

3

Sources of Contaminants

There are a variety of ways to classify the contaminants found in the environment. They can be divided as follows: (1) natural and anthropogenic; (2) according to the medium in which they are dispersed-air, water, soil, food; (3) by specific elements and/or compound classes; or (4) by their state of matter-solid, liquid, gas, or dispersion (colloid, suspension, etc.). In this chapter the contaminants are classified according to their sources, and it, therefore, becomes necessary to consider all physical and chemical forms and all media simultaneously. This approach provides the best opportunity to associate specific contaminants with the activities that generate them. Furthermore, it permits an appreciation of the total impact of a given sphere of activity, and of the possible implications of alternative control strategies in those cases where current environmental contamination levels are excessive.

Some contaminants have no known primary sources that could account for their observed concentrations. Ozone (O_3) in urban air and chlorinated hydrocarbons in drinking water are examples of what are termed "secondary" contaminants, those that are formed within the environment by chemical reactions of precursor chemicals derived from primary sources.