

## Idle-Free Engines Make Sense

### Situation

Trucks, buses, and cars all idle engines for various reasons, both necessary and unnecessary. Some vehicles must idle to operate certain crucial functions or controls. Engines frequently must idle for refrigeration, mixing, defrosting, or to keep operators and passengers comfortable in extreme weather. While there exists unavoidable idling for operational and safety reasons, there remains a substantial amount of non-essential idling. All engines have an impact on air quality, but diesel-powered engines contribute significantly being the transportation workhorses. Heavy duty trucks are the largest source of mobile diesel emissions in the U.S. and contribute 1/3 of the mobile source fine particle (PM<sub>2.5</sub>) emissions and over 1/2 of mobile source nitrogen oxides (NO<sub>x</sub>) emissions. Vehicle emissions lead to the formation of ozone and fine particles, visibility degradation, global climate change, and are detrimental to public health. Environmental exposures including pollutants released into the air have been linked to exacerbations of asthma. According to the Environmental Protection Agency, on days when ozone air pollution is highest, ozone has been associated with 10-20% of all respiratory hospital visits and admissions. The prevalence of asthma is increasing and is one of the most common chronic childhood diseases in the United States. Local asthma impacts include:

- ◆ Asthma is the number one cause of hospital stays at Children's Hospital of Wisconsin.
- ◆ There are 30,000 children with asthma in Milwaukee County.
- ◆ \$10 million is the annual estimated cost including medical expenses, lost work, and missed school days for Milwaukee children with asthma.

### Background

Idling engines are both a burden to the economy and air quality. Idling wastes fuel, increases engine wear, and puts additional emissions into the air putting undue pressure on vehicle owners and resources. New engine standards (2007) for vehicles including diesel engines have improved from an air quality perspective, but diesel engines last much longer resulting in a slow engine turnover.

- ◆ There are 93% less diesel engines than gasoline, but they contribute 25% more nitrogen oxides (NO<sub>x</sub>) and over 50% more particulate matter (PM 2.5).
- ◆ There are nearly 480,000 estimated mobile diesel engines in Wisconsin that emit about 135,000 tons per year of NO<sub>x</sub> and 6,400 tons of PM 2.5.
- ◆ There are seven million gasoline/other fuel engines in Wisconsin that emit 100,000 tons of NO<sub>x</sub> per year and 3,000 tons of PM 2.5.

### Assessment

Reducing idling in all engines and instances where feasible is beneficial to all. Reduced idling saves fuel and lowers maintenance costs. Reduced idling saves fleet and individual owners' money and reduces unnecessary emissions. In short, idling is harmful to our engines, pocketbooks, and health.

- ◆ Modern vehicles warm up faster by driving than by idling and it is harder on the engine to idle for 30 seconds than to turn it off and re-start.
- ◆ Idling engines achieve zero miles to the gallon.
- ◆ One gallon of fuel is lost and twenty pounds of toxins is released per hour of idling.

### Recommendation

- ◆ Park your vehicle instead of using drive-in service at restaurants, banks, etc.
- ◆ Encourage state and municipalities to develop a model idling ordinance for commercial vehicles which some states and municipalities in other states have adopted. Visit: <http://www.epa.gov/SmartwayLogistics/idle-state.htm>
- ◆ Encourage truck fleets to join the Environmental Protection Agency (EPA) SmartWay or the Midwest Clean Diesel Initiative that targets diesel fleet emission reductions.
- ◆ Establish idle-free school zones.

For more information or to contact a representative of FAM Allies, email: [famallies@chw.org](mailto:famallies@chw.org) or call 414-765-9355

## References

1. U.S. Environmental Protection Agency; Transportation and Air Quality; [www.epa.gov](http://www.epa.gov)
2. Centers for Disease Control and Prevention; [www.cdc.gov](http://www.cdc.gov)
3. American Academy of Allergy Asthma and Immunology; [www.aaaai.org](http://www.aaaai.org)

## For More Information

1. Wisconsin Partners for Clean Air; [www.cleanairwisconsin.org](http://www.cleanairwisconsin.org)
2. Healthy People 2010; [www.healthypeople.gov](http://www.healthypeople.gov)
3. Healthiest Wisconsin 2010; <http://dhfs.wisconsin.gov/StateHealthPlan/>