

## Reducing 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 your health and the environment. 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 like forest fires and volcanoes can also produce toxic air emissions. Breathing toxic air pollutants can increase your chances of experiencing health problems including respiratory irritation, emphysema, reproductive disorders or cancer. 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.

### What Federal laws address toxic air pollutants?

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

The EPA has identified sources of these toxic air pollutants and has classified them into about 170 categories such as dry cleaners, gasoline distributing facilities and chemical manufacturing. To significantly reduce emissions, the EPA is developing national technology-based performance standards and regulations for each category. The EPA has proposed or adopted regulations for most of the identified larger source categories, and is still working on standards and approaches for the smaller sources.

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. Federal law allows facilities to accept permit limits to ensure that their emissions stay below the major source level. These facilities are not subject to Title V, but must be permitted under another state permitting program.

The EPA regulations also require certain industrial facilities and businesses to have and to 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.

### What does the DEQ do to reduce toxic air pollution?

The Department of Environmental Quality (DEQ) implements the Clean Air Act in Oregon. The DEQ adopts as state rules the federal standards for toxic air pollutant sources.

Through the Title V and Air Contaminant Discharge Permit (ACDP) air permitting programs, the DEQ issues permits to approximately 1,300 industrial and commercial businesses in Oregon that produce air pollution. The permits ensure that businesses comply with air quality standards, or are on schedule to achieve compliance. DEQ staff helps businesses achieve compliance, or even go beyond requirements. DEQ staff also regularly inspects these businesses for compliance with permit conditions, and recommend enforcement actions when permit violations occur.

Oregon has a state Title V Air Operation Permit Program for major industrial air pollution sources. The DEQ incorporates the industry specific standards into Title V permits. The DEQ regulates air toxic emissions from smaller facilities through requirements in ACDP permits.

In 2003, DEQ adopted a state air toxics program that uses the best available science to identify and solve air toxics problems statewide. An Air Toxics Science Advisory Committee has been



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helping DEQ develop its own health-based benchmarks for air toxics of concern in Oregon. Once these benchmarks are in place (anticipated in late 2006), DEQ will use them to evaluate problems, design emission reduction efforts and measure progress.

DEQ implements other state rules that reduce toxic air pollutants including benzene from cars 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 toxic 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 industrial permits and modifications to existing permits during publicized comment periods and public hearings.

### **For more information**

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*For information on toxic air pollutants, visit the  
EPA Technology Transfer Network at:  
[www.epa.gov/ttn/atw](http://www.epa.gov/ttn/atw)*