

WHAT YOU SHOULD KNOW ABOUT

DIESEL EXHAUST AND
SCHOOL BUS IDLING

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Diesel exhaust ranks among the air pollutants that EPA believes pose the greatest health risks.

Children have a faster breathing rate than adults.

More than 1.7 million children in New England ride a bus to and from school every day.

Diesel exhaust from idling school buses can accumulate on and around the bus and pose a health risk, particularly to children. When buses idle in the school yard, the exhaust also can pollute the air inside the school building and pose a health risk to children throughout the day. Exposure to diesel exhaust can cause lung damage and respiratory problems. Diesel exhaust can also exacerbate asthma and existing allergies, and long-term exposure to diesel exhaust can increase the risk of lung cancer. However, there are some simple steps that schools can take to reduce idling time and air pollution.



HOW ARE CHILDREN AFFECTED?

More than 1.7 million children in New England ride a bus to and from school every day. While school buses are one of the safest, most effective ways to transport children to and from school, like all diesel vehicles, they emit pollution that is dangerous to breathe. Air pollution from diesel vehicles has health implications for everyone, but children are more susceptible to this pollution than healthy adults because their respiratory systems are not fully developed, and they have a faster breathing rate. Diesel exhaust contains significant levels of small particles, known as fine particulate matter. Exposure to particulate matter, especially fine particles, is associated with increased frequency of childhood illnesses.

RECOMMENDED ACTIONS FOR SCHOOL DISTRICTS TO REDUCE DIESEL POLLUTION

Although every school district is unique, there are a number of steps that schools can take to reduce the health risks associated with exposure to diesel exhaust. Here are some actions school districts should consider:

ESTABLISH IDLING GUIDELINES

- When school bus drivers arrive at loading or unloading areas to drop off or pick up passengers, they should turn off their buses as soon as possible to eliminate idling time and reduce harmful emissions. The school bus should not be restarted until it is ready to depart.
- If buses need the engine to run the flashing lights, consider changing the circuit configurations so that the flashing lights can be powered by the battery without the engine running.

STEPS YOU CAN TAKE TO REDUCE DIESEL POLLUTION

- 1 Direct school bus drivers to turn off their buses as soon as they arrive in the school yard.
- 2 Limit idling time of buses during early morning warm-up.
- 3 Provide a space inside the school where bus drivers can wait.



ARC

Asthma Regional Council
of New England



Rhode Island Department of
Environmental Management



For more information:
Visit www.epa.gov/ne/eco/diesel/, or call the
EPA Air Quality Hotline at
1-800-821-1237

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- At school bus depots, limit the idling time during early morning warm-up to what is recommended by the manufacturer (generally 3 to 5 minutes). In colder climates, block heaters, which plug into electrical outlets, can help warm the engine to avoid starting difficulties and shorten warm-up time.
- In the winter, provide a space inside the school where bus drivers who arrive early can wait.
- Follow anti-idling laws and guidelines in your state. Currently, three New England states have anti-idling laws: Connecticut, Massachusetts and New Hampshire.
- Ensure school buses are regularly maintained.
- Reinforce smart driving practices such as following at least 3 car lengths behind any vehicle with visible exhaust or a noticeable odor.

WORK CLOSELY WITH BUS COMPANIES AND BUS DRIVERS TO IMPLEMENT THE GUIDELINES

- Make sure both the bus company and the bus drivers understand the importance of the new guidelines.
- Highlight the economic benefit of reduced fuel consumption as a result of less idling. A school bus burns approximately a half gallon of diesel fuel for each hour it idles. Thus, if a company operates 50 buses and each bus reduces its idling time by 30 minutes per day, at \$1 per gallon of diesel fuel, the company would save \$2,250 per school year in fuel costs.
- Inform drivers of the potential risk to their health from breathing diesel exhaust and the benefits of not idling.
- Establish a program to recognize drivers. For example, create buttons that drivers who pledge to follow the guidelines can wear.

WORK CLOSELY WITH BUS COMPANIES TO RETROFIT BUSES WITH POLLUTION CONTROLS

- Fuel buses with ultra-low sulfur diesel fuel and install particulate matter filters. This approach can reduce emissions of particulate matter by more than 90 percent.
- Another option is to install oxidation catalysts. This approach can reduce emissions of particulate matter by at least 20 percent and does not require the use of ultra-low sulfur diesel fuel.
- More information about retrofit options is available at www.epa.gov/ne/eco/diesel/retrofits.html

WORK CLOSELY WITH BUS COMPANIES TO PURCHASE THE CLEANEST NEW BUSES

- EPA is working to reduce diesel pollution from new heavy-duty diesel trucks and buses by setting more stringent emission standards that will take effect beginning in 2004. In 2007, new trucks and buses rolling off the assembly lines will be 95 percent cleaner than today's models.
- Because some buses may meet EPA standards ahead of schedule, ask the manufacturer before purchasing a new bus to see if you can acquire one that meets these standards. In addition, some buses come equipped with pollution control devices like oxidation catalysts and/or devices that minimize idling and warm-up time.

Idling wastes fuel and money.

A typical school bus burns approximately one half-gallon of diesel fuel for each hour it idles.

Reducing idling time by 30 minutes per day, can save \$2,250 per school year in fuel costs.



Rhode Island Department of Environmental Management



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