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Background Brief on ...

# Air Quality

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In 1955, Congress enacted the first air quality legislation with the passage of the Air Pollution Control Act. Major amendments in 1970, 1977, and 1990 resulted in what is known as the Clean Air Act (CAA). Current federal law addresses ambient air quality standards, hazardous air pollutants, new source performance standards, and new source review—the latter requiring the best available technology in air pollution control equipment for facilities that are major sources of contaminants.

The U.S. Environmental Protection Agency (**EPA**) has delegated implementation of most CAA requirements to the Oregon Department of Environmental Quality (**DEQ**), codified in ORS chapter 468A, except in Lane County where the Lane Regional Air Protection Agency has primary jurisdiction. The EPA retains oversight of the program and regularly audits the DEQ's program to ensure that it meets federal requirements. The EPA also has the authority to "overfile," or bring action against pollution sources if they believe enforcement at the state or regional level is inadequate. To date, the DEQ has been successful in preventing federal overfiles.

## New Air Quality Standards

In 1980, only 30 percent of Oregonians lived in areas where the air met National Ambient Air Quality Standards (**NAAQS**). Thanks to federal, state, and local pollution control programs, until recently all areas in Oregon achieved compliance with these standards. In 2006, the EPA tightened the standard for fine particulate. Recent health studies show that fine particulate is more dangerous than previously thought. Fine particles evade the body's natural defenses and travel deep into the lungs.

A number of Oregon communities are above levels of concern for fine particulate pollution and two areas (Klamath Falls and Oakridge) are violating the new standard. Older, "uncertified" woodstoves are a major source of pollution in the communities with the highest fine particulate levels. These stoves emit up to 70 percent more pollution than newer "certified" woodstoves. For the 2009 Legislative Session, the DEQ will recommend a legislative concept (Heat Smart) that would address the issue. The concept would require the removal of "uncertified" woodstoves upon sale of home and would provide grant funding to assist low-income stove users with the change.

Recently, the EPA also tightened the standard for ozone. Thanks to

successful implementation of the strategies described below, all Oregon counties are in compliance with the new standard. However, continued efforts to prevent ozone pollution are important as further tightening of the standard in the future is likely.

### **Clean Air Strategies**

The primary way air pollution is controlled and federal standards are met is through comprehensive airshed planning. These plans, that are developed with help from local advisory committees, include strategies tailored to meet local issues and needs. Strategies to reduce particulate pollution include emission reductions from woodstoves, outdoor burning, and industrial wood-fired boilers. Strategies to reduce smog (ozone and oxides of nitrogen) include vehicle inspection, emission reductions from industrial operations, and air quality advisories to reduce emissions on high smog days. For industrial sources, these strategies are implemented through federally-required construction and operating permitting programs.

Most of the DEQ's air quality programs are funded by fees, and the 2007 Legislative Assembly authorized fee increases for industrial permits and asbestos notifications to adequately fund these programs. However, a drafting error is preventing the DEQ from implementing the industrial permit fee as intended. For the 2009 Legislative Session, the DEQ will recommend a correction to the industrial permit fee. In addition, the DEQ will request a fee increase in the vehicle inspection program to support existing staff levels. The vehicle inspection fee was last increased in 1997 and was only expected to cover costs until 2003. By reducing staff and increasing efficiency, the DEQ has avoided a fee increase for an additional five years. However, costs exceed revenues and the program will be in deficit by the end of the 2009-2011 biennium without a fee increase.

### **Toxic Air Pollutants**

Toxic air pollutants can cause serious health risks, including cancer, immune system damage, nerve damage, birth defects, respiratory diseases

and other health problems. All Oregonians are currently exposed to toxic air pollution levels that are ten or more times the acceptable exposure level for cancer.

The EPA focuses primarily on reducing toxic air pollution from large industrial facilities. They adopt emission limits for these facilities and the DEQ ensures compliance with these limits through air quality permits. Recently, the EPA has begun adopting emission limits for smaller businesses, such as auto body refinishers, that will bring several thousand new businesses into the permit program. The DEQ will request new staff to assist these businesses with compliance, and has recommended a legislative concept that would allow the DEQ to provide alternatives to permitting for companies with proactive environmental programs.

