



Clean Air News

Spring 1999

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“ . . . to preserve, enhance, and protect the quality of our region’s air resource...”

Air Pollution...It Can Really Spoil Your Day

Breathing dirty air can be unhealthy. It can reduce a normally healthy person's resistance to infection. Air pollution has been linked to lung cancer, heart disease and respiratory illness. Dirty air has also been responsible for soiling drapes, clothing, furniture, the outsides of buildings, automobiles and even people.

Staying Ahead of the Population Explosion

SWAPCA's jurisdiction, made up of Clark, Cowlitz, Lewis, Skamania and Wahkiakum Counties, has experienced a 20% increase in population since 1990. With an increase in population, comes additional impacts on the airshed. More people means more vehicles, lawnmowers, fireplaces and woodstoves, recreational vehicles, factories, etc. Maintaining good air quality while facing this large and rapid growth in population is a real challenge not only for SWAPCA, but for all the people in our region.

Who is Responsible for Our Air Quality?

You are. I am. We all are. All of us impact the quality of the air we breathe. The way in which our actions affect our airshed can be positive in nature and actually improve the quality of the air which we breathe every minute of our lives.

***Drive a Little Less...Make a Big Difference:** Ride a bus, carpool, ride a bicycle or walk. Motor vehicles contribute over 50% of this area's air pollution.

***Maintain Your Motor Vehicles:** Keep the engine tuned and the tires properly inflated and balanced to increase gas mileage and reduce automobile emissions.

***Yard & Garden:** Use electric or manual lawnmowers, weeders and edgers. Mowing for one hour with a gas mower can create as much air pollution as driving a car for 50 miles.

***Painting:** Use water based paints when painting inside or outside. Oil and solvent based paints release pollutants into the air.

Centralia Power Plant RACT Order Appeal

Lewis County – The Pollution Control Hearings Board (PCHB) for the State of Washington has unanimously affirmed the Reasonably Available Control Technology (RACT) Order issued by SWAPCA for the Centralia Power Plant in February 1998.

The Centralia Power Plant is a coal-fired steam electric generating plant located near Centralia in Lewis County. The facility consists of two units that together produce up to 1,340 megawatts of electricity, enough to power a city the size of Seattle. The plant has been generating electricity for the region's power grid since 1972. The power plant and nearby coal mine employ approximately 670 citizens at the highest wages in Lewis County.

The RACT Order required a reduction of approximately 90 percent in sulfur dioxide emissions as well as reductions in nitrogen oxide emissions. The RACT Order was appealed by a citizen in Seattle who wanted the 1,340 megawatt coal-fired power plant either converted to natural gas or shut down. The cost to convert the plant to natural gas was estimated to be four times as costly as the equipment required by the RACT Order.

SWAPCA was given an unanimous decision by the PCHB on all issues which had been appealed. The trial began January 25, 1999

and lasted for five days. The PCHB announced their decision on March 17, 1999.

SWAPCA submitted testimony during the hearing that a decision affirming the RACT Order was needed by March 19, 1999 in order to insure that an engineering contract could be signed by April 1, 1999. This date was important to meet the final compliance dates of December 31, 2001 for the first sulfur dioxide scrubber and December 31, 2002 for the second scrubber. The scrubbers will remove sulfur dioxide from the exhaust gases.

The Centralia Plant owners will spend approximately \$250 million on the scrubbers. The scrubbers will reduce sulfur dioxide emissions to less than 10,000 tons per year. Emissions of sulfur dioxide have averaged about 65,000 tons per year in recent years.

Sulfur dioxide is generated when coal, which contains sulfur, is burned at the plant to create steam, which is used to generate electricity. Sulfur dioxide is an air pollutant which is linked to acid rain and respiratory ailments. Environmental regulations require that emissions of sulfur dioxide be controlled. The affirmation of the RACT Order by the PCHB represents a win/win for the environment and maintaining jobs.

Outdoor Burning Rule Update

All Counties – Chapter 173-425 Washington Administrative Code is the state regulation which governs outdoor burning. The state legislature has made several changes to the outdoor burning law in recent years which need to be incorporated into the rules.

Proposed changes include prohibiting outdoor burning in urban growth area cities with a population greater than 5,000, and in cities with a population of greater than 10,000 after December 31, 2000. Outdoor burning will be prohibited after December 31, 2006 in urban growth areas for

incorporated cities with a population less than 5,000 and in urban growth areas that do not include incorporated cities. A prohibition on burning barrels is also being proposed.

Public hearings on the rule changes will be held in Vancouver on May 12th at 7:00 pm at the Clark Public Utilities facility on NE 117th Avenue and in Lacey on May 13th at 7:00 pm at the Department of Ecology headquarters.

The proposed changes to the regulation can be found on SWAPCA's website under the *Public Info* link.

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Southwest Air Pollution Control Authority

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CARBON MONOXIDE SATURATION STUDY

Clark County – A special carbon monoxide study was conducted in the Vancouver urban area during this past winter. The study measured carbon monoxide (CO) concentrations throughout the Clark County CO maintenance area. The purpose was to verify that high carbon monoxide levels have not shifted to new areas with Clark County's rapid population growth.

The monitoring effort involved the use of small air pumps and special collection bags into which an air sample was collected over an eight hour period. The pumps and bags were placed into containers which were hung on power poles at locations throughout the Vancouver urban area where high traffic counts had been observed. The air samples were then run through an analyzer which measured the concentration of carbon monoxide in the sample of air collected at each location.

SWAPCA has two fixed monitoring stations located in Vancouver, one near Clark College (Atlas & Cox), and the other in Hazel Dell on Highway 99 near NE 78th Street. The data from these monitoring stations can be found on SWAPCA's web page under *Links at Air Quality Telemetry Network*.

The study was required by the CO Maintenance Plan. No exceedances of the CO air quality standard were recorded at any of the study sites. The preliminary results indicate that the CO control measures which have been implemented are having a positive effect on the quality of the air which we breathe. The results also indicate that no new CO monitoring sites are needed in the maintenance area.

AIR POLLUTION TERMS

Ambient Air: The outside air.

BACT: Best Available Control Technology, the most effective control equipment that is technically and economically feasible to limit the amount of air pollutants emitted.

Criteria Pollutants: A category of pollutants identified by the EPA for which ambient air standards for protecting human health have been set. Includes carbon monoxide, nitrogen dioxide, sulfur dioxide, ozone, particulate matter and lead.

Carbon Monoxide (CO): Colorless, poisonous gas formed during the combustion of fuels. Related to respiratory and heart diseases.

Fine Particulate Matter (PM₁₀): Very small airborne particles, less than 10 microns in diameter. Aggravates respiratory conditions, obscures visibility. Main sources are wood stoves and fireplaces, industrial sources, construction sites and motor vehicles.

National Ambient Air Quality Standards: Primary and secondary standards set at a national level for criteria pollutants. The purpose of the primary standard is to protect human health. The secondary standard protects vegetation.

Nitrogen Dioxide (NO₂): A poisonous gas and strong oxidizing agent that is a major component of acid rain and ground level ozone (smog). Harmful to the lungs, aggravates asthmatic symptoms. Main source is fossil fuel combustion.

Ozone: Poisonous gas which is formed by a chemical reaction of nitrogen oxides and volatile organic compounds together with sunlight and warm temperatures. A very strong oxidizing agent, causes damage to the respiratory system, harmful to plants and a variety of materials such as rubber and paints. Chemically, ozone consists of three oxygen atoms.

Sulfur Dioxide (SO₂): A colorless gas formed during the combustion of fuels, such as coal, which contain sulfur. Irritates the respiratory system and aggravates asthma symptoms.

Toxic Air Pollutants (TAP): A group of air pollutants, which because of their toxicity or cancer risk, are regulated separately from the criteria air pollutants. Examples of TAPs are chemicals such as benzene, formaldehyde and lead compounds.

Volatile Organic Compounds (VOC): A large family of compounds made up of hydrogen and carbon. Also known as hydrocarbons. VOCs are found in gasoline, solvents, oil based paints and inks, and in many consumer products such as aerosol spray products. VOCs react with nitrogen oxides, sunlight and heat to form ozone. Many VOCs are considered to be toxic air pollutants.



CLIP & SAVE

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