



CLEAR *the* AIR SPOKANE

A Message from the Spokane County Air Pollution Control Authority

Achieving & Maintaining Healthful Air Quality

Background

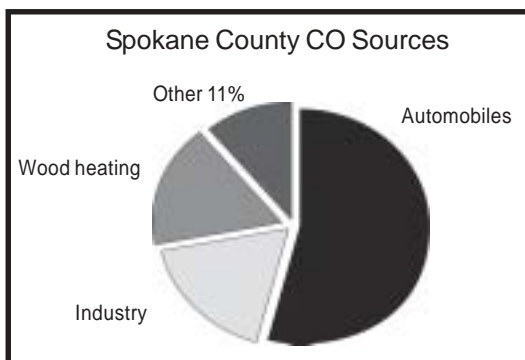
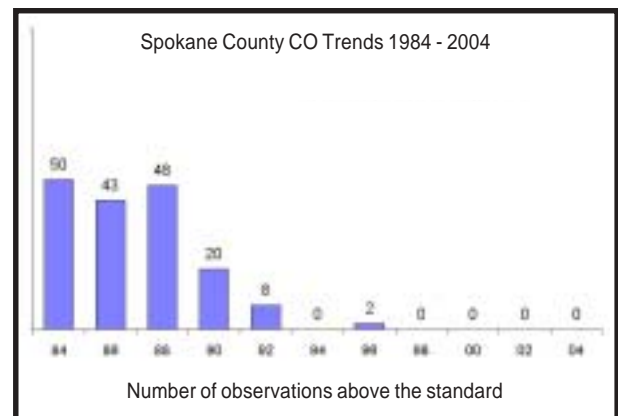
Clean, healthful air quality is one of our most precious resources and in Spokane, much progress has been made in clearing the air. In fact, 2004 marked the eighth consecutive year that Spokane's air quality has met all national, health-based clean air standards. This is significant progress when compared with air quality in the 1970s and 1980s - when the number of unhealthy air quality days were in the double and triple digits. We've come a long way, but there is still plenty of work ahead to continue to reduce the harmful effects of polluted air and to ensure healthful air quality for our future generations.

Spokane County Air Pollution Control Authority (SCAPCA) and Washington State Department of Ecology (Ecology) monitor air quality daily. There are three main air pollutants of concern in our ambient air: **carbon monoxide (CO)**, **particulate matter (PM)**, and **ground-level ozone (O₃)**. Based on standards violations through the mid-1990s, Spokane is currently classified as a serious nonattainment area for CO and a moderate nonattainment area for PM₁₀. However, Spokane has qualified for redesignation to attainment, which should be officially announced by U. S Environmental Protection Agency in late August, 2005.

Carbon Monoxide

Carbon monoxide (CO) is a colorless, odorless gas formed from incomplete combustion. Motor vehicle exhaust accounts for about 50% of CO emissions nation-wide. High CO concentrations generally occur in areas with heavy traffic congestion, with peak concentrations typically occurring during the colder months when emissions are greater due to weather patterns and road conditions.

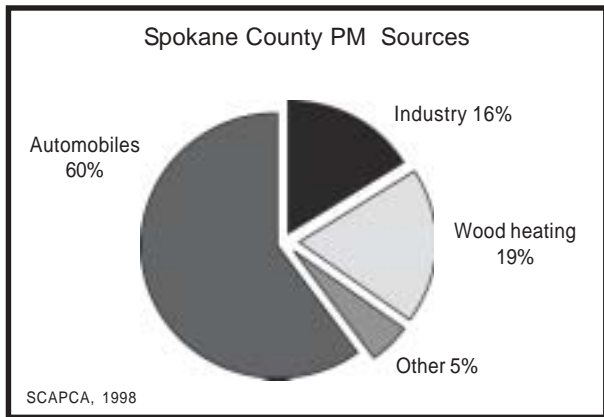
When inhaled, CO robs the body of oxygen by entering the blood stream. It interferes with the hemoglobin's ability to supply oxygen. Those most sensitive to CO are heart patients, people with lung problems, and people with blood problems, such as anemia.



