

## FOREWORD TO OUR CHANGING ATMOSPHERE SERIES

*Human activities are having an increasing effect on our climate. Industrial development, the burning of fossil fuels, deforestation, and even agricultural practices are changing the composition of the earth's atmosphere. (Environment Canada, Atmospheric Environment Service, The Impact of Global Warming, Fact Sheet, 1989, p. 1)*

As the Standing Committee on Environment of the House of Commons, we join the international community in recommending strategies to address the atmospheric problems that are affecting our country and our planet. As we began our study it soon became clear that, just as the air we breathe is a mixture of different gases with the potential for complex chemical reactions, so are the various atmospheric problems interwoven.

The Committee has focused on those atmospheric problems which the 1988 Toronto Conference on the Changing Atmosphere identified as the most urgent. Global warming is certainly one of the most compelling. It concerns our use of energy and other resources at the most fundamental level; patterns of use that have become entrenched in our socio-economic system and that are not easy to change, but patterns that must change. Ozone depletion may be relatively simple in theory to prevent compared to global warming, but still requires national action and concerted international cooperation, demonstrated by the Montreal Protocol. Yet even this agreement must be strengthened if the effort is to be successful. Canada has been struggling to reduce acid gas emissions and, after having established domestic control programs, it appears that we may be on the verge of implementing an American-Canadian control program. However, it remains to be seen if these steps will be enough to save our lakes and forests, and reduce the adverse health effects from acidic aerosols. Sadly, acid aerosols are only one component of the myriad of chemical contaminants found in the air that we breathe.

The Committee intends to produce other reports dealing with atmospheric change. We have been conducting extensive hearings on global warming and will table a report recommending policies for reducing Canada's contribution to the problem. The Committee also is alarmed at the potential harm to the environment in general, and to human health in particular, from airborne toxic chemicals. We expect to address the problem of toxic air pollution after completing our major study of global warming.

This first report on "Our Changing Atmosphere" addresses options for controlling the man-made chemicals that are both depleting the Earth's protective ozone layer and contributing to global warming. Society must phase out the use of CFCs (chlorofluorocarbons), halons and related chlorinated solvents, and ensure that they are replaced by the least harmful substitutes possible. There also is a need to ensure that these ozone depleting/global warming substances are recovered, recycled and ultimately destroyed. It has been suggested that if all the CFCs now in use were to be released, the ozone layer would likely be destroyed. The impact on the Earth's life forms could be devastating.

The need to recover these substances from existing uses in refrigeration equipment has given rise to the term "vampire unit", referring to the equipment used in recovering CFCs and halons in a gaseous state. The analogy is simple but effective. A vampire unit connects to the