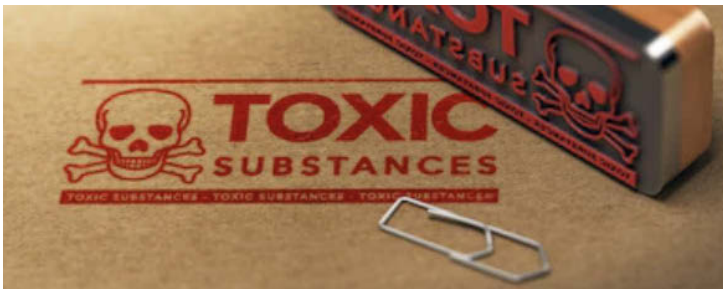
INSITE SPECIALIST SERVICES LTD.

DANGEROUS AIR POLUTANTS



The six most dangerous indoor air pollutants are:

Asbestos.

The first diagnosis of asbestosis was made in the UK in 1924.Nellie Kershaw was employed at Turner Brothers Asbestos in Manchester, England from 1917, spinning raw asbestos fibre into yarn. Her death in 1924 led to a formal inquest. Pathologist William Edmund Cooke testified that his examination of the lungs indicated old scarring indicativ of a previous, healed, tuberculosis infection, and extensive fibrosis, in which were visible "particles of mineral matter of various shapes, but the large majority have sharp angles." Having compared these particles with samples of asbestos dust provided by S. A. Henry, His Majesty's Medical Inspector of Factories, Cooke concluded that they "originated from asbestos and were, beyond a reasonable doubt, the primary cause of the fibrosis of the lungs and therefore of death".

Carbon Monoxide.

Carbon monoxide (CO) is a colourless, odourless, and tasteless gas that is slightly less dense than air. It is toxic to animals that use hemoglobin as an oxygen carrier (both invertebrate and vertebrate, including humans) when encountered in concentrations above about 35 ppm, although it is also produced in normal animal metabolism in low quantities, and is thought to have some normal biological functions.

Lead.

In the late 19th century, lead's toxicity was recognized, and its use has since been phased out of many applications. Lead is a toxin that accumulates in soft tissues and bones, it acts as a neurotoxin damaging the nervous system and interfering with the function of biological enzymes. It is particularly problematic in children: even if blood levels are promptly normalized with treatment, neurological disorders, such as brain damage and behavioural problems, may result.

Mould.

There are thousands of known species of moulds (within the hundreds of thousands if not millions present), which have diverse life-styles including saprotrophs, mesophiles, psychrophiles and thermophiles and a very few opportunistic pathogens of humans. A fungus is any member of the group of eukaryotic organisms that includes microorganisms such as yeasts and moulds, as well as the more familiar mushrooms. These organisms are classified as a kingdom, fungi, which is separate from the other eukaryotic life kingdoms of plants and animals.

Radon.

Radon gas is considered a health hazard. It is often the single largest contributor to an individual's background radiation dose, but due to local differences in geology, the level of the radon-gas hazard differs from location to location Despite its short lifetime, radon gas from natural sources, such as uranium-containing minerals, can accumulate in buildings, especially, due to its high density, in low areas such as basements and crawl spaces. Radon can also occur in ground water – for example, in some spring waters and hot springs.

Volatile Organic Compounds (VOCs).

Volatile organic compounds (VOCs) are organic chemicals that have a high vapor pressure at ordinary room temperature. Their high vapor pressure results from a low boiling point, which causes large numbers of molecules to evaporate or sublimate from the liquid or solid form of the compound and enter the surrounding air, a trait known as volatility. For example, formaldehyde, which evaporates from paint and releases from materials like quartz, has a boiling point of only –19 °C (–2 °F).

VOCs are numerous, varied, and ubiquitous. They include both human-made and naturally occurring chemical compounds. Most scents or odours are of VOCs. VOCs play an important role in communication between plants, and messages from plants to animals. Some VOCs are dangerous to human health or cause harm to the environment. Anthropogenic VOCs are regulated by law, especially indoors, where concentrations are the highest. Harmful VOCs typically are not acutely toxic but have compounding long-term health effects. Because the concentrations are usually low and the symptoms slow to develop, research into VOCs and their effects is difficult.

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