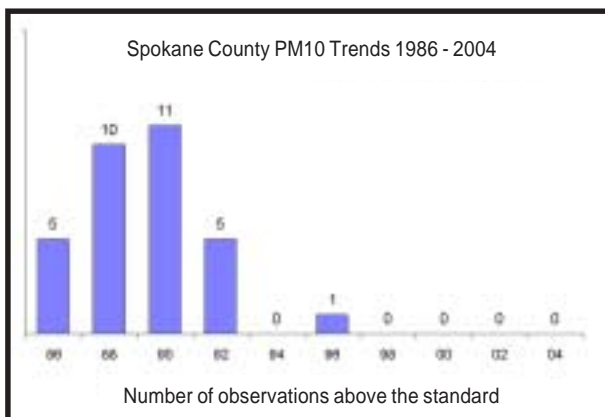
Spokane's CO has steadily trended downward over the last couple of decades, despite a steady increase in the number of vehicle miles traveled. Improvements are attributed to improved automobile emissions technology. Additionally, Spokane's wintertime oxygenated fuels program has reduced tailpipe CO emissions and other programs, such as Commute Trip Reduction and the Emissions Check Program have also helped combat CO emissions.

Particulate Matter (PM)

Particulate matter is the general term used for a mixture of solid particles and liquid droplets found in the air. Dust kicked up from vehicles traveling on paved and unpaved roadways, and smoke from wood heating are the main contributors to Spokane's PM pollution.



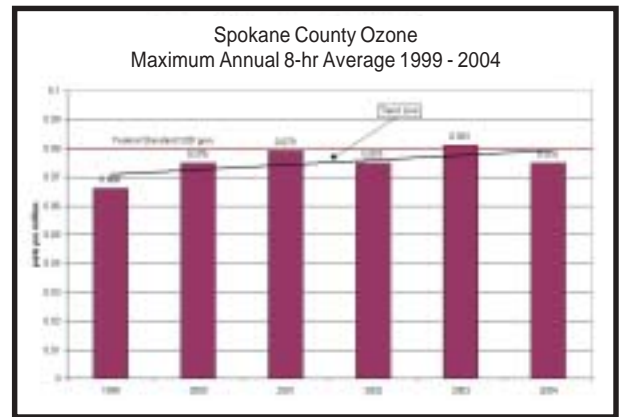
When inhaled, tiny particles collect in the lungs, causing structural and chemical changes and damaging the alveoli (tiny air sacs where oxygen enters the blood stream). The small particles act as carriers for other toxic or carcinogenic materials. Those at greatest risk from PM are young children, the elderly, and those with chronic heart and lung diseases.



The Spokane area has met the PM₁₀ standard (those particles 10 microns in diameter in size or smaller) since 1993 and is in compliance with a more recent standard established for PM_{2.5} (fine particles measuring 2.5 microns or smaller.)

Ground-level Ozone (O₃)

Ozone is the primary constituent of smog. O₃ is not emitted directly into the air but is formed by the reaction of volatile organic compounds (VOCs) and nitrogen oxides (NO_x) in the presence of heat and sunlight. O₃ forms in the atmosphere during hot summer months. O₃ precursors come from a variety of sources, including motor vehicles, commercial/industrial products and processes, combustion, and consumer products.



Short-term exposure to ground-level ozone have been linked to increased hospital admissions and emergency room visits for respiratory causes. Repeated exposures to ozone can make people more susceptible to respiratory infection, result in lung inflammation, and aggravate pre-existing diseases such as asthma.

Summertime air quality monitoring of ground-level ozone in the Spokane area has been ongoing for several years and no violations of air quality standards have ever occurred. However, Spokane's ozone levels have been steadily increasing. Additional control measures may be necessary in the future in order to keep ozone levels within the national, health based standards.

For more information about these pollutants, and other air quality issues, visit www.scapca.org.



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