What Can Be Done to **Clean Up** Diesel?

The technology exists to clean up diesel soot emissions. **Most of the adverse health impacts from exposure to diesel emissions can be prevented.** In fact, it is estimated that the health care cost savings would vastly exceed the costs to clean up the emissions. *(CARB).*

Here's what we need to do:

Children are exposed 5-15 times more in school buses than outdoors
("Children's Exposure to Diesel Exhaust on School Busses")

Retrofit – Encourage your company, school district and community to install diesel particulate filters and emission controls. Retrofits can reduce pollution by up to 90%.

Schools can check the Ohio EPA Clean Diesel School Bus Fund Retrofits Grant Program for information and deadlines at www.epa.state.oh.us/oeef/html/schoolbus.html

Refuel – Encourage your company, school district and community to use cleaner burning fuels such as ultra low sulfur diesel fuel (ULSD), propane, compressed natural gas (CNG) or alternative fuels like biodiesel blends or SVO (straight vegetable oil).

Turn engines off while waiting, and stay 3 car lengths behind a moving polluting vehicle

Replace Vehicles and Engines – Encourage your company, school district and community to accelerate the purchase of new, cleaner vehicles.

Repower – Encourage your company, school district and community to retrofit/convert or replace older engines with newer lower emissions engines. Be certain to keep up with inspection and maintenance on vehicles.

Reduce Idling – Stop idling when not in motion. Studies indicate that if your idle time will be more than 10 seconds (except in traffic), fuel will be saved by stopping and then restarting the engine. Encourage your company, school district and community to adopt an idle reduction policy. This not only reduces pollution, it saves fuel and money.

One hour of idling consumes one gallon of diesel fuel
(US DOE)

Work with your city and encourage the adoption of a city-wide idle reduction policy. Contact Earth Day Coalition for a sample policy.

Contact businesses in your community. Businesses that adopt idle reduction policies for their fleets also save fuel and help clean the air. Your business may qualify for the "Ohio Green Fleets" recognition.

What **You Can Do** and Where You Can Find Additional **Information**

Join the **Cleveland Clean Diesel Campaign** to **reduce diesel emissions** in our community

Contact Chris Trepal at (216) 281-6468 or campaign members below to find out how you can get involved

We look forward to working with you on this important issue that affects all Northeast Ohioans. Below is a list of some of the tools and resources available for cities, schools and businesses:

- 2007 *Cleveland Diesel Hot Spots* Report
- *Diesel Clean-Up Platform* sign on form
- School bus survey, school program signage, window clings and program information
- Municipal idle reduction outreach and sample legislation

Earth Day Coalition
Online version of this brochure, links, and additional resources
(216) 281-6468 www.earthdaycoalition.org

Cleveland Clean Air Century Campaign
Information on air quality and lung health
(216) 524-5864 www.ohiolung.org/ccacc.htm

Ohio Environmental Council
Fact sheets and reports
(614) 487-7506 www.theoec.org/air.htm

Clean Air Task Force
"Diesel Soot Health Impacts" by zip, reports and information
(617) 624-0234 www.catf.us/projects/diesel/

Additional information available from:
Northeast Ohio Areawide Coordinating Agency (NOACA)
Information on air quality, ozone and particulates, and real time air quality readings
(216) 241-2414 www.noaca.org

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Breathe Easier
Clean the Air

Diesel Exhaust is **Unhealthy** to Breathe

This is Your Guide to **Reducing Exposure** to Diesel Exhaust

Diesel Pollution
Your **Air**
Your **Health**

Have you ever watched a bus or truck accelerate from a green light, belching a huge cloud of black smoke?

