

Controlling Toxic Air Pollutants

What are toxic air pollutants and where do they come from?

Toxic or hazardous air pollutants are substances in the air that can harm the environment and your health. Many types of human activities produce toxic air emissions in varying amounts.

Manufacturing, energy production, burning waste materials or wood, painting, cleaning activities and driving vehicles all produce toxic air pollutants. Natural sources can also produce toxic air emissions. For example, radon gas comes up from the ground. Breathing toxic air pollutants can increase your chances of experiencing health problems ranging from throat irritation to cancer, emphysema or reproductive disorders. For instance, inhaling benzene fumes given off when gas is pumped into your car can increase your chances of getting leukemia. The danger to human health from a toxic air pollutant depends on the amount and length of exposure.

There are three ways toxic air pollutants get released into the air. Cars, factories, gas stations and other sources may give off toxic air pollutants **continuously** over time. When a plant's production is done in batches, toxic chemicals may be released **intermittently**. An explosion, equipment failure or transportation accident can produce very dangerous air toxics **unexpectedly** and must be properly contained.

Federal laws controlling toxic air pollutants

The Clean Air Act Amendments of 1990 require the U.S. Environmental Protection Agency (EPA) to regulate emission of 188 hazardous air pollutants, including benzene, dioxin, chromium, perchloroethylene and toluene.

EPA has identified sources of these toxic air pollutants and has classified them into about 170 categories. To significantly reduce emissions, EPA is developing national technology-based performance standards and regulations for each category. EPA is developing a standard for each hazardous air pollutant category. EPA is working out the details of what kinds of controls qualify as "maximum control" for each category of air toxic

sources such as dry cleaners, gasoline distributing facilities and chemical manufacturing. EPA has adopted regulations for over 25 percent of the identified source categories. EPA expects standards for all types of sources to be completed by the year 2000. Under the federal Title V Air Operating Permit Program, a facility with the potential to emit 10 tons of any toxic air pollutant, or 25 tons per year of any combination of toxic air pollutants, is defined as a major source of hazardous air pollutants. Title V permits include requirements for these facilities to limit toxic air pollutant emissions.

EPA regulations require certain industrial facilities and businesses to have and use a plan to prevent accidental toxic air pollutant releases, and to minimize their impacts on the surrounding community in a worst case accident scenario.

How does DEQ control toxic air pollution?

The Department of Environmental Quality (DEQ) implements the Clean Air Act in Oregon. DEQ adopts as state rules the federal standards for toxic air pollutant sources. DEQ will also adopt federal accidental release regulations. Through an air permitting program, DEQ issues permits to approximately 1,400 industrial and commercial businesses in Oregon that produce air pollution. The permits ensure that businesses comply with air quality standards or are on schedule for compliance by a specific date. Regional DEQ office staff help businesses achieve compliance, or even go beyond requirements. DEQ staff regularly inspect these businesses for compliance with permit conditions and recommend enforcement actions when permit violations occur.

Oregon now has a state Title V Air Operation Permit Program for major industrial air pollution sources. DEQ incorporates the industry specific technology-based standards into Title V permits. DEQ regulates hazardous air pollutant emission from smaller facilities through requirements in Air Contaminant Discharge Permits.

DEQ implements other state rules that reduce toxic air pollutants including benzene from cars



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and trucks. The Vehicle Inspection Program in Portland and Medford reduces vehicle emissions that contain toxic air pollutants by making sure air pollution control systems in vehicles are working properly.

DEQ requires manufacturers to restrict the amount of volatile organic compounds (VOCs) in paints and household products sold in the Portland region. Some of these VOCs are hazardous air pollutants.

Getting involved

DEQ is committed to informing and involving people in air quality decisions and issues that affect them. DEQ uses advisory committees composed of citizens and technical experts to develop rules about toxic air pollutants and other issues. People have an opportunity to comment on new permits and modifications to existing permits during publicized comment periods and public hearings.

For more information

- *EPA Office of Air and Radiation, (800) 424-4372*
- *DEQ Air Quality Division, (503) 229-5359 or (800) 452-4011*
- *Oregon Health Division, (503) 731-4012*

For a variety of electronic files on toxic air pollutants, visit the EPA Unified Air Toxics website

For information on the health effects of specific hazardous air pollutants visit the EPA Unified Air Toxics website, Health Effects Notebook for Hazardous Air Pollutants.



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