.

The industrial areas of northern Europe provide an informative example of the delayed dangers of environmental pollution.

Ever since the beginning of the Industrial Revolution, the inhabitants of northern Europe have been heavily exposed to many types of air pollutants produced by incomplete combustion of coal and released