### **Portland Air Toxics Solutions (PATs)**

In 2003, the DEQ established the Oregon air toxics program and began gathering scientific information. The DEQ prioritized geographic areas statewide and found that people in the Portland region are at the highest risk from toxic air pollutants. Relying upon two computer modeling studies and six years of monitoring data, the DEQ has determined that within the Portland region at least ten toxic air pollutants are above levels protective of human health. Three of these are more than ten times above the level designed to protect human health. They include:

- Polycyclic aromatic hydrocarbons (PAH) from wood and debris burning
- benzene from fuel and auto exhaust
- soot from diesel engines

In February 2008, the DEQ selected the Portland region as the first geographic area in Oregon for a comprehensive effort to develop a plan to reduce air toxics risk. Under the plan, known as Portland Air Toxics Solutions (PATs), the DEQ will work with an advisory committee and broad group of interested persons within the study area to develop and implement an air toxics emission reduction plan.

## Clean Diesel

Diesel exhaust ranks among the top air toxics in Oregon. It is linked to a number of significant public health and environmental issues such as asthma, cardiovascular disease, cancer, regional haze, and global warming.

For the 2007 Legislative Session, the DEQ proposed and the Legislative Assembly approved House Bill 2172, authorizing a clean diesel upgrade incentive program. Projects eligible for tax credits, grants, and loans include scrapping of a pre-1994 truck engine, retrofitting a diesel engine, or repowering a non-road diesel engine. The legislation also directs the DEQ to adopt a specific target for 2013 to substantially reduce the risk to school children from diesel engine emissions produced by Oregon school buses. The DEQ has proposed rules to set this target and implement the grant and tax credit programs.

California recently adopted regulations that require lower emission limits on existing diesel powered vehicles. Owners of California vehicles and non-road equipment can comply with these regulations by installing exhaust control or by retiring vehicles (through sale or transfer) into other states. This is likely to cause dumping of older, dirtier vehicles from California into Oregon. The DEQ is recommending a legislative concept to prevent the movement of older, dirtier vehicles from California into Oregon.

## Climate Change

House Bill 3543 (2007) established state greenhouse gas (GHG) reduction goals to address the environmental, health, and economic impacts of global warming. In July 2007, Governor Kulongoski asked the DEQ to develop GHG reporting rules as a first step. The proposed rules call for mandatory reporting beginning in 2010 for the year 2009.

The Governor also helped found the Western Climate Initiative (WCI), a collaboration of Western states and provinces to develop regional strategies to address climate change. The WCI is designing the key program elements for a regional cap and trade program to reduce

greenhouse gas emissions from utilities and other high-emitting industrial facilities. The WCI design is expected to be completed in August or September 2008, after which the DEQ, the Oregon Department of Energy, and the Governor's staff will work with stakeholders to develop the details of a 2009 legislative concept to implement the WCI recommendations.

## Low Emission Vehicles Program

In December 2005, the Environmental Quality Commission (EQC) adopted rules to establish the Low Emission Vehicles (LEV) program. The rules decrease emissions that cause ground-level ozone, promote zero-emission vehicles, and reduce greenhouse gases. The program applies only to new cars and trucks (vehicles with fewer than 7,500 miles) and will be phased in beginning with the 2009 model year.

In December 2007, the EPA announced it would not issue the approval necessary for the greenhouse gas requirements to take effect. Oregon has joined other states that "opted in" to California's emission standards in challenging the legality of the EPA's decision under the Clean Air Act. Regardless of the lawsuits, Oregon's LEV program went into effect at the beginning of this year. However, until the legal issues are settled, the LEV program will only require reductions in traditional and toxic air pollutants since the greenhouse gas emission limits cannot yet be enforced.

## Recent Legislation

*Task Force on Dairies and Air Quality* - Senate Bill 235 (2007) gave the EQC the authority to regulate agriculture to the extent necessary to implement the federal CAA. The legislation also directed the DEQ and the Oregon Department of Agriculture (ODA) to convene a task force on dairy operations and air quality. The task force has been studying emissions from dairies and evaluating options for reducing those emissions, before taking into account a number of potentially competing factors.

Represented stakeholders include members of the Oregon dairy industry, Oregon state government,

environmental-public health interest groups and academia. The DEQ and ODA will present the task force's findings and recommendations to an interim legislative committee related to agriculture or natural resources by October 1, 2008.

*Field Burning* - During the 2007 Legislative Session, several hearings were held regarding field burning. After the session, local governments and environmental organizations asked the EQC to restrict field burning by making findings under existing statutes about health effects and the availability of alternatives.

Rather than pursue rulemaking, the DEQ has recommended a legislative concept that would gradually phase down field burning and include safeguards in the event that adequate alternatives are not developed or burning is needed to prevent a disease outbreak or other emergency. The DEQ will work with stakeholders to develop the details of this concept.

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