



CLEAR *the* AIR SPOKANE

A Message from the Spokane County Air Pollution Control Authority

Reducing Childhood Exposure to Diesel Exhaust from School Buses

School buses are the safest way for children to get to school. However, pollution from diesel vehicles has health implications for everyone, especially children. Exposure to diesel exhaust can cause lung damage and respiratory problems. Diesel exhaust also exacerbates asthma and existing allergies, and long-term exposure is thought to increase the risk of lung cancer.

There are a number of ways to reduce pollution from school buses, thereby making sure that school buses are also a healthful way for children to get to school. SCAPCA is participating in a number of programs to reduce diesel emissions from school buses, including:

- Encouraging policies and practices to eliminate unnecessary school bus idling
- Retrofitting buses with better emission control technologies
- Fueling buses with cleaner fuels
- Replacing the oldest buses in the fleet with new, less polluting buses

School Bus Idling

Diesel exhaust from idling school buses can accumulate on and around the bus and poses a health risk to children. When buses idle in the schoolyard, the exhaust also can pollute the air inside the school building and pose a health risk to children

throughout the day. Idling also wastes fuel. A school bus will burn up half a gallon of diesel fuel for every hour it sits idling.

SCAPCA, the Department of Ecology, and other local air authorities in Washington have established a pilot program **No Idle Zone – It All Adds Up to Cleaner Air** – designed to reduce children’s exposure to air emissions caused by idling. The strategy is being tested in pilot schools, selected from throughout Washington, during school years 2003-04 and 2004-05. Participating schools will adopt a “no-idling” policy to assure that only minimal idling of school buses occurs. Betz Elementary School in Cheney is one of the pilot schools. The partnering agencies are applying for a federal grant in hopes of further expanding the program.

School Bus Emission Control Retrofits

Stringent new Federal standards for new heavy-duty diesel engines will take effect, beginning in 2007. However, it will take 30 years or more to realize the full benefit of the improved standards, because older diesel engines tend to stay in the fleet for decades. Fortunately, there are various technologies available today to retrofit older diesel engines and thereby significantly reduce emissions.

Diesel Oxidation Catalysts (DOCs) are devices that can be added to the exhaust system, much like a catalytic converter, to significantly reduce emissions of particulate matter, hydrocarbons, and carbon monoxide. SCAPCA and Avista Corporation have teamed up to retrofit buses in the Central Valley and East Valley School Districts with DOCs.

continued on back

In addition, the Washington State Legislature in its 2003 Regular Session passed ESSB 6072. The Bill takes revenue generated from an existing motor vehicle title transfer fee and allocates it to Ecology and the local air authorities to be used to assist school districts in retrofitting their older buses with emission control devices, such as DOCs. Approximately \$5 million is allocated for this purpose for the 2003-04 school year.

School Buses and Cleaner Fuels

Ultra-Low Sulfur Diesel (ULSD) – Most conventional diesel fuel has high levels of sulfur, which causes emissions of sulfur dioxide and reduces the effectiveness of emission control devices. Presently all diesel fuel used in Spokane County is this higher sulfur product. The primary benefit of ULSD will be to improve the performance of diesel engine emission control technologies. Beginning in 2006 ULSD will be available nationwide, including in Spokane County.

Biodiesel is a domestically produced, renewable fuel, manufactured from new and used vegetable oils and animal fats. Biodiesel is safe, biodegradable, and reduces air pollution from diesel engines. Blends of 20% biodiesel and 80% petroleum diesel (B20) can be used in diesel engines without having to modify the engine in any way. The B20 blend costs about 15 to 30 cents per gallon more than regular diesel fuel.

The Washington State Legislature in its 2003 Regular Session passed ESHB 1243, to establish a biodiesel pilot project for school transportation, involving two school districts in the state, over the next two school years. One of the districts is to be an Eastern Washington District. SCAPCA is working with the Spokane County Conservation District to identify a Spokane area school district as the candidate Eastern Washington district, to use B20 in conjunction with DOC technology on its buses.

Replacing Older School Buses

SCAPCA is working with PG&E Gas Transmission Northwest on a project to accelerate the replacement of older school buses in the Freeman School District with newer, cleaner emitting buses. This project will be completed over a time span of approximately six years.

Additional Resources

For more information about any of these programs, contact SCAPCA at 477-4727. For more information about the harmful effects of diesel exhaust and about EPA's Clean School Bus USA program, visit www.epa.gov/cleanschoolbus.html



Spokane County Air Pollution Control Authority (SCAPCA)
1101 W College, Suite 403
Spokane, WA 99201
477-4727
www.scapca.org