



Toxic Air Contaminants

What is a toxic air contaminant?

A toxic air contaminant is an air pollutant that may increase a person's risk of developing cancer and/or other serious health effects. Toxic air contaminants include more than 700 chemical compounds that have been determined to have potential adverse health impacts.

Are toxic air emissions always a health hazard?

No. The emission of a toxic chemical does not automatically create a health hazard. Other factors – such as the amount of the chemical, its toxicity, how it's released into the air, the weather, and the terrain – all influence whether the emission could be hazardous to human health.

Are toxic levels monitored?

Since the mid-1980s, the District has operated toxic air contaminant sampling in El Cajon and Chula Vista. These two sites were chosen because they are located nearby and downwind of transportation, industrial, and other air pollutant sources. Three more sampling sites were added in 2006: Escondido, Otay Mesa, and downtown San Diego.

What is the Air Toxics "Hot Spots" Program?

The Air Toxics "Hot Spots" Information and Assessment Act is a state law requiring facilities to report emissions of toxic air contaminants to the Air Pollution Control District. The program is designed to quantify the amounts of potentially hazardous air pollutants released, the location of the release, the concentrations to which the public is exposed, and the resulting potential public health risk. In addition, it requires significant public health risks to be reduced.

What is a health risk assessment?

A health risk assessment is a report that estimates the possibility of adverse health effects from emissions of toxic compounds into the air. Public health risk estimates are not based on actual measured air concentrations of toxic compounds. Instead, computer models are used to estimate risk. A conservative formula is used to calculate risk which defines lifetime exposure as 24 hours per day, every day, for 70 years.

How accurate are health risk assessments?

By their nature, health risk assessments cannot be completely accurate. Scientists do not have enough information on actual public exposure and on how toxic contaminants affect people. When information is missing or uncertain, risk analysts make assumptions that tend to overestimate the potential risk. This provides a margin of safety in the protection of human health. An example of this is the assumption that residential exposures occur 24 hours per day for 70 years, even though people typically are not at their residences 100 percent of the time and for 70 continuous years. However, some factors that may tend to underestimate risk are difficult to evaluate. These include the cumulative effect of emissions from other nearby facilities and the potential for complex mixtures of toxic air contaminants to create an additional health problem by their combined reaction to each other.

Where can I find out more?

The District publishes a "Hot Spots" Annual Report that provides information about emission inventories, approved health risk assessments, public notification procedures, and steps undertaken to reduce public health risks. This report is available at www.sdapcd.org or by calling 858-586-2600.