

Water, Air and Climate Change Branch

VEHICLE EMISSIONS

Protecting the Air We Breathe: A British Columbia Action Plan for Cleaner Air

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By cleaning up the automobile, we protect the health of our children.

A California health study showed that children had lost 15 per cent of lung capacity because of smog. B.C. will not allow this disturbing health trend to occur in our province.

Cleaner Vehicles and Fuels — Action Plan

New Cleaner Vehicles for BC

In December 1995, British Columbia unveiled the toughest auto emission standards in the country. These are also the first of their kind in Canada. The new B.C. regulation requires that, starting in the year 2001, all new cars sold in the province must meet the same Low-Emission Vehicle (LEV) standards as in California. A Low-Emission Vehicle produces up to 70% less emissions than today's vehicles.

Also, as part of this regulation, between 1996 and 2001, manufacturers will have to identify other measures to reduce vehicle emissions.

In addition, the regulation sets targets to bring Cleaner Technology Vehicles* to the B.C. market: 5% of new vehicle sales by the year 2001 and 10% by 2003. A new Cleaner Technology Vehicle Task Force comprised of industry and other stakeholders will help ensure these targets are met. Other provincial government initiatives include support for natural gas transit buses, Ballard Power Systems zero-emission fuel cell technology, and lower emission vehicles for fleets.

Cleaner Fuels for BC

British Columbia has adopted a regulation requiring new "clean air" standards for the quality of gasoline sold in the province, beginning in 1996. The standards limit the amount of harmful pollutants in gasoline, including benzene and sulphur. These standards are the first of their kind in Canada. The benzene limit will reduce cancer-causing emissions at the gas pump. The sulphur limit will reduce harmful fine particulates - the pollutant responsible for most air pollution deaths.

In addition to gasoline, diesel fuel is also being cleaned up. As of April 1995, all diesel fuel for on-road vehicles must have a low sulphur content — a 90% reduction in sulphur from previous standards. This is a major step in reducing harmful emissions from trucks.

Gasoline stations in Greater Vancouver have been required to install equipment on storage tanks to reduce harmful evaporative emissions since 1992. As of May 1996, B.C. requires this equipment for all service stations in the entire Lower Fraser Valley.

Reducing Emissions from all Vehicles

AirCare, the vehicle emissions inspection-and-maintenance program in the Lower Mainland, has proven to be a highly effective way to reduce vehicle pollution. The program can reduce pollutants from cars by more than 20%. Further strengthening of AirCare emission test limits was put in place in September 1995.

In addition, the province will require all auto manufacturers to offer emission performance warranties for new vehicles sold in the province. This will shift the cost of AirCare-related repairs on new cars from the consumer to the manufacturer.

Emissions testing will be required for heavy-duty trucks and buses in the Lower Fraser Valley, starting early in 1996. This will further reduce harmful diesel emissions.

The province is actively developing a program to encourage getting older, high-polluting vehicles off the road. Incentives such as discounts on newer cars or a transit pass could be provided so that these older vehicles are scrapped on a voluntary basis.

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The Challenge: Urban Air Quality

It's a Matter of Health

The Lower Fraser Valley has one of the most serious air pollution problems in Canada and people's

health is being harmed. The health of our children is at risk unless we act now.

Air pollution can cause a range of health impacts — coughing, runny nose, bronchitis, asthma attacks and even death from lung cancer and heart diseases. It is estimated that, in 1995 alone, health costs due to air pollution in the valley will reach \$1 billion.

Air pollution also damages our environment — crops, forests, streams, fish, visibility. Furthermore, greenhouse gas emissions from human activities are beginning to change global climate.

Transportation — The Biggest Problem

Transportation is the largest single source of air pollution in the province. It accounts for about 75 per cent of air pollution in the Lower Fraser Valley — and the number of vehicles and traffic are projected to double over the next 25 years.

Public Demand for Action

Cleaner vehicle emissions are a high priority for the people of British Columbia. In a 1994 public survey, 85% said the government should require the toughest vehicle emission standards possible.

The Clean Vehicles and Fuels Program delivers on the demands for tough action — it is the most comprehensive vehicles and fuels action plan ever implemented in Canada. It addresses B.C.'s air quality problems in a practical and cost-effective way, and it builds on some of the best technology in the world.

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Protecting Your Family's Health

Improving air quality in the Lower Fraser Valley through these and other initiatives is expected by 2020 to:

- save 2100 lives,
- avoid 27,000 hospital emergency room visits, and
- result in \$800 to \$1800 in net benefits per person.

Health Savings

British Columbia's Clean Vehicles and Fuels Program can cut automobile pollution by about one-half by the year 2010.

This will mean less smog and fewer days where the sky is obscured by what's become a familiar brown haze. It means cleaner air, which contains fewer fine particulates — particles so small that they can't be seen by the human eye, but which can be inhaled deep into our lungs and cause us breathing problems.

Cleaner air means healthier people. A B.C. health study estimates that reducing emissions will, over the next 25 years, prevent 2,100 human deaths, 7 million cases of respiratory illnesses caused by fine particulates, and protect our food supplies by preventing damage to crops and plants.

Economic Savings

Cleaning up the air, with these and other initiatives, is expected to result in net benefits to our economy of \$2 billion to \$5 billion by 2020 - this means \$800 to \$1800 for every person in the Lower Fraser Valley.

Current selling prices show that the increased cost of a new Low-Emission Vehicle is approximately \$100 US. This supplemental cost will only apply to new cars which meet standards required in B.C. for the year 2001. This is a small price to pay for such significant benefits.

Increased gasoline costs will be about a half a penny to one penny per litre starting in 1999; this means an average of \$9 - \$15 more per vehicle per year. The new gasoline regulation will reduce pollution from all vehicles on the road - old and new.

Fuel savings resulting from AirCare-related repairs are over \$7 million per year - strong evidence that emission repairs improve fuel efficiency.

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Additional Economic Benefits

The Clean Vehicles and Fuels Program also offers exciting potential for economic development. For example, Ballard fuel cell technology, currently involving 450 jobs in Vancouver, has the potential to become a major source of many more high-skill jobs.

"Every individual has the right to clean air. It's for our health today and for our children's continued health into the future."

B.C. Lung Association

The Push for Reduced Auto Emissions and Cleaner Air: A Chronology

- April 1992 — BC announces public consultation process to develop a clean air strategy. Smog reduction is a major target.

- September 1992 — AirCare testing begins in Lower Mainland.
- November 1993 — Minister of Environment announces BC plan to move to "California-type" standards for auto emissions.
- June 1994 — BC Government passes "Clean Air Amendments" allowing for future vehicle and fuel standards.
- July 1994 — BC regulation lowers the sulphur content in diesel fuel.
- December 1994 — Greater Vancouver Regional District calls for measures to reduce emissions from automobiles.
- May 1995 — BC requires service stations in the Lower Fraser Valley to recover gasoline vapours from storage tanks.
- September 1995 — AirCare emission standards are strengthened.
- November 1995 — Government announces BC's Cleaner Gasoline Regulation.
- December 1995 — BC's new Low-Emission Vehicle standards are announced.

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Other Measures to Reduce Vehicle Emissions

The Clean Vehicles and Fuels Program is one of several provincial initiatives to reduce air pollution from motor vehicles. Other measures encourage switching to more environmentally-friendly transportation and reducing the need to travel.

Here are some examples of other initiatives underway:

- the *Growth Strategies Act*, improving urban planning to reduce vehicle use;
- transportation demand management in the Lower Fraser Valley, Capital Regional District and Okanagan;
- 10-year transit plans for improved transit service in many BC communities;
- a regional high-occupancy-vehicle network, encouraging buses and vanpools, in the Lower Fraser Valley;
- \$2 million from the province to encourage the development of cycling infrastructure in BC communities; and
- the Go Green public education campaign to encourage transportation alternatives

"Everyone — government, corporations and individuals — has a role to play in reducing harmful emissions."

BC Automobile Association

For More Information:

To find out more about the Clean Vehicles and Fuels Program, please contact:

[Water, Air and Climate Change Branch](#)

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