***Have you ever wondered what that* diesel exhaust *is doing to your* health?**

Here are some **diesel and health facts**:

Diesel exhaust includes harmful particles. These particles are hazardous and have the potential to cause:

- **Cancer** - 395 times increased risk in Cleveland over US EPA levels
- Chronic **bronchitis** and other respiratory symptoms
- **Lung disease** (lung cancer) and decreased lung function in children
- **Premature death** from heart and lung diseases
- **Emphysema** and shortness of breath
- **Heart disease** - pulmonary and cardiovascular

> Reducing diesel pollution is a top public health priority

Who is **affected by diesel emissions**:

Everyone! But especially…

- **Asthmatics**
- Vehicle and Bicycle **Commuters**
- **Elderly** persons who live near areas with heavy diesel traffic
- **Minority and low income** populations
- Our **children** whose lungs are still developing
- People who **live or work near diesel** exhaust areas, who **smoke**, who have respiratory problems, or who **exercise strenuously** in exhaust areas

> Asthma is the leading serious chronic illness of children in the U.S. (American Lung Assn.)

> Commuters are exposed to some of the highest levels of diesel emissions (CATF)

Cleveland is ranked **18th worst city in the nation for health impacts** from diesel fine particle pollution *(CATF - 2005, www.catf.us/publications/view/84)*

180 deaths/15 cancer deaths
232 heart attacks

> The average lifetime diesel soot cancer risk for Cuyahoga County is 1 in 2,530 (CATF)

Ohio is ranked **8th worst in the U.S. in health impacts** from diesel fine particle pollution

769 deaths
1,002 heart attacks

> Children breathe 50% more air per pound of body weight than an adult ("Clear the Air")

What is Diesel Pollution and Why Is It Important to Clean Up Diesel in Cleveland?

Diesel engines power most heavy duty trucks, transit and school buses, trains, construction equipment, and even ships in our area. Older diesel engines, and particularly those that run on high sulfur fuels, create excessive amounts of nitrogen oxides (NOx - a precursor to ozone) as well as particulate matter (called PM) emissions. Diesel engines emit more particulate matter than gasoline engines.

Diesel pollution is often emitted close to where people live and work. These emissions are released at ground level and are suspended in the air. This pollution gets into our bodies when we breathe. Particulate matter is deposited deep into the lungs and some fine particulate matter can directly enter the bloodstream.

Diesel exhaust may have a very distinctive pungent odor. Some diesel soot is visible to the naked eye. However, you may not see very small carbon particles of diesel exhaust pollution (soot) because these fine particles are less than 1/30 the width of a human hair. These diesel pollutants can be almost invisible and bypass the body's natural defenses.

Emissions from diesel engines include over 40 substances that are listed by the EPA as hazardous air pollutants (15 are possible carcinogens) and the agency has diesel listed as a 'probable' carcinogen.

> Diesel emissions are the top air toxics cancer risk in the U.S. (Environmental Defense Scorecard)

Diesel pollution is particularly concentrated near highways, railroad lines, industrial areas, construction zones and shipping ports. Cleveland, as well as most of North-east Ohio, is in violation of Federal Clean Air Standards (called non-attainment) for both ozone and fine particulate matter (PM 2.5). This finding has severe impacts for both the health and economic future of our area. Don't think that you're safe in your car, bus, house, or school building as two-thirds of PM emissions are able to penetrate to indoor environments or affect those inside vehicles. *(Cleveland Diesel Hot Spots)*

Diesel pollution is an important health issue for everyone and an Environmental Justice (EJ) issue in our community. Environmental Justice is the "fair treatment and meaningful involvement of all people with respect to development, implementation and enforcement of environmental laws, regulation and policies." Special attention, training and monitoring for people living in our at-risk communities is required. Low income and minority populations are likely to live in neighborhoods that are nearest the sources of diesel pollution.

According to a 1990 U.S. Environmental Protection Agency report, "…minority and low-income populations experience higher than average exposures to some air pollutants…"

More than one third of Cleveland residents live below the federal poverty line; half of Cleveland's children live in poverty. These EJ communities are more likely to live in urban centers near diesel pollution hot spot sources including freeways, industrial or neighborhood areas with truck traffic and railroad tracks.