

the atmospheric gaseous and particulate phases, and in precipitation. Volatile organic compounds (VOC) along with nitrogen oxides are precursors of ozone and other oxidants (see above and Chapter 4). However, this review is concerned with the potential effects of organics themselves rather than their participation in atmospheric reactions.

Only a limited number of organics were reviewed by the Work Group (MOI Report 2F-I). These included the following:

o Polynuclear Aromatic Hydrocarbons (PAH)

These substances are produced by common combustion sources such as coal, wood or oil burning and are also found in diesel exhausts. Ample evidence exists about the toxicity and the carcinogenic properties of PAH's. The low vapor pressures of most PAH's suggest that these compounds would be found principally in atmospheric aerosols. Increased combustion processes would produce aerosols containing PAH's which could be transported far from their sources (primarily in urban areas).

o Polychlorinated Biphenyls (PCB)

PCB's have been produced mainly for use as dielectric fluids in transformers and capacitors and other products requiring thermal stability. Although production was discontinued in North America during the 1970's, large quantities are still in commercial use. Over 80 million kilograms enter the environment annually. A large volume of evidence exists about the toxic and carcinogenic effects of these compounds.