

Air Pollution and MCERTS

Every day, the average person inhales about 11,000 litres of air. Every time we breathe, we risk inhaling dangerous chemicals that have found their way into the air.

Air pollution includes all unwanted contaminants found in the atmosphere. These substances can be either in the form of gases or particles.

Air pollution can be found both outdoors and indoors. Pollutants can be trapped inside buildings, causing indoor air pollution that can last for a long time.

The sources of air pollution can be both natural or as a result of human activities and has long been acknowledged - even in ancient Rome people complained about smoke put into the atmosphere.

As one might expect, humans have been producing increasing amounts of pollution as time has progressed, and we now account for the majority of pollutants released into the air. Recent events such as the Great Smog which occurred in London in 1952 helped to highlight the

problems caused by air pollution; it is estimated that 4,000 had died prematurely and 100,000 more were made ill because of the smog's effects on the human respiratory tract. More recent research suggests that the number of fatalities was considerably higher at around 12,000.

The effects of air pollution are diverse and numerous. Air pollution can have serious consequences for the health of human beings, and also severely affects natural ecosystems.

Because it is located in the atmosphere, air pollution is able to travel easily. As a result, air pollution is a global problem and has been the subject of global cooperation and conflict. Some areas now suffer more than others from air pollution.

Cities with large numbers of vehicles or those that use great quantities of coal often suffer most severely from problems of air pollution. Places like Mexico City and Sao Paulo have some of the most deadly pollution levels in the world.



There are many different chemical substances that contribute to air pollution. These chemicals come from a variety of sources. Among the many types of air pollutants are nitrogen oxides, carbon monoxides, and organic compounds that can evaporate and enter the atmosphere.

Natural sources of air pollution include: forest fires, volcanic eruptions, wind erosion, pollen dispersal, evaporation of organic compounds, and natural radioactivity are all among the natural causes of air pollution. Usually, natural air pollution does not occur in abundance in particular locations.

Although some pollution comes from these natural sources, most pollution is the result of human activity.

Current air pollution control efforts are not all highly effective. In wealthier countries, industries are often able to shift to methods that decrease air pollution. In the UK, for example, air pollution control laws have been successful in stopping air pollution levels from rising.

However, in developing countries and even in countries where pollution emitted from process stacks is strictly regulated, much more needs to be done. In the UK these pollution laws have been backed up with an accreditation scheme (MCERTS) to ensure that monitoring and assessment is undertaken to agreed standards.

The Monitoring Certification Scheme (MCERTS) is designed to ensure that potential polluters are monitoring their emissions effectively and supplying the Environment Agency (EA) with reliable data.

The MCERTS scheme is part of the EA's strategy to ensure that the UK meets the requirements of European legislation. It was first applied to air emissions in order to comply with the Air Quality Framework Directive. MCERTS is now being extended to aqueous emissions and soil contamination in order to comply with the Integrated Pollution Prevention and Control (IPPC) Directive, which is implemented nationally through the Pollution Prevention and Control (PPC) Regulations.

All the most potentially polluting processes now fall under PPC and companies running these processes must apply to the regulator for a license to operate.

Any site operator who is responsible for discharges specifically mentioned in a PPC permit has to monitor them in a way that meets MCERTS standards of quality and reliability. Although there are guidelines, there is no hard and fast lower limit regarding the quantity discharged. Anything important enough to be mentioned on a permit to operate is important enough to fall under the MCERTS scheme